

NOVEMBER 1995

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NOVEMBER 1995

Review was granted in the following cases during the month of November:

Secretary of Labor on behalf of Samuel Knotts v. Tanglewood Energy, Inc., et al., Docket No. WEVA 94-375-D. (Judge Maurer, September 26, 1995)

Secretary of Labor on behalf of Charles H. Dixon v. Pontiki Coal Corporation, Interlocutory Review of two Orders of Judge Melick, Docket No. KENT 94-1274-D.

Review was not granted in the following cases during the month of November:

Secretary of Labor, MSHA v. Thomas Hale, Docket No. WEST 90-283-M. (Chief Judge Merlin, unpublished Default issued March 12, 1991)

COMMISSION DECISIONS AND ORDERS

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

1730 K STREET NW, 6TH FLOOR
WASHINGTON, D.C. 20006

November 17, 1995

SECRETARY OF LABOR, :
MINE SAFETY AND HEALTH :
ADMINISTRATION, (MSHA), :
ON BEHALF OF CHARLES H. DIXON, :

v. :

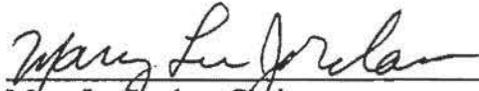
Docket No. KENT 94-1274-D

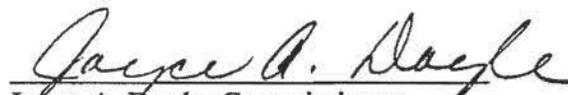
PONTIKI COAL CORPORATION :

ORDER

The unopposed Petition for Interlocutory Review of Administrative Law Judge Gary Melick's September 29, 1995, Order filed by Pontiki Coal Corporation is hereby granted. The unopposed Petition for Interlocutory Review of the judge's February 6, 1995, Order filed by the Secretary of Labor is also hereby granted.

Briefs shall be filed on or before December 22, 1995. The proceedings before the judge are stayed pending resolution of these appeals.


Mary Lu Jordan, Chairman


Joyce A. Doyle, Commissioner


Arlene Helen, Commissioner


Marc Lincoln Marks, Commissioner

Distribution:

Timothy M. Biddle, Esq.
Thomas C. Means, Esq.
Crowell & Moring
1001 Pennsylvania Ave., N.W.
Washington, D.C. 20004

Robin A. Rosenbluth, Esq.
Office of the Solicitor
U.S. Department of Labor
4015 Wilson Blvd.
Arlington, VA 22203

Brian Dougherty, Esq.
Office of the Solicitor
U.S. Department of Labor
2002 Richard Jones Rd., Suite B-201
Nashville, TN 37215

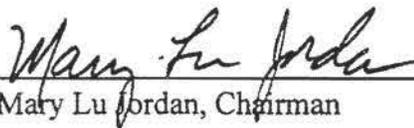
Administrative Law Judge Gary Melick
Federal Mine Safety & Health Review Commission
5203 Leesburg Pike, Suite 1000
Falls Church, VA 22041

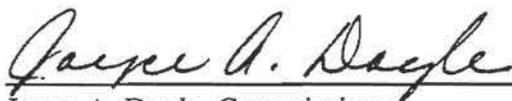
On October 31, 1995, the Commission received the Secretary's opposition to Hale's request for relief. The Secretary informs the Commission that the United States filed an action pursuant to section 110(j) of the Mine Act, 30 U.S.C. § 820(j), in the United States District Court for the Eastern District of California for recovery of the penalty owed by Hale, and that the District Court granted summary judgment in favor of the United States on April 12, 1994. Opp'n at 2-3. Hale filed a motion to set aside the summary judgment, which was denied, and final judgment was entered on May 9, 1995. *Id.* at 3. The Secretary asserts that the time limitations set forth in Fed. R. Civ. P. 60(b) preclude the Commission from considering the case. *Id.* at 9-12.

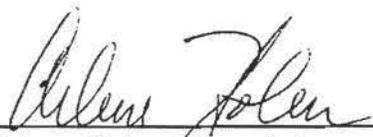
The judge's jurisdiction over this case terminated when his default order was issued on March 12, 1991. 29 C.F.R. § 2700.69(b). Relief from a judge's decision may be sought by filing a petition for discretionary review within 30 days of its issuance. 30 U.S.C. § 823(d)(2); 29 C.F.R. § 2700.70(a). If the Commission does not direct review within 40 days of a decision's issuance, it becomes a final decision of the Commission. 30 U.S.C. § 823(d)(1). Hale's letter was received by the Commission on October 11, 1995, more than four years after the judge's default order had become a final decision of the Commission.

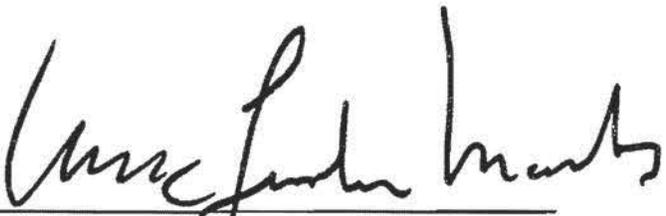
Relief from a final Commission judgment or order is available to a party under Fed. R. Civ. P. 60(b)(1) in circumstances such as mistake, inadvertence, or excusable neglect. 29 C.F.R. § 2700.1(b) (Federal Rules of Civil Procedure apply "so far as practicable" in the absence of applicable Commission rules); *e.g.*, *Lloyd Logging, Inc.*, 13 FMSHRC 781, 782 (May 1991). A motion requesting relief based on such reasons must be made "within a reasonable time, and . . . not more than one year after the judgment, order, or proceeding was entered or taken." Fed. R. Civ. P. 60(b).

Hale's request for relief was filed more than four years after the judge's default order became a final decision of the Commission, well beyond the one-year time limit set forth in Rule 60(b) for filing such requests. *See Ravenna Gravel*, 14 FMSHRC 738, 739 (May 1992). Accordingly, the request for relief is denied.


Mary Lu Jordan, Chairman


Joyce A. Doyle, Commissioner


Arlene Holen, Commissioner


Marc Lincoln Marks, Commissioner

Distribution:

Mr. Thomas Hale
4553 Hammonton Road
Marysville, CA 95901

Yoor Kim, Esq.,
U.S. Department of Labor
Office of the Solicitor
4015 Wilson Blvd., Suite 400
Arlington, VA 22203

Chief Administrative Law Judge Paul Merlin
Federal Mine Safety and Health Review Commission
1730 K Street, N.W., 6th Floor
Washington, DC 20006

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

1730 K STREET N.W., 6TH FLOOR
WASHINGTON, D.C. 20006

November 29, 1995

IN RE: CONTESTS OF RESPIRABLE DUST SAMPLE ALTERATION CITATIONS	:	Master Docket No. 91-1
KEYSTONE COAL MINING CORPORATION	:	Docket Nos. PENN 91-451 R through PENN 91-503-R
v.	:	Docket Nos. PENN 91-1176-R through PENN 91-1197-R
SECRETARY OF LABOR, MINE SAFETY AND HEALTH ADMINISTRATION (MSHA)	:	
SECRETARY OF LABOR, MINE SAFETY AND HEALTH ADMINISTRATION (MSHA)	:	Docket Nos. PENN 91-1264 through PENN 91-1266
v.	:	and
KEYSTONE COAL MINING CORPORATION	:	Docket No. PENN 92-182
JIM WALTER RESOURCES, INC., et al., Intervenors	:	Docket No. PENN 92-183
UNITED MINE WORKERS OF AMERICA (UMWA), Representative of Miners	:	

BEFORE: Doyle, Holen and Marks, Commissioners¹

DECISION

BY: Doyle and Holen, Commissioners

This proceeding arises under the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 801 et seq. (1988) ("Mine Act" or "Act"). Section 202(a) of the Mine Act requires coal mine operators to take accurate samples of the respirable dust in the mine atmosphere to which each

¹ Chairman Jordan has recused herself in this matter. Pursuant to section 113(c) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 823(c), we have designated ourselves a panel of three Commissioners to exercise the powers of the Commission in this matter.

miner is exposed.² 30 U.S.C. § 842(a). This proceeding involves 3,460 citations³ issued by the Department of Labor's Mine Safety and Health Administration ("MSHA") to coal mine operators across the country, each of which alleges a violation of 30 C.F.R. §§ 70.209(b), 71.209(b), or 90.209(b) (collectively, "section 209(b)"), for tampering with and altering the weight of respirable dust samples ("Dust Cases").⁴

The Dust Cases were assigned to Administrative Law Judge James A. Broderick, who consolidated them for a trial of the issue common to all citations, i.e., whether the appearance of an abnormal white center ("AWC") on a respirable dust sample filter establishes that the mine operator had intentionally altered it. The judge found that the Secretary had failed to prove by a preponderance of the evidence that an AWC on a filter establishes that the operator had altered the weight or that deliberate conduct was the only reasonable cause of an AWC. *In re: Contests of Respirable Dust Sample Alteration Citations*, 15 FMSHRC 1456, 1521-22 (July 1993) (ALJ) ("Common Issues Decision"). The judge then ordered a trial on the citations issued to a single mine, the Urling No. 1 Mine ("Urling"), operated by Keystone Coal Mining Corporation ("Keystone"). In that case, the judge held that the Secretary of Labor had failed to carry his burden of proving by a preponderance of the evidence that the weight of the 75 cited filters had been intentionally altered by the operator. *Keystone Coal Mining Corp.*, 16 FMSHRC 857, 903 (April 1994) (ALJ) ("Keystone Decision").⁵

The Secretary filed with the Commission a petition for discretionary review ("PDR") seeking review of the decisions and asserting 14 points of error by the judge. Among the Secretary's assignments of error was his challenge to the judge's articulation and application of the standard of proof in both the Common Issues Decision and in the *Keystone* Decision and his

² The Mine Act and mandatory standards require each operator to maintain an average concentration of respirable dust in the mine atmosphere at or below 2.0 milligrams of respirable dust per cubic meter of air. 30 U.S.C. § 842(b); 30 C.F.R. §§ 70.100, 71.100. Under certain circumstances, it must be maintained at or below 1.0 milligrams. *See, e.g.*, 30 C.F.R. § 90.100.

³ An additional 110 contested citations are on stay pending resolution of the Common Issues case. Approximately 5,000 citations were issued in total. Not all, however, were contested and some were settled.

⁴ Section 209(b) of 30 C.F.R. Parts 70, 71, and 90 provides:

The operator shall not open or tamper with the seal of any filter cassette or alter the weight of any filter cassette before or after it is used to fulfill the requirements of this part.

⁵ The United Mine Workers of America ("UMWA") participated in both proceedings as representative of miners but did not submit briefs to the judge.

claim that, if the proper standard had been used, the Secretary would have prevailed in both cases.

The Commission granted the Secretary's PDR and granted intervenor status to a number of mine operators (the "Intervenors"). The parties and Intervenors submitted briefs and the Commission heard oral argument.⁶ After careful review of the record, and for the reasons that follow, we affirm the judge's decisions.

I.

Background and Judge's Decisions

A. Factual and Procedural History in Common Issues

Coal mine operators are required to submit accurate dust samples on filter cassettes to MSHA for measurement of the quantity of respirable coal dust in the mine atmosphere. 15 FMSHRC at 1457; 30 C.F.R. §§ 70.201-220, 71.201-220, and 90.201-220. These samples are taken in a sampling unit, consisting of a pump, hose, cyclone assembly, and plastic cassette, manufactured by the Mine Safety Appliance Corporation ("MSA"). 15 FMSHRC at 1457. The pump draws air into the cyclone assembly, which separates out larger dust particles. Air containing respirable dust particles is directed into the plastic cassette, which contains a capsule consisting of an aluminum foil cone, a filter, and a backing pad. *Id.* Airborne particles are deposited on the filter face. *Id.* The cassette is removed from the sampling unit and sent to MSHA's weighing laboratory along with a card providing information on the sample ("dust data card"). *Id.* At the weighing laboratory, MSHA technicians open the sealed cassette, remove and desiccate the capsule, and then weigh it to determine whether the respirable dust concentration is in compliance with the levels required by 30 C.F.R. §§ 70.100, 71.100, and 90.100. *See id.*

In 1983, Mr. Robert Thaxton, then an industrial hygienist at MSHA's District Office in Mt. Hope, West Virginia, subjected 25 to 50 dust filter cassettes to reverse air flow tests by blowing or otherwise directing air into the outlet of the cassette to determine the potential for removal of dust by tampering. *Id.* at 1457-58; Tr. 108-10. The resulting filters exhibited white circular areas in the center. 15 FMSHRC at 1458. In February 1989, a laboratory technician at Mt. Hope noticed a protruding filter on a cassette submitted by Peabody Coal Company ("Peabody"). *Id.*; Tr. 327-28.⁷ When the foil was removed, a sharply defined circular white

⁶ The UMWA filed an appearance but did not submit briefs to the Commission or participate in oral argument.

⁷ "Tr." refers to transcript of the Common Issues trial. "K. Tr." refers to the transcript of the trial in *Keystone*. "R. Ex." refers to Respondent Exhibits and "Gov't Ex." to Government Exhibits introduced at the Common Issues trial. "K. Ex." refers to *Keystone* Exhibits and "K. Gov't Ex." to Government Exhibits introduced at the *Keystone* trial. "Oral Arg. Tr." refers to the transcript of oral argument held before the Commission on March 29, 1995.

center that was aligned with the aluminum foil inlet opening of the filter capsule was visible on the filter. Tr. 329, 336-37. Mr. Thaxton, the supervisory industrial hygienist at Mt. Hope, regarded this filter appearance as abnormal and believed that the Peabody filter resembled some of his 1983 experimental filters. 15 FMSHRC at 1457-58; Tr. 108-10, 330-31. Filters with this abnormal white center appearance were termed AWCs. 15 FMSHRC at 1458.

The Pittsburgh Health Technology Center ("PHTC"), MSHA's main laboratory, began to examine all filters from that same Peabody mine and, later, from all Peabody mines. *Id.*; Tr. 337-38. In August 1989, MSHA's investigation expanded to include all filters submitted by coal mine operators nationwide. 15 FMSHRC at 1458; Tr. 342. Filters were examined for abnormalities and those with suspected AWCs were forwarded to Thaxton at the Mt. Hope facility. 15 FMSHRC at 1458; Tr. 128-29, 339.

On March 19, 1990, MSHA initiated an AWC "void code"⁸ and began rejecting respirable dust samples that exhibited AWCs. 15 FMSHRC at 1460; R. Ex. 1400, at 12. On April 4 and June 7, 1991, MSHA issued approximately 4,700 citations to approximately 847 mines and proposed civil penalty assessments totaling about \$6.5 million.⁹ *See* 15 FMSHRC at 1460; Tr. 3 (Prehr'g Conf. June 19, 1991). The citations were issued by MSHA inspectors, but Thaxton alone determined whether a particular filter was to be cited. 15 FMSHRC at 1460. Each citation charged the mine operator with violating the provisions of section 209(b) and alleged that "the weight of the respirable dust cassette . . . has been altered while the cassette was being submitted to fulfill the sampling requirements . . ." *Id.* Each citation characterized the level of the operator's negligence as "reckless disregard," and the Narrative Findings for a Special Assessment ("Special Assessment Findings") attached to the citation stated that "[t]he violations resulted from an intentional act of altering the dust samples." *See, e.g.*, Citation dated April 4, 1991, and Special Assessment Findings dated June 12, 1991, issued to Keystone; *see also* 14 FMSHRC at 1512.

The cases in this proceeding arose from citations contested by operators and petitions for assessment of penalty filed by MSHA. Extensive discovery was conducted and the parties twice sought interlocutory Commission review of pretrial matters. In a pretrial order issued on August 13, 1992 ("August 1992 Order"), Judge Broderick, citing the time and expense of trying each case separately and relying on the Manual for Complex Litigation,¹⁰ consolidated the cases

⁸ A void code is a three-letter code indicating that MSHA will not accept the respirable dust sample for use in determining compliance with the respirable dust standards. Tr. 848.

⁹ MSHA continued to cite operators for AWCs. By the time of the Common Issues trial, approximately 370 additional citations had been issued. The last contested citation, now on stay, was issued on April 6, 1993.

¹⁰ "Actions pending in the same court involving common questions of law or fact may be consolidated under Fed. R. Civ. P. 42(a) for trial or pretrial if it will avoid unnecessary cost or

for trial of the issue common to all cases and appointed a Lead Defense Counsel Committee to participate in the trial on behalf of all operators. 14 FMSHRC 1510, 1511, 1516 (August 1992) (ALJ). In the same order, the judge rejected the Secretary's argument that, if he proved that the weight of a dust sample had been altered, he need not prove that the alteration was deliberate. *Id.* at 1515. The judge concluded that the plain words of section 209(b) do not give rise to a violation based on accidental or unintentional altering of the cassette's weight. *Id.* at 1515-16. Rather, the judge found that a violation necessarily included an intentional action on the part of the mine operator. *Id.* at 1515. The judge set forth the issue to be determined as: "[w]hether an abnormal white center (AWC) on a cited filter cassette establishes that the operator intentionally altered the weight of the filter?" *Id.* at 1517. The judge stated, "the Secretary has the burden of establishing [his] case by the preponderance of the evidence." *Id.*

B. Common Issues Trial

The Common Issues trial commenced on December 1, 1992, and concluded on February 22, 1993. Mr. Thaxton testified for eight days on his AWC classification and the potential causes of AWC formation. Thaxton had developed ten "tamper codes" to describe the various AWC appearances. 15 FMSHRC at 1460-62; Tr. 168-71; R. Ex. 1064. Approximately 97% of the cited filters were originally classified under tamper codes 1, 2 or 3.¹¹ 15 FMSHRC at 1462. Filters originally suspected of having AWCs, but which Thaxton decided should not be cited, were termed "no-calls." *Id.* at 1460; Tr. 129-31. In March 1992, Thaxton reexamined the cited filters and reclassified 464 filters; 95% of the cited filters remained as tamper code 1, 2 or 3. 15 FMSHRC at 1462. In his opinion, AWCs resulted from acts of intentional alteration by mine operators, primarily by the application of reverse air through the filters. Tr. 183, 191, 209, 598-99. Lewis Raymond, Chief of the Weighing Branch, Dust Division of the PHTC, testified on the handling and screening practices of filters exhibiting AWCs. The Secretary offered the scientific testimony of Dr. Virgil Marple and his colleague, Dr. Kenneth Rubow, who had conducted

delay." Manual for Complex Litigation § 21.631 (1995) (supplement to James W. Moore et al.; Moore's Federal Practice (2d ed.)).

¹¹ Filters classified under tamper code 1, termed by Thaxton as "light cleaned," were described as containing a white ring in the center of the filter, approximately 6 millimeters ("mm") in diameter, directly aligned with the cassette inlet. The appearance of the center portion of the ring was not markedly lighter. In Thaxton's opinion, tamper code 1 AWCs resulted from reverse air flow. 15 FMSHRC at 1461; Tr. 179-181, 183; R. Ex. 1064. Filters classified under tamper code 2, "cleaned," were described as exhibiting a markedly lighter dust deposit within the circular area. Thaxton believed that tamper code 2 AWCs also resulted from reverse air flow. 15 FMSHRC at 1461; Tr. 184-85, 191, 193-98, 767-68, 776; R. Ex. 1064. Filters classified under tamper code 3, "cleaned and coned," were described as similar to those classified under tamper code 2, but exhibiting a slight rise or cone in the center. Thaxton believed that tamper code 3 AWCs resulted from "forceful" reverse air flow. 15 FMSHRC at 1461; Tr. 198-201, 208-09, 1258; R. Ex. 1064.

experiments involving AWCs, including application of reverse air flow to filter cassettes and dropping cassettes and pumps. 15 FMSHRC at 1474-83. Dr. Marple concluded that the most probable cause of AWC dust dislodgment was the deliberate application of reverse air flow. *Id.* at 1469-70, 1481; Gov't Ex. 280, at 4-7, 57, 103-05; Gov't Ex. 282, at App. A; Tr. 2590, 2597-98. The Secretary's statistical expert, Dr. John J. Miller, testified that AWCs were not random across all coal mines. 15 FMSHRC at 1485, 1488; Tr. 3721-23. According to Dr. Miller, there was a marked decline in AWCs after MSHA's initiation of the AWC void code on or about March 19, 1990. 15 FMSHRC at 1486, 1488; Tr. 3723-24. Miller also testified that the decrease in the rate of cited AWCs was not explained by the dates on which filters were manufactured. 15 FMSHRC at 1486-88.

The operators offered the scientific testimony of Dr. Richard J. Lee, who also classified the cited filters into groups based on appearance. *Id.* at 1470-71. Dr. Lee performed a series of dust dislodgment tests and concluded that AWCs can result from accidental and incidental events. *Id.* at 1488-96; Tr. 6531-34. He testified that manufacturing variations in the sampling units, such as a shorter filter-to-foil distance¹² in the cassette and the pliability of the hose, increase susceptibility to AWC formation. 15 FMSHRC at 1494-95; Tr. 6534-35. The operators' other scientific experts, Dr. R. Larry Grayson, Dr. Andrew R. McFarland, and Dr. Morton Corn, similarly testified that AWCs can result from accidental and incidental events, such as dropping or other impacts to sampling units and impacts to hoses of sampling units. 15 FMSHRC at 1497-99, 1505-06. Dr. McFarland conducted a courtroom demonstration in which he twice dropped a 31-pound tool box on the hose of a sampling assembly, each time producing an AWC. *Id.* at 1503. The operators' statistical expert, Dr. H. Daniel Roth, testified that the AWC citation rate declined continuously after September 1989 and that the void code date of March 19, 1990, was not statistically significant. Tr. 3983, 3987-88, 3994, 4001; R. Ex. 1041, at 4. Roth criticized Miller's analysis of filter manufacturing dates. 15 FMSHRC at 1508.

The judge observed the filters presented at the hearing. *Id.* at 1467. The cited and experimental filters are not in the record but, during discovery, the operators' expert witnesses were permitted to inspect the cited filters and each expert had the opportunity to review the others' experimental filters. *E.g.*, Tr. 5949, 7521; Gov't Ex. 267, at 4-6. Photographs of the cited filters and of many of the experimental filters are in the record. *See, e.g.*, Gov't Exs. photograph albums entitled *Cited Filters*, vols. 1-7, set 2. Evidence concerning the practices or circumstances of any particular mine was excluded from the Common Issues trial. 15 FMSHRC at 1464; *see also id.* at 1522; 16 FMSHRC at 896.

C. Common Issues Decision

The parties filed post-trial and reply briefs in April and May 1993, and the judge issued his decision on July 20, 1993. 15 FMSHRC 1456. His findings and conclusions are as follows:

¹² Filter-to-foil distance is the distance in the cassette between the filter surface and the opening of the aluminum foil cone. Tr. 2279; R. Ex. 1001, at ii, B-8.7.

1. Burden of Proof

The judge held that the Secretary bore the burden of proving “by a preponderance of evidence that (1) the term ‘AWC’ has a coherent meaning and was consistently applied; (2) the cited AWCs can only have resulted from intentional acts; and (3) the AWCs resulted in weight losses in the cited filters.” 15 FMSHRC at 1463-64.

2. Mr. Thaxton’s AWC Classifications

The judge found that the term “AWC” has a coherent meaning and refers to an “abnormal filter appearance in a dust sample consisting of dust dislodgment from the central portion of the filter.” 15 FMSHRC at 1513. He found that the classification of AWCs by Thaxton under his tamper codes, although not perfectly consistent, was sufficiently consistent to require a determination of whether the existence of an AWC establishes a violation. *Id.* at 1469, 1513.

3. Possible Causes of AWCs

The judge determined that “[t]he dust dislodgment patterns on the cited filters classified under tamper codes 1, 2, 3, and 7¹³ *can have resulted* from intentional acts: blowing by mouth through the cassette outlet, otherwise directing a jet or pulse of air into the cassette outlet, or introducing a vacuum source into the cassette inlet.” 15 FMSHRC at 1513 (emphasis added). He also found that the dust dislodgment patterns on filters classified under these tamper codes “*can have resulted* from:

1. impacts to the cassette from dropping or striking it;
2. impacts to the hose from stepping on it, dropping an object on it, striking it against a wall while the hose was wrapped around the sampling assembly, closing a door or drawer on it, or sitting on it;
3. snapping together the two halves of the filter cassette.”

Id. (emphasis added).

The judge explained that, although the experts differed as to the likelihood that AWC dislodgment patterns would result from incidental events or accidents, “the experiments all show that at least sometimes they do occur.” *Id.* at 1513-14. He observed that dust dislodgment patterns on many of the filters subjected to impact or snapping tests were indistinguishable from

¹³ The judge noted that Thaxton came to believe that filters classified under tamper code 7, known as “clean tool” and which he originally believed were created by a tool, were created by reverse air flow. 15 FMSHRC at 1461-62, 1513; Tr. 259.

cited AWCs. *Id.* at 1514. The judge concluded that the AWCs did not result from handling by the United States Postal Service or from the PHTC's handling or desiccation processes. *Id.*

The judge determined that the manufacturing characteristics of filter-to-foil distance and filter floppiness varied from filter to filter and mine to mine. *Id.* at 1515, 1521. The judge found that a filter cassette with a smaller filter-to-foil distance was more susceptible to an AWC dislodgment pattern than one with a larger distance; that a floppy filter was more susceptible than a taut one; and that AWC susceptibility also depended on the pliability of the sampling hose. *Id.* at 1515-17. He determined that the cited filters came from a population of cassettes with shorter filter-to-foil distances than those manufactured subsequently. *Id.* at 1515-16. The judge also identified mine and dust variables that would affect dislodgment, such as type of coal, humidity in the mine environment, weight of dust on the filter, size and shape of dust particles, and quantity of rock dust or diesel dust on the filter. *Id.* at 1516-17, 1521.

4. Statistical Evidence

The judge found Miller's conclusion that the AWC rate was not random across the mining industry was not "persuasive evidence of intentional tampering" because of the existence of many other potential causes. 15 FMSHRC at 1519, 1522. The judge also rejected the Secretary's claim that the sharp decline in cited AWCs beginning about March 19, 1990, "can only be construed as showing intentional misconduct" that ceased when the operators became aware of the void code. *Id.* at 1519. He reasoned that AWC citations continued, at a reduced rate, long after the void code was instituted and after significant publicity about the criminal investigation. *Id.* at 1519-20.¹⁴ The judge stated that the statistical evidence showed cassettes manufactured before January 1, 1990, had a much higher citation rate than those manufactured later, suggesting manufacturing variables as a cause of AWC formation. *Id.* at 1520. The judge discounted Miller's opinion that there were no statistically significant relationships between dust dislodgment and filter-to-foil distance or floppiness of filters, concluding that the weight of the scientific evidence showed that such factors did, in fact, affect susceptibility to AWC formation. *Id.*

¹⁴ At the time of MSHA's investigation of operator samples, a large number of respirable dust samples taken by MSHA inspectors were also found to exhibit AWCs. 15 FMSHRC at 1462. Thaxton classified these samples under his tamper codes and most, but not all, were classified under one of the reverse air flow tamper codes. *Id.* The judge noted evidence indicating that the number of inspector samples exhibiting AWCs declined at about the same rate during the relevant periods as operator samples. *Id.* at 1519. The Office of Inspector General of the Labor Department investigated whether the inspectors who submitted these samples were guilty of misconduct. The investigation was closed with no finding of misconduct, apparently based on the finding that AWCs can result from the two parts of a cassette being snapped together. *Id.* at 1462.

5. Judge's Conclusions

Based on these findings, the judge concluded that (1) the Secretary "failed to carry his burden of proving by a preponderance of the evidence that an AWC on a cited filter establishes that the mine operator intentionally altered the weight of the filter," and (2) the Secretary "failed to carry his burden of proving by a preponderance of the evidence that deliberate conduct on the part of the cited mine operators is the only reasonable explanation for the cited AWCs." 15 FMSHRC at 1521. The judge emphasized that filter variables (filter-to-foil distance and floppiness), pliability of the hose, and dust variables (type of coal, humidity, weight of dust on the filter, size and shape of dust particles, and quantity of rock or diesel dust) affect susceptibility to AWC formation and that Miller's statistical analysis failed to adequately account for these variables. *Id.* at 1521-22. The judge concluded that Miller's analysis also failed to establish that the cited AWCs were not the result of accidental occurrences or manufacturing variables. *Id.* Noting that the expert testimony as to causes of AWCs was conflicting, the judge, in summary, concluded that the record showed too many other potential causes "to accept the Secretary's circumstantial evidence as sufficient to carry his burden of proof that the mine operators intentionally altered the weight [of] the cited filters." *Id.*

The judge ordered a mine specific hearing to address the 75 AWC citations issued to Keystone's Urling mine. *Id.* at 1522. He set forth the main issue as "whether the weight of the filters cited as AWCs from . . . Urling . . . was intentionally altered by the mine operator" and stated that the burden of proof remained with the Secretary. *Id.* The judge stayed all other Dust Cases. *Id.* at 1523.

D. Factual and Procedural History in Keystone

The Urling mine, in Indiana County, Pennsylvania, is operated by Keystone, a wholly owned subsidiary of Rochester and Pittsburgh Coal Company ("R&P"). The dust sampling program for all 13 R&P mines, including Urling, was conducted by R&P's Environmental Safety Department ("ESD"), also in Indiana, Pennsylvania. 16 FMSHRC at 858-59; Stipulations by Secretary and Keystone, No. 14, filed November 30, 1993 ("Stip."). From 1970 until his retirement in 1991, Donald Eget, who was trained as an engineer, was the supervisor of ESD. 16 FMSHRC at 861; K. Tr. 2231-33. During 1989 and 1990, Shawn Houck worked with Eget in the ESD laboratory as a maintenance and calibration technician. 16 FMSHRC at 861-62. Douglas Snyder was the dust technician responsible for Urling sampling; three other dust technicians handled sampling for R&P's other mines. *Id.* at 862.

Pursuant to normal operating procedures at ESD during 1989 to 1991, the dust technicians picked up pumps and sampling assemblies in the morning and delivered them to R&P's mines for use on that day's three shifts. *Id.* Each morning, Eget drove to all 13 R&P mines to retrieve pumps and samples from the previous afternoon and midnight shifts. *Id.* The dust technicians returned to the ESD after 4:00 p.m., delivering pumps used during the day shift. *Id.* at 863.

While Eget collected pumps, Houck processed those from the previous day shift. *Id.* at 862. Houck removed the sampling head¹⁵ and the hose from each pump, filled out the dust data cards, cleaned the sampling units, calibrated the pumps, reassembled the units, and inserted a new filter cassette in each one for use the next day. *Id.* at 862-63; K. Tr. 2103-04. When Eget returned to the laboratory, Houck took the cassettes into Eget's office. 16 FMSHRC at 862. Eget inspected the used cassettes, recorded their identification numbers, checked the dust data cards against the cassette numbers, and looked into the cassette inlets and recorded the filter appearances in a logbook he kept for each mine. *Id.* at 862-63, 889. The cassettes were then packaged for mailing to MSHA and taken to the R&P mailroom. *Id.* at 863; K. Tr. 2102-03, 2174.

Dust technician Snyder delivered pumps to Urling and distributed them to the miners or section foremen on the day and afternoon shifts. 16 FMSHRC at 864. He left pumps for the midnight shift. *Id.*

On April 4, 1991, the Secretary issued 53 citations to Urling, and on June 7, 1991, issued 22 additional citations, alleging violations of section 70.209(b). *Id.* at 858. Three filters forwarded to Thaxton were determined to be no-calls. *Id.* at 868, 870.

E. Keystone Trial

The trial in *Keystone* commenced on November 30, 1993, and concluded on January 6, 1994. 16 FMSHRC at 859. Robert Thaxton testified with respect to the appearance of the 75 cited and three no-call filters. Mr. Thaxton was of the opinion that the dust dislodgment patterns of the cited filters resulted from deliberate acts, in most cases from air blown through the filter cassette in a reverse direction. *Id.* at 868-72; K. Tr. 864-66, 911-15; *see* K. Gov't Ex. 505. Dr. Marple, the Secretary's scientific witness, also examined and classified the 78 filters. 16 FMSHRC at 872-74. Marple concluded that 71 or 72 resulted from reverse air flow, two or three resulted from a vacuum source introduced into the cassette inlet, and one resulted from water introduced into the filter (Marple was originally unable to ascribe a cause to that filter's appearance). *Id.* at 873, 898-99. Marple further concluded that none of the dislodgment patterns on the Urling filters resulted from impacts to the cassettes. *Id.* at 873-74, 899.

Dr. Miller, the Secretary's statistical expert, testified that, before March 26, 1990, the date that MSHA alleges Urling learned of the void code, Urling had a much higher citation rate than other mines.¹⁶ *Id.* at 878-79. He testified that Urling had a citation rate of 42.77% (74 cited

¹⁵ The sampling head includes the cyclone unit and filter cassette. Tr. 91-94.

¹⁶ Data from other mines consisted of data for all dust samples processed by MSHA from August 8, 1989, through March 31, 1992, except data from R&P mines, mines whose operators pled guilty to tampering, and mines whose cassettes may not have been examined for AWCs. 16 FMSHRC at 878.

samples out of 173) in the period August 1989 through March 26, 1990. After March 26, the rate fell to 0.18% (one cited out of 552). In contrast, other mines had an average citation rate of 5.96% for the earlier period. *Id.* at 878. Miller also testified that the date of cassette manufacture failed to explain the differences in citation rates between Urling and other mines because Urling's citation rate was eight times higher than that of other mines using cassettes manufactured on the same dates. *Id.* at 879.

Dr. Lee, Keystone's scientific expert, concluded that most of the cited filters showed comparatively slight dust dislodgments from the central area, slightly larger diameters, no cones, and only a slight indication of dimpling, all of which indicated lesser forces than would have occurred with deliberate reverse air flow. *Id.* at 876, 899. Lee testified that the appearance and dimensions of the dislodgment patterns on the Urling filters were consistent with a mixed mechanical pulse/reverse air pulse mode of occurrence ("mixed-mode" theory). *Id.* at 876-77.¹⁷ He also testified that humidity in the mine atmosphere reduced the susceptibility to dislodgment of dust on filters and that the introduction of water sprays and scrubbers at Urling beginning in 1989 and 1990 contributed to the decline in AWCs. K. Tr. 3891-97, 4042-44, 4087-89; *see also* 16 FMSHRC at 877; K. Ex. 2001, at 14.

Dr. Roth, the operators' statistical expert, testified that he examined the citation rates of Urling and all R&P mines on a bimonthly basis and that the data showed a strong trend of declining rates over the entire period from August 1989 to March 1992. 16 FMSHRC at 880. Roth also testified that manufacturing variables may have been a factor in AWC formation because the rate of cited AWCs was greater for cassettes manufactured on earlier dates compared to later dates. *Id.* He concluded that R&P's high incidence rates "may be attributable to cassettes manufactured on four consecutive dates, May 26, May 31, June 1, and June 2, 1989." *Id.* The AWC citation rate of R&P mines, including Urling, for cassettes manufactured on those dates was 49.6% compared to 5.8% for other dates. *Id.*

ESD personnel testified as to their involvement in the respirable dust sampling program at Urling. *Id.* at 888-93.¹⁸ Eget, Houck, and Snyder denied tampering with the dust cassettes or observing anyone else tamper with the cassettes. *Id.* at 890-91.

¹⁷ Under Lee's mixed-mode theory, two impacts may occur almost simultaneously: an impact to the cyclone that results in a mechanical pulse to the cassette and an impact to the hose that results in a reverse air pulse to the cassette. According to this theory, the mechanical pulse tends to dislodge dust on the filter outside of the 6 mm ring, while the reverse air pulse tends to dislodge dust inside the ring. *See* 16 FMSHRC at 876-77.

¹⁸ Thirty-three current and former Keystone and R&P employees, including miners, section foremen, technicians, managers, and safety department personnel, testified at the trial. All employees who worked at the ESD laboratory during 1989 and 1990 testified. 16 FMSHRC at 888.

F. Keystone Decision

The parties filed post-hearing briefs in March 1994 and the judge issued his decision on April 20, 1994. His findings and conclusions are as follows:

1. Burden of Proof

The judge held that the Secretary bore the burden of proving “by a preponderance of the evidence that the 75 cited Urling filters resulted from intentional tampering.” 15 FMSHRC at 895. The judge noted that Keystone “d[id] not have the burden of establishing that the appearances on the samples resulted from some other cause.” *Id.* at 896. The judge reasoned that the Secretary, as the party bearing the burden, must convince the trier of fact “that the existence of a fact is more probable than its nonexistence” *Id.* at 895, quoting *Concrete Pipe and Products of Cal., Inc. v. Construction Laborers Pension Trust for S. Cal.*, 508 U.S. ___, 113 S. Ct. ___, 124 L. Ed. 2d 539, 563 (1993). He explained that “[t]o preponderate, the evidence must be sufficient to convince the trier of fact that the proposition asserted is more likely true than not true.” 16 FMSHRC at 895-96 (citations omitted). The judge also noted that “[a]ll of the evidence must be given appropriate weight, whether it be direct or circumstantial” and that “[c]ircumstantial evidence may prove an ultimate fact.” *Id.* at 896.

2. Possible Causes of Urling AWCs

Preliminarily, the judge reviewed the evidence pertaining to the handling of dust pumps and cassettes at the Urling mine and ESD laboratory. He found that dust dislodgment patterns on the cited filters could have resulted in whole or in part from the handling of the sampling equipment by Urling miners or ESD personnel. 16 FMSHRC at 864, 868. The judge found that AWCs “could have resulted wholly or partly” from incidental and accidental events occurring in the mine, such as pumps falling to the mine floor and hoses being pinched by mantrips, snagged on other objects, or wrapped around pumps, and from other contacts to hoses.¹⁹ *Id.* at 868. The judge also found that AWCs “could have resulted wholly or partly” from incidental and accidental events occurring in the ESD laboratory or during transportation of the pumps, including multiple pumps being carried by their hoses and boxes containing pumps being dropped to the floor of a vehicle or onto a table. *Id.* at 861-64.

¹⁹ Some miners attached the pumps to their clothing during sampling, while others attached them to the continuous miners. 16 FMSHRC at 866. Urling used two types of continuous miners, Lee-Norse and Joy. *Id.* The judge found that the dust dislodgment patterns could have been caused or contributed to by attachment of the sampling head to the Lee-Norse miners, which vibrated while cutting coal. *Id.* at 882. However, he concluded that changes in the dust deposition patterns on Urling filters after the void code date were not due to changes in handling by section foremen or miner operators or helpers, although he noted that some Urling foremen kept a closer eye on dust pumps after learning of the MSHA investigation. *Id.* at 882, 898.

The judge made findings regarding factors that could have contributed to the decline of AWCs at Urling. *Id.* at 882-87. He found that changes in handling practices of ESD personnel during the spring of 1990 could have been a factor in the reduced incidence of AWCs. *Id.* at 884. He found that Eget, whose handling of the sampling equipment was rougher than that of the others, did not handle samples from April 9 to May 10, 1990, and that Snyder and the other technicians exercised more care in their handling of the equipment, avoiding impacts to the hoses because of MSHA's investigation. *Id.* The judge concluded that, because dust deposits were damper and less susceptible to dislodgment when scrubbers were in use, the installation of scrubber systems on the continuous miners at Urling beginning in 1989 could have been a factor in the decline of AWCs. *Id.* at 882-83. With respect to sampling equipment, the judge found that the Urling cassettes more probably than not had shorter filter-to-foil distances and this could have been a factor in the decline of AWCs. *Id.* at 885-86.²⁰

On the basis of his Common Issues Decision, the judge determined that the dislodgment patterns on the Urling filters could also have resulted from intentional tampering. *Id.* at 898. The judge concluded that, if tampering occurred, it must have occurred at the ESD laboratory. *Id.* In resolving whether the AWCs resulted from intentional acts at ESD, the judge analyzed the scientific and statistical evidence and evaluated the testimony and credibility of ESD employees. *Id.*

3. Scientific Evidence

Based on Mr. Thaxton's testimony, the judge concluded that the appearances of the cited filters "did not result from *normal* sampling." 16 FMSHRC at 897 (emphasis added). The judge was not persuaded, however, by Thaxton's reports and testimony asserting that the Urling AWCs had been caused by intentional tampering. *Id.* The judge discounted Thaxton's analysis as to causation because Thaxton's conclusions were "to a considerable extent subjective." *Id.* His tests were not conducted according to a written protocol based on systematic testing that related specific dislodgment patterns to types of tampering. *Id.* Additionally, the judge found that the distinction Thaxton made between cited and no-call filters was "difficult to discern" and "tenuous at best." *Id.* at 870-71, 897.

²⁰ The judge determined that a number of other factors, such as changes in MSHA's AWC selection criteria and other mine conditions at Urling, including height of the coal seam, roof stability, presence of a layer of rock in the coal seam, and changes in mantrips did not explain the decline in Urling's AWC rate. 16 FMSHRC at 882-87. The judge was unable to determine whether the section in the mine from which dust samples were taken affected the decline of AWCs. *Id.* at 883. Although he found in the Common Issues Decision that pliability of dust pump hoses may be related to AWC formation, the judge was unable to conclude whether this was a factor in the decline in AWCs at Urling. *Id.* at 886. He also noted that equipment changes at ESD were of questionable significance. *Id.* at 884.

The judge concluded, on the basis of the testimony of Dr. Marple and Dr. Lee, that 73 of the cited Urling filters “resulted in whole or in part from reverse air flow through the filter.” *Id.* at 898-900. The judge credited Lee’s testimony that those filters showed comparatively slight dislodgments from the central area, had no cones at the time the citations were issued, and had slightly larger areas of dust dislodgment. *Id.* at 899. On that basis, he reasoned that the forces responsible for the Urling AWCs were “relatively slight” and concluded that the reverse air forces involved in the creation of those filters were “generally less” than the force associated with deliberate blowing through the filter cassette. *Id.* at 899-900. The judge also concluded that the dust dislodgment patterns of the Urling filters “may have been influenced” by accidental and incidental events involving impacts to the cassette and sampling assembly, as set forth in Dr. Lee’s mixed-mode theory. *Id.* at 900; *see id.* at 876-77.

As to the other two cited filters, the water stain filter No. 324842 and filter No. 325300, the judge held that the Secretary’s evidence was inconsistent and unconvincing and failed to establish deliberate tampering. *Id.* at 900.

4. Statistical Evidence

The judge noted that the statistical experts, Dr. Miller and Dr. Roth, reached different conclusions using the same data. 16 FMSHRC at 900. The judge agreed with Miller that there was a sharp decline in Urling’s citation rate on or about March 26, 1990, the date used by Miller in his analysis. *Id.* He concluded, however, that March 26, 1990, was not a logical cutoff date for examining changes in behavior at Urling because the evidence showed that ESD personnel and Keystone management had become aware much earlier, in February 1990, of MSHA’s investigation of AWCs. *Id.* He also found that there was an overall decline in Urling’s citation rate from September 1989 to April 1990. *Id.* The judge agreed with Miller that dates of manufacture of the cassettes “do not seem overall to explain all the differences” in the AWC rate. *Id.* at 900. On the other hand, he agreed with Roth that manufacturing anomalies may have affected AWC formation because, as Roth showed, 60% of the cited Urling cassettes were manufactured on four consecutive work days in May and June 1989. *Id.* at 900-01.

The judge was unable to conclude on the basis of the statistical evidence that the reduction in the rate of cited filters at Urling was related to MSHA’s investigation. *Id.* at 901.

5. Testimony of ESD Personnel

Preliminarily, the judge recognized that a large number of mine operators and their agents had pled guilty to criminal charges of tampering. 16 FMSHRC at 901. The judge summarized the testimony of employees of the ESD laboratory during 1989 and 1990, all of whom were witnesses. *Id.* at 888-893. He determined that only Eget and Houck had any substantial opportunity to tamper with the samples. *Id.* at 901. The judge was impressed by the backgrounds of Eget and Houck and by their forthrightness on the witness stand. *Id.* at 902. He credited their statements that they had not tampered with the dust samples submitted to MSHA.

Id. at 902-03. The judge found the Secretary's proffered motives for tampering by Eget and Houck (to avoid penalties and resampling and the enormous cost of non-compliance) to be very weak. Neither employee paid the R&P penalties, resampling would not have been a substantial burden on ESD, and neither was involved in coal production or reported to a production supervisor. *Id.* at 902. He noted that they knew that tampering was illegal and that Eget, at least, was aware that criminal sanctions could result from tampering. *Id.* For the same reasons, he also accepted as true the statements of the other dust technicians that they did not tamper with the dust cassettes and further noted that they had little opportunity to tamper. *Id.* at 901, 903.

Overall, the judge credited the testimony of ESD personnel, expressly taking into consideration the evidence concerning handling of dust samples at the mine and the testimony of Thaxton, the scientists, and the statisticians. *Id.* at 903. He considered credibility determinations with respect to ESD personnel to be of primary importance in his decision. *Id.*

6. Judge's Conclusions

Based on the records in the Common Issues and *Keystone* trials, the judge concluded that the Secretary "failed to carry his burden of proving by a preponderance of the evidence that the weight of the 75 cited Urling filters was intentionally altered by Keystone." 16 FMSHRC at 903. Accordingly, he vacated the Urling citations, denied the Secretary's petitions for civil penalties, and dismissed the proceedings. *Id.* The judge stayed all other Dust Cases until further order of the Commission. *Id.*

II.

Disposition

A. Introduction

In his PDR, the Secretary sets forth 14 points of error. He asserts that, in the Common Issues trial, the judge imposed an improper burden of proof, which he also applied in *Keystone*. In addition, he contends that the judge made incorrect scientific, statistical, and credibility determinations as well as erroneous procedural rulings. The Secretary places the following issues in contention and numbers them in the PDR as follows:

1. The judge misstated and misapplied the burden of proof in both proceedings. His use of the wrong burden in the Common Issues Decision fatally tainted his analysis in *Keystone*. PDR at 10-12 (addressed in section B., slip op. at 17).
2. The judge erred in failing to credit the opinions of Mr. Thaxton and Dr. Marple that AWCs were more consistent with deliberate application of reverse air flow through filters than with accidental events. PDR at 12 (addressed in section C. 2., slip op. at 26).

3. The judge erred in crediting Dr. Lee's opinion that AWCs were more consistent with accidental impact forces than with tampering. PDR at 12-14 (addressed in section C. 3., slip op. at 29).

4. The judge erred in admitting the testimony of Dr. Corn because his testimony was improperly withheld from the Secretary during discovery. PDR at 14 (addressed in section C. 4., slip op. at 34).

5. The judge erred in relying upon the conclusions of Dr. Corn as to accidental causation of AWCs because they lacked scientific foundation. PDR at 14 (addressed in section C. 4., slip op. at 34).

6. The judge erred in *Keystone* in failing to give weight to evidence regarding the optional quartz sampling program. PDR at 14 (addressed in section F. 2., slip op. at 59).

7. The judge erred in failing to appreciate that the statistical evidence supported intentional tampering as the likely cause of AWC formation. PDR at 15-16 (addressed in section D., slip op. at 47).

8. The judge erred in his analysis of the statistical evidence in *Keystone* in focusing on bimonthly sampling periods instead of on March 26, 1990, as the pertinent date for evaluating the rates of AWCs. PDR at 16 (addressed in section D. 2. b., slip op. at 55).

9. The judge erred in finding that "filter-to-foil" distance and other manufacturing variables affected the likelihood of AWC formation. PDR at 16 (addressed in section C. 5., slip op. at 37).

10. The judge erred in *Keystone* in admitting the testimony of Dr. Lee regarding water sprays and scrubber systems because it was improperly withheld from the Secretary during discovery. PDR at 17 (addressed in section C. 6., slip op. at 44).

11. The judge erred in *Keystone* in crediting the opinion of Dr. Lee over that of Dr. Marple concerning the effects of water sprays and scrubber systems. PDR at 17 (addressed in section C. 6., slip op. at 44).

12. The judge erred in concluding in *Keystone* that handling changes by the ESD personnel explained a decline in AWCs on or about March 26, 1990. PDR at 18 (addressed in section F. 1., slip op. at 58).

13. The judge erred in *Keystone* in his analysis of the credibility of the ESD witnesses. PDR at 18-20 (addressed in section F. 3., slip op. at 60).

14. The judge erred in excluding evidence of criminal tampering with dust samples by other individuals and entities. PDR at 20-21 (addressed in section E., slip op. at 55).

B. Burden of Proof²¹

1. Judge's Conclusions

The judge, in the Common Issues Decision, set forth his conclusion that the Secretary had failed to carry his burden of proving, by a preponderance of the evidence, that an AWC established that the operator “had intentionally altered the weight of the filter” or that “deliberate conduct on the part of the cited mine operators is the only reasonable explanation for the cited AWCs.” 15 FMSHRC at 1521.

In the *Keystone* Decision, the judge, noting that the burden of proof was the same as in the Common Issues Decision, set forth his conclusion that the Secretary had the burden of proving, by a preponderance of the evidence, that the Urling filters resulted from intentional tampering. 16 FMSHRC at 895.

2. Parties' Contentions

The Secretary contends that the judge imposed an improper burden of proof in both proceedings. PDR at 10-12. He argues that the judge erred in the Common Issues Decision in requiring him to prove that “deliberate conduct on the part of the cited mine operators is the *only* reasonable explanation for the cited AWCs.” 15 FMSHRC at 1521 (emphasis added); PDR at 7. The Secretary asserts that this is a burden of proof greater than the preponderance of evidence standard and that the judge required the Secretary to prove that there was no contradictory evidence or explanation regarding the basic propositions the Secretary sought to establish. S. Br. at 30-35.²² The Secretary asserts that, by using the “*only* reasonable cause” formulation, the judge imposed a burden of proof that was greater than the burden in criminal cases. *Id.* at 31-32; Oral Arg. Tr. 208-09. The Secretary argues that, under the preponderance standard, he should have been required to show only that the propositions sought to be established were more likely true than not. S. Br. at 32; S. Reply Br. at 2-3.

²¹ This section addresses Issue No. 1 in the PDR.

²² “S. Br.” refers to the Secretary’s Brief, filed September 26, 1994. “S. Reply Br.” refers to the Secretary’s Reply Brief, filed December 23, 1994. “K. Br.” refers to Keystone’s Brief, filed November 14, 1994. “I. Br.” refers to Respondent Intervenors’ Brief, filed November 23, 1994. “S. P.H. Br. (C.I.)” refers to the Secretary’s Posthearing Brief, filed April 30, 1993, after the Common Issues trial.

Keystone and the Intervenors respond that the judge explicitly adopted the preponderance standard in his decisions and properly applied that standard. They argue that the Secretary has confused the burden of proof with the *issue* to be decided in the Common Issues trial, i.e., whether AWCs could only have resulted from deliberate acts. They assert that the judge properly found that the evidence did not support a finding that intentional tampering was the only reasonable explanation. K. Br. at 12-19; I. Br. at 20-25.

3. Development of the Common Issue

On July 1, 1992, a group of operators moved for consolidation of all Dust Cases for purposes of a separate trial on the issue of causation of AWCs. They asserted that the basic issue common to all the citations was whether “the existence of an AWC dispositively prove[d] that an operator intentionally altered the weight of a respirable dust sample.” Contestants’ Mot. for Cons. and Separate Trial at 2. The Secretary opposed the consolidation as well as the operators’ statement of the issue. S. Statement in Opp’n to Contestants’ Mot. for Cons. filed July 15, 1992 (“S. Opp’n”), at 1-2.

At a pretrial conference on July 17, 1992, the Secretary’s counsel requested a “bellwether” trial involving a large company with a number of citations. Tr. 6, 11-12 (Prehr’g Conf. July 17, 1992). The Secretary contended that it was imperative to resolve the standard of proof and how “the issue is to be framed within that standard of proof.” *Id.* at 33. The Secretary argued that the major issue in the proceedings was whether the weight of a cited filter had been altered while in the custody or control of the operator and maintained that the issue of whether a deliberate or accidental act caused the alteration was relevant only to the penalty. *Id.* at 27-28. The operators responded that, in order to establish a violation under the cited regulatory provisions, the Secretary had to establish a deliberate act by the operator. *Id.* at 40.

The Secretary subsequently withdrew his opposition to a common issues trial. S. Statement of the Issues and Trial Proposal filed Aug. 7, 1992 (“S. Statement”) at 1. The Secretary urged that, in order to be useful, the common issues trial must include all operators and be binding on all parties. *Id.* at 13. As before, the Secretary argued that, to prove a violation, he was not required to prove that intentional tampering occurred but only that a weight alteration occurred while the filter was within the operator’s control.²³ *Id.* at 3-10. The operators again asserted that the issue to be determined was whether an AWC proved that an operator intentionally altered the weight of a respirable dust filter. Contestants’ Br. in Resp. to Judge’s Prehr’g Conf. filed Aug. 7, 1992, at 28.

²³ The Secretary asserted that three issues should be determined: (1) whether it was established, by a preponderance of the evidence, that the weight of the cited filters was altered; (2) whether it was established, by a preponderance of the evidence, that the weight alteration occurred while the samples were in the control of the operator; and (3) whether the proposed penalty was appropriate in light of the level of negligence exhibited. S. Statement at 2.

In the August 1992 Order, the judge noted the sharp disagreement that had emerged recently between the parties as to the basic issue presented for resolution. 14 FMSHRC at 1511. He also stated that “whatever [the Secretary’s] position on what is necessary to prove a violation of the standard in the abstract, [he] has clearly taken the position . . . that the violations resulted from deliberate acts.”²⁴ *Id.* at 1513. Rejecting the Secretary’s assertion that he should not be required to prove intentional conduct, the judge found that, by the plain meaning of section 209(b), a violation was established by proving that an operator *intentionally* altered the dust on a filter. *Id.* at 1513-16. He held that, “as a matter of law the accidental, unintentional altering (changing, reducing) the weight of a filter cassette while the cassette is in the custody of the mine operator is not a violation . . .” *Id.* at 1515-16. Citing the burden of trying each case separately, the judge consolidated the Dust Cases for the purpose of trying the issue common to all. *Id.* at 1511. The judge delineated the issue to be determined as “[w]hether an abnormal white center (AWC) on a cited filter cassette establishes that the operator intentionally altered the weight of the filter,” and further specified that “the Secretary has the burden of establishing [his] case by the preponderance of the evidence.” *Id.* at 1517.

On August 24, 1992, the Secretary filed a Motion for Reconsideration and Clarification of the August 1992 Order (“S. Mot. for Recons.”), in which he challenged the judge’s interpretation of the Secretary’s regulations to require proof of intentional conduct. S. Mot. for Recons. at 2-3, 6.

In a September 8, 1992, order (“September 1992 Order”), the judge denied the motion for reconsideration and repeated his conclusion that “the accidental, unintentional altering (changing,

²⁴ As support for this statement, the judge referenced the citations, in which the Secretary uniformly alleged the operators’ negligence level as “reckless disregard,” and his proposed penalties, which ranged from \$1,000 to \$1,800 for violations of sections 70.209(b) and 71.209(b) and \$10,000 for each violation of section 90.209(b). 14 FMSHRC at 1512. (In his closing arguments in *Keystone*, the Secretary argued for a fine of \$5,000 for each violation of section 70.209 (b). K. Tr. 4321.) The judge also noted that, in his Response to the First Set of Interrogatories, dated January 10, 1992, propounded by Utah Power and Light Co. (“Resp. to Interrog.”), the Secretary responded affirmatively to the question: “State whether it is the Secretary’s contention that the alleged AWC on the cited sample could not occur in any manner other than by the intentional act of an individual.” 14 FMSHRC at 1513, *citing* Resp. to Interrog. No. 17(h) at 12. In addition, the judge relied on Thaxton’s deposition testimony:

Q. Okay. So that you believe that the phenomenon described in those citations resulted from deliberate dust removal; correct?

A. It resulted from a deliberate act, yes.

14 FMSHRC at 1513-14, *quoting* Thaxton Deposition (July 25, 1991) at 310-12.

reducing) the weight of a filter cassette while the cassette is in the custody of the mine operator is not a violation” 14 FMSHRC 1675, 1676 (September 1992) (ALJ). The judge stated:

The purpose of the common issues trial is to receive evidence concerning this allegation [so] that I may determine whether or not the AWCs on the cited filters *can only have resulted* from such deliberate acts. (emphasis added).

Id. at 1677. At the outset of the Common Issues trial, the judge again stated that, to prevail, the Secretary must prove, by a preponderance of the evidence, that an AWC establishes that the mine operator intentionally altered the weight of the filter. Tr. 7.

The Secretary did not appeal, either in a petition for interlocutory review (29 C.F.R. § 2700.76) or in his PDR giving rise to this proceeding, the judge’s ruling that, in order to prove a violation, the Secretary was required to prove deliberate acts. Section 113(d)(2)(A)(iii) provides: “If [petitions for review are] granted, review shall be limited to the questions raised by the petition.” 30 U.S.C. § 823(d)(2)(A)(iii). Consequently, that determination is not in issue in this proceeding.

4. Judge’s Formulation and Application of the Burden of Proof

a. Applicable Legal Principles

The Mine Act imposes on the Secretary the burden of proving each alleged violation by a preponderance of the credible evidence. *Garden Creek Pocahontas Co.*, 11 FMSHRC 2148, 2152 (November 1989). The preponderance standard, in general, means proof that something is more likely so than not so. See 3 Edward J. Devitt et al., *Federal Jury Practice and Instructions* § 72.01 (1987); 2 Kenneth S. Brown et al., *McCormick On Evidence* § 339, at 439 (4th ed. 1992); *Hopkins v. Price Waterhouse*, 737 F. Supp. 1202, 1206 (D.D.C. 1990). The Supreme Court, in *Concrete Pipe*, 124 L. Ed. 2d at 563, relied on by the judge, 16 FMSHRC at 895, explained that “[t]he burden of showing something by a ‘preponderance of the evidence,’ the most common standard in the civil law, simply requires the trier of fact ‘to believe that the existence of a fact is more probable than its nonexistence before [he] may find in favor of the party who has the burden to persuade the [judge] of the fact’s existence.’” See also 2 *McCormick* § 339, at 439 n.12, citing Model Code of Evidence, Rules 1(3) & (5).

b. Burden of Proof in Common Issues Decision

The Common Issues Decision fully supports the judge’s application of the proper burden of proof. We find that, in his rulings prior to and during the trial as well as in his decision, the judge appropriately articulated the appropriate burden. Based on our review of the record, we

conclude that the judge also properly applied the burden. Further, the judge's use of the phrase "only reasonable explanation" addressed the Secretary's argument, not the burden of proof.

In the September 1992 Order, the judge ordered the Common Issues trial to receive evidence on which to base a determination of whether AWCs can only have resulted from deliberate conduct. 14 FMSHRC at 1677. At the commencement of the trial, the judge stated that, in order to prevail, the Secretary must prove by a preponderance of the evidence that dust cassettes with AWCs were caused by mine operators intentionally altering their weight. Tr. 7. The Secretary, in his Posthearing Brief and Proposed Findings of Fact, argued that he had established that the "only reasonable explanation" for the AWCs was intentional tampering. S.P.H. Br. (C.I.) at 1-2, 224.

In his decision, the judge reiterated that the "Secretary has the burden of proof" and that this burden requires that the Secretary prove by a "preponderance of the evidence that (1) the term 'AWC' has a coherent meaning and was consistently applied; (2) the cited AWCs can only have resulted from intentional acts; and (3) the AWCs resulted in weight losses in the cited filters." 15 FMSHRC at 1463-64. The judge addressed both the issue and the Secretary's "only reasonable explanation" language in his decision:

1. The Secretary . . . failed to carry his burden of proving by a preponderance of the evidence that an AWC on a cited filter establish[ed] that the mine operator intentionally altered the weight of the filter.
2. The Secretary . . . failed to carry his burden of proving by a preponderance of the evidence that deliberate conduct on the part of the cited mine operators [was] the only reasonable explanation for the cited AWCs.

Id. at 1521. The two-part holding reveals that, first, the judge addressed the issue being tried in the Common Issues trial, i.e., whether the existence of an AWC established deliberate conduct, and generally concluded that the Secretary had not shown that it was more likely than not that an AWC established that a mine operator intentionally tampered with the filter. Second, the judge addressed the Secretary's argument that he had proven deliberate conduct was the only reasonable explanation for AWCs and found that the Secretary had failed to prove such assertion by a preponderance of the evidence. The Secretary now argues that we should reverse the judge for addressing the issue being tried and for responding to the Secretary's argument as set forth in his posthearing brief.

In arguing that the judge's reference to the "only reasonable explanation" for AWCs was reversible error, the Secretary has confused the burden of proof articulated by the judge with his statement of the central issue to be determined in the Common Issues trial. The issue, as set forth in the September 1992 Order, was whether the presence of an AWC, by itself, indicated that tampering had occurred. 14 FMSHRC at 1677. As the judge explained: "[t]he basic issue to be determined in the common issues trial is whether an AWC on a cited filter establishes *per se* that

the mine operator intentionally altered the weight of the filter.” 15 FMSHRC at 1464 (emphasis added). We believe the judge appropriately exercised his discretion in setting forth that issue for determination in the Common Issues trial. Had *per se* violations been established, mine specific trials could have been avoided, except as to issues other than the violation, e.g., negligence and penalty. The determination sought by the Secretary in this review proceeding (that he had shown by a preponderance of the evidence that it was more likely than not AWCs were the result of deliberate conduct) would not have obviated the need for mine specific trials on the issue of whether each particular operator had intentionally altered the weight of a filter and, thus, violated section 209(b).²⁵ When he determined the issue to be decided in the Common Issues trial, in the August 1992 Order, the judge was endeavoring to avoid such protracted litigation. *See* 14 FMSHRC at 1511.

Contrary to the Secretary’s assertion, S. Br. at 31-33, the judge did not require that the Secretary eliminate all other causes of AWCs. Application of the preponderance standard necessarily required an examination of the evidence as to other possible causes of AWCs. The judge weighed the evidence and concluded that the Secretary simply had not shown that it was more likely than not that an AWC established that a mine operator had engaged in tampering. He stated: “Weighing the conflicting opinions and considering all the evidence of record, especially the systematic studies of the experts, I conclude that the evidence does not establish that the AWCs resulted from deliberate mishandling.” 15 FMSHRC at 1521.²⁶ The judge found that the Secretary failed to carry his burden of proof, which he correctly characterized as the preponderance of the evidence standard, because “too many other potential causes for the dust dislodgment patterns on the cited AWCs” existed. *Id.* at 1521-22. The judge thus determined that the Secretary’s evidence did not have such “convincing force” that what he was required to prove (that AWCs were the result of deliberate tampering) was “more likely true than not true.” *See, e.g., Merzon v. County of Suffolk*, 767 F. Supp. 432, 444-45 (E.D.N.Y. 1991); *St. Paul Fire & Marine Ins. Co. v. United States*, 6 F.3d 763,769 (Fed. Cir. 1993); 16 FMSHRC at 896.

The Secretary also argues that, contrary to the judge’s statement, his position early in the case was that intentional tampering was the most likely, but not necessarily the only, cause of AWCs. S. Reply Br. at 3 n.3; S. Letter to Comm’n dated April 4, 1995, at 2. Although the judge

²⁵ In his Motion for Reconsideration of the August 1992 Order, the Secretary acknowledged as much. He noted that a decision in the Common Issues trial establishing only a presumption that AWCs are more likely than not the result of deliberate conduct would do little to advance the litigation. S. Mot. for Recons. at 12.

²⁶ The Secretary complains that the judge erred by failing to assign probability factors to the possible causes of AWCs. *See* Oral Arg. Tr. 43-44, 48-49. It was not necessary for the judge to determine the level of probability for each possible cause. Rather, the Secretary had responsibility for proving that AWCs resulted from intentional tampering; the judge had only to decide whether the Secretary succeeded in proving that by a preponderance of the evidence. The judge determined the Secretary had not.

referenced the Secretary's earlier allegations of deliberate conduct as evidenced by the allegations set forth in the citations, the size of his penalty proposals, his responses to interrogatories, and Mr. Thaxton's deposition testimony,²⁷ the judge did not rely on those allegations in determining that deliberate conduct must be shown in order to prove a violation. Rather, he relied on the plain language of the regulation. 14 FMSHRC at 1513-16. Thus, irrespective of the Secretary's position on whether deliberate conduct need be proven, the judge concluded, based on the plain language of the regulation, that deliberate conduct was a necessary element in proving a violation of section 209(b). In view of that determination, the judge appropriately exercised his discretion in seeking to determine, by way of the Common Issues trial, whether the existence of an AWC, in itself, established deliberate conduct.

The Secretary did not appeal the judge's determination that deliberate conduct must be proven to establish a violation of section 209(b) and, consequently, that determination is not in issue in this proceeding. 30 U.S.C. § 823(d)(2)(A)(iii). As noted, he did not seek interlocutory review, pursuant to the Commission's Procedural Rules (29 C.F.R. § 2700.76), of the August 1992 Order or the September 1992 Order, which set forth the central issue and the burden of proof for the Common Issues trial.

c. Burden of Proof in *Keystone* Decision

We disagree with the Secretary's assertion that the judge erred as to the burden of proof in the Common Issues trial and that this error "fatally tainted his entire evaluation of the evidence" in *Keystone*. S. Br. at 34. The judge used the phrase, "only reasonable explanation," in the *Keystone* Decision solely in recounting his holdings in the Common Issues Decision. 16 FMSHRC at 861.²⁸ The judge did not require the Secretary to prove that the cited AWCs could only have resulted from deliberate tampering. Rather, he expressly recognized that the Secretary bore the burden of proving by a "preponderance of the evidence that *Keystone* tampered with the

²⁷ We also note the Secretary's allegation of deliberate tampering set forth in the Special Assessment Findings issued to all respondents when the penalties were proposed for the contested violations. See 14 FMSHRC at 1512.

²⁸ In *Keystone*, the judge stated:

On the basis of all the evidence introduced in the common issues trial, I concluded that the Secretary failed to carry his burden of proving by a preponderance of the evidence . . . that deliberate conduct on the part of the cited mine operators is the only reasonable explanation for the cited AWCs.

16 FMSHRC at 861.

cited samples.” *Id.* at 896. Relying on *Concrete Pipe*, the judge specifically discussed the meaning of that term:

The burden of proving by a preponderance of the evidence requires the party bearing the burden to convince the trier of fact “that the existence of a fact is more probable than its nonexistence”

Id. at 895, quoting 124 L. Ed. 2d at 563. As noted, he also correctly explained that, in order to preponderate, the evidence must be sufficient to convince a trier of fact that the proposition asserted is more likely true than not true and that, where the evidence is equally balanced, the plaintiff has failed to meet his burden. 16 FMSHRC at 895-96, citing *Hopkins*, 737 F. Supp. 1202; *Merzon*, 767 F. Supp. 432; *Smith v. United States*, 557 F. Supp. 42 (W.D. Ark. 1982), *aff’d*, 726 F. 2d 428 (8th Cir. 1984). Thus, in *Keystone*, the judge clearly indicated that he understood the preponderance standard and correctly construed that standard to mean nothing more than proof that a proposition is more probable than not. See 16 FMSHRC at 895-96.²⁹

According to the Secretary, the judge’s statement that the “same evidentiary burden” applied in both the *Keystone* and Common Issues trial implies that a standard of proof higher than preponderance was applied in *Keystone*. S. Br. at 34-35. In our opinion, the judge’s language merely indicates that in both cases he applied the preponderance of the evidence standard in determining whether the Secretary had proven that the AWCs resulted from intentional tampering. Except where he repeated his conclusions from the Common Issues Decision, the judge did not incorporate into *Keystone* the language articulating the issue disposed of in the Common Issues Decision, i.e., whether an AWC establishes that an operator intentionally altered the weight of the filter. See 16 FMSHRC at 861; 15 FMSHRC at 1464, 1521. References by the judge in the Common Issues Decision to “only reasonable explanation” addressed the issue before him and the Secretary’s argument, and were not a departure from the preponderance of evidence standard. We conclude that the judge correctly applied the preponderance standard in *Keystone*.

In sum, we conclude that the judge correctly applied the preponderance of the evidence standard in both the Common Issues and *Keystone* Decisions.

C. Scientific Issues

1. Introduction

The judge considered the entire record before him in making factual findings and in reaching conclusions in his Common Issues Decision and in his *Keystone* Decision. 15 FMSHRC

²⁹ We note that the Secretary was in the same position at the commencement of the *Keystone* trial as he would have been had the judge not consolidated the Dust Cases and held the Common Issues trial. He was required to prove, by a preponderance of the evidence, that *Keystone*’s AWCs were caused by deliberate tampering.

at 1456, 1521; 16 FMSHRC at 903. Many of his findings were drawn from the reports and testimony of credited experts. On review the Secretary raises a number of issues concerning the judge's admission and crediting of the scientific evidence presented by the expert witnesses to explain the causes of AWCs. Specifically, the Secretary contends that the judge erred in failing to credit Mr. Thaxton's and Dr. Marple's opinions that the appearances of AWCs were consistent with blowing air into the filters; in crediting Dr. Lee's opinion that AWCs were consistent with accidental impacts; in admitting and relying on Dr. Corn's opinion that accidental events were the likely cause of AWCs; in analyzing evidence of filter manufacturing variables; and in admitting and crediting Dr. Lee's testimony on the effect of water sprays and scrubber systems on the susceptibility of AWC formation. PDR Issues 2, 3, 4, 5, 9, 10, and 11.

In considering the issues raised by the Secretary's petition, we are guided by principles established under Rule 702 of the Federal Rules of Evidence: "If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise." Fed. R. Evid. § 702. "Expert witnesses testify to offer their scientific opinions on technical matters to the trier of fact." *Cyprus Tonopah Mining Corp.*, 15 FMSHRC 367, 372 (March 1993), quoting *Asarco, Inc.*, 14 FMSHRC 941, 949 (June 1992). "Unlike an ordinary witness, . . . an expert is permitted wide latitude to offer opinions, including those that are not based on first-hand knowledge or observation." *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. ___, 113 S. Ct. 2786, 125 L. Ed. 2d 469, 482 (1993).

All the witnesses who testified in technical or scientific areas were accepted by the judge as experts in their respective fields. The qualification of experts and the admission of their testimony are matters within the discretion of the trial judge. *Coleman v. Parkline Corp.*, 844 F.2d 863, 866 (D.C. Cir. 1988); *Polk v. Ford Motor Co.*, 529 F.2d 259, 271 (8th Cir. 1976), cert. denied, 426 U.S. 907 (1976). "In the absence of clear error, as a matter of law, the trial judge's decision [as to a witness's qualification to express an opinion] will not be reversed." *Payton v. Abbott Labs*, 780 F.2d 147, 155 (1st Cir. 1985), quoting *A. Belanger & Sons, Inc. v. United States*, 275 F.2d 372, 376 (1st Cir. 1960). Under an abuse of discretion standard, "a trial court's decision [to admit expert witness testimony] will not be disturbed unless the appellate court has a definite and firm conviction that the lower court made a clear error of judgment or exceeded the bounds of permissible choice in the circumstances." *Post Office v. Portec, Inc.*, 913 F.2d 802, 807 (10th Cir. 1990), quoting *United States v. Ortiz*, 804 F.2d 1161, 1164 n.2 (10th Cir. 1986).

"[T]he resolution of conflicting testimony, including that of expert witnesses, is for the trier of fact." *Jackson v. Hartford Accident and Indemnity Co.*, 422 F.2d 1272, 1275 (8th Cir. 1970) (citation omitted). If the opinions of expert witnesses in a proceeding conflict, the judge must determine which opinion to credit, based on such factors as the credentials of the expert and the scientific bases for the expert's opinion. *Cyprus Tonopah*, 15 FMSHRC at 372 (citation omitted). "[A] trial judge must ensure that . . . scientific testimony or evidence admitted is not only relevant, but reliable." *Daubert*, 125 L. Ed. 2d at 480. Further, the bias of an expert witness

is a proper matter for the judge to consider in determining the weight to be given the expert's opinion. See *United States v. Cutler*, 58 F.3d 825, 836 (2d Cir. 1995). "[A]n ALJ has substantial latitude in choosing between conflicting expert testimony." *L & J Energy Co. v. Secretary of Labor*, 57 F.3d 1086, 1088 (D.C. Cir. 1995); accord *Cyprus Tonopah*, 15 FMSHRC at 373. The judge's decision to credit the opinion of one expert over the opinion of another expert is reviewable under an abuse of discretion standard. *Chapman v. United States*, 169 F.2d 641, 645 (9th Cir. 1948), cert. denied, 335 U.S. 860 (1948) (citations omitted); see also *Autoskill, Inc. v. National Educ. Support Sys.*, 994 F.2d 1476, 1493 (10th Cir. 1993); *An-Son Corp. v. Holland-America Ins. Co.*, 767 F.2d 700, 702-03 (10th Cir. 1985) (when "evidence consisted primarily of a 'battle of experts,'" resolution was the appropriate province of the trial court and appellate court was "loath to disturb" a finding based on such a resolution). Accord *Cyprus Tonopah*, 15 FMSHRC at 373.

In reviewing a judge's factual determinations drawn from credited testimony, including expert testimony, the Commission is bound by the terms of the Mine Act to apply the substantial evidence test. See 30 U.S.C. § 823(d)(2)(A)(ii)(I). The term "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 (November 1989), quoting *Consolidated Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938). "[If an] ALJ provide[s] an explanation . . . for disregarding [other evidence], the expert testimony alone could have constituted substantial evidence in support of the conclusion." *L & J Energy*, 57 F.3d at 1088.

2. Judge's Rejection of Mr. Thaxton's Opinion on AWC Causation³⁰

The judge concluded that Urling's AWCs did not result from normal sampling; something happened in the mine or thereafter to cause the abnormal appearances. 16 FMSHRC at 897. He found Thaxton's conclusions that the cause was intentional tampering "to a considerable extent subjective." He noted that Thaxton's testing was unscientific and that his distinction between cited and no-call filters was "tenuous at best." The judge was "not able to conclude on the basis of Thaxton's reports and testimony that the abnormal appearances on the Urling filters were caused by intentional tampering." *Id.*

In his PDR, the Secretary asserts that the judge erred in failing to credit the findings of Mr. Thaxton and Dr. Marple³¹ that "the appearances of cited AWC filters at Urling were more consistent with appearances generated . . . by deliberately blowing reverse air . . . than by appearances generated by simulated accidental events." PDR at 12. In support, the Secretary argues that the judge's rejection of Thaxton's opinion as to the cause of AWCs was based, in

³⁰ This section addresses Issue No. 2 in the PDR.

³¹ The Secretary has offered no support in his briefs for his assertion that the judge erred in failing to credit Dr. Marple's opinion. Consequently, we do not address it. *ASARCO Mining Co.*, 15 FMSHRC 1303, 1304 n.3 (July 1993).

critical part, on his no-call findings. *Id.*; S. Br. at 55. He takes issue with the judge's determination that Thaxton's reasons for citing no-call filters were "tenuous at best" and not "an appropriate exercise of agency discretion." S. Br. at 55-56. The Secretary contends that the no-call designation was a reasonable way of handling a few questionable filters and that a decision not to cite those filters was a reasonable exercise of MSHA's discretion. *Id.* at 59. Keystone counters that the judge rejected Thaxton's testimony in large part because of his failure to provide a scientific basis for his conclusions and because of his bias. K. Br. at 64-69. According to Keystone, the judge's rejection of Thaxton's opinion was justified by the record. *Id.* at 64, 69, 112-18.

The judge did not err in declining to conclude, based on Thaxton's opinion, that intentional tampering caused AWCs. He found Thaxton's testing to be subjective and non-systematic, and not conducted with any scientific rigor. 16 FMSHRC at 897; 15 FMSHRC at 1473. The judge noted, in comparing Thaxton's background to the "impressive credentials" of Lee and Marple, that Thaxton "is not a scientist . . ." 16 FMSHRC at 898. Thaxton did not use written criteria to distinguish normal filters from those he considered abnormal, Tr. 133, nor did he prepare a "comprehensive written protocol based on scientific testing relating specific appearances to different kinds of tampering." 16 FMSHRC at 897. None of his tests were based on a written protocol. Tr. 123. No written report of his 1983 or 1989 tests was introduced into evidence.³² He did not recall the number of filter cassettes he had tested in 1983, but estimated that "between 25 to 50 filters . . . were played with to see how they would behave." Tr. 110. Nor did Thaxton subject the 1983 test filters to impact forces in an attempt to determine the potential for dust dislodgment patterns as a result of accidental events. Tr. 119, 123. Thaxton kept no records as to the particulars of his examinations, such as whether he reviewed the filters from the reverse side or with a magnifying glass. Tr. 619-21. He failed to note the characteristics that initially caused him to cite a particular filter. Tr. 611, 628; *see also* Tr. 619-21. We conclude that the judge did not abuse his discretion in determining, on the basis of this evidence, that Thaxton's opinion on the causes of AWCs was not sufficiently grounded in reliable scientific evidence to support a conclusion of deliberate tampering. "[A] trial judge must ensure that . . . scientific testimony or evidence admitted is not only relevant, but reliable." *Daubert*, 125 L. Ed. 2d at 480; *Cyprus Tonopah*, 15 FMSHRC at 372 (in evaluating an expert's opinion, a judge may properly focus on the scientific basis for that opinion).

³² Thaxton kept inadequate records of his tests. He maintained no data on the 1983 testing other than one page containing eight to ten of the actual filters with the weight recorded before and after application of reverse air flow. Tr. 110, 118-19. At trial, Thaxton was questioned regarding photographs of some test filters he created in 1991, but he was unable to identify the specific mechanism that caused the filter appearances in the photographs because he kept no records of that testing. Tr. 109-10, 120-22.

The Secretary asserts that the judge erred in discounting Thaxton's testimony based on a lack of distinction between cited and no-call filters.³³ Denying that the similarity between cited and no-call filters was the result of inconsistency on MSHA's part, the Secretary claims prosecutorial discretion and points to evidence of other factors that sometimes determined Thaxton's decision on whether filters should be cited. S. Br. at 56-60. The Secretary states that Thaxton considered whether the same operator had submitted other filters with AWCs and whether those filters were submitted at or near the time of other AWC submissions. K. Tr. 1174-76. Thus, if a questionable filter was the only unusual filter submitted by an operator, Thaxton was not likely to cite it. K. Tr. 1172-73. On the other hand, a questionable filter was cited if similar filters had been submitted by that operator within a short time period. K. Tr. 1174-76. If a questionable filter was submitted by an operator who had submitted a number of filters with AWCs, Thaxton considered that filter to demonstrate tampering. K. Tr. 917-18. Thus, it appears that, in evaluating marginal patterns of dust dislodgment, Thaxton's reliance on an operator's other filters exaggerated differences in citation rates between operators and differences in citation rates over time. Thaxton's procedure provides further evidence that the judge was well within his discretion in finding Thaxton's determinations to be non-systematic and lacking in scientific rigor and in discounting Thaxton's opinion as to the causes of AWCs.

The judge, in determining that Thaxton's testimony was not sufficiently objective to support a determination to cite an operator with deliberate conduct, also referenced Thaxton's own testimony that: "[t]he no-call filters do not exhibit th[e] degree of dust removal that I would feel comfortable . . . saying that there is a citation to be issued." Tr. 139; 15 FMSHRC at 1466; 16 FMSHRC at 897. This testimony reveals both the imprecision and subjectivity in Thaxton's determinations and provides support for the judge's decision to give diminished weight to his opinion testimony as to the causes of AWCs. As noted by the judge, decisions to charge operators with deliberate tampering must be based on "more objective standards." 16 FMSHRC at 897.

The judge also gave diminished weight to Thaxton's determination as to causation of AWCs because "he was not a disinterested witness." *Id.* at 872; 15 FMSHRC at 1473. He had been employed by MSHA for 16 years as an industrial hygienist. 15 FMSHRC at 1473; Gov't Ex. 344. Thaxton determined the issuance of each citation. 16 FMSHRC at 859. We conclude that, in evaluating Thaxton's testimony, the judge properly considered the fact that Thaxton was not disinterested. The bias of an expert witness is a proper matter for a court to consider in weighing the expert's opinion. *See Cutler*, 58 F.3d at 836.

³³ Dr. Lee testified that many of the Urling filters were indistinguishable from no-calls. 16 FMSHRC at 876; K. Ex. 2001, at 3. The judge himself observed filters at issue in both the Common Issues and *Keystone* trials. 15 FMSHRC at 1468; 16 FMSHRC at 869.

We conclude that the judge did not abuse his discretion in determining that Thaxton's opinion was not sufficiently grounded in reliable scientific evidence nor sufficiently objective and disinterested to support a determination of deliberate tampering.

3. Judge's Crediting of Dr. Lee's Opinion on AWC Causation³⁴

In his Common Issues Decision, the judge found that AWCs could have resulted from intentional acts. 15 FMSHRC at 1513. Crediting the opinion testimony of Dr. Lee and other operator experts, he also found that AWCs could have resulted from accidental and incidental impacts to the cassette and hose. *Id.* at 1513-14. He found that many of the filters subjected to impact tests exhibited dust dislodgment patterns indistinguishable from cited filters. *Id.* at 1514.

In his *Keystone* Decision, the judge concluded that 73 of the 75 cited filters resulted in whole or in part from reverse air flow, but that the forces involved were "generally less than those created by deliberate blowing through the filter cassette." 16 FMSHRC at 900. He found that none of the Urling filters exhibited cones and that this indicated only slight impact forces had created the dislodgments. *Id.* at 899-900. The judge further concluded that the "dust dislodgment patterns may have been influenced by impacts to the cassettes or sampling assemblies as well as reverse air through the cassettes," as described in Dr. Lee's mixed-mode theory. *Id.* at 900.

In his PDR, the Secretary contends that the judge erred in crediting and relying on Lee's opinion that AWCs were consistent with accidental impacts rather than intentional blowing through filter cassettes. PDR at 12-13. In support, he argues that the relative degrees of force involved in intentional blowing and accidental impacts had not been measured, that Lee's opinion on his "coning theory" in the *Keystone* trial was inconsistent with his opinion in the Common Issues trial, that his classification system was unreliable, and that the judge erred in crediting Lee's opinion on causation of AWCs while rejecting his opinion on MSHA handling. *Id.* at 13-14. The Secretary further argues that Lee's mixed-mode theory, advanced in *Keystone*, was unreliable and that the judge erred in failing to provide adequate reason for crediting Lee's opinions. S. Br. at 64-75.

In support of his position that the judge erred in crediting Lee's opinion that AWCs were consistent with accidentally caused impacts, the Secretary argues that Dr. Marple's testimony provided clear evidence that the cited AWCs were consistent with intentional tampering and inconsistent with accidental forces. S. Br. at 60. He points to Dr. Marple's testimony that his experiments simulating accidental events produced few AWCs. *Id.* at 60 n.22.

Keystone counters that the record fully supports the judge's conclusions that the dislodgment patterns on Urling filters may have been caused by impacts to the hoses, causing

³⁴ This section addresses Issue No. 3 in the PDR.

reverse air pulses, as well as impacts to the cyclones, causing mechanical pulses, as set forth in Lee's mixed-mode theory, and that these forces, which were weaker than those caused by deliberate blowing, resulted in the absence of cones on Urling filters and in dislodgment patterns that were often larger and more diffuse than those caused by deliberate blowing. K. Br. at 74-79, 82-86.

Dr. Lee has a doctorate in solid state physics and is president and chief scientist of the R. J. Lee Group, which had performed testing and research studies for numerous government agencies and for private industry. 15 FMSHRC at 1470; Tr. 5923-48, 5935; R. Ex. 1001A. He was accepted as an expert witness in physics, materials characterization and analysis, and environmental monitoring. 15 FMSHRC at 1488. His opinion that AWCs could be caused by accidental means was based on his Common Issues experiments, in which he generated more than 3,100 dust samples in the R. J. Lee Group dust tunnel, using coal from various seams and particles of similar size, shape, and aerodynamic diameter as found in coal mines. *Id.* at 1489. His samples were collected under controlled temperature and humidity. *Id.* He also obtained more than 650 samples from mines across the country. *Id.* He then conducted a series of tests involving impacts to the cyclones and hoses of dust sampling units, which produced filters with AWCs. *Id.*; R. Ex. 1001, at 11-13, R. Ex. 1002; *see* Tr. 6315-51. In addition to his reports and testimony, Lee showed a videotape recording of three incidents of a pump being dropped on a hose, two of which resulted in AWCs on the cassette filter. R. Ex. 1006. In the *Keystone* proceeding, Lee refined his experiments and performed 55 tests in which carrying boxes were dropped on sampling unit hoses; 40 AWC appearances, similar to those of the Urling filters, resulted. K. Ex. 2002.

Lee's opinion as to accidental causation of AWCs was also corroborated by other experts, Dr. McFarland and Dr. Grayson, who testified that they had produced AWCs through impacts. (McFarland) Tr. 4759-60, 4915, 5199-5200; (Grayson) R. Ex. 1014, at 16; Tr. 5551. McFarland conducted a courtroom demonstration in which a 31-pound tool box was twice dropped on the hose of a sampling assembly and twice resulted in AWCs. 15 FMSHRC at 1503; Tr. 4877-80, 4887-88, 4891, 5187-90.

Moreover, the record shows that Dr. Marple, the Secretary's expert, came to realize that impacts to hoses could result in AWCs. His first report, Gov't Ex. 280, failed to address the effects of hose impacts or the effect of filter-to-foil distance on susceptibility to AWCs and he performed further studies only after he learned of these phenomena from the operators' experts. Tr. 2277, 2282. After performing hose impact tests, Marple retracted the conclusion set forth in his first report that AWCs "could only occur by an intentional act." Gov't Ex. 280, at 7. In his supplemental report, Marple concluded that "extreme mishandling" could cause AWCs.³⁵ Gov't Ex. 282, at 14. *Compare* Gov't Ex. 280 *with* Gov't Ex. 282. Marple was able to replicate AWCs by forcefully stepping on hoses. Tr. 2354-56; Gov't Ex. 282, at 6-7; *see also* Gov't Ex. 311. The

³⁵ The changing nature of Marple's opinions diminishes their weight. *See, e.g., Kenbrooke Fabrics, Inc. v. Holland Fabrics, Inc.*, 602 F. Supp. 151, 154 (S.D. N.Y. 1984).

Secretary, in his Reply Brief to the Commission, concedes: “[A]s evidence was developed during the course of discovery, the Secretary’s understanding of AWC formation also developed.” S. Reply Br. at 3 n.3.

Similarly, Mr. Thaxton reviewed Lee’s experimental filters and determined that 105 had AWCs.³⁶ Tr. 439, 445. Of those 105 filters, 40 had been formed by cassette drop, cyclone drop, hose impact, hose tread, or hose wrap -- each a type of forceful contact. See Gov’t Ex. 267, Attach. 2; Tr. 7062-63. See also Tr. 577-78. Thaxton’s testimony that 40 impact-caused AWCs were citable also corroborates the evidence that accidental events could have caused the AWCs.

Thus, we conclude that the judge did not err in choosing to credit Lee’s opinion over Marple’s to the contrary.

The Secretary also contends that Lee’s testimony on coning in *Keystone* was inconsistent with his testimony in the Common Issues trial. S. Br. at 61.³⁷ In the Common Issues proceeding, Lee stated that coning is not necessarily associated with AWCs, R. Ex. 1003, at 2; Tr. 6418-37, and that deliberate reverse air flow is not necessary for the creation of cones. R. Ex. 1003, at 5. Lee noted that cones were present on the MSHA inspectors’ sample filters. *Id.* In *Keystone*, he stated that “air blowing through filters using reverse air has a tendency to generate cones,” K. Tr. 3879; K. Ex. 2001, at 7, and that, as a general proposition, deliberate reverse air flow involves more force than accidental events. K. Tr. 3988. Lee concluded that the slight dust dislodgment on many of the Urling filters indicated causation by a much smaller force than that generated by deliberate reverse air. K. Ex. 2001, at 5; see also 16 FMSHRC at 899. We find no discrepancy between Lee’s testimony in the Common Issues trial and his testimony in *Keystone*. In fact, Lee’s report in *Keystone* expressly harmonizes his conclusions with respect to the Urling filters with his general observations in the Common Issues trial: “Results by all experts indicate that physically blowing through the outlet creates a high percentage of cones although some dimples and cones are observed under other conditions.” K. Ex. 2001, at 7. Moreover, Thaxton corroborated Lee’s view by acknowledging in both trials that cones indicated *very forceful* application of reverse air to the filters. Tr. 209, 1258; K. Tr. 908, 1072. Thaxton testified that R&P filters had only slight cones or dimples as compared to those of some other mines, in which 50 to 60% of the cited filters had cones.³⁸ K. Tr. 1072-73.

³⁶ Thaxton did not review Lee’s 3,877 filters under scientific, double-blind conditions and, therefore, knew that he was reviewing filters of the operators’ expert. Gov’t Ex. 267, at 4-6; Oral Arg. Tr. 46.

³⁷ The Secretary’s Brief refers to Lee’s Coning Report as R. Ex. “1002”; that report was admitted as R. Ex. “1003.” Tr. 5996.

³⁸ Although, in 1992, Thaxton had classified seven Urling filters as having cones, a year later he determined that none of the filters had cones and only one or two had dimples. K. Gov’t Ex. 505. Thaxton believed that cones relaxed with time. His belief was based not on systematic

Consequently, we reject the Secretary's contention that Lee's testimony on coning was inconsistent.

The Secretary further contends that the judge erred in accepting Lee's opinion as to accidental AWC causation while rejecting his opinion that MSHA's handling of sample filters was one cause of AWCs. PDR at 13-14; S. Br. at 74, citing *Ona Corp. v. NLRB*, 729 F.2d 713, 719 (11th Cir. 1984) ("ALJ's credibility finding will be disregarded if . . . inherently unreasonable or self-contradictory"). We conclude that it was not unreasonable or contradictory for the judge to accept Lee's opinion as to AWC formation in general, which was based on scientific experiments, while rejecting other, less compelling, aspects of his opinion. See *DeSarno v. Department of Commerce*, 761 F.2d 657, 661 (Fed. Cir. 1985); *Hathaway v. Merit Systems Protection Bd.*, 981 F.2d 1237, 1241 (Fed. Cir. 1992). In our view, the judge closely examined Lee's opinion, including its underlying basis, and properly chose to credit those aspects that he found persuasive. The judge similarly credited certain aspects of Thaxton's opinion, concerning the classification of filters, 15 FMSHRC at 1469, while rejecting other aspects, concerning causation. *Id.* at 1473-74, 1513, 1518, 1521.

The Secretary also asserts that the judge erred in accepting Lee's opinion as to causation because his AWC classification system was unreliable. PDR at 13; S. Br. at 61-64. The judge recognized that Lee's classification system was not applied without error. 15 FMSHRC at 1489. Lee's inconsistency, however, in categorizing filter appearances does not substantially detract from his conclusion, drawn from his experiments, that accidental impacts to sampling equipment can cause AWCs.

The Secretary also challenges, on the basis that the theory lacks scientific support, S. Br. at 69, the judge's crediting of Lee's mixed-mode theory, in which he attributed the appearance of the Urling filters, which differed from those blown through deliberately, to a combination of events involving both impacts to the hose (causing reverse air pulses) and impacts to the cyclone (causing mechanical pulses). K. Ex. 2001, at 18; K. Tr. 3849-50, 3864-65, 3867-68.³⁹ That theory is supported by Lee's experiments, involving mixed-mode events, by Marple's testimony and videotape, Gov't. Ex. 286, and by Marple and Rubow's dust dislodgment studies. As noted,

experimentation but on his knowledge that filters are composed of a plastic material and plastics flatten out with time, as well as on his observation of one coned filter. K. Tr. 888-891. Lee, in his observations of numerous experimental filters, found no evidence that cones relaxed or flattened over time. K. Tr. 3883.

³⁹ We note that Marple testified to the contrary, that mixed-mode events failed to cause filter appearances similar to those on the cited filters. K. Tr. 1472-81. Although Marple's tests of 40 mixed-mode events, performed by subjecting dust sampling units to rough transportation in trucks and tractors, resulted in only one AWC, K. Gov't Ex. 509; K. Tr. 1509, Marple's tests were criticized by Lee because he failed to adequately compress the hoses under the carrying box. K. Tr. 3848-49; K. Gov't Ex. 509, at 3-4.

Lee performed 55 tests of box drops that resulted in 46 filters with AWCs similar to those on the Urling filters. K. Tr. 3846; K. Ex. 2002, at 3. (Of the remaining 15 filters, Lee opined that eleven had no dust dislodgment pattern and four had dislodgment patterns that were dissimilar to the Urling filters. K. Ex. 2002, at 3.) For his tests, Lee employed the actual carrying boxes used by R&P and dropped them or firmly placed them down on hoses. K. Tr. 3833-36, 3843; K. Ex. 2002. Lee's theory was also based in part on his Common Issues experimental filters and on Marple's videotape of AWC formation, Gov't Ex. 286, shown at the Common Issues trial. K. Tr. 3817, 3871, 3915-16.

Dr. Lee concluded that most of the cited filters showed comparatively little dust dislodgment and had slightly larger dislodgment areas than AWCs created by deliberate blowing. 16 FMSHRC at 899. The Secretary criticizes Lee's mixed-mode theory in part by arguing that the Urling filters do not have large and diffuse patterns of dislodgment. S. Br. at 71. The Secretary recognizes, however, that the diameters of the dislodgment area of the Urling filters were somewhat larger than those of experimental filters subjected to deliberate blowing. S. Br. at 68. Marple acknowledged that the dislodgment areas of the Urling filters were, in fact, larger than those of his experimental filters created by deliberate blowing. K. Tr. 1468; K. Gov't Ex. 508, at 13, 16. Marple as well as Lee found that the Urling filters had dislodgments with diameters larger than 6 mm. K. Tr. 1468, 3849; K. Ex. 2002A; K. Gov't Ex. 508. Marple stated his belief that the larger diameters resulted from deterioration as the filters aged, but he presented no scientific research to support that view. K. Tr. 1468-69. Lee concluded that the larger diameters showed that the filters were subjected to mechanical pulses due to impacts because, in his experiments, such impacts caused larger dislodgment areas. K. Tr. 3849-50, 3856-58, 3863-65, 3911-18; K. Ex. 2002A. Marple acknowledged and his videotape showed that impacts to cassettes result in dislodgments with a "wider, more diffuse ring," whereas reverse air flow caused sharply defined 6 mm circular dislodgments. Tr. 2111-16, *referencing* Gov't Ex. 280, at 35; *see also* Gov't Ex. 280, at 36. Lee relied on this videotape to explain his theory that the Urling filters, which had dislodgment both inside and outside the 6 mm central area, exhibited characteristics of both reverse air and mechanical pulses. K. Tr. 3817, 3870-71. Lee's theory is further supported by Marple and Rubow's systematic dust dislodgment studies, in which 210 filter cassettes subjected to three to six-foot drops resulted in a dislodgment pattern different from that resulting from reverse air, "it was larger in diameter and less sharply defined." 15 FMSHRC at 1476-77.

Consequently, we reject the Secretary's assertion that the mixed-mode theory lacks scientific support.

The Secretary also complains that Lee's mixed-mode theory was not developed until after the Common Issues trial. S. Br. at 71-72. We do not find it inappropriate that Lee conducted further research and produced a second report to address more specifically the particular characteristics of the filters cited in the *Keystone* case.

We also reject the Secretary's assertion that the judge failed to discuss the comparable strengths and weaknesses of the opinions of Lee, Marple, and Thaxton or explain his reasons for crediting Lee. In the Common Issues Decision, as well as in the *Keystone* Decision, the judge described the scientific testimony in detail and carefully explained the basis for crediting Lee's testimony. *See* 15 FMSHRC at 1473-84, 1488-96, 1513-18, 1521-22; 16 FMSHRC at 872-878, 898-900.

"[A]n [administrative law judge] has substantial latitude in choosing between conflicting expert testimony." *L&J Energy*, 57 F.3d at 1088. Lee's opinions had a scientific basis and the judge was within his discretion in crediting it. We emphasize that, in evaluating Lee's testimony, the judge himself observed Urling filters. 16 FMSHRC at 869. We conclude that the judge did not abuse his discretion in crediting Lee's testimony that AWCs were consistent with accidental impacts over Marple's testimony that they were not.

4. Judge's Admission of and Reliance on Dr. Corn's Opinions⁴⁰

The judge credited the opinion of Dr. Corn, along with that of Dr. Lee, Dr. Grayson, and Dr. McFarland, in determining that a filter cassette with a shorter filter-to-foil distance is more prone to dust dislodgment than one with a greater distance. 15 FMSHRC at 1515. The judge also credited Dr. Corn's opinion that size and shape of the dust particles could be a factor in dust dislodgment patterns. *Id.* at 1517.

In his PDR, the Secretary asserts that the judge erred in admitting and relying on Corn's testimony to corroborate Lee's opinion that accidental impacts cause AWCs.⁴¹ PDR at 14. The Secretary argues that the judge erred in admitting portions of Corn's opinion at trial⁴² and that the testimony lacked a scientific foundation. S. Br. at 75-78. The Secretary relies on Rule 26(b)(4)(A), (e)(1), & (e)(2) of the Federal Rules of Civil Procedure, which provides that discovery may be obtained of facts known and opinions held by experts and that a party has a duty

⁴⁰ This section addresses Issues No. 4 and 5 in the PDR.

⁴¹ The Secretary, in his brief, asserts generally that "[t]he judge used Dr. Corn's testimony to corroborate Dr. Lee's opinion that accidental causes account for AWC patterns," but he provides no supporting citation. S. Br. at 75. In our opinion, the judge did not credit Corn in areas other than the effect of filter-to-foil distance and dust particle size and shape. *See* 15 FMSHRC at 1512-13, 1515, 1517.

⁴² Apparently, the Secretary's objection to the admission of Corn's testimony does not extend to his testimony on filter-to-foil distances. At trial, in support of his objection, the Secretary acknowledged that Corn's report, disclosed during discovery, contained the statement that "he agreed with Dr. Lee on filter-to-foil distance . . ." Tr. 7551-52.

to supplement its disclosure of information provided by experts.⁴³ Intervenor counter that the judge's admission of and reliance on Corn's testimony was within his discretion, was reasonable given Corn's background and credentials, and was justified because Corn's opinions were supported by the evidence. I. Br. at 72-77.

Corn's report, disclosed during discovery, states: "[W]e reviewed data generated by the R.J. Lee Group as a result of their experiments. We agree with their conclusions regarding filter cassette susceptibility to [AWC] formation . . . (e.g., 'filters-to-foil' distance) . . ." R. Ex. 1037, at 7. At the Common Issues trial, the Secretary objected to the questioning of Corn about Lee's work, on the grounds that portions of his opinion had not been disclosed during discovery. Tr. 7551-52. The judge overruled the objection because, at the pretrial conference, he had ruled that, at trial, "expert witnesses . . . should be able to respond to criticism by other experts" and he considered Corn's testimony to be a response to Dr. Marple's criticism of Dr. Lee. Tr. 7573; Tr. 23-24 (Prehr'g Conf. Nov. 17, 1992). We conclude that, under Rule 26(a)(2)(B),⁴⁴ the judge properly admitted Corn's expert report because he had "otherwise . . . directed" in a pretrial ruling that experts would be allowed at trial to respond to other experts' opinions.

Further, a judge's determination of a duty to supplement discovery under Rule 26(e) and the exclusion of trial testimony are committed to his sound discretion. *Phil Crowley Steel Corp. v. Macomber, Inc.*, 601 F.2d 342, 344 (8th Cir. 1979).⁴⁵ A judge's decision to allow such

⁴³ Commission Procedural Rule 1(b), 29 C.F.R. § 2700.1(b), incorporates the Federal Rules of Civil Procedure, so far as practicable, on any procedural question not regulated by the Mine Act, the Commission's Procedural Rules, or the Administrative Procedure Act, 5 U.S.C. § 500 et seq.

⁴⁴ Rule 26(a)(2)(B) provides:

Except as otherwise stipulated or directed by the court, . . .
[t]he [expert] report shall contain a complete statement of
all opinions to be expressed and the basis and reasons
therefor; the data or other information considered by the
witness in forming the opinions

Fed. R. Civ. P. 26(a)(2)(B) (emphasis added).

⁴⁵ In support of the proposition that Corn's testimony should have been excluded, the Secretary relies on *Freund v. Fleetwood Enterprises, Inc.*, 956 F.2d 354, 356-59 (1st Cir. 1992); *Jenkins v. Whittaker Corp.*, 785 F.2d 720, 728 (9th Cir. 1986), *cert. denied*, 479 U.S. 918 (1986); and *Jefferson v. Davis*, 131 F.R.D. 522, 528 (N.D. Ill. 1990). S. Br. at 77. These cases emphasize the trial judge's discretion in discovery-related matters. For example, *Freund*, which involved the exclusion of expert testimony at trial, states that the judge's discretion is not to be disturbed absent manifest error. 956 F.2d at 356-59.

evidence will usually not be disturbed unless it results in undue prejudice or fundamental unfairness. *Id.* The Secretary was not prejudiced by Corn's testimony. Corn had been deposed by the Secretary concerning his work with Lee. Tr. 7552. Further, Corn's report, disclosed during discovery, stated that he had reviewed the experimental data of the R. J. Lee Group and that he agreed with their conclusions regarding filter susceptibility to AWC formation. We find no abuse of the judge's discretion in his admission of Corn's testimony.

The Secretary specifically disputes the scientific foundation for Corn's opinions that: (1) a filter cassette with a smaller filter-to-foil distance was more prone to dust dislodgment than a filter with a larger filter-to-foil distance; and (2) the size and shape of dust particles could be a factor in dislodgment patterns. S. Br. at 75. We conclude that these two opinions were within Corn's area of expertise.⁴⁶ Corn has a doctorate in industrial hygiene and sanitary engineering and is professor in, and division director of, the Department of Environmental Health Services, School of Hygiene and Public Health at Johns Hopkins University. 15 FMSHRC at 1496. He was accepted as an expert witness in the fields of aerosol and particle physics, including the adhesion and dislodgment of particles, coal mine dust sampling technology, and federal occupational safety and health regulation and enforcement systems. Tr. 7490; *see also* 15 FMSHRC at 1496-97. Corn studied the adhesion forces of particles and concluded, based on his review of the scientific literature and information received from Lee, that Lee's dust particles were representative of dust in mines. Tr. 7553-55, 7570-71, 8025-26. Thus, Corn's testimony had a proper scientific foundation. In addition, Corn was directly involved with the measurements and tests on which he based his opinion. Corn visited Lee's research facility on a number of occasions and reviewed Lee's equipment, protocols, and procedures. Tr. 7560, 7581-83, 7585, 8009, 8085-86. Corn himself measured filter-to-foil distances of cassettes and also examined 1,248 of the cited filters.⁴⁷ Tr. 7562, 7591; R. Ex. 1037, at 2. Corn requested that Lee examine the size of the airborne dust particles used in his dust tunnel experiments. Tr. 7570-71. We conclude that the Secretary has not demonstrated that the judge abused his discretion in crediting Dr. Corn's testimony.

⁴⁶ The judge did not accept Corn as an expert in, nor rely on his conclusions as to, image analysis. 15 FMSHRC at 1509-13. There is no inherent contradiction in a judge's accepting an expert's testimony in areas in which he is well qualified and rejecting his testimony in areas in which he is less qualified. *Cf. Wilkinson v. Rosenthal & Co.*, 712 F. Supp. 474, 478 (E.D. Pa. 1989) (expert qualified to testify in areas in which he had appropriate education and experience but was not qualified to testify in areas in which he lacked education or experience); *Bass v. Spitz*, 522 F. Supp. 1343, 1352-53 (E.D. Mich. 1981) (economist could not testify in areas beyond his knowledge and expertise).

⁴⁷ Corn's opinion that a shorter filter-to-foil distance makes a filter more prone to dust dislodgment was one of several expert opinions to that effect. *See* 15 FMSHRC at 1515. Thus, even if Corn's opinion had not been properly credited by the judge, other record evidence supports the judge's findings on filter-to-foil distance.

5. Filter-to-foil Distance and Other Manufacturing Variables⁴⁸

The judge determined that the distance between the filter and the aluminum foil cone of dust sampling cassettes was variable and that cassettes with shorter filter-to-foil distances were more susceptible to AWC dust dislodgment patterns than those with greater distances. 15 FMSHRC at 1515, 1521. In the Common Issues Decision, the judge concluded that the cited filters had “shorter filter-to-foil distances than those manufactured subsequently.” *Id.* at 1515-16. In the *Keystone* Decision, he concluded that the cited filters “*more probably than not* had shorter filter-to-foil distances than those manufactured subsequently” and that this “could have been a factor in the decline of cited AWCs [at Urling] in the Spring of 1990.” 16 FMSHRC at 885-86 (emphasis added).

The Secretary asserts that the judge erred in several respects in his analysis of filter-to-foil distances and other manufacturing variables of dust sampling cassettes in reaching his conclusion that accidental and incidental impacts could have caused Urling’s AWCs. PDR at 16-17; S. Br. at 78-88. First, the Secretary argues that the judge’s findings that filter-to-foil distance affects the likelihood of AWCs and that the cited filters had shorter filter-to-foil distances are not supported by substantial evidence. PDR at 16; S. Br. at 78-81. Second, he argues that, in *Keystone*, the evidence does not show that filter-to-foil distances or other variables associated with the manufacturing process changed over time. PDR at 16-17; S. Br. at 82-83. He also contends that the statistical evidence in *Keystone* does not support a finding that manufacturing variables caused Urling’s AWCs or a sudden decline in their rate of occurrence. PDR at 17; S. Br. at 87. In response, *Keystone* and Intervenors contend that there was ample evidence that manufacturing variables influenced the frequency of AWCs. I. Br. at 26; K. Br. at 80-81. *Keystone* further asserts that there is record support for the judge’s crediting of Lee’s testimony that its cited filters had shorter filter-to-foil distances and were more susceptible to accidental or incidental AWC formation than filters manufactured later. K. Br. at 79. After reviewing these contentions and the record evidence, we affirm the judge.

a. Filter-to-foil Distance and Susceptibility to AWCs

In the Common Issues Decision, the judge found that shorter filter-to-foil distance makes a filter more prone to AWC formation. 15 FMSHRC at 1515. He credited the testimony of the

⁴⁸ This section addresses Issue No. 9 in the PDR. The Secretary’s briefs fail to provide support for the argument set forth in section (c) of that issue, dealing with changes in floppiness of filters over time, and we do not address it. The judge found in his Common Issues Decision that floppiness or tautness of the filters varied and that a floppy filter was more prone to AWC formation than a taut one. 15 FMSHRC at 1515. In his *Keystone* Decision, the judge, referencing Dr. Marple’s testimony that floppiness was “associated with *smaller* filter to foil distances,” stated that the “evidence related to the question whether the more recently manufactured filters were floppier than the older ones is not sufficiently clear,” thus precluding his making a finding on this issue. 16 FMSHRC at 885 n.3.

operators' experts, Drs. Lee, Grayson, McFarland and Corn, that filter-to-foil distance was an important characteristic of filter cassettes that varied with date of manufacture and that a shorter filter-to-foil distance made a filter more susceptible to AWC formation. (Lee) R. Ex. 1001, at ii; Tr. 6225, 6238-41; (Grayson) Tr. 5551, 5648; (McFarland) Tr. 5183-85, 5196, 5321; (Corn) Tr. 7567, 7697-98.

As noted, Dr. Lee was accepted as an expert witness in physics, materials characterization and analysis, and environmental monitoring. 15 FMSHRC at 1488. Using a stereo optical microscope, Dr. Lee measured the filter-to-foil distance of the 3,100 samples generated in his dust tunnel as well as 650 samples taken from coal mines across the country. *Id.* at 1489; R. Ex. 1001, at 1, 11. Based on his tests of subjecting cassettes to drops and hoses to impacts, Dr. Lee concluded that filter-to-foil distance was the strongest factor influencing susceptibility to AWC formation. 15 FMSHRC at 1491; Tr. 6238-39; R. Ex. 1001, at 11, 15. In tests of dropping cassettes a distance of 4 feet, 33% of 30 filters with filter-to-foil distance of 1 mm or less had potentially citable AWCs; 27% of 129 filters with a distance of 1 to 2 mm had potentially citable AWCs; none of 43 filters with a distance of 2 to 3 mm had potentially citable AWCs; 4% of 52 filters with a distance of 3 to 4 mm and none of 5 filters with a distance of 4 to 5 mm had potentially citable AWCs. 15 FMSHRC at 1491; R. Ex. 1001, at 11; App. B-4.3, B-4.7, B-8. In tests of hose impacts using a one pound weight, 66% of 30 filters with a distance of 0 to 1 mm, 12% of 8 filters with a distance of 1 to 2 mm, none of 3 filters with a distance of 2 to 3 mm, 12% of 30 filters with a distance of 3 to 4 mm, and none of 9 filters with a distance of 4 to 5 mm had potentially citable AWCs. 15 FMSHRC at 1491; R. Ex. 1001, at B-5.2-5.3, B-5.6. Dr. Lee also produced a video, R. Ex. 1006, which illustrated that, under the same conditions, it is easier to produce an AWC with a short filter-to-foil distance than with a larger distance. Tr. 6241-53. Dr. Lee explained that, as a matter of basic physics, it is easier to dislodge dust on a filter that is closer to the foil. Tr. 6241; *See* 15 FMSHRC at 1515.

Dr. Grayson is dean of the College of Mineral and Energy Resources at West Virginia University and has a doctorate in mining engineering. 15 FMSHRC at 1497; Tr. 5518-20; R. Ex. 1014C. He was accepted as an expert witness in aerosol mechanics, fluid mechanics, thermodynamics, aerosol filtration, and engineering statistics. 15 FMSHRC at 1499. In his research on filter-to-foil distance, Dr. Grayson measured the distances of 178 samples from various mines by inserting a millimeter scale into the cassette inlet. *Id.* at 1498. Of those filters, 94 were drop tested and the remaining filters were examined for existing AWCs. *Id.*; Tr. 5644-45; R. Ex. 1014, at 14-16. Dr. Grayson concluded that there was a strong relationship between filter-to-foil distance and creation of AWCs. 15 FMSHRC at 1499; R. Ex. 1014, at 18.

Dr. McFarland is a professor of mechanical engineering and was accepted as an expert in the fields of aerosol mechanics, fluid mechanics, thermodynamics, aerosol filtration, and engineering statistics. 15 FMSHRC at 1499; Tr. 4480, 4548. Dr. McFarland measured the filter-

to-foil distances of several hundred cassettes. 15 FMSHRC at 1502; Tr. 4730-38, 4752. Based on his tests of applying varying degrees of pressure to cassettes with varying distances between the filter and the foil, Dr. McFarland concluded that it was more difficult to form AWCs on filters with larger filter-to-foil distances. 15 FMSHRC at 1502, 1505, 1515-16; Tr. 5004-05 ; R. Ex. 1018, at 37.

As noted, Dr. Corn was qualified as an expert in aerosol and particle physics, including the adhesion and dislodgment of particles and coal mine dust sampling technology. Tr. 7490; *See also* 15 FMSHRC at 1496-97. Corn measured filter-to-foil distances and examined 1,248 of the cited filters in reaching his opinion that a cassette with a shorter filter-to-foil distance is more prone to dust dislodgment than one with a greater distance. Tr. 7562, 7591; R. Ex. 1037, at 2.

Thus, the operators' experts presented a scientific basis, not merely a "common sense" view as alleged by the Secretary, S. Br. at 82, to support the effect of filter-to-foil distance on susceptibility to dust dislodgment.

The testimony of the Secretary's experts, Drs. Marple and Rubow, was inconsistent on the influence of filter-to-foil distance and filter floppiness. The judge recognized that, although Marple and Rubow concluded that manufacturing variables such as filter-to-foil distance and floppiness were "not probably contributing factors" to dust dislodgment, Marple had also testified that filter floppiness and the distance between the filter and foil influenced dust dislodgment patterns. 15 FMSHRC at 1482-83; *compare* Tr. 2826, 9347-48; Gov't Ex. 282, at 13 *and* Tr. 2692-93, 2803-04, 2820-21, 2841-42. The judge reasonably discounted the inconsistent testimony of the Secretary's experts on the effect of filter-to-foil distance and credited the scientifically supported, consistent, and corroborated testimony of the operators' experts. Thus, his finding that filter-to-foil distance affects the likelihood of AWCs is supported by substantial evidence and we affirm it. In *Keystone*, the judge reiterated his holding in the Common Issues Decision, that shorter filter-to-foil distance increases susceptibility to AWC formation.⁴⁹ 16 FMSHRC at 885.

The Secretary also takes issue with the judge's finding that the cited filters were from a population of filters having short filter-to-foil distances. 15 FMSHRC at 1516; S. Br. at 78-79. Lee testified, without contradiction, that 80% of the cited filters were from the series with

⁴⁹ The Secretary also requests the Commission to accept Marple's uncontradicted testimony identifying threshold velocity of dust particles, i.e., the air velocity that is required to dislodge dust particles from the surface of filters, as the single most important factor in dust dislodgment. S. Br. at 82. The judge found that both filter-to-foil distance *and* threshold velocity were important factors in dislodgment. *See* 16 FMSHRC at 885, 899. There is no inconsistency in the judge's determination that both factors, one having to do with the physical characteristics of dust and the other with the physical characteristics of the filter cassette (filter-to-foil distance), were causative.

numbers 200,000 and 300,000.⁵⁰ *See* Tr. 6271. *See also* 15 FMSHRC at 1515-16. Based on certain graphs, the judge also found that, after the filters were loaded with dust, the filter-to-foil distance for 80% of the series 200,000 and 95% of the series 300,000 filters was 2 mm or less. 15 FMSHRC at 1516; R. Exs. 1068-69.⁵¹

The Secretary asserts that the judge erred in relying on graphs that plotted filter-to-foil distances for experimental filters in each series because the graphs were based on a small number of filters with widely varying measurements. R. Exs. 1068-69; S. Br. at 79-81. He argues that the judge made an “inherently weak assumption” that the very few experimental filters manufactured before February 1990 were representative of all such filters. S. Br. at 80. The Secretary also contends that the graphs “at best showed only a slight tendency over time toward an increase in the relative percentages of filters with filter-to-foil distances of more than 2 mm” *Id.* He further argues that 50% of the filters manufactured between October 25, 1990, and February 15, 1992, seven months to almost two years after institution of the void code, had short filter-to-foil distances, and that the rarity of AWCs in that filter group refutes an association between filter-to-foil distance and AWCs. *Id.* at 80-81.

The graphs in question were prepared by the Secretary and set forth the filter-to-foil distances after dust loading for experimental filters manufactured between April 20, 1988, through the time of the Common Issues trial; they were based on measurements by both the Secretary’s and the operators’ experts. 15 FMSHRC at 1516. In addition to showing that 80% of the series 200,000 and 95% of the series 300,000 filters had short filter-to-foil distances (2 mm or less) the graphs showed that a lower percentage of filters in the later manufactured series had short filter-to-foil distances: 45% in the 400,000 series; 50% in the 500,000 series; approximately 50% in the 600,000 series; and a little more than 40% in the 700,000 series. Gov’t Exs. 260A, 262A; R. Exs. 1070, 1071. Thus, the graphs support the judge’s finding that the cited filters, more than 80% of which were from the 200,000 and 300,000 series, came from a population of filters with comparatively shorter filter-to-foil distances. 15 FMSHRC at 1515-16. Dr. Rubow, Marple’s colleague, acknowledged that the graphs showed a marked increase in the percentage of filters

⁵⁰ The series 200,000 filters were manufactured between April 20, 1988, and April 3, 1989, R. Ex. 1069; series 300,000 between April 3, 1989, and February 13, 1990, R. Ex. 1068; series 400,000 between February 13, 1990, and October 25, 1990, R. Ex. 1070; series 500,000 between October 25, 1990, and August 5, 1991, Gov’t Ex. 259A; series 600,000 between August 5, 1991, and February 15, 1992, Gov’t Ex. 261A; series 700,000 between February 15, 1992, and May 28, 1992, R. Ex. 1071; and series 800,000 from May 28, 1992, through the date of the Common Issues trial, Gov’t Ex. 265A.

⁵¹ The graphs provide filter-to-foil distance measurements under two conditions, before dust was loaded onto the filter, and after dust had been loaded. *See* Tr. 2880-81. The judge analyzed both types of measurements and noted that the pre-loading values show a slight tendency of filter-to-foil distance to increase in the later manufactured series. 15 FMSHRC at 1516. *See* Gov’t Exs. 253A, 255A, 257A, 259A, 261A, 263A.

with filter-to-foil distances greater than 2 mm in filters manufactured after February 1990. Tr. 9244-47.

Contrary to the thrust of the Secretary's argument, the judge was mindful of the limitations of the graphs. 15 FMSHRC at 1516. He recognized that the number of filters measured from each series varied considerably and that the measurements in each series were made by different experts who used different methods. *Id.* The judge noted, however, that, because the cited cassettes had been disassembled without being measured, the graphs provided the best available evidence of the filter-to-foil distance. *Id.*

Based on the evidence of record, we conclude that the judge's finding in the Common Issues Decision, that the cited filters came from a population of cassettes with shorter filter-to-foil distance, more susceptible to AWC formation than those manufactured subsequently, is supported by substantial evidence. *Id.* at 1515-16.

b. Filter-to-foil Distance and Decline of AWCs at Urling

In *Keystone*, the judge found that the cited filters probably had shorter filter-to-foil distances than those manufactured subsequently. 16 FMSHRC at 886. He also found that the decline in the number of cited AWCs in the spring of 1990 could be explained, in part, by this manufacturing variable. *Id.*

The Secretary asserts that there was no evidence that filter-to-foil distance or other filter characteristics, varying with date of manufacture, changed after March 26, 1990, or provide an explanation for the decline in AWC rates after that date. S. Br. at 83; S. Reply Br. at 23.

All the cited Urling filters were series 200,000 and 300,000 filters. 16 FMSHRC at 885; see K. Ex. 2133, R. Exs. 1068-69. As discussed *supra*, the judge, in the Common Issues Decision, found that filters from these two series tended to have shorter filter-to-foil distances. 15 FMSHRC at 1515-16. The judge noted that, according to Dr. Lee, the Urling filters exhibited physical characteristics indicative of shorter filter-to-foil distances. 16 FMSHRC at 885. Lee testified that the absence of 9 mm segmented ring standoff patterns on the Urling filters correlated with shorter filter-to-foil distance.⁵² K. Tr. 3874-79; R. Ex. 1001, at 15; K. Ex. 2001, at 5-6. Dr. Marple concluded that the absence of standoff patterns did not indicate shorter filter-to-foil distance because his experiments for the Common Issues trial indicated that, even when filters were resting on the standoff, only 50% had standoff patterns. 16 FMSHRC at 885; Tr. 2528-29. Nonetheless, Marple agreed that the presence of the standoff pattern was associated with greater filter-to-foil distance; he found that standoff ring patterns appeared only on filters with filter-to-foil distances greater than 3.7 mm. Tr. 2527-29, 9335-38, 9619-23; Gov't Ex. 327. Lee also testified, without contradiction, that the presence of crimping or pinching on 20% of the Urling

⁵² The 9 mm ring standoff pattern is caused by the filter backing pad coming in contact with the 9 mm plastic (standoff) supports on the cassette. Tr. 2526-27; Gov't Ex. 328.

filters indicated shorter filter-to-foil distance. K. Tr. 3877-78; K. Ex. 2001, at 6. Lee noted that the incidence of crimping on recently purchased filters was much lower, about 6%. *Id.*; 16 FMSHRC at 885.

We conclude that substantial evidence, including the testimony of Dr. Lee, which was properly credited, as well as the testimony of Dr. Marple, supports the judge's conclusion in *Keystone*, 16 FMSHRC at 885-86, that the cited filters more probably than not had shorter filter-to-foil distances than filters manufactured subsequently.

In arguing that the judge erred in finding that manufacturing variables provided an explanation for a decline in AWC rates after March 26, 1990, S. Br. at 79, the Secretary mischaracterizes the *Keystone* Decision. The judge merely considered filter-to-foil distance as one of several factors that could account for a decline in AWCs at Urling in the spring of 1990. 16 FMSHRC at 882-86. The failure of manufacturing variables to explain completely a decline in AWCs in the spring of 1990 does not substantiate the Secretary's argument that the judge erred in finding that such variables "could have been a factor" contributing to the decline. At oral argument, the Secretary asserted that "the judge owed it to us to analyze those data and tell us what he thought was the most likely cause of these appearances." Oral Arg. Tr. 48. The judge was not required to find a complete explanation for the downward trend in AWCs. The Secretary, to preponderate, was required to show that the trend was the result of deliberate tampering.

c. Statistical Analysis of Manufacturing Variables

In the Common Issues Decision, the judge, relying on Dr. Roth's statistical analysis, concluded that the evidence "does not establish . . . but may point to" manufacturing variables as affecting the decline in AWC formation. 15 FMSHRC at 1520.⁵³ In his *Keystone* Decision, the judge noted that the statistical experts arrived at different conclusions on the effect of cassette manufacturing date on AWC rate. 16 FMSHRC at 900. He found that manufacturing variability may have played some role in AWC formation. *Id.* at 886, 900-01.

The Secretary challenges the judge's analysis of manufacturing variables in *Keystone*, asserting that "the statistical evidence does not support a finding that manufacturing variables caused AWCs or the sudden . . . change in AWC occurrences." PDR at 17. The Secretary argues, based on Miller's analysis, that, rather than the cassette manufacturing date, the most significant date affecting the occurrence of AWCs was the sampling date and whether it was before or after March 26, 1990, the date he alleges *Keystone* learned of the void code. S. Br. at 84-87. The Secretary further states that the judge failed to resolve conflicting testimony of Miller and Roth on the relationship between manufacturing dates and AWC formation. *Id.* at 87-88. In

⁵³ The judge referred to Roth's testimony and report, which showed that cassettes manufactured before 1990 had an AWC rate that was 10 times higher than cassettes manufactured after 1990. *See* Tr. 4128-30; R. Ex. 1041, at 3. *See also* Oral Arg. Tr. 168.

response, Keystone argues that Miller's comparison of cassettes manufactured on certain dates and used by R&P mines before and after March 26, 1990, was faulty because he failed to use data for the same mines in the two periods. K. Br. at 109-10. Keystone further asserts that a valid comparison, based on cassette manufacturing date, between R&P mines including Urling and mines of other operators could not be made because of handling and sampling differences. *Id.* at 109.

Dr. Roth's analysis showed that the rate of AWCs at Urling was more than nine times higher for cassettes manufactured on four consecutive key dates than on other manufacturing dates, 46.9% as compared to 4.8%.⁵⁴ K. Ex. 2004, at 6; 16 FMSHRC at 881, 900-01. Dr. Miller's analysis showed that, for non-R&P mines sampled before March 26, 1990, the citation rate for cassettes manufactured on the key dates was 2.5%, lower than that for cassettes manufactured on other dates, 6.2%. K. Gov't Ex. 527, at 2-3, Table 1b; S. Br. at 85; 16 FMSHRC at 879. Miller also found, however, that, for all samples from R&P mines including Urling that were taken before March 26, 1990, the citation rate for cassettes manufactured on the key dates was 49.9%, higher than that for cassettes manufactured on other dates, 38.2%. 16 FMSHRC at 879; K. Tr. 760-61; K. Gov't Ex. 527, at Table 1a.

Miller's analysis that manufacturing date does not account for changes in AWC rates was countered by Roth's analysis that the rate of AWCs tended to be higher for cassettes manufactured earlier. K. Ex. 2004, at 5-6; K. Tr. 3563, 3565. The judge explained that he saw merit in both Miller's and Roth's analyses, i.e., that manufacturing *in general* did not explain citation rates, but that cassettes manufactured on four key dates accounted for 60% of the AWCs at Urling, suggesting manufacturing anomalies. 16 FMSHRC at 900-01. There is record evidence that the dust cassettes were plagued by manufacturing problems. In July 1990, MSA, the manufacturer of the dust cassette assemblies, recognized that filter airflow resistance exceeding the allowed level and incompatibility of the filter and backing pad had to be corrected. R. Ex. 1124, at 2-4; Tr. 9211-13. On August 23, 1990, MSA recalled from its district offices and destroyed all cassettes manufactured before August 1, 1990. R. Exs. 1134, 1144; Tr. 9221-22. This recall included all filters in the 200,000 and 300,000 series and part of the 400,000 series. *See* note 50, *supra*. Shortly thereafter, MSA began screening all cassettes to ensure proper airflow resistance. Tr. 9207-08, 9221-22; R. Ex. 1180. As the judge noted, 15 FMSHRC at 1481, Dr. Rubow, the Secretary's expert, conceded that a filter with a higher airflow resistance would be more likely to flex (and thereby be more susceptible to AWC formation) when exposed to a constant reverse airflow. Tr. 9147-48. Dr. Lee similarly testified that reverse air pulses of low magnitude would be more likely to form AWCs on filters with higher airflow resistance. Tr. 6214-16. Dr. Corn also testified as to his concern that changes associated with achieving proper airflow resistance influenced the formation of AWCs. Tr. 8050-51.

⁵⁴ The four key dates were: May 26, May 31, June 1, and June 2, 1989. Roth found that, for all R&P mines including Urling, the rate of AWCs for cassettes manufactured on these dates was 49.6% as compared to 5.8% for other dates of manufacture. K. Ex. 2004, at 6; 16 FMSHRC at 880.

We affirm the judge's refusal to infer tampering from Miller's statistical analysis. Miller used March 26, 1990, as the critical date in analyzing data on AWCs submitted by Keystone. The judge determined that March 26, 1990, is not materially significant at Urling because R&P personnel knew of the AWC investigation some six weeks prior to that date and Urling's AWC citation data show a significant overall decline beginning in September of 1989.⁵⁵ 16 FMSHRC at 900. Accordingly, the judge could reasonably diminish the weight accorded to Miller's statistical analysis. Conversely, Roth's analysis of the four key dates of cassette manufacture was not tied to March 26, 1990, was supported by record evidence of cassette manufacturing problems, and could reasonably be considered more probative by the judge. *See Id.* at 900-01.

Given the conflicting analyses of the experts, the judge was within his discretion in refusing to draw an inference of tampering from these statistics. We emphasize that the judge did not hold that manufacturing variables, in themselves, explained the decline in AWCs; rather, he considered them as a factor, among others, that could account for the decline in AWC rates at Urling. *Id.* at 885-86.

6. Judge's Admission and Crediting of Dr. Lee's Opinion on Scrubbers⁵⁶

In *Keystone*, the judge found that, when the air was sampled in the vicinity of a continuous miner with a scrubber, the dust deposits on filters were damper, had a higher threshold velocity, and were more difficult to dislodge. 16 FMSHRC at 883. He noted that the experts expressed conflicting opinions on the effect of scrubbers and their accompanying water sprays on dust deposits.⁵⁷ The judge concluded that the introduction of scrubber systems on the continuous miners at Urling in 1989 and 1990 could have been a factor in the decline of AWCs during that period. *Id.* at 882-83.

The Secretary raises two issues related to the judge's findings and conclusion. First, citing Rule 26 of the Federal Rules of Civil Procedure, the Secretary contends that the judge erred in admitting Dr. Lee's testimony on the effect of water sprays and scrubber systems because that opinion had not been disclosed during discovery. PDR at 17; S. Br. at 89-90. Further, the Secretary asserts that Lee lacked the scientific background to offer such an opinion. PDR at 17; S. Br. at 90-96. Keystone responds that the judge properly admitted Lee's opinion because the Secretary had notice of, and opportunity to rebut, the testimony. K. Br. at 87-88. Additionally, Keystone argues that Lee was qualified to give an opinion on the effects of environmental conditions and mining equipment. *Id.* at 86-87. After review of the record, we find neither of the Secretary's contentions well taken.

⁵⁵ We have affirmed that determination as discussed *infra* in section D. 2. a.

⁵⁶ This section addresses Issues No. 10 and 11 in the PDR.

⁵⁷ The record shows that scrubbers were gradually introduced beginning in 1989 and early 1990. *See* K. Tr. 85-86, 2594, 2796-98.

a. Admission of Dr. Lee's Opinion

Under Rule 46 of the Federal Rules of Civil Procedure, a party must make known to the court the action that he seeks and the grounds therefor. Fed. R. Civ. P. 46; *In Re Bildisco*, 682 F.2d 72, 82 (3d Cir. 1982), *aff'd on other grounds*, 465 U.S. 513 (1984); *accord Browzin v. Catholic Univ. of Am.*, 527 F.2d 843, 850 & n.15 (D.C. Cir. 1975). See also section 113(d)(2)(A)(iii) of the Mine Act, 30 U.S.C. § 823(d)(2)(A)(iii). Here, the Secretary failed to do that. Several times during the *Keystone* trial, the Secretary objected specifically to Lee's opinions on other issues on the grounds that they had not been disclosed during discovery. K. Tr. 3781-83, 3865-66, 3883. When *Keystone* questioned Lee as to whether an increase in the water pressure of scrubbers, with an accompanying greater water spray, would affect the susceptibility to dislodgment of dust samples, however, the Secretary raised no objection. K. Tr. 3891. The judge then asked whether the increase in water pressure would increase or decrease the susceptibility, and Lee answered that the pressure increase would decrease the susceptibility to dislodgment. K. Tr. 3892. The Secretary again failed to object to Dr. Lee's testimony on the effect of scrubbers on susceptibility of filters to dust dislodgment. Indeed, the Secretary subsequently questioned Dr. Lee as to how he arrived at his opinion on the effect of scrubbers. K. Tr. 4043-45.

The portion of the transcript that the Secretary cites in support of his contention, K. Tr. 3894, pertains to another matter. He has apparently confused questions to Dr. Lee related to whether "overall water levels and moisture levels in the Urling One Mine [that] increased between 1990 and 1993" affected the susceptibility of filters to dust dislodgment, to which he raised objections, with earlier questions regarding the use of scrubbers between 1989 and 1990 (*see* Stips. 85, 93, and 94),⁵⁸ which coincided with the general decline in AWCs, to which he raised no objection.⁵⁹

In any event, even if the Secretary had timely objected to questions regarding the effect of scrubbers, the testimony would have been properly admitted. As noted with respect to the Secretary's Rule 26 objection to the testimony of Dr. Corn, the judge stated at the Common Issues pretrial conference that, at trial, "the expert witnesses should be able to testify in support of their own conclusions, their own opinions and should be able to respond to criticism by other experts and should be able to criticize and attack the reports of experts on the other side." Tr. 23-24 (Prehr's Conf. Nov. 17, 1992). Dr. Lee's testimony falls squarely within the parameters of the judge's ruling.

⁵⁸ In their stipulations, the parties included facts relating to the use of scrubbers on continuous miners at Urling and specifically identified those miners that had scrubbers. Stip. 94.

⁵⁹ The judge was unable to draw conclusions from the evidence before him concerning the increased moisture levels in the mine in 1993 as compared to 1989 and 1990 and the decline in AWCs in late 1989 and 1990. 16 FMSHRC at 883.

Further, the primary report submitted by Dr. Lee in the *Keystone* proceeding set forth his opinion that lower relative humidity, in existence in the winter months, increases the susceptibility of filters to dust dislodgment. K. Ex. 2001, at 14. In response to Dr. Lee's report, the Secretary's expert, Dr. Marple, stated:

[T]he important parameter to consider is the moisture content of the particles and not the relative humidity of the air outside of the mine or even in the mining environment. When the coal is mined, there are water sprays from the mining machine on the coal face providing a very wet local atmosphere in the generated dust, independent of the months identified in Dr. Lee's report.

K. Gov't Ex. 509, at 10. At the *Keystone* trial, Dr. Marple testified further on the effect of scrubbers: "I think the wetness of the particles would have a major effect which would be related back to water sprays." K. Tr. 1551. Dr. Lee's subsequent testimony regarding scrubbers was made in response to Marple's report and testimony. See also K. Tr. 4042-44. Thus, under the judge's pretrial ruling, which was within his discretion, Lee's testimony was admissible, even if not disclosed during discovery.⁶⁰ See Fed. R. Civ. P. 26(a)(2)(B); *Phil Crowley*, 601 F.2d at 344.

b. Crediting of Dr. Lee's Opinion

The Secretary challenges the expertise of Dr. Lee to give an opinion on the effect of scrubber systems on dust deposits, arguing that the issue was outside the area in which he was qualified, and that Dr. Marple's credentials were more directly related to this issue. S. Br. at 90-91. In response, *Keystone* notes that Dr. Lee was the only expert to research systematically the effect of humidity and water on AWC formation and that his testimony on the effect of scrubbers was consistent with his basic opinion that moisture content of coal was a factor that affected susceptibility to AWCs. K. Br. at 86-87. Intervenors argue that Dr. Lee's opinion was consistent with testimony of all experts at the Common Issues trial and that Dr. Marple's testimony also indicated that a variety of factors, including humidity, could affect the threshold velocity needed to dislodge dust particles from filters. I. Br. at 50-52.

The Secretary failed to lodge an objection to Lee's testimony on this subject during the trial. As with the Secretary's contention that the judge erred in admitting Lee's testimony because it was not disclosed during discovery, the Secretary was obliged to lodge a timely objection to the testimony in order that the judge could consider the issue of Lee's qualifications to give an opinion on this issue. See Fed. R. Civ. P. 46; *Browzin*, 527 F.2d at 850 & n.15; 30 U.S.C. § 823(d)(2)(A)(iii).

⁶⁰ The cases on which the Secretary relies, S. Br. at 90, to support the proposition that his testimony should have been excluded are inapposite. See *Weiss v. Chrysler Motors Corp.*, 515 F.2d 449, 457-58 (2d Cir. 1975); *Freund*, 956 F.2d at 356-59.

In any event, Lee was fully qualified to offer an opinion on this subject. As noted, he has a doctorate in solid state physics and was accepted as an expert witness in physics, materials characterization and analysis, and environmental monitoring. 15 FMSHRC at 1488; *see* R. Ex. 1001A. The R. J. Lee Group, which Dr. Lee headed, was experienced in analyzing air samples and particulate matter and had worked for numerous government agencies, as well as for private industry. *See* Tr. 5923-48. A portion of his expert report dealt with the impact of humidity on the susceptibility of filters to dislodgment. *See* K. Ex. 2001, at 14. Lee's opinions were based on his water spray experiments performed for the Common Issues trial. K. Tr. 3893. The Secretary offers no persuasive argument to support his contention that Dr. Lee's testimony was outside his area of expertise. *See* S. Br. at 90-91. Rather, he argues that Dr. Marple, who testified that water sprays do not reduce the susceptibility of dust deposits to dislodgment, K. Tr. 4145-49, was *more* qualified to testify in this area. S. Br. at 90-91. However, "the resolution of conflicting testimony, including that of expert witnesses, is for the trier of fact." *Jackson*, 422 F.2d at 1275 (citations omitted); *see also L & J Energy*, 57 F.3d at 1088.

Here, the judge weighed partially conflicting testimony and determined that the use of scrubbers and water sprays would reduce the susceptibility of filters to dust dislodgment. 16 FMSHRC at 883. He noted inconsistencies in Marple's testimony regarding the effect of water sprays. *Id.* at 875. Marple testified that water sprays do *not* reduce the susceptibility of dust deposits to dislodgment, K. Tr. 4145-50, but he also testified that wetness of coal dust caused by scrubbers *affects* susceptibility to dust dislodgment, K. Tr. at 1551-52. We further note that Marple testified in the Common Issues trial, in response to a question from the judge, that wet particles would be more resistant to dislodgment. Tr. 3103-05; *see also* Tr. 9498-9500. The judge was well within his discretion in crediting Dr. Lee's opinion over Dr. Marple's.

Finally, the Secretary argues that the installation of scrubbers systems does not explain a decline in AWCs after March 26, 1990. S. Br. at 93. As noted in section C. 5. b., *supra*, the Secretary mischaracterizes the *Keystone* Decision. The judge merely considered the installation of scrubbers as one of several factors that could account for the decline in AWCs at Urling in late 1989 and early 1990. 16 FMSHRC at 883.

D. Statistical Issues⁶¹

In the Common Issues trial, the Secretary attempted to establish, through the use of statistics, that AWCs were not randomly distributed across the industry, that a sharp drop in the rate of AWC citations across the industry occurred after institution of an AWC void code on March 19, 1990, and that these factors, along with other evidence, established intentional

⁶¹ This section addresses Issues No. 7 and 8 in the PDR, which are set forth in terms of the *Keystone* Decision. The Secretary "concurrently objected to" related findings and conclusions in the Common Issues Decision. PDR at 10 n.1; S. Br. at 40 n.15.

tampering by the cited operators.⁶² In support of his proposition that statistics can be used to prove a causal relationship, the Secretary cited cases in which statistics were used to prove discrimination in employment. The judge found that the susceptibility of filters to dust dislodgment depended on a number of manufacturing and other variables and that the statistical analysis of the Secretary's expert failed to take those variables into account. 15 FMSHRC at 1521. He noted that the operators' statistical evidence showed that AWCs were non-random after the void code was instituted as well as before and that the decline in AWC citation rate commenced in September 1989. *Id.* at 1507-08; *see also id.* at 1485-86. The judge concluded that, because of the existence of many other potential causes, the statistical evidence did not establish that AWCs resulted from intentional tampering. *Id.* at 1519-22.

In *Keystone*, the Secretary attempted to establish, through the use of statistics, that a sharp drop in Urling's AWC citation rate occurred after March 26, 1990, the date the Secretary alleges ESD personnel became aware of the void code,⁶³ and that this drop established that Urling had intentionally tampered. As noted in section C.5.c., *supra*, the judge refused to infer tampering from the statistical evidence. He held that March 26, 1990, was not materially significant at Urling and that the statistical evidence did not establish that a reduction in the mine's citation rate resulted from MSHA's investigation of its dust sampling program. 16 FMSHRC at 900-01.

1. Common Issues Decision

In his PDR, the Secretary argues that the judge erred in failing to understand the significance of the statistical evidence in supporting the conclusion that intentional tampering was the likely cause of AWCs because such conduct was highly consistent with a dramatic decline in AWCs in the spring of 1990 and other explanations are inconsistent with that decline. PDR at 15-16.

The Secretary states that his use of statistics in the Common Issues trial was designed to enable the judge to draw inferences regarding the conduct of the cited operators and to corroborate the Secretary's other evidence of intentional tampering. S. Br. at 36-37 n.12; S. Reply Br. at 15. He asserts that the judge erred when he stated that "[s]tatistical evidence

⁶² The Secretary states: "The institution of the AWC void code was the first official notification to the mining industry that samples with AWC characteristics were considered by MSHA to be abnormal and that some kind of government investigation into the AWC matter was under way." S. Br. at 8-9.

⁶³ In the Common Issues case, the Secretary used March 19, 1990, the date on which the void code notices were issued by MSHA, asserting that this was the date on which operators were advised of the voiding of filters with AWCs. 15 FMSHRC at 1460, 1486; S. Br. at 8-9. In *Keystone*, he used March 26, 1990. 16 FMSHRC at 878.

alone . . . cannot prove causal relationships.”⁶⁴ S. Br. at 36-37 n.12, quoting 15 FMSHRC at 1484 n.4. He contends that the judge had “a legally erroneous understanding of what statistical evidence can prove.” S. Br. at 37 n.12. He submits that very significant weight should have been given to the statistical evidence and cites discrimination cases, in which courts have determined that statistics alone can constitute *prima facie* proof of employment or other discrimination.⁶⁵ *Id.* at 36-37 n.12. He also argues that Intervenors’ attempts to explain AWCs do not comport with the Secretary’s evidence that AWCs did not occur randomly over time and across the industry. S. Reply Br. at 15-16.

Intervenors respond that the inference, if any, to be drawn from, and the weight to be given to, the statistical evidence was within the judge’s sound discretion. I. Br. at 56. Intervenors and Keystone argue that the statistical evidence deserved little weight because the underlying data were merely allegations of tampering, not objective evidence of such conduct. *Id.* at 61-62, referencing 15 FMSHRC at 1465-66; K. Br. at 94. They distinguish the discrimination cases as analyzing fundamentally different data, i.e., objective facts, and as providing evidence of probable relationships between variables, not proof of causal relationships. I. Br. at 57 & n.49. They note that MSHA first developed written protocols for AWC identification in the spring of 1990 and that the criteria for identifying AWCs also became more stringent then. *Id.* at 63. Intervenors argue that the continuing non-random distribution of AWCs across mines after the void code undermines the Secretary’s position. *Id.* at 69. Intervenors further argue that AWC rates had dramatically declined for five months before institution of the void code and that the data reveal a continuous decline throughout the period in question. *Id.* at 66. They point out that *any* date selected during the period will result in a rate that is statistically significantly higher before that date than after, and that the rate of decline was steeper before the void code date than after. *Id.* at 67-68. Intervenors further note the Secretary’s failure to explain the comparable rate of decline in AWCs in the samples taken by MSHA inspectors before and after institution of the void code. *Id.* at 68.

The statistical evidence on which the Secretary relies was based on cited filters submitted to MSHA between August 8, 1989, and March 31, 1992. 15 FMSHRC at 1484. The data base

⁶⁴ Dr. Miller conceded at the Common Issues trial, however, that none of his studies allowed him to conclude that the presence of an AWC on a filter “establishes that the weight of the coal dust on that filter was intentionally altered” Tr. 3740; *see also* Tr. 3806-07.

⁶⁵ The Secretary relies on such discrimination cases as *Hazelwood School District v. United States*, 433 U.S. 299, 307-08 (1977); *International Brotherhood of Teamsters v. United States*, 431 U.S. 324, 339-40 (1977); *Barnett v. W.T. Grant Co.*, 518 F.2d 543, 549 (4th Cir. 1975); *Wetzel v. Liberty Mutual Ins. Co.*, 508 F.2d 239, 259 (3d Cir. 1975), *cert. denied*, 421 U.S. 1011 (1975); *United States v. Jacksonville Terminal Co.*, 451 F.2d 418, 442 (5th Cir. 1971), *cert. denied*, 406 U.S. 906 (1972); *Alabama v. United States*, 304 F.2d 583, 586 (5th Cir. 1962), *aff’d per curiam*, 371 U.S. 37 (1962). S. Br. at 35-36.

(the "Analysis Data Set") analyzed by Dr. Miller, the Secretary's statistical expert, contains a record of all respirable dust compliance filters submitted to MSHA during that period except those from operators who pled guilty to charges related to submitting fraudulent samples. Tr. 3201-07; Gov't Ex. 227, at 4-6. Miller concluded, on the basis of a chi-square analysis, that the data were "inconsistent with the hypotheses that the phenomenon leading to cited cassettes is random and that the likelihood of cited cassette generation is the same at each mine." Gov't Ex. 227, at 18. He also found "a trend to decreasing cited rate over time" and "a marked decrease in the cited rate on or about 3/19/90." *Id.* at 21.

Preliminarily, we agree that the data here are not objective. The Secretary asserts that the AWC citations constitute objective data because the judge found Thaxton's AWC determinations to be consistent for purposes of the Common Issues case. The judge found in his Common Issues Decision that Thaxton's *classifications* were consistent and that his determinations as to whether filters should be cited under his tamper codes "were sufficiently consistent so that I must consider whether an AWC establishes a violation." 15 FMSHRC at 1466-67, 1469. The judge declined, however, to credit Thaxton's opinion on AWC *causation*, finding that his opinion was not supported by systematic scientific experiments. 16 FMSHRC at 897; *see* 15 FMSHRC at 1513, 1521. We have affirmed that conclusion. Thus, the data analyzed by Dr. Miller were merely *allegations* of tampering.⁶⁶

We find no error in the judge's determination that the statistical evidence on non-randomness was not persuasive of intentional tampering. Differences in AWC rates across mines do not necessarily prove tampering.

Further, the drop in citation rate for the industry as a whole on March 19, 1990, derives from data as to two different groups of mines. The data were analyzed based on certain "before" and "after" periods. The "before" period included mines that submitted filters with AWCs before March 20, 1990, and the "after" period included mines that submitted filters with AWCs after March 19, 1990. *See* Gov't Ex. 241, at 1. The "before" data included filters from 300 mines that did not submit filters during the "after" period. 15 FMSHRC at 1507; Tr. 4036-38. The "after" period contained data on 762 mines that were not considered in the "before" period. *Id.* Of the

⁶⁶ The judge was correct in determining that this case is not analogous to a discrimination case. 15 FMSHRC at 1464. Use of data derived from Thaxton's decisions, even if consistent as to which filters to cite, stands in marked contrast to the use of statistical data in employment discrimination cases, where statistics are generally used to compare objective data as to two groups. *See, e.g., Teamsters*, 431 U.S. at 336-42. For example, the racial makeup of a particular category of a company's workers is compared to the racial makeup of the qualified and available labor pool. Absent discrimination, the percentages should be similar. The data used by the Secretary in this case are not objective and, moreover, they are not compared to a second, control group.

2,677 mines in the Secretary's analysis, more than 1,000 were included in only one period, not both. 15 FMSHRC at 1507-08; Tr. 4036-38. Thus, the data can prove nothing as to a change over time for one group of mines or the other.

Moreover, the drop in the citation rate for the coal mining industry does not prove a drop in the citation rate for all operators in the Common Issues proceeding. Some operators had submitted their only cited sample some months before the void code date.⁶⁷ Others received their only citation for a sample taken many months after that date.⁶⁸ In fact, many operators who received multiple citations had not yet taken their first cited sample as of that date.⁶⁹ The statistical evidence presented by the Secretary in the Common Issues trial did not even prove that many cited operators experienced a drop in citation rates at or near the void code date.

The Secretary has not alleged that the operators in this consolidated case were engaged in a conspiracy or were in any way acting in concert to violate the Mine Act. Yet he has attempted to use statistics on the citation rate for the coal mining industry as a whole not only to prove a drop in the citation rate for all operators but to prove that the drop occurred because operators learned of the AWC void code and, as a result, ceased deliberate tampering. The Secretary is essentially asserting that a drop in the rate of allegations against coal mine operators as a group provides legal support for the underlying allegations against particular operators. We conclude that, absent a conspiracy charge, a drop in the citation rate for the industry as a whole cannot, as a matter of law, be used to draw inferences regarding the conduct of all operators or to support a finding of deliberate misconduct on the part of any. Based on that determination, we conclude that the judge did not err in finding that the statistical evidence did not establish that AWCs resulted from intentional tampering. *See* 15 FMSHRC at 1520.

⁶⁷ For example, Big Fork Coal Co., Mine ID # 4401969, received its only citation for a sample taken on September 22, 1989; C&N Coal Co., Mine ID # 1516336, received its only citation for a sample taken on November 17, 1989; and Big Hill Coal Co., Mine ID # 1513300, received its only citation for a sample taken on October 4, 1989. *See* Gov't Ex. 272.

⁶⁸ For example, Bullion Hollow Enterprise, Inc., Mine ID # 4404871, received its only citation for a sample taken on April 2, 1991; LJ's Coal Corp., Mine ID # 1516637, received its only citation for a sample taken on October 25, 1990; and Wampler Brothers Coal, Inc., Mine ID # 1516722, received its only citation for a sample taken on September 25, 1990. *See* Gov't Ex. 272.

⁶⁹ For example, Trojan Mining, Mine ID # 1502091, received its first of 12 citations for a sample taken on July 11, 1990; Double M. Coal Co., Mine ID # 4405661, received its first of five citations for a sample taken on October 22, 1991; and Soldier Creek Coal Co., Mine ID # 4200077, received its first of three citations for a sample taken on June 11, 1990. *See* Gov't Ex. 272.

2. Keystone Decision

The judge, refusing to infer tampering from the statistical evidence, held that March 26, 1990, was not materially significant at Urling. He was unable to conclude on the basis of the statistical evidence that the reduction in the citation rate at Urling was related to MSHA's investigation of the dust sampling program at the mine. 16 FMSHRC at 901.

In his PDR, the Secretary argues that the judge erred in failing to understand the significance of the statistical evidence in supporting the conclusion that intentional tampering was the likely cause of AWC formation because such conduct was highly consistent with a sharp decline in AWCs on March 26, 1990, and other explanations are inconsistent with that decline. PDR at 15-16. Further, the Secretary asserts that the judge erred in his analysis of the statistical evidence "by focusing, *inter alia*, on the bimonthly sampling period rather than recognizing the self-evident and paramount importance of March 26, 1990, as a discrete and most logical date for evaluating rates of AWCs." *Id.* at 16.

In support of the petition, the Secretary argues that the record establishes that Urling submitted 74 filters with AWCs during the seven months preceding March 26, 1990, but only one AWC after that date, and that AWC rates for other R&P mines were similar. S. Br. at 37-38. The Secretary asserts that whatever was causing the AWCs effectively ceased on March 26, 1990, and the most likely explanation was the response of R&P employees to the AWC void code. *Id.* at 37-40. The Secretary further argues that, even assuming R&P employees had sufficient knowledge of the MSHA investigation to consider altering their conduct prior to March 26, 1990, that date is of critical importance because it is when they learned that tampering would no longer yield positive results for R&P. *Id.* at 45-46. He also argues that the analysis of AWCs on a bimonthly basis masks a dramatic decline after March 26, 1990. *Id.* at 46-48. Finally, the Secretary asserts that Keystone's attempts to explain the occurrences of AWCs are unsatisfactory. S. Reply Br. at 15-16; *see also id.* at 20, 26, 27.

Keystone responds that substantial evidence supports the judge's decision. It asserts that the Secretary's analysis is flawed. It states that the date on which Keystone was alleged to have gained knowledge of the void code, March 26, 1990, is irrelevant because their personnel were aware almost two months prior to that date of a criminal investigation into dust sampling conducted by MSHA. K. Br. at 94-99. Keystone also argues that, even if these flaws in the Secretary's analysis are ignored, the statistical evidence does not establish that AWCs resulted from tampering. *Id.* at 94.

a. Significance of March 26, 1990

The judge concluded that March 26, 1990, was not the most logical cutoff point for comparing AWC rates. 16 FMSHRC at 900. He found that "the evidence shows that the ESD personnel and Keystone management were aware of the investigation . . . 6 weeks or more before the notification of the void code . . ." *Id.*

In early February 1990, Dennis Hellgren, the Director of Safety for R&P mines, learned that MSHA was investigating R&P's dust sampling program. 16 FMSHRC at 888. He had received a telephone call from the superintendent of the Florence No. 2 mine, who related that two foremen, Charlie McGinnis and Norm Thompson, had been contacted by MSHA special investigators, who were looking into R&P's dust sampling program. Both foremen had taken notes of their interviews with the MSHA investigators, and those notes were sent to Hellgren.⁷⁰ Hellgren knew that special investigators normally handled criminal investigations. K. Tr. 2490-91. From his review of the notes, Hellgren knew that the investigators were asking questions concerning cassettes with white centers and tampering. K. Tr. 2476-78, 2492-97; see 16 FMSHRC at 888. He called the superintendents of other R&P mines to find out whether MSHA investigators had contacted their foremen about the dust sampling program and asked them to report back to him. K. Tr. 2477-78, 2486-88; K. Ex. 2073; see 16 FMSHRC at 888.

Hellgren called but was unable to reach the MSHA agent in charge of special investigations at the local district office; instead, he spoke to an investigator, who confirmed that MSHA was collecting information but who refused to explain the reason. K. Tr. 2478-79. On February 2, while Hellgren was present, Edward Onuscheck, a former vice-president of safety and a consultant to R&P, had a telephone conversation with Jerry Spicer, an MSHA supervisor. Spicer said that a preliminary inquiry, on a nationwide basis, was being made into respirable dust sampling. K. Tr. 2479-84; K. Ex. 2073; see 16 FMSHRC at 888.

On or about February 3, after reviewing Thompson's and McGinnis's notes, Hellgren showed them to Donald Eget, supervisor of R&P's ESD laboratory, and asked Eget what he thought the investigators were seeking. K. Tr. 2299-2300, 2497-98; see 16 FMSHRC at 888. Other employees of the ESD laboratory also learned of the MSHA investigation. Dust technician, Robert Bollinger, Sr., knew about the investigation because MSHA investigators came to his home looking for his son, who was a foreman at an R&P mine. K. Tr. 3016-19. Shawn Houck, who worked under Eget's supervision, learned of an MSHA investigation from Bollinger. K. Tr. 2120-21. Foreman McGinnis told Thomas Hollern, a dust technician in the R&P laboratory, about the MSHA investigation in early February. K. Tr. 3256-58, 3294. Douglas Snyder and Herbert Gleditsch, other dust technicians, also learned of the MSHA investigation and knew that investigators were talking to foremen. K. Tr. 1908-11, 2677-78, 2728.

On February 20, 1990, an MSHA investigator, Joe Totorio, telephoned Hellgren to set up a meeting with R&P officials. Totorio indicated to Hellgren that MSHA was working with the U.S. Attorney's office in investigating dust cassettes with white spots in the centers. Hellgren asked Totorio which of the R&P mines were being investigated and was told that Urling was one. In a second telephone conversation that day, Totorio identified the lawyer from the U.S.

⁷⁰ Thompson's notes are dated January 25, 1990, K. Ex. 2075, while McGinnis's are dated February 1, 1990, K. Ex. 2076. McGinnis's notes indicate that he was interviewed at his home and shown dust filters with AWCs. *Id.*; see K. Tr. 2496-97. Neither Thompson nor McGinnis testified at trial.

Attorney's office with whom he was working. K. Tr. 2499-2507; K. Ex. 2074; *see* 16 FMSHRC at 888. Following these conversations, Hellgren told R&P's legal department that the company was "under investigation by the U.S. Attorney." K. Tr. 2507-08. Hellgren also told Eget about the conversation with Totorio. K. Tr. 2300-01, 2508-09; *see* 16 FMSHRC at 888.

To summarize, beginning in early February 1990, officials at R&P, from its top management to its first-line supervisors, had knowledge of MSHA's investigation into dust cassette tampering. A mine superintendent first telephoned R&P's safety director to report MSHA's efforts to interview foremen, and he in turn put every R&P mine superintendent on notice to report any MSHA contacts with foremen. The safety director's February 20 telephone conversation with an MSHA investigator confirmed that the investigation involved allegations of criminal misconduct. In early February and again on the 20th, details of the investigation were passed along to Donald Eget, whom the judge found had an opportunity to tamper with dust cassettes. 16 FMSHRC at 888-89, 901; K. Tr. 2495-98, 2508-09. These communications diffused knowledge of the investigation among R&P managers. ESD laboratory employees, including dust technicians, also became aware of the investigation. 16 FMSHRC at 890-92; K. Tr. 1908-11, 3016-19, 3355-59.

Substantial evidence in the record supports the judge's finding that R&P employees were aware of MSHA's criminal investigation some six to seven weeks prior to MSHA's notification that dust sample filters with AWCs would be voided. 16 FMSHRC at 900. Further, we reject the Secretary's argument that, even if R&P employees knew of the investigation earlier, March 26, 1990, is critical because they learned on that date that tampering would no longer be beneficial. The Secretary has presented us with no evidence of why, if R&P personnel had been tampering with dust cassettes, they would have been more likely discouraged by the institution of the void code than by the special investigation and the prospect of criminal prosecution. We also note that, from early February 1990, the time the judge found R&P's employees had knowledge of the investigation, until March 26, 1990, Urling's citation rate actually rose sharply, from zero in the sampling weeks of February 5, 12 and 26, to 50% in the week of March 19, 1990. K. Gov't Ex. 501.

Significant to the judge's rejection of Miller's analysis of the rate of AWCs at Urling before and after March 26, 1990, was the unexplained *overall* decline in the rate of AWCs from September of 1989 through April of 1990. 16 FMSHRC at 900. Indeed, in other periods prior to March 1990, the rate of AWCs also decreased, sometimes more sharply than it did after March 26. *See* 16 FMSHRC at 905 (App. A); K. Ex. 2129B; K. Gov't Ex. 500, at Attach. A1. Although the Secretary states in his brief that "the data picked the date," S. Reply Br. at 21, Dr. Miller testified that the date March 26, 1990, was given to him by the Secretary's trial counsel for use in his analysis. K. Tr. 788-789. The Secretary offered no explanation, *see* Oral Arg. Tr. 116-17, to distinguish earlier declines in the rate of AWCs from the decline that occurred after March 26, 1990, which he asserts is indicative of the cessation of intentional tampering.

We affirm the judge's conclusion that the date March 26, 1990, is not materially significant in the *Keystone* proceeding and that the drop after that date in Urling's citation rate does not establish intentional tampering.

b. Use of Bimonthly Data⁷¹

The Secretary challenges the statistical analysis of the rate of AWCs by Keystone's expert, Dr. Roth, because it was based on bimonthly data, which the Secretary alleges masks the decline after March 26, 1990.⁷² S. Br. at 46-48. The judge accepted Roth's approach in using bimonthly data because operators carry out dust sampling on a bimonthly basis. 16 FMSHRC at 900; see 30 C.F.R. §§ 70.207(a) & 70.208(a) (1994).

Miller conceded that, once March 26, 1990, loses its significance as the date on which R&P employees became aware of the MSHA investigation, as the judge held and we have affirmed, there was nothing "necessarily wrong" with using a two-month period to analyze the rate of AWCs. K. Tr. 845-47. It is also apparent, from the judge's consideration of Urling's AWC rate before and after March 26, 1990, that he also examined weekly data and did not rely exclusively on Roth's bimonthly analysis. 16 FMSHRC at 900, 905 (App. A). Thus, we conclude that the judge did not err in relying in part on Dr. Roth's analysis based on bimonthly data.

E. Exclusion of Third-Party Criminal Evidence⁷³

Prior to the Common Issues trial, the operators sought to exclude the testimony of five individuals on the Secretary's witness list who were expected to testify about methods by which dust could be deliberately dislodged from filters or fraudulent samples created. Mot. to Exclude S. Case-Specific Witnesses from the Common Issues Trial, filed Nov. 12, 1992; Tr. 79-80, 85-88 (Prehr'g Conf. Nov. 17, 1992). Those individuals included Randy Thomas, a former R&P employee, and a principal and an employee of Triangle Research Corporation ("Triangle"). S. Witness List filed Oct. 30, 1992. At the pretrial hearing, the judge granted the operators' motion, excluding the testimony because it was not relevant to the issue to be determined in the Common Issues trial, i.e., whether "an AWC on a cited filter cassette . . . establishes that the operator intentionally altered the weight." Tr. 82-83, 89 (Prehr'g Conf. Nov. 17, 1992).

⁷¹ Bimonthly analysis has the effect of smoothing the data over time. 16 FMSHRC at 880. Compare 16 FMSHRC at 905 (App. A) with *Id.* at 906 (App. B).

⁷² In the Common Issues proceeding, Dr. Roth analyzed weekly data. See R. Ex. 1041, Attachs. B & C. In that case, Dr. Miller used March 19, 1990, rather than March 26, 1990, as the pivotal time in his analysis. 15 FMSHRC at 1485. We note that both experts tailored their analyses to the issues before the judge in the respective cases.

⁷³ This section addresses Issue No. 14 of the PDR.

At the Common Issues trial, the Secretary, in examining Mr. Thaxton on filters classified as tamper code 10, sought to question him regarding Triangle and offered exhibits involving guilty pleas of individuals and entities in criminal cases involving Triangle and its employees and other operators.⁷⁴ Tr. 294-96. He offered the evidence to show “the accuracy of Mr. Thaxton being able to discern which cassettes [had] been deliberately altered,” and “also discern the method by which they were altered.” Tr. 296-97. The Secretary asserted that evidence of those guilty pleas would show that, at least as to tamper code 10, Mr. Thaxton was very accurate. Tr. 296-97. The judge sustained the operators’ objection and excluded the evidence. Tr. 307. He let stand Thaxton’s testimony that tamper code 10 filters came from a particular geographical area (Kentucky, Virginia, and West Virginia) and were largely submitted by Triangle. Tr. 305. During redirect examination of Thaxton, the Secretary renewed his request that the evidence be admitted, again urging that it would show Thaxton’s ability to identify filters that had been deliberately altered. Tr. 1115-20. Again, the judge sustained the operators’ objection, finding the evidence irrelevant and not necessary to rehabilitate Thaxton as a witness. Tr. 1119-20. The Secretary made offers of proof regarding the five individuals whose testimony was excluded at the pretrial hearing as well as several other documents involving criminal pleas. Excluded Exs. 330-34; Tr. 307-11, 1120; S. Statement and Intro. to Offers of Proof Reg. Potential Testimony of Pysher, Murray, Thomas, Ellis, and White, filed Jan. 7, 1993.

In the PDR, the Secretary asserts that the judge erred in the Common Issues trial in excluding evidence of criminal tampering and evidence from those who had witnessed or participated in tampering because it would have played a substantial role, when weighed with other evidence, in establishing that intentional tampering was the most likely cause of AWCs and was “clearly relevant to the general question of motive in tampering” PDR at 20-21. He further contends that the evidence of criminal conduct was relevant to showing the opportunity and the incentive to tamper by R&P personnel, S. Br. at 101, S. Reply Br. at 49-50, and that the judge’s ruling precluded “the possibility of consideration of most of this evidence at the [*Keystone*] hearing.” S. Br. at 100.

Intervenors argue that the evidence was properly excluded under the terms of the September 1992 Order, which provided that evidence of intent by individual mine operators was not an issue in the Common Issues proceeding. I. Br. at 53-54. *Keystone* and Intervenors also argue that the evidence was properly excluded at the Common Issues trial because it was neither relevant nor probative and because evidence concerning operators who were criminally liable could not be used to establish that other operators acted in a similar manner. Oral Arg. Tr. 198-99; K. Br. at 52; I. Br. at 54.

We conclude that the judge did not err in excluding the evidence at the Common Issues trial. As noted in section B. 3., *supra*, the judge, in the September 1992 Order, set forth the

⁷⁴ Tamper code 10 was developed in the fall of 1990, after initiation of the void code. Filters classified under this code had a slightly darker center, less than 6mm in diameter, surrounded by a broad lighter ring. 15 FMSHRC at 1462; Tr. 292-93, 8264-65.

issue to be determined in the Common Issues trial as whether an AWC “establishes that the operator intentionally altered the weight of the filter.” 14 FMSHRC at 1677. “The intent of a particular mine operator or group of operators [was] not an issue in the common issues trial” *Id.* Moreover, evidence that some AWCs were caused by deliberate conduct would not have established that all or even most AWCs were caused by deliberate conduct. We conclude that the judge’s evidentiary ruling is consistent with the September 1992 Order and was not an abuse of discretion.

We also agree with Keystone and Intervenors that the evidence concerning guilty pleas by several operators could not properly be used to establish motive, opportunity, incentive, or the likelihood of intentional tampering as to others because such evidence does not prove that operators, in general, had acted similarly.

Further, it is not apparent that, if the testimony regarding Triangle and the challenged exhibits had been admitted into evidence, the judge would have analyzed tamper code 10 filters differently. The evidence was proffered for the purpose of confirming Mr. Thaxton’s ability to *identify and categorize* AWCs, particularly those in tamper code 10. The judge found the evidence neither relevant to the case nor “necessary to rehabilitate Mr. Thaxton as a witness.” Tr. 1119-20. In fact, the judge found that “classification of AWCs by Thaxton under his tamper codes was consistently applied” 15 FMSHRC at 1513. Moreover, the judge allowed testimony from Thaxton that the vast majority of tamper code 10 filters came from mines serviced by Triangle, whose principal and employee were parties to a criminal plea agreement. Tr. 295, 305. Thus, the judge had before him evidence of criminal activity with respect to tamper code 10 filters and referred to the criminal convictions in the Common Issues Decision. 15 FMSHRC at 1520.

Contrary to the Secretary’s argument, S. Br. at 100-101, Oral Arg. Tr. 205, the judge’s exclusion of the proffered evidence in the Common Issues trial *did not preclude* its consideration in *Keystone*. Randy Thomas, one of the individuals whose testimony was excluded from the Common Issues trial, testified as the Secretary’s witness in *Keystone*. K. Tr. 1307; 16 FMSHRC at 892, 902. Further, at trial, after Keystone had cross-examined Thaxton using exhibits relating to the criminal pleas involving Rushton Mining Company and Peabody Coal Company, those exhibits were accepted into evidence on the Secretary’s motion. K. Tr. 1212-16, 1295-97; K. Exs. 2117, 2118. Keystone Exhibit 2118 included criminal indictments and plea agreements relating to Peabody and made up a portion of the Secretary’s Exhibit 334, which was offered and excluded at the Common Issues trial. The Secretary did not offer into evidence any other testimony or exhibits on this issue that were excluded from the Common Issues trial. Thus, the Secretary’s argument on review, that the judge’s exclusion of this evidence in the Common Issues proceeding precluded its consideration in *Keystone*, is without merit.

F. Other Keystone Issues

1. Handling of Sampling Equipment at ESD⁷⁵

The judge found that changes in the handling of sampling equipment at ESD could have been a factor in the decrease of AWCs at Urling in the spring of 1990. 16 FMSHRC at 884. He found that ESD supervisor Donald Eget, who handled the equipment more roughly than other ESD personnel, did not handle samples or sampling equipment from April 9 until May 10, 1990, and that dust technician Douglas Snyder and the other technicians were more careful in their handling of the equipment as a result of MSHA's investigation. *Id.*

The Secretary contends that substantial evidence does not support a finding by the judge that changes occurring on or about March 26, 1990, in handling of dust sampling equipment at ESD explained the decline in AWCs after that date. PDR at 18; S. Br. at 96-100. To support his argument, the Secretary states that both Eget and his laboratory assistant Shawn Houck admitted that they had not modified their handling practices after March 26, 1990. S. Br. at 97. He also argues that Snyder could not identify the time at which he made changes in his handling of the sampling units. *Id.* Keystone counters that the judge found handling changes in the spring of 1990 to be only one of many possible explanations for the decline. K. Br. at 103-07.

In asserting that the judge relied on changes in handling to explain the decline of AWCs after March 26, 1990, the Secretary mischaracterizes the *Keystone* Decision. The judge found that handling changes by ESD personnel, *in addition to* other phenomena at Urling, "could have been factors in the decrease in the number of cited AWCs in the Spring of 1990." 16 FMSHRC at 884; *see also id.* at 882-86. Substantial evidence supports that finding.

Eget, Houck, and Snyder testified that the sampling units had been subjected to rough handling by ESD personnel. For example, Snyder testified that, in transporting pumps, he dropped the pumps, caught protruding hoses on door latches, and slammed hoses in doors. K. Tr. 1838, 1849-51. Houck testified that the dust technicians often left the pumps in disarray at the ESD with pumps piled on top of each other and hoses tangled together. K. Tr. 2084-86, 2159-60. Eget was rough in his treatment of the pumps; for example, he carelessly threw pumps into his vehicle when transporting them and swung pumps onto the table at the ESD laboratory. K. Tr. 2178-80, 2244-48, 2250-52.

Houck testified that, although he did not know of any changes in the conduct of the respirable dust program and that it was hard to reduce the rate of accidentally dropped cassettes, he thought everyone, including the technicians, became "a little bit more careful of the handling of the pumps." K. Tr. 2179, 2203, 2214-15. Although Eget did testify that he had not changed his behavior after March 26, 1990, he did not handle pumps from early April until May 10, 1990. K. Tr. 2319-20, 2362, 2384. Snyder could not pinpoint exactly when his behavior changed, but he

⁷⁵ This section addresses Issue No. 12 in the PDR.

testified that he became more careful in his pump handling. *See* K. Tr. 1921. Other ESD dust technicians also testified to using greater care. Dust technician Herbert Gleditsch, who at times sampled at Urling, testified that he handled pumps more carefully. K. Tr. 2713-14, 2733-34. Dust technician Thomas Hollern, who sampled at R&P's Heshbon mine, testified that he became more careful after the AWC investigation. K. Tr. 3272-76, 3283-84.

We conclude that substantial evidence supports the judge's finding that changes in the handling practices of ESD personnel did occur and we affirm that finding. We also affirm the judge's conclusion that these changes "could have been factors" causing the decrease in cited AWCs in the spring of 1990.

2. Optional Quartz Samples⁷⁶

The judge drew no conclusions with respect to the fact that no AWCs were noted or cited by MSHA on the "optional quartz samples"⁷⁷ concurrently submitted by Urling and other R&P mines. 16 FMSHRC at 887-88. The Secretary asserts that the judge erred in failing to accord weight to this evidence. PDR at 14-15; S. Br. at 48-55. He contends that the Urling and R&P quartz sample filters did not display AWCs even though they were taken in the same manner, under the same conditions, and at the same time as the respirable coal dust samples that exhibited AWCs. *Id.* The Secretary asserts that the absence of AWCs on the quartz samples indicates tampering because, for a quartz sample to be accepted as valid by MSHA, it must be sufficiently *heavy* and, thus, R&P would not have had the same incentive to remove dust from a quartz sample as from a compliance sample. S. Br. at 49-51; *see* K. Tr. 1109, 1122-24. Keystone responds that the judge properly rejected the Secretary's evidence on optional quartz samples because the appearances of those filters could not be evaluated. K. Br. at 90-92.

Paul Parobeck, chief of the instrumentation and analytical branch at the PHTC laboratory and overseer of quartz sampling and the Secretary's only witness on this issue, testified that none of the quartz sample filters submitted by Urling and other R&P mines from August 1989 through March 31, 1991, had AWCs. K. Tr. 1124-30. Parobeck's testimony was based on computer records, not on his personal examination of the filters. K. Tr. 1124-30, 1140; K. Gov't Ex. 506. The PHTC employees who had reviewed the filters were not called as witnesses. 16 FMSHRC at

⁷⁶ This section addresses Issue No. 6 in the PDR.

⁷⁷ If a mine's atmosphere contains more than 5% quartz, the maximum level of respirable dust permitted is reduced below 2.0 milligrams per cubic meter. K. Tr. 1104-05; 30 C.F.R. §§ 70.101, 71.101, 90.101 (below 1.0 milligrams per cubic meter where a Part 90 miner is exposed). If more than 5% of quartz is detected in a sample drawn by an inspector, an operator is given the option of submitting additional samples for evaluation. K. Tr. 1119. The results of the optional quartz samples drawn by the operator are then averaged with the results of the inspector samples to determine the mine's respirable dust standard. K. Tr. 1119.

887-88; see K. Tr. 1140-42. Moreover, the filters were no longer in existence⁷⁸ and no photographs of them were introduced at the trial or made available for examination prior to the trial. 16 FMSHRC at 887; see K. Tr. 1128-30, 1140-41; K. Gov't Ex. 506. Thus, the operators' experts did not have an opportunity to examine the filters and compare them with cited filters or form opinions about them. We conclude that the judge did not err in according no weight to the Secretary's evidence regarding Urling's quartz sample filters or in refusing to infer from such evidence that Keystone or R&P personnel had engaged in tampering.

3. Credibility of ESD Personnel⁷⁹

Keystone, unlike the Common Issues case, involved allegations of tampering by the employees of a specific operator. The judge's evaluation of the credibility of employee witnesses was critical and properly assumed a significant role in his decision. See 16 FMSHRC at 903. The judge heard the testimony of 33 witnesses from Keystone and the ESD laboratory; all employees of ESD during 1989 and 1990 testified. 16 FMSHRC at 859, 888, 901; see generally K. Tr. The judge accepted as truthful the testimony of these employees that they did not tamper with dust samples. 16 FMSHRC at 903.

The Secretary argues that the judge erred in several respects in his credibility determinations as to ESD personnel. PDR at 18-19. He asserts that the judge gave undue weight to the testimony and credibility of ESD witnesses and contends that the judge's credibility determinations are undermined because that testimony conflicts. He objects to the judge's finding that ESD personnel lacked incentive to tamper and he objects to the judge's failure to credit the testimony of Randy Thomas and Jack Szentmiklosi. *Id.* at 19. He also asserts that the judge's credibility determinations conflict with the overwhelming weight of the other evidence. *Id.* at 19-20. Keystone responds that the judge's credibility determinations are fully substantiated by the record and, in accordance with longstanding precedent, are entitled to significant weight. See K. Br. at 36-45, 53-57.

The Commission has long held that a judge's credibility determinations are not to be overturned lightly and are entitled to great weight. *Farmer v. Island Creek Coal Co.*, 14 FMSHRC 1537, 1541 (September 1992); *Quinland Coals, Inc.*, 9 FMSHRC 1614, 1618 (September 1987); *Penn Allegh Coal Co.*, 3 FMSHRC 2767, 2770 (December 1981); *Hollis v. Consolidation Coal Co.*, 6 FMSHRC 21, 25 (January 1984). "Since the ALJ has an opportunity to hear the testimony and view the witnesses he is ordinarily in the best position to make a credibility determination." *Ona*, 729 F.2d at 719. The *Ona* court observed that, "as a general rule courts are bound by the credibility choices of the ALJ, even if they 'might have made different findings had the matter been before [them] . . . de novo.'" *Id.* at 719, citing *Gulf States Mfrs., Inc. v. NLRB*, 579 F.2d 1298, 1329 (5th Cir. 1978).

⁷⁸ The quartz evaluation process itself destroys the quartz sample filters. K. Tr. 1112-13.

⁷⁹ This section addresses Issue No. 13 in the PDR.

The judge, noting several elements of demeanor that must be considered in determining credibility, also recognized that his credibility determinations must take into account the extensive factual, scientific, and statistical evidence and the witnesses' prior knowledge of sanctions for tampering. 16 FMSHRC at 901. His analysis focused on Eget and Houck because he determined that only they, among ESD personnel, had substantial opportunity to tamper. *Id.* In evaluating their testimony, the judge stated that he was "impressed [with] the backgrounds of Eget and Houck and their forthrightness on the witness stand" and that he "carefully considered their testimony." *Id.* at 902. We conclude from our review of this record that the judge did not make these credibility resolutions lightly. The judge found these individuals to be truthful witnesses and his acceptance of their denials of tampering is linked to his careful consideration of the other evidence. *See id.* at 903. Thus, the judge properly based his credibility determinations on his evaluation of the witnesses and their demeanor and did so in the context of the record before him.

The Secretary argues that, in crediting ESD personnel, the judge overlooked a number of inconsistencies in their testimony. S. Br. at 109-11 & n.38. The Secretary identifies two points on which Eget and Houck differed: Eget did not regard his handling as rough, whereas Houck did; Houck recalled performing a dust removal experiment that Eget did not remember. *See PDR* at 18, *citing* 16 FMSHRC at 862, 890; S. Br. at 109-10. Neither of these differences provide reason to discredit the witnesses or overturn the judge's determination. The perception of one's own behavior frequently differs from how it is perceived by others. Eget's failure to recall one experiment does not make his testimony that he had not tampered unworthy of belief by the judge, who had the opportunity to listen to his testimony and observe his demeanor. We conclude that such insignificant differences in testimony do not provide sufficient basis to overturn the judge's credibility determinations.

The Secretary also argues that the judge erred in basing his decision to credit ESD personnel on their lack of incentive to engage in tampering because they knew that tampering could subject them to punishment. S. Br. at 106-07. Specifically, the Secretary contends that the judge erred by: (1) failing to recognize that, on both "an economic plane" and "a psychological plane," employees have an incentive to help their employer; and (2) by stating that R&P's small number of respirable dust violations indicates a lack of incentive. *Id.* at 107-09. The judge expressly recognized that mine operators and agents had pled guilty to criminal tampering. 16 FMSHRC at 901. The judge's statement as to lack of incentives responded to the Secretary's asserted motivation for ESD personnel to engage in tampering, i.e., to avoid penalties, to avoid resampling, and to avoid the enormous potential costs of non-compliance. *Id.* at 902. The judge rejected these asserted incentives as very weak and, when considered with R&P's relatively small history of dust violations, to be almost non-existent. *Id.* It was in this context that the judge referenced the employees' knowledge of criminal sanctions and found, on balance, that the evidence showed a lack of incentive rather than an incentive to tamper, as argued by the Secretary. *Id.*

In addition, the record reveals that ESD supervisor Eget had a strong concern relating to MSHA investigations into tampering and possible sanctions. *See K. Tr.* 2322-26. In 1982, Eget

wrote a memo cautioning safety personnel of the possibility of criminal investigations and advising them to conduct themselves “in a responsible manner and beyond reproach.” K. Ex. 2036. Because of an earlier MSHA investigation, Eget kept a logbook to record the appearance of every sample sent to MSHA. K. Tr. 2260-61, 2377-80. Eget’s logbook noted that two of the filters (369468 and 294719) submitted to MSHA and later cited would be voided for having been taken on a low production shift. K. Ex. 2006A; K. Tr. 2279-80. We find no apparent incentive for Eget to remove dust from filters that he knew were going to be routinely voided by MSHA. Thus, the judge’s finding of lack of incentive is supported as to Eget.

As to other ESD personnel, dust technician Robert Bollinger, Sr. testified that he and others who worked under Eget’s supervision had nothing to gain from tampering. K. Tr. 3035-36. Dennis Hellgren, R&P’s Director of Safety, testified that he knew of no incentive for personnel to tamper. K. Tr. at 2540. Hellgren also stated that Eget would not have put up with tampering and that Hellgren would have fired Eget if he had tampered with filters. K. Tr. at 2541.

Further, a review of the record indicates that, before the judge, the Secretary neither offered evidence on, nor argued his theory regarding, employees’ incentive to help their employers. We do not accept the Secretary’s theory as true on its face because even if, in much of their behavior, employees have an incentive to help their employers, it is not evident that, in general, they would engage in tampering or other illegal behavior to help their employers. Consequently, we reject the Secretary’s theory as a basis for reversing the judge.

The Secretary argues that the judge’s reasoning with regard to the effect on incentives of R&P’s small history of respirable dust violations is circular in nature, because the small history itself may have resulted from tampering. S. Br. at 107-08. In deciding to credit denials of tampering by ESD witnesses, the judge relied primarily on his evaluation of their truthfulness and their demeanor in the context of the other evidence. 16 FMSHRC at 901-03. Before taking into consideration R&P’s small history of dust violations, he found the Secretary’s asserted incentives to be minimal. *Id.* at 902. Moreover, his determination as to ESD employees’ credibility was based only marginally on their lack of incentive. Thus, any error by the judge in relying on R&P’s violation history is harmless.

We also reject the Secretary’s assertion that the judge failed to give his reason for discounting the testimony of Jack Szentmiklosi, that he had heard a conversation between Bollinger and R&P’s then Vice-President of Operations, Robert Anderson, on the subject of the tampering investigation. S. Br. at 110 n.39. As the judge explained, both Anderson and Bollinger testified that they did not recall such a conversation. 16 FMSHRC at 891, 893. In choosing to credit Bollinger and Anderson, the judge referenced the same reasons he had set forth earlier for crediting Eget and Houck. *Id.* at 903. The PDR further takes issue with the judge’s discounting of the testimony of Randy Thomas, who testified to alleged tampering at ESD some 15 years earlier, PDR at 19; K. Tr. 1316-19, but the Secretary offers no support in his briefs for this objection. We conclude that the judge did not abuse his discretion in weighing Thomas’s testimony against that of Gary Foehrenbach and in determining that Thomas misunderstood what he saw or that his recollection was dimmed by the passage of time. 16 FMSHRC at 902.

Finally, we reject the Secretary's assertion that the judge's credibility determinations "are entitled to no deference" because they are irreconcilable with the weight of the evidence. S. Br. at 103. The contrary evidence of tampering referenced by the Secretary, which he characterizes as "overwhelming," i.e., "that nothing explains the sudden and dramatic decline in AWCs except the fact that on March 26, 1990, R&P learned that MSHA believed that the existence of AWCs indicated tampering," *id.*, provides no basis on which to overturn the judge's credibility determinations. We have affirmed the judge's findings and conclusions as to the scientific and statistical evidence as well as the handling of sampling equipment at ESD. Thus, in our view, the judge's crediting of ESD employees' testimony that they did not engage in tampering is not irreconcilable with the record evidence but is in accord with it.

The Secretary's contentions do not compel the extraordinary step of overturning the judge's credibility determinations.⁸⁰ *See Hollis*, 6 FMSHRC at 25.

III.

Conclusion

We have concluded that the judge articulated and applied the appropriate burden of proof in both the Common Issues Decision and in the *Keystone* Decision. We have determined that the judge did not abuse his discretion in rejecting Mr. Thaxton's opinion on AWC causation, in crediting Dr. Lee's opinion on AWC causation, in admitting and crediting Dr. Corn's opinions on the effect of filter-to-foil distance and the size and shape of dust particles, and in admitting and crediting Dr. Lee's opinion on the effect of scrubbers. We have found that

⁸⁰ We have considered the cases on which the Secretary relies for extending diminished weight to the judge's credibility determinations. S. Br. at 28-30, 102-05, 110. Those cases offer no support for the Secretary's position; they recognize the general rule that, absent exceptional circumstances, appellate courts do not overturn findings based on credibility resolutions. *Medline Industries, Inc. v. NLRB.*, 593 F.2d 788, 795 (7th Cir. 1979); *Breeden v. Weinberger*, 493 F.2d 1002, 1010 (4th Cir. 1974) (administrative law judge has unique advantage in making credibility determinations); *NLRB v. Brooks Cameras, Inc.*, 691 F.2d 912, 915 (9th Cir. 1982) (weight is given to the administrative law judge's determinations of credibility for obvious reasons). None of the exceptions to the general rule on review of credibility resolutions presented in those cases apply here. The judge's determinations were not self-contradictory (*Ona Corp.*, 729 F.2d at 719), were not based on irrational criteria (*Breeden*, 493 F.2d at 1010), and did not contradict the evidence (*Medline*, 593 F.2d at 795; *NLRB v. Huntington Hospital, Inc.*, 550 F.2d 921, 924 (4th Cir. 1977)). Unlike many of the Secretary's proffered cases, *see, e.g., NLRB v. Interboro Contractors, Inc.*, 388 F.2d 495, 501 (2d Cir. 1967) (credibility determinations not supported by record); *Victor Products Corp. v. NLRB*, 208 F.2d 834, 839 (D.C. Cir. 1953) (sense of record did not support finding), the judge's credibility determinations are supported by the record.

substantial evidence supports the judge's findings that manufacturing variables affect the susceptibility of filters to AWC formation and could have been a factor, among others, in the decline of AWCs.

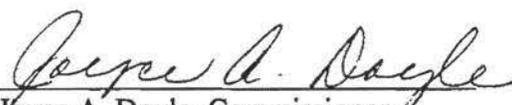
We have also affirmed the judge's conclusion that the statistical evidence did not establish that AWCs resulted from intentional tampering or that, in *Keystone*, a reduction in the mine's citation rate resulted from MSHA's investigation of its dust sampling program. We have concluded that the judge did not err in excluding evidence of criminal tampering from the Common Issues trial and that its exclusion did not preclude its consideration at the *Keystone* trial.

As to *Keystone*, we have found that substantial evidence supports the judge's finding that changes in the handling of sampling equipment occurred at Urling and that those changes could have been factors in the decrease in cited AWCs. We have also concluded that the judge did not err in according no weight to the Secretary's evidence as to quartz samples and have declined to overturn the judge's credibility determinations as to ESD personnel.

Accordingly, we affirm both the Common Issues Decision and the *Keystone* Decision. The 75 citations at issue in *Keystone* are vacated.

The judge's determination in the Common Issues Decision, i.e., that the presence of an AWC on a filter does not, in itself, prove deliberate conduct and a violation of section 209(b), applies to all citations in Master Docket 91-1. It serves as precedent on that issue in other dust cases, not on the Master Docket, that have been stayed pending the outcome of this case.

Within 45 days after issuance of this decision, the Chief Administrative Law Judge shall issue an order in the cases on stay, setting forth a schedule for submissions from the parties as to disposition of those cases.


Joyce A. Doyle, Commissioner


Arlene Holen, Commissioner

Commissioner Marks dissents and will file his opinion later.

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

1730 K STREET N.W., 6TH FLOOR
WASHINGTON, D.C. 20006

December 6, 1995

IN RE: CONTESTS OF RESPIRABLE DUST SAMPLE ALTERATION CITATIONS	:	Master Docket No. 91-1
KEYSTONE COAL MINING CORPORATION	:	Docket Nos. PENN 91-451-R through PENN 91-503-R
v.	:	Docket Nos. PENN 91-1176-R through PENN 91-1197-R
SECRETARY OF LABOR, MINE SAFETY AND HEALTH ADMINISTRATION (MSHA)	:	Docket Nos. PENN 91-1264 through PENN 91-1266
SECRETARY OF LABOR, MINE SAFETY AND HEALTH ADMINISTRATION (MSHA)	:	and
v.	:	Docket No. PENN 92-182
KEYSTONE COAL MINING CORPORATION	:	Docket No. PENN 92-183
JIM WALTER RESOURCES, INC., et al., Intervenors	:	
UNITED MINE WORKERS OF AMERICA (UMWA), Representative of Miners	:	

BEFORE: Marks, Doyle, and Holen, Commissioners

BY: Marc Lincoln Marks, Commissioner

I vigorously dissent.¹

¹ I wish to acknowledge with deep appreciation the extraordinary professionalism that was shown during the preparation of this dissent by my personal Counsel, Christopher Yost. In addition, I mention as well, the long hours of tedious work that were performed by the Commission's General Counsel, Joseph Ferrara and his staff, particularly, Elizabeth Ebner and Beverly Bryce who from the inception of this very long effort on the part of the Commission, in a

I. Introduction

The history of these so called dust cases may seem at first to begin when the then Secretary of Labor, the Honorable Lynn Martin, ordered citations issued against approximately one-third of the entire coal industry (847 operators) for violating 30 C.F.R §§ 70.209(b), 71.209(b); or 90.209(b) (collectively "section 209(b)") by illegally altering the dust cassettes that they submitted to the Pittsburgh Health Technology Center in Pittsburgh, Pennsylvania. Section 209(b) was promulgated to verify and ensure that the respirable dust levels in the mines subject to the standard were maintained at no greater than an average concentration of 2.0 milligrams of respirable dust per cubic meter of air or, under extraordinary conditions, maintained at or below 1.0 milligram of respirable dust per cubic meter of air. However, I suggest that these cases did not begin when the Honorable Lynn Martin ordered the instant citations issued, but rather, these cases have their beginning prior to that date, when the United States Government brought the Peabody Coal Company to the bar of justice for, among other things, illegally altering dust cassettes. Interestingly enough, the altering, which the Peabody Coal Company admitted to, consisted of, *inter alia*, forcing air into the dust cassette and causing the filter to display an abnormal white center or an AWC. It was this very AWC appearance that caused the dedicated employees of the United States Government, sometime later, to become suspicious of the thousands of AWCs that the cited operators were submitting to the Pittsburgh Health Technology Center.

There is, however, a dramatic difference between what happened in the Peabody Coal Company case and what happened in the dust cases before us now. In 1987, the management of the Peabody Coal Company had the decency and courage to admit their wrongdoing: they plead guilty and took their medicine (and a pretty strong medicine it was) -- a fine of one half a million dollars! Unfortunately, that was not the case with the defendants in these dust cases. Rather, defendants in these cases got together, hired counsel, and came up with a defense. Although defendants and their counsel's imaginative defense and arguments convinced the Administrative Law Judge, as reading his decisions confirm, those decision lack legal significance. Not only was the ALJ obviously susceptible to the defendants' arguments, but the ALJ enhanced them and committed fundamental error in doing so! As a result, the Administrative Law Judge's decisions must be reversed.

Although the body of this opinion will set out the ALJ's errors in detail, I believe it is incumbent upon me to briefly highlight his errors at this point. The history of these dust cases establishes that August 13, 1992 was a disastrous date for the United States Government's case. On that date the Administrative Law Judge issued an order interpreting section 209(b), the section

most professional manner, put before all the Commissioners involved in this case the necessary tools to render both its majority and dissenting opinion. I wish to acknowledge also the hard work and professionalism of the majority's Counsel, James Callear, who though on the opposite side of the issue from that which I took, at all times was willing to discuss the issues which were so pertinent to the decision in this case.

that all 847 operators in these dust cases were charged with violating, resulting in the issuance of approximately 5,000 citations against those operators.

Section 209(b) states:

The operators shall not open or tamper with the seal of any filter cassette or alter the weight of any filter cassette before or after it is used to fulfill the requirements of this part.

The judge interpreted section 209(b) to require the United States Government to prove that the cited cassettes were intentionally altered. Taking on himself the mantle of "Noah Webster," the Administrative Law Judge had this to say about the meaning of section 209(b):

If the weight of a filter cassette is "altered," the alteration can only be caused in one of two ways: either some person or persons actively caused it, or it resulted accidentally. The words of the standard in Section 209(b) according to their plain meaning refer to an action, proscribe conduct, include the concept of intention, and exclude an accidental occurrence.

14 FMSHRC 1510, 1513 (August 1992) (emphasis added).

Obviously, if "altered" can have two meanings its meaning is not "plain[!]" *Id.*

In spite of the law requiring an ALJ to give weight to the Secretary's reasonable interpretation of section 209(b), the judge did just the opposite and made the defendants' day! The Secretary of Labor, the Honorable Lynn Martin, interpreted section 209(b) to require the United States Government to prove that the weight of the cited cassettes was changed or altered while in the operator's control and that the issue of whether the section was violated in no way hinged on operator intent. The Administrative Law Judge rejected the Secretary's reasonable interpretation of section 209(b). The Administrative Law Judge forced the United States Government to prove that the alteration in the weight of a cited filter was caused by intentional and deliberate operator misconduct. *In Re: Contest of Respirable Dust Sample Alteration Citations*, 14 FMSHRC 1510, 1517 (August 1992). Once the Trial Judge made the aforementioned ruling, (playing "Noah Webster" with the word "alter") he affirmed that ruling on September 8, 1992, after the United States Government requested he reconsider his August 13, 1992 ruling. *In Re: Contest of Respirable Dust Sample Alteration Citations*, 14 FMSHRC 1675, 1677 (September 1992). To add insult to injury, the Administrative Law Judge later placed a burden of proof on the Government that required it to exclude all possible, potential, and reasonable nonintentional causes of AWCs.

I now stop the reel and frame the still picture of what the United States Government faced as these cases proceeded to trial.

First the trial judge insisted that two trials take place. The first trial he called the common-issues trial. The second trial he called the mine-specific trial. In the first trial, the Government knew that the judge would force them to prove that the AWCs on the cited filters were caused by the operators' intentional and deliberate misconduct and that the judge would (as he did) carry over to the second trial his rulings in the first trial on the evidence and the law.

However, what the Government could not have anticipated was that the judge was going to force the Government -- if you can believe this -- to exclude all potential, possible, and reasonable nonintentional causes of AWCs appearances. Even in criminal cases, where the burden of proof is beyond a reasonable doubt, the case law is well settled that the prosecution does not have to exclude every other reasonable hypothesis to convict the charged party of violating the cited law. Likewise, in a civil case, the party carrying the burden of proof does not have to exclude every other potential, possible, and reasonable cause of the acts charged. However, as the first case went to trial, and as the second case proceeded, that is exactly what this trial judge forced the Government to do. As I will expand on in depth in section V.A. *supra*, the judge again and again and again and again stated that there were too many other possible explanations for the appearance of the AWCs and, consequently, the Government failed to prove that the ONLY reason for the appearance of the AWC was the intentional and deliberate operator misconduct.

Not only did the trial judge place a burden of proof on the Government that was impossible to shoulder, but, as both of his opinions indicate, he rejected the testimony of each and every expert witness that the Government put forth and turned a blind eye towards the mountain of extraordinary statistical evidence presented by the Government.

Under these circumstances, could there be any doubt that the judge would hold, as he did, in favor of the defendants in both of these cases.

II. The Judge Erred in Failing to Give Weight to the Secretary's Interpretation of Section 209(b)

A. Legislative Background of Section 209(b)

The defendants in these cases were cited for violating section 209(b), which provides:

The operator shall not open or tamper with the seal of any filter cassette or *alter* the weight of any filter cassette before or after it is used to fulfill the requirements of this part.

Section 209(b) (emphasis added). Section 209(b) is an important part of a regulatory scheme

designed to protect miners from silicosis. Silicosis has been recognized for a long time as a disease associated with coal miners. The inhalation of silica-bearing dust has been causally linked to the disease. *See* Coal Mine Health and Safety: Hearings Before the Subcommittee on Labor of

the Committee on Labor and Public Welfare, United States Senate, 91st Cong., 1st Sess., 764 (1969); Coal Mine Health and Safety: Hearings Before the Committee on Education and Labor, House of Representative, 91st Cong., 1st Sess., 119, 309, 310, 337 (1969). Recognizing this hazard, section 102(a)(1) of the Senate bill which became the 1969 Coal Act, and which was carried over into the Mine Act of 1977, required that the respirable dust standard be reduced when coal dust contains more than 5 percent quartz and that the applicable dust standard "be determined in accordance with a formula prescribed by the Surgeon General."² The Senate Committee report stated, "Since high quartz content in coal dust . . . presents a greater health hazard, the Surgeon General is directed to prescribe the formula to be used in arriving at a dust standard for dust containing more than 5 percent quartz which offers comparable protection to the statutory standards for dust containing 5 percent or less quartz." S. Rep. No. 410, 91st Cong., 1st Sess. 46 (1969) reprinted in Senate Subcommittee on Labor, Committee on Labor and Public Welfare, 94th Cong., 1st. Sess., Part I Legislative History of the Federal Coal Mine Health and Safety Act of 1969, at 172 (1975). It was in complying with this requirement of section 205 of the 1969 Coal Act, that the Secretary of Health, Education, and Welfare prescribed, and the Secretary of the Interior adopted, the formula set forth in 30 C.F.R. § 70.101. The formula was developed by the National Institute for Occupational Safety and Health and was based upon Public Health Service studies evaluating the effects of free silica on respiratory health. See 36 Fed. Reg. 4981 (March 16, 1971); *U.S. Steel Mining Co. Inc.*, 5 FMSHRC 46, 50-51 (January 1983)(ALJ).

Silicosis is a pulmonary disease caused by silica-bearing (quartz) dust retained by the lungs following respiration.³ The retained dust causes a scarring process, known as fibrosis. If the fibrosis occurs in the most distal portions of the lungs, the alveoli, nodes of scar tissue develop which compromise the air exchange capacity of the lungs. Damage caused by the scarring is irreversible and there is no known treatment for the disease! Silicosis can develop into a life-threatening respiratory condition known as progressive massive fibrosis. (Such a condition can develop also as the result of coal workers' pneumoconiosis.) Progressive massive fibrosis can develop long after an individual's exposure to quartz-bearing dust has ceased. The more silica dust an individual is exposed to, the greater the probability of developing silicosis. Based upon the data presently available, however, it is impossible to quantify the physiological effect of infrequent, low-level exposures to silica-bearing dust. However, it is known that there is, in any event, a cumulative dose-response effect from repeated exposures. An increased frequency of

² A companion bill introduced in the House of Representatives contained the same provision but required the Secretary of Health, Education, and Welfare to prescribe the formula. The House provision was adopted at Conference and carried over, without substantive change, to the 1977 Mine Act as section 205. Section 205 of the 1977 Mine Act was subsequently amended to transfer this function to the Secretary of Health and Human Services.

³ Quartz is a form of silica described as "A crystallized silicon dioxide." Bureau of Mines, U.S. Department of the Interior, Dictionary of Mining, Mineral, and Related Terms 884 (1968).

exposure and/or an increased concentration of dust increases the risk of developing silicosis. *U.S. Mining Co., Inc.*, 8 FMSHRC 1274 (September 1986).

When Congress delegated to the Secretary of Health, Education, and Welfare the authority to prescribe the applicable limit of respirable dust when the quartz content exceeds 5 percent, it intended that exposure level to be the maximum level allowed to achieve its stated goal of preventing disabling respiratory disease. Section 201(b), 30 U.S.C. § 841(b). Further, as stated by the Commission in *Consolidation Coal Co.*, 8 FMSHRC 890 (June 1986), "Congress clearly intended the full use of the panoply of the Act's enforcement mechanisms to effectuate this Congressional goal" *Consolidation Coal Co.*, 8 FMSHRC at 897. Section 209(b) plays a critical role in effectuating this Congressional goal by seeking to ensure that dust samples accurately reflect the respirable dust levels in the mines in order to protect miners from silicosis to the maximum extent possible under the law.

B. The Secretary's interpretation of section 209(b)

Against this background of Congress' clear intent to prevent respirable diseases induced by silica-bearing dust, it is critical that section 209(b) be interpreted to protect miners from silicosis to the maximum extent possible under the law. According to the Secretary's interpretation of this provision, an operator violates section 209(b) when the weight of a cited filter is altered while the filter is in the operator's control. *See* Secretary of Labor's Motion for Reconsideration and for Clarification ("Motion for Reconsideration") at 2-3; *see also* Secretary of Labor's Statement in Opposition to Contestants' Motion for Consolidation and Trial at 2-4; Secretary of Labor's Statement of the Issues and Trial Proposal at 2-5; *see generally In Re: Contest of Respirable Dust Sample Alteration Citations*, 14 FMSHRC 1510, 1513 (August 1992); *In Re: Contest of Respirable Dust Sample Alteration Citations*, 14 FMSHRC 1675 (September 1992). The Senate's committee report on the Mine Act of 1977 states that because the Secretary "is charged with responsibility for implementing this Act, it is the intention of the Committee, consistent with generally accepted precedent, that the *Secretary's interpretations of the law and regulations shall be given weight by both the Commission and the courts.*" S. Rep.No. 181, 95th Cong., 1st Sess. 49 (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 637 (1978) (emphasis added). It is, of course, well-settled that an agency's interpretation of its own regulation is "of controlling weight unless it is plainly erroneous or inconsistent with the regulation." *Bowles v. Seminole Rock & Sand Co.*, 325 U.S. 410, 414 (1945). Indeed, where the Secretary presents a plausible reading of his own regulation, an appellate body must give weight to the Secretary's interpretation. The Secretary is emphatically due this respect when he interprets his own regulations. *United States v. Larionoff*, 431 U.S. 864, 872-73 (1977) (if an agency's interpretation is not plainly inconsistent with the wording of the regulation, it is due weight even though the regulation may contain "a number of ambiguities"); *Udall v. Tallman*, 380 U.S. 1, 4 (1965) ("The Secretary's interpretation may not be the only one permitted by the language of the orders, but it is quite clearly a reasonable interpretation; courts **must** therefore respect it."); *Federal Labor Relations Authority v. United States Department of Treasury*, 884

F.2d 1446, 1454 (D.C. Cir. 1989), *cert. denied*, 493 U.S. 1055 (1990); *Hispanic Information & Telecommunications Network, Inc. v. FCC*, 865 F.2d 1289, 1296 (D.C. Cir. 1989) ("An agency's interpretation of its own regulations will be accepted unless it is plainly wrong."). When faced with a problem of regulatory construction, the Commission gives great weight to the Secretary's reasonable interpretation.

Prior to the judge's decision interpreting section 209(b), the Secretary asserted that section 209(b) is clear on its face. Motion for Reconsideration at 3. Alternatively, the Secretary asserted that in the event the language of section 209(b) is ambiguous his interpretation is reasonable and, thus, entitled to deference. *Id.* at 3-5. According to the Secretary, the terms "open", "tamper", and "alter" should be read in the "context in which they appear, rather than interchangeably." *Id.* at 2. According to the Secretary, the term "alter" means change. Consequently, a violation of section 209(b) "occurs whenever there is a change, or alteration, of the weight of the dust filter. The fact of the violation in no way hinges on operator intent." *Id.* at 2-3 (emphasis added). The Secretary contended that questions of intentional or deliberate conduct are relevant only in the penalty assessment phase and are not relevant to the question of whether the standard has been violated. Secretary of Labor's Statement in Opposition to Contestants' Motion for Consolidation and Trial at 4.

The terms "alter" and "tamper" can not be read as synonyms. Elementary principles of regulatory construction dictate that one part of a regulation should not be construed as to make another part superfluous or redundant and, thus, "emasculate" that part. *See United States v. Menasche*, 348 U.S. 528, 538-39 (1955); *Nat'l Wildlife Federation v. Sec. of Interior*, 839 F.2d 694, 752 (D.C. Cir. 1988); *Motor & Equip. Mfrs. Ass'n, Inc. v. EPA*, 627 F.2d 1095, 1108 (D.C. Cir. 1979), *cert. denied*, 446 U.S. 952 (1980). The Secretary interprets "tamper" to connote intentional or deliberate conduct and "alter" to connote mere change, unoccasioned by intentional or deliberate conduct. Motion for Reconsideration at 2-3.

To sustain the Secretary's interpretation of section 209(b), and of the terms "alter" and "tamper," the Commission need not find that the Secretary's construction is the only reasonable one, or even that it is the interpretation it would have reached. *Unemployment Comp. Comm'n v. Aragon*, 329 U.S. 143, 153 (1946). *See also, e.g., Gray v. Powell*, 314 U.S. 402, 412 (1941); *Universal Battery Co. v. United States*, 281 U.S. 580, 583 (1929). Rather, to have his interpretation sustained, the Secretary need only present a plausible, reasonable interpretation that is not plainly inconsistent with the wording of section 209(b). The Secretary's interpretation is reasonable and consistent with the language of section 209(b). Consequently, because this Commission accords weight to such interpretations of the Mine Act and the regulations promulgated under it, the Secretary's interpretation of section 209(b) must be sustained!

C. Judge Broderick's orders and decisions regarding the interpretation of section 209(b)

Judge Broderick⁴ rejected the Secretary's reasonable interpretation of section 209(b) twice. *In Re: Contest of Respirable Dust Sample Alteration Citations*, 14 FMSHRC 1510 (August 1992); *In Re: Contest of Respirable Dust Sample Alteration Citations*, 14 FMSHRC 1675 (September 1992). The judge, interpreting "alter" and "tamper" as synonymous terms, emasculated the term "alter" and, thus, violated a basic tenet of statutory construction. In doing this, judge Broderick erred. This error infected every aspect of the trial and the decisions that followed.

In framing the issue for the common issues trials, Judge Broderick rejected the Secretary's interpretation and stated the following:

The basic common issue for the trial of which these cases are consolidated and which will be resolved in the trial is: Whether an abnormal white center (AWC) on a cited filter cassette establishes that the operator *intentionally* altered the weight of the filter?

14 FMSHRC 1510, 1517 (August 1992). In ruling on the Secretary's motion for clarification, Judge Broderick again rejected the Secretary's interpretation and stated the following:

The issue is whether an AWC on a cited filter cassette establishes that the operator *intentionally* altered the weight of the filter.

14 FMSHRC 1675, 1677 (September 1992) (emphasis added).

At the outset of his decision on common issues, Judge Broderick set forth the following issues:

1. What is an AWC?
2. Does an AWC on a cited filter establish that the mine operator *intentionally* altered the weight of the filter?

The Secretary has the burden of proof on these issues. The burden requires that the Secretary show by a preponderance of evidence that (1) the term "AWC" has a coherent meaning and was consistently applied; (2) the cited AWCs can only have resulted from *intentional acts*; (3) the AWCs resulted in weight losses in the cited filters.

15 FMSHRC 1456, 1463-64 (July 1993) (footnote omitted) (emphasis added). In determining

⁴ Judge Broderick retired upon the issuance of his decisions in the dust cases.

whether the Secretary's witness, Mr. Thaxton's classification of citeable filters -- those exhibiting Abnormal White Centers ("AWCs") -- was coherent and consistent, Judge Broderick noted the following:

The basic issue to be determined in the common issues trial is whether an AWC on a cited filter establishes per se that the mine operator *intentionally* altered the weight of the filter.

Id. at 1464 (emphasis added). In setting forth his conclusions of law, Judge Broderick concluded that the Secretary failed to prove that an "AWC on a cited filter establishes that the mine operator *intentionally* altered the weight of the filter." *Id.* at 1521 (emphasis added). Judge Broderick also concluded that the Secretary failed to prove that "*deliberate* conduct on the part of the cited mine operators is the *only* reasonable explanation for the cited AWCs." *Id.* (emphasis added).

Judge Broderick concluded that:

the record shows too many other potential causes for the dust dislodgement patterns on the cited AWCs for me to accept the Secretary's *circumstantial* evidence as sufficient to carry his burden of proof that the mine operators *intentionally* altered the weight on the cited filters.

Id. at 1522 (emphasis added).

In forecasting the issue for the mine-specific trial, Judge Broderick stated the issue would be as follows:

[W]hether the weight of the filters cited as AWCs from the Urling No. 1 Mine was *intentionally* altered by the mine operator, *considering the findings made as a result of the common issues trial*, and the evidence which may be introduced concerning the dust sampling and handling practices at the mine.

Id. (emphasis added). In the mine-specific decision, Judge Broderick further stated that, "[o]n the basis of all the evidence introduced in the common issues trial[,] the Secretary had failed to prove in the common-issues trial that an AWC on a cited filter "establishes" that the cited operator "*intentionally* altered the weight of the filter[.]" *Keystone Coal Mining Corporation*, 16 FMSHRC 857, 861 (April 1994) (emphasis added). Judge Broderick further stated that the Secretary had failed to prove in the common-issues trial that "*deliberate* conduct on the part of the cited mine operators is the *only* reasonable explanation for the cited AWCs." *Id.* In discussing his ultimate findings and conclusions of law, Judge Broderick held that the same evidentiary burden that was applicable in the common issues trial was applicable in the Keystone mine-specific case: the Secretary must prove "that the 75 cited Urling filters resulted from *intentional* tampering." *Id.* at 895 (emphasis added).

Quite clearly, the judge rejected the Secretary's reasonable interpretation of section 209(b) and substituted his own interpretation, which he subsequently applied through the two trials and in his decisions.

D. Fundamental Error

In the interest of justice and upon consideration of public policy, I conclude that the judge committed fundamental error in rejecting the Secretary's reasonable interpretation of section 209(b). The judge erred in his most important determination in this case: ruling on the Secretary's interpretation of section 209(b). The majority's failure to consider the judge's rejection of the Secretary's reasonable interpretation of section 209(b) as fundamental error has resulted in an *unjust* resolution of these proceedings.

As noted above in section II.A., in enacting the Coal Act of 1969 and the Mine Act of 1977, Congress clearly intended to prevent respirable diseases induced by silica-bearing dust. Consequently, it was critical that the Secretary's reasonable interpretation of section 209(b) be sustained in order to protect miners from silicosis to the maximum extent possible under the law. Although the Secretary did not appeal the judge's rejection of his reasonable interpretation of section 209(b) to the Commission, in the interest of justice and based on considerations of public policy, the judge's interpretation of section 209(b) *must be reviewed and ultimately set aside* and the Secretary's interpretation sustained in order to effectuate the purposes of the Coal Act of 1969, as amended by the Mine Act of 1977.

There is "no rigid and undeviating judicially declared practice under which courts of review invariably and under all circumstances decline to consider all questions which have not previously been specifically urged." *Nuelsen v. Sorensen*, 293 F.2d 454, 462 (9th Cir. 1961) ("*Nuelsen*"), *see also McDougall v. Dunn*, 468 F.2d 468, 476 (4th Cir. 1972) ("*McDougall*"). And for good reason! Indeed, both the Federal Rules of Appellate Procedure and the Commission's own procedural rules require the "just" determination of all cases. 28 U.S.C.A. § 2106 and 29 C.F.R. 2700.1(c) (emphasis added). Specifically, the *Nuelsen* court stated that there could not be an inflexible practice whereby appellate bodies decline to consider any and all questions which had not been specifically raised to the appellate body without doing violence to the statutes which gave them appellate power to modify, reverse or remand decisions "as may be just under the circumstances." *Nuelsen*, 293 F.2d at 462, *quoting* 28 U.S.C.A. § 2106. In *McDougall* the court stated the following:

Appellate Courts are not . . . powerless to correct errors in the trial, even if not raised by appeal, "where injustice might otherwise result * * *. Rules of practice are devised to promote justice, not to defeat them. . . . Orderly rules of procedure do not require sacrifice of the rules of fundamental justice." *Washington Gas Light Co. v. Virginia Electric & Pow. Co.* (4th Cir. 1971) 438 F.2d 248, 250-251, *quoting from Hormel v. Helvering* (1941) 312 U.S. 552 *See also Dudley v. Inland Mutual Insurance Co.* (4th Cir. 1962) 299 F.2d 637, 641-642. Indeed,

“Exceptional case or particular circumstances may prompt a reviewing court, where injustice might otherwise result or where public policy requires, to consider questions neither pressed nor passed upon below.” *Nuelsen* . . . at 462; *Washington Gas Light Co. v. Virginia Electric & Pow. Co.*, *supra*.

McDougall v. Dum, 468 F.2d at 476. The Federal Rules of Appellate Procedure have been incorporated by the Commission’s regulations for the purpose of guiding the Commission on matters of procedure. 30 C.F.R. 2700.1(b). Moreover, just as the Federal Rules of Appellate Procedure give Federal appellate courts the power to take such actions “as may be *just* under the circumstances[.]” 28 U.S.C.A. § 2106, the Commission’s own regulations instruct the Commission to construe its rules to “secure the *just* . . . determination of all proceedings[.]” 30 C.F.R. 2700.1(c) (emphasis added).

Reading 30 C.F.R. 2700.1(b) & (c) and 28 U.S.C.A. § 2106 together, I conclude that the Commission is empowered, indeed *obligated*, to review the judge’s rejection of the Secretary’s reasonable interpretation of section 209(b). In agreement with the rationale of the Ninth Circuit Court of Appeals in *Nuelsen* and the Fourth Circuit Court of Appeals in *McDougall*, I conclude that in light of 30 C.F.R. 2700.1(c) our procedural rules can not be read to prevent review of this issue without doing violence to the mandate of our rules to “secure the *just* . . . determination of all proceedings[.]” 30 C.F.R. 2700.1(c). Failure to address this issue has resulted in an unjust decision being rendered by the majority. This is contrary to the dictates of 30 C.F.R. 2700.1(b) & (c) and 28 U.S.C.A. § 2106. The judge’s rejection of the Secretary’s reasonable interpretation of section 209(b) presents exceptional circumstances and, as such, the Commission is required to consider this issue. Indeed, if there was ever a case that fit the bill of an “[e]xceptional case . . . where injustice might otherwise result” the “dust cases” are such cases. *Nuelsen*, 293 F.2d at 462.

Moreover, “public policy requires” that this issue be reviewed. *See Nuelsen*, 293 F.2d at 462. Public policy demands that the Coal Act of 1969, as amended by the Mine Act of 1977, be read so as to protect miners to the maximum extent permitted by law. As set forth above at II.B., the Secretary’s interpretation serves to best protect miners from silicosis, the disabling condition discussed *supra* at II.A. The judge’s interpretation, discussed *supra* at II.C., diminishes the ability of the Government to protect miners from silicosis. Consequently, because the judge’s interpretation of section 209(b) does not serve to best protect miners from silicosis and the Secretary’s interpretation *does* serve to best protect miners from silicosis, public policy requires that the judge’s interpretation to be set aside and the Secretary’s interpretation be given weight.

Thus, both public policy and the interest of justice require that the Commission not only review this issue, they also require that the judge’s rejection of the Secretary’s reasonable interpretation of section 209(b) be overturned and the Secretary’s reasonable interpretation of section 209(b) be given full force and affect. Again, rules of practice are devised to promote justice, not to defeat them. . . . Orderly rules of procedure do not require sacrifice of the rules of fundamental justice.” *Washington Gas Light Co. v. Virginia Electric & Pow. Co.* (4th Cir. 1971).

E. The Secretary prevails in these cases under his interpretation of section 209(b)

According to the Secretary's reasonable interpretation of section 209(b), an operator violates section 209(b) when the weight of a submitted filter is reduced or changed while the filter is in the operator's control. See *In re Respirable Dust Sample Alteration Citations*, 14 FMSHRC 1510, 1511. As stated by the trial judge:

each of the citations contested herein charges the mine operator with violating the provisions of Section 209(b) of Part 70, Part 71, or Part 90. All the citations allege a violation of the cited standard in virtually identical language:

The weight of the respirable dust cassette no. _____ collected on [date] from a sampling entity at this mine has been **altered** while the cassette was being submitted to fulfill sampling requirements of Title 30 C.F.R. Parts 70, 71 or 90.

Id. at 1512 (emphasis added).

Consequently, to prevail in these cases under the Secretary's interpretation of section 209(b), it was incumbent upon the Secretary to establish that there was a change in, or alteration of, the weight of the cited dust filter while the filter was in an operator's control.

That the occurrence of an AWC is accompanied by a change in the weight on a given filter is axiomatic. The judge found that AWC dust dislodgment patterns result in a weight change. *Id.* at 1517.

The only question that remains is who had control of the filter when it developed the AWC appearance and its accompanying change in weight.

The Secretary's witnesses, Dr. Marple and Dr. Rubow, concluded that "[t]he operation of the desiccator at [Pittsburgh Health Technology Center] is not a source of dust dislodgment patterns [and] [t]he shipment of compliance samples by airplane is not a probable cause of dust dislodgment patterns on filters." 15 FMSHRC at 1481. In Dr. Miller's opinion, another witness for the Secretary, the results of his tests excluded mailing as a cause of the cited AWCs and also ruled out handling in the Pittsburgh Health Technology Center ("PHTC") as the cause of AWCs. *Id.* at 1485.

The trial judge stated the following in his findings of fact:

D. The dust dislodgment patterns on the cited filters classified under tamper codes 1, 2, 3, and 7 **cannot have resulted from:**

1. a rapid decrease in air pressure such as might occur when the cassettes

were transferred by airplane, or **the handling of the cassettes by the Post Office**. The results of Dr. Marple's rapid decrease in air pressure experiment and the experience of Dr. Grayson who received a number of dust laden filters by air and postal delivery establish that air transport and Post Office handling do not cause AWC patterns on filters.

2. **desiccation of the filter capsules in the PHTC weighing laboratory.**

Dr. Lee's desiccator tests which produced what he termed AWCs are of limited evidentiary value because of the differences in the desiccator used by MSHA and that used by Lee. Moreover, most of the photographs of the filters which underwent the test do not show dust dislodgment patterns similar to cited AWCs. Dr. Marple's experiment using the MSHA desiccator establishes that proper operation of the desiccator (and there is no evidence that it was not used properly by MSHA) does not cause dust particle dislodgment.

3. **handling of the cassettes and capsules in the PHTC.** Dr. Lee was of the opinion based on his observation of the handling practices in the PHTC and on the results of his stack and chuck tests and rapid disassembly tests that 5 to 15 percent of the cited AWCs resulted from PHTC handling and 30 to 50 percent were contributed to by PHTC handling. He did not provide the rationale for these percentage estimates. The photographs of the filters after the stack and chuck and rapid disassembly tests for the most part do not resemble the cited filters. Based upon my consideration of G-170 showing the operation of the PHTC and of the various tests and experiments which produced AWC-like dust dislodgment patterns, **I conclude that the PHTC handling**, including the stack and chuck procedures and the rapid disassembly procedures, **did not cause the cited AWCs.**

Id. at 1514-1515 (emphasis added). Thus, it is a fortiori that the cited filters were in the control of the respondents when the filters developed the AWC appearance and their accompanying change in weight.

In fact, the main thrust of the defendants' arguments in these cases has been that AWCs are caused by nonintentional conduct, such as rough handling by employees. *See, e.g. id.* at 1489-93, 1495-96 (discussion of Dr. Lee's opinions on nonintentional causes of AWCs and factors that made certain filters more susceptible to the nonintentional formation of AWCs); 1497-99 (discussion of Dr. Grayson's opinions on nonintentional causes of AWCs and factors that made certain filters more susceptible to the nonintentional formation of AWCs); 1499-1507 (discussion of Dr. McFarland's opinions on nonintentional causes of AWCs and factors that made certain filters more susceptible to the nonintentional formation of AWCs); 16 FMSHRC at 861-868 (discussion of the testimony regarding the rough handling of sampling equipment by

Environmental Safety Department (“ESD”)⁵ personnel and Urling miners); Brief of Keystone Coal Mining Corporation at 22-32 (arguments concerning nonintentional causes of AWCs at Urling). Thus, out of their own mouths, the defendants have proven the Secretary’s case!

Moreover, even the judge concluded that, in addition to intentional causes, AWCS can have resulted from:

1. impacts to the cassette from dropping or striking it;
2. impacts to the hose from stepping on it, dropping an object on it, striking it against a wall while the hose was wrapped around the sampling assembly, closing a door or drawer on it, or sitting on it;
3. snapping together the two halves of the filter cassette.

15 FMSHRC at 1513. In this connection, the judge further found that “[a]lthough the expert witnesses for the Secretary and the mine operators differ as to the likelihood that a dust dislodgment pattern similar to the cited AWCs would result from incidents described in numbers 1 and 2 above, the experiments all show that at least sometimes they do occur.” *Id.* Further, in the mine specific case, the judge found that:

the dust dislodgment patterns on the cited filters could have resulted **wholly** or partly from the handling of the sampling assemblies by the miners being sampled. Specifically, they could have resulted from pumps falling to the mine floor from the remote box or from miners' belts, from pumps being detached from the hoses and falling to the floor, from hoses being snagged on objects in the mine, from hoses being pinched on the mantrip, from hoses being impacted by other pumps on the lampman's counter or the mechanic's box, or from hoses being wrapped around pumps.

16 FMSHRC at 868 (emphasis added). And again, the judge found that:

the dust dislodgment patterns on the cited Urling filters could have resulted **wholly** or partly from the handling of the sampling assemblies by the ESD personnel described in this section. Specifically, they could have resulted from the carrying of multiple pumps by their hoses, dropping carrying boxes with pumps to the floor of a vehicle or onto a table, stepping on hoses, placing pumps on hoses, catching hoses in car doors or the office door, dropping pumps and sampling assemblies on the ground or on the floor, dropping dust laden cassettes on the floor, or otherwise

⁵ The Environmental Safety Department (“ESD”) is where Rochester and Pittsburgh conducts its respirable dust sampling program for the Urling Mine, as well as all other Rochester and Pittsburgh mines.

impacting the hose as previously described.

Id. at 864 (emphasis added).

Based on the record evidence, the defendants' own experts, witnesses, and briefs, as well as the judge's findings, the record supports only one conclusion: that the cited filters developed their AWC appearances and accompanying weight change while in the defendant-operators possession. Or, in other words, the defendant-operators' altered the cited filters in violation of section 209(b). I would therefore reverse the judge's decisions.

V. Other Errors Made By The Judge

Although I conclude that the above fundamental error committed by the judge is more than sufficient to reverse his decisions, I nevertheless wish to comment on a number of other reversible errors made by the judge which would provide separate, independent grounds for overturning his decisions.

A. Burden of Proof

The judge erred in his application of the burden of proof in the common-issues case. That error infected both his common-issues decision and his decision in the mine-specific case.

In the common-issues case not only did the judge erroneously reject the Secretary's interpretation of section 209(b), he also applied a burden of proof standard that was impossible for the Secretary to meet under the judge's interpretation requiring the Secretary to prove AWCs were the result of intentional conduct. While using the term "preponderance of the evidence," the judge's formulation of that standard bears little, if any, resemblance to that standard as it is understood at common law. At common law, preponderance of the evidence "means that amount of credible evidence which is most persuasive on a particular point." *Herman & MacLean v. Huddleston*, 459 U.S. 375, 390 (1983). The preponderance of the evidence standard has also been defined at common law as "[t]he greater weight of evidence, evidence which is more convincing than the evidence which is proffered in opposition to it." *St. Paul Fire & Marine Insurance Company v. U.S.*, 6 F.3d 763, 769 (Fed. Cir. 1993), *reh. denied*. In general, preponderance of the evidence is such evidence as, when weighed against that opposed to it, has the more convincing force that something is more likely so than not so. *Merzon v. County of Suffolk*, 767 F. Supp. 432, 444 - 445 (E.D. N.Y. 1991); *see* Standard Civil Jury Instruction for the District of Columbia § 2-8 (revised ed. 1985); *see also*, *Bazemore v. Friday* 478 U.S. 385, 400 (1986); *Smith v. U.S.*, 726 F.2d 428, 430 (8th Cir. 1984); *Nissho-Iwai Co., Ltd. v. M/T Stolt Lion*, 719 F.2d 34, 38 (2nd Cir. 1983); and *Hopkins v. Price Waterhouse*, 737 F. Supp. 1202, 1204 n. 3 (D. D.C. 1990).

The preponderance standard is satisfied when the party bearing the burden has shown that "the existence of a fact is more probable than its non-existence. . . ." *Concrete Pipe and Products*

of *California, Inc. v. Construction Laborers Pension Trust for Southern California*, 508 U.S. ___ at ___, 113 S. Ct. 2264, 2279 (1993) (citations omitted). Thus, if the evidence presented by the Government establishes that intentional tampering is more likely than not the cause of the AWC appearances, the Secretary has sustained his burden of proof. See *Hopkins v. Price Waterhouse*, 737 F. Supp. 1202, 1204 n.3 (D. D.C. 1990).

The judge in his decision on common issues applied the following standard of proof:

The Secretary has the burden of proof on these issues. The burden requires that the Secretary show by a preponderance of evidence that . . . the cited AWCs can *only* have resulted from intentional acts[.]

15 FMSHRC at 1463-64 (emphasis added). This is a burden of proof that the Secretary could not have satisfied. By using the term "only" the judge, in essence, required the Secretary to **eliminate** all other possible causes of, and reasonable explanations for, AWCs in order to prevail. This point is highlighted by the judge's own conclusions of law. Specifically, Judge Broderick concluded that:

The Secretary has failed to carry his burden of proving by a preponderance of the evidence that deliberate conduct on the part of the cited mine operators is the *only* reasonable explanation for the cited AWCs.

Id. at 1521 (emphasis added). Over and over again the judge required the Secretary to prove that the cited AWCs can *only* have resulted from intentional acts and deliberate conduct. Specifically, the judge required the Secretary to prove AWCs could *only* have resulted from intentional acts as follows:

The Secretary has the burden of proof on these issues.

The burden requires that the Secretary show by a preponderance of evidence that (1) the term "AWC" has a coherent meaning and was consistently applied; (2) the cited AWCs can *only* have resulted from intentional acts; (3) the AWCs resulted in weight losses in the cited filters.

15 FMSHRC at 1463-64.

No matter how many times he intoned the phrase "preponderance of the evidence," the simple fact remains that the judge required the Government to prove that the *only* cause of the AWCs was intentional conduct, to the exclusion of all other causes!

Under the correct burden of proof the Secretary need not eliminate all other possible, potential, or even reasonable causes of AWC in order to satisfy the preponderance of the evidence standard. As long as the weight of credible evidence shows that other possible or reasonable

explanations are less likely to be the cause of the AWCs than intentional tampering, the Secretary must prevail. Even in criminal proceedings the Government is not required to exclude every other reasonable hypothesis so long as the evidence as a whole supports the allegation of misconduct "beyond a reasonable doubt." See *U.S. v. Rivera Rodriguez*, 808 F. 2d 886, 890 (1st Cir. 1986). In essence, the judge held the Secretary to an even higher burden of proof than the criminal standard, "beyond a reasonable doubt," by requiring him to eliminate all other possible, potential, and even reasonable causes of AWC in order to prevail. This fact is revealed through the judge's analysis leading up to his conclusion that the Secretary failed to prove that deliberate tampering was "the *only* reasonable explanation for the cited AWCs." 15 FMSHRC at 1521 (emphasis added). Specifically, Judge Broderick concluded that:

the record shows *too many other potential causes* for the dust dislodgement patterns on the cited AWCs for me to accept the *Secretary's circumstantial evidence* as sufficient to carry his burden of proof that the mine operators intentionally altered the weight on the cited filters.

Id. at 1522 (emphasis added).⁶ Over and over again the judge stated that AWCs could possibly have resulted from unintentional conduct. Specifically, the judge stated:

... Findings of Fact II.C.1, 2, and 3 indicate that the appearances of the filters cited under tamper codes 1, 2, 3, and 7 **can have** resulted from many different incidents or accidents unrelated to intentional tampering.

15 FMSHRC at 1521 (emphasis added). Again the judge stated:

C. The dust dislodgment patterns on the cited filters classified under tamper codes 1, 2, 3, and 7 *can have* resulted from:

1. impacts to the cassette from dropping or striking it;
2. impacts to the hose from stepping on it, dropping an object on it, striking it against a wall while the hose was wrapped around the sampling assembly,

⁶ The judge appears to minimize the potency of circumstantial evidence in this passage. The Commission has often relied on such evidence, particularly where intentional conduct is an essential element of the case. *Northwestern Resources Co.*, 8 FMSHRC 883, 886 (June 1986); *Lizza Industries, Inc.*, 6 FMSHRC 8, 15 (January 1986); *Phelps Dodge Corp.*, 3 FMSHRC 2508, 2510 (November 1981) *rev'd on other grounds*, 709 F.2d 86 (D.C. cir. 1983). Moreover, direct evidence of intentional or deliberate conduct is rarely encountered. *Phelps Dodge Corp.*, 3 FMSHRC at 2510. It is entirely appropriate for a judge to draw reasonable inferences of intentional or deliberate conduct from circumstantial evidence. *Id.* Adding to the judge's inappropriate belittling of circumstantial evidence, in this case there were two eyewitnesses to intentional tampering in the mine-specific trial. 16 FMSHRC at 891 and 892.

closing a door or drawer on it, or sitting on it;

3. snapping together the two halves of the filter cassette.

15 FMSHRC at 1513 (emphasis added). Again, the judge stated:

Dust dislodgment patterns on the cited filters classified under tamper code 5 *can have* resulted from someone inserting a cotton swab into the cassette inlet and rubbing or twisting it on the filter.

1. Dust dislodgment patterns on the cited filters classified under tamper code 5 *can have* resulted from someone inserting a cotton swab into the cassette inlet and rubbing or twisting it on the filter.
2. Dust dislodgment patterns on the cited filters classified under tamper code 5 *can have* resulted from dropping the filter cassettes.

D. The dust dislodgment patterns on the cited filters classified under tamper code 9 *can have* resulted from someone intentionally inserting something in the cassette inlet.

15 FMSHRC at 1518 (emphasis added). Yet again, the judge stated:

Findings of Fact II.C.1, 2, and 3 indicate that the appearances of the filters cited under tamper codes 1, 2, 3, and 7 *can have* resulted from many different incidents or accidents unrelated to intentional tampering.

15 FMSHRC at 1521 (emphasis added). And again, the judge stated:

In summary, the record shows *too many other potential causes* for the dust dislodgment patterns on the cited AWCs for me to accept the Secretary's circumstantial evidence as sufficient to carry his burden of proof that the mine operators intentionally altered the weight on the cited filters.

15 FMSHRC at 1522 (emphasis added). Also, the judge stated that all of the following *could have* contributed to AWCs:

- F. Sampling assembly variables

* * *

3. A filter cassette with a smaller filter-to-foil distances is more prone to

an AWC dust dislodgment pattern than one with a larger filter-to-foil distance.

4. A floppy filter is more prone to an AWC dust dislodgment pattern than a more taut filter.

* * *

6. The firmness or softness of the sampling assembly hose may be related to the formation of an AWC.

15 FMSHRC at 1515 and 1516. Yet again, the judge stated:

... filters with a shorter filter-to-foil distance or which are floppy are more susceptible to reverse air AWC formation.

15 FMSHRC at 1520.

By requiring the Secretary to prove that the cited AWCs can *only* have resulted from intentional acts and deliberate conduct to the exclusion of any other potential cause, the judge committed reversible error.

Contrary to the assertions of my colleagues, the judge's decision does not support the conclusion that his use of the term "*only*" was merely made in reference to the issue presented. As set forth above, in delineating the burden of proof, the judge clearly required that the Secretary prove that the cited AWCs can *only* have resulted from intentional acts. He then found that the Secretary failed to carry that burden because there were too many other "could haves" and "can haves." ONLY means ONLY! It does not mean more likely than not, there is a quantitative difference!

The judge's failure to apply the correct standard of proof infected his entire evaluation of the evidence, not only in the common-issues proceedings, but also in the mine-specific proceedings. In the mine-specific proceedings, the judge utilized the same incorrect standard of proof that he used in the common-issues proceeding. In discussing his ultimate findings and conclusions of law, Judge Broderick made the following comments regarding the standard of proof:

The *same evidentiary burden* is applicable in the Keystone mine-specific case as was applicable in the common issues trial[.]

16 FMSHRC at 895 (emphasis added). Judge Broderick explicitly "incorporated" into "any decision following the mine-specific trial" the findings and conclusions in his common-issues decision. 15 FMSHRC at 1522; *see also* 16 FMSHRC at 861. Moreover, the judge stated that "[t]he same evidentiary burden [was] applicable in the Keystone mine specific case as was

applicable in the common issues trial" 16 FMSHRC at 895.

The judge repeatedly held in his mine-specific decision that non-intentional conduct *could have* caused the AWCs. Specifically, the judge stated the following:

My decision on the common issues trial made certain findings of fact. I found that reverse air AWCs *could have* resulted from intentional acts, such as blowing or otherwise directing a pulse of air into the cassette outlet or introducing a vacuum source into the cassette inlet. I found that such AWCs *could also have* resulted from impacts to the cassette or the sampling hose, which might have occurred accidentally during normal handling of the sampling equipment at the mines, or from snapping together the two halves of the cassette. I further found that the reverse air AWC dislodgment patterns could not have resulted from mailing the cassettes from the mines to the PHTC, or the desiccation of the filter capsules or other handling of the cassettes and capsules at the PHTC. I found that the filter-to-foil distance in the cassettes and the floppiness of the filters were factors in the susceptibility of filters to AWC dislodgments; and that the firmness or softness of the sampling assembly hose, and variables in the dust on the filter *may have* affected the susceptibility to AWCs. . . . With respect to filters cited under tamper codes other than those considered the result of reverse air, I found that those classified under tamper codes 5 and 9 *could have* resulted from intentional tampering, but those classified under codes 8 and 10 were not consistently classified or were not shown to have been likely caused by intentional acts.

16 FMSHRC at 861 (emphasis added). And again:

I find as facts that the dust dislodgment patterns on the cited Urling filters *could have* resulted wholly or partly from the handling of the sampling assemblies by the ESD personnel described in this section. Specifically, they *could have* resulted from the carrying of multiple pumps by their hoses, dropping carrying boxes with pumps to the floor of a vehicle or onto a table, stepping on hoses, placing pumps on hoses, catching hoses in car doors or the office door, dropping pumps and sampling assemblies on the ground or on the floor, dropping dust laden cassettes on the floor, or otherwise impacting the hose as previously described.

16 FMSHRC at 864 (emphasis added). And again:

I find as facts that the dust dislodgment patterns on the cited filters *could have* resulted wholly or partly from the handling of the sampling

assemblies by the miners being sampled. Specifically, they *could have* resulted from pumps falling to the mine floor from the remote box or from miners' belts, from pumps being detached from the hoses and falling to the floor, from hoses being snagged on objects in the mine, from hoses being pinched on the mantrip, from hoses being impacted by other pumps on the lampman's counter or the mechanic's box, or from hoses being wrapped around pumps.

16 FMSHRC at 868 (emphasis added). And again:

During the period from August 1, 1989 to May 31, 1990, two kinds of continuous miners were used at Urling: the Lee-Norse miners operated from controls on the machine, and the Joy miners operated from a remote control box (some Joy miners could be operated from a remote control box (some Joy miners could be operated from the remote control box or from controls on the miner). The Lee-Norse miner vibrated when cutting coal, so that the sampling head attached to the canopy swayed back and forth and contacted the canopy post. I find that this *could have* caused or contributed to abnormal dust patterns on Urling filters.

16 FMSHRC at 882 (emphasis added). And again:

I find as facts that there were changes in the handling practices of end personnel beginning in the spring of 1990. Specifically, Eget, who handled the sampling equipment in a rougher manner than the others, did not pick up pumps and samples from April 9 to May 10, 1990. Snyder and the other dust technicians were more careful in their handling and carrying of pumps and hoses, and, in particular, were careful to avoid hose impacts because of the MSHA dust sample investigation. These changes *could have* been factors in the decrease in the number of cited AWCs in the Spring of 1990.

16 FMSHRC at 884 (emphasis added). And again:

I conclude that the reverse air dust dislodgment patterns on the cited Urling filters *could have* resulted from accidental impacts to the sampling equipment, particularly the hoses, in the Urling mine during sampling or after the samples were taken. I conclude that the dust dislodgment patterns did not result from intentional tampering On the basis of my findings on page 8, *supra*, I conclude that the reverse air dust dislodgment patterns on the cited Urling filters *could have* resulted from accidental impacts to the sampling equipment, particularly the hoses, while the samples were being handled by R & P's ESD lab personnel. Also, on the

basis of my common issues decision, I conclude that reverse air dust dislodgment patterns on the cited Urling filters *could have* resulted from intentional tampering including blowing by mouth or otherwise directing air into the cassette outlet or introducing a vacuum source into the cassette inlet.

16 FMSHRC at 898 (emphasis added).

As noted above, the Government need not eliminate all other possible or potential causes of AWCs. The judge, under his erroneous interpretation of section 209(b), was not called upon to discover how many possible explanations there could be for AWCs but, rather, to determine if intentional tampering was more likely than not the cause of the AWCs. The Secretary must prevail under the judge's erroneous interpretation of section 209(b), regardless of the number of could haves and can haves, so long as the Secretary establishes that intentional tampering is more likely than not the cause of AWCs.

In his own words, the judge carried over his contaminated formulation of the burden of proof from the common issues trial into the mine specific trial. This is evidenced by his continued mantra "*could have*"/ "*can have*" in connection with possible, non-intentional causes of AWCs. 15 FMSHRC at 1513, 1514, 1515, 1516, 1518, and 1521; 16 FMSHRC at 861, 864, 868, 882, 884, and 898. Consequently, neither decision can be allowed to stand inasmuch as each one contains the exact same fatal flaw: the judge's pronouncement and application of an erroneous burden of proof. Both decisions, on this ground alone, must be set aside because this error made it impossible for the Secretary to prove his case under the judge's erroneous interpretation of section 209(b).

Although such a legal error would normally result in a remand order, the facts of this case, as discussed below, support only one conclusion: that the Secretary established that AWCs were more likely than not the result of intentional conduct. I would therefore reverse the judge's decisions.

B. Under the Correct Standard of Proof, the Secretary Presented Sufficient Evidence to Satisfy the Preponderance of the Evidence Standard and the Judge's Conclusions to the Contrary are not Supported by Substantial Evidence.

In spite of the fact that the trial-judge erroneously forced the Government to prove its case by showing that AWCs were the result of intentional misconduct, in fact the Government did prove by a preponderance of the evidence that AWCs were caused by intentional misconduct. The judge's conclusion, to the contrary, is not supported by substantial evidence. Based on the substantial evidence test, I would reverse the judge's decision in both the common-issues case and in the mine-specific case.

The Commission is bound by the terms of the Mine Act to apply the substantial evidence

test when reviewing an administrative law judge's factual determinations. 30 U.S.C. § 823(d)(2)(A)(ii)(I); *Wyoming Fuel Co.*, 16 FMSHRC 1618, 1627 (August 1994). That standard of review requires that a fact finder weigh all probative record evidence and that a reviewing body examine the fact finder's rationale in arriving at his decision. *Wyoming Fuel*, 16 FMSHRC at 1627; *see also*, *Mid-Continent Resources, Inc.*, 16 FMSHRC 1218, 1222 (June 1994), *citing Universal Camera Corp. v. NLRB*, 340 U.S. 474, 487-89 (1951). A judge must analyze and weigh the relevant testimony, make appropriate findings, and explain the reasons for his decision. *Wyoming Fuel*, 16 FMSHRC at 1627; *Mid-Continent*, 16 FMSHRC at 1222, *citing The Anaconda Co.*, 3 FMSHRC 299, 299-300 (February 1981). An appellate body reviewing a judge's factual findings will not affirm his findings if they are unreasonable, incredible or if there is dubious evidence to support them. *See e.g.*, *Krispy Kreme Doughnut Corp. v. NLRB*, 732 F.2d 1288, 1293 (6th Cir. 1984); *Midwest Stock Exchange, Inc. v. NLRB*, 635 F.2d 1255, 1263 (7th Cir. 1980).

As outlined below, *under the correct burden of proof* -- which the judge did not apply⁷ -- the Government presented sufficient evidence during the course of the common-issues trial and the mine-specific trial to establish its case, even under the judge's erroneous interpretation of section 209(b).

1. Expert Witnesses

(i). The judge erred in failing to credit Mr. Thaxton.

I find that the Government, through Mr. Thaxton, presented compelling testimony that AWCs were not the result of normal handling conditions but, rather, were more likely than not the result of deliberate and intentional misconduct. The judge erred in failing to credit Mr. Thaxton's testimony on several fronts.

Interestingly enough, the ALJ accepted Mr. Thaxton as an expert in the common-issues trial and the mine-specific trial in the fields of respirable dust sampling and in determining normal and abnormal patterns on filters. 16 FMSHRC at 872; 15 FMSHRC at 1473. The judge accepted Mr. Thaxton's opinion that the AWCs at Urling "*did not result from normal sampling[.]*" 16 FMSHRC at 897 (emphasis added). These two findings have led to a conclusion that Mr. Thaxton's ultimate opinion on the causes of AWCs was persuasive. However, the judge inexplicably made a finding contrary to Mr. Thaxton's opinion. Specifically, the judge held that deliberate and intentional conduct was not the most likely cause of AWCs. 16 FMSHRC at 897; 15 FMSHRC at 1521. This finding was inconsistent with his above cited conclusions and can not be sustained under the substantial evidence test. Further, the judge concluded that Mr. Thaxton's reasons for not citing filters designated as "no calls" were tenuous and not appropriate exercises of MSHA's discretion. The judge's conclusions in this connection constitute an intrusion on

⁷ *See supra* pages 15-22 and accompanying notes (discussion of the judge's erroneous formulation and application of the burden of proof).

MSHA's prosecutorial discretion. Contrary to the judge's conclusion, Mr. Thaxton's decision not to cite the 400 no-call filters -- which only amounted to less than ten percent of the 5,000 cited AWCs and less than five percent of the 75 cited AWCs at Urling -- did not affect the coherence or consistency of MSHA's citation criteria. In fact, it is impossible to reconcile this adverse finding by the judge with his determination that Mr. Thaxton's classification system was coherent and consistent. *See* 15 FMSHRC at 1469 and 16 FMSHRC at 897. The judge's finding that Mr. Thaxton's reasons for not citing filters designated as "no calls" was tenuous and not an appropriate exercise of the MSHA's discretion is inconsistent with his twice stated finding that Mr. Thaxton's classifications of AWCs *were coherent and consistent*. His findings; therefore, are not supported by substantial evidence and can not be sustained.

(ii). The judge erred in crediting Dr. Lee's opinions over Mr. Thaxton's opinions

There is not substantial evidence to support the judge's acceptance of Dr. Lee's opinions over Mr. Thaxton's opinions. Many of Dr. Lee's opinions were speculative and not supported by experimental evidence. Specifically, Dr. Lee's opinion concerning the degree of force necessary to produce dust dislodgement on the cited filters being less than that caused by deliberate blowing in a reverse direction is without any experimental or scientific support. Consequently, the judge erred in crediting and relying on Dr. Lee's opinion in this connection.

Moreover, Dr. Lee's system of classification is as unreliable as his ability to apply that system during the course of the trial. Specifically, Dr. Lee was only minimally successful in correctly classifying cited filters under his systems of classification during the trial. The evidence reveals in this connection that under his Richard J. Lee Group type-system ("RLJG"), Dr. Lee could replicate his classifications less than 50% of the time. In connection with his Feature Code Classifications, he was able to replicate his classifications only 10 out of 35 times. 15 FMSHRC at 1489. In connection with his mixed mode classifications system, Dr. Lee was unable to identify: which mode occurred first; the characteristics of a reverse air pulse on his group D; or the characteristics of a impact on most of his group A. Moreover, Dr. Lee could not always identify both of the events in his mixed mode classifications or say for sure that there was a mixed mode appearance on many of the filters. In addition, Dr. Lee could not identify whether a pattern was caused by a mixed mode event or by a single event, nor could he rule out that the pattern was caused by reverse air flow.

Dr. Lee's opinions were riddled with inadequacies and inconsistencies. It is incomprehensible that the ALJ could rely on such facially flawed testimony or that the majority could sustain the judge. The judge erred in relying on Dr. Lee's opinion and, consequently, his findings in this connection cannot be sustained on the basis of substantial evidence.

(iii). The judge erred in relying on certain expert testimony that was withheld from the Secretary during discovery

Neither the opinion of Dr. Corn regarding accidental causes of AWCs nor the opinion of

Dr. Lee regarding the affect of sprays and scrubber systems on the formation of AWCs were stated during the discovery phase of this litigation. Although expressly asked by the Secretary during the discovery phase of this litigation, Dr. Corn and Dr. Lee responses concerning these matters were either not forthcoming or very cursory. At trial, on direct examination by their counsel, Dr. Corn and Dr. Lee gave in depth testimony concerning these matters. In spite of the Secretary's objection that he was surprised by their testimony and, consequently, prejudiced because he could not adequately cross examine or offer rebuttal evidence, the judge allowed into the record Dr. Corn's testimony regarding accidental causes of AWCs and Dr. Lee's testimony regarding the affect of sprays and scrubber systems on the formation of AWCs.

The discretion of an ALJ to permit the introduction of evidence which is not shared during discovery and to exclude the introduction of evidence which is not shared during discovery is not without limits. Defendant's failure to meet the requirements of Rule 26 should have resulted in the exclusion of the proffered evidence when the Government objected. *See Wright & Miller Federal Practice and Procedure Civil 2d* § 2050 (1994); *see also, Freund v. Fleetwood Enterprises, Inc.*, 956 F.2d 354, 356-59 (1st Cir. 1992); *Jenkins v. Whittaker Corp.*, 785 F.2d 720, 728 (9th Cir. 1986); *Weiss v. Chrysler Motors Corp.*, 515 F.2d 449, 454-57 (2d Cir. 1975); *Allread v. City of Grenada*, 988 F.2d 1425, 1435-36 (5th Cir. 1993). Under the circumstances, as set forth above, it is clear that neither the opinion of Dr. Corn regarding accidental causes of AWCs nor the opinion of Dr. Lee regarding the affect of sprays and scrubber systems on the formation of AWCs was properly disclosed during discovery, in spite of the Secretary's best efforts to ascertain these opinions during the that phase of this litigation. It is equally clear that the Secretary was prejudiced by the surprised he encountered and the accompanying impact that surprise had on his ability to effectively cross examine Dr. Corn and Dr. Lee and to present rebuttal evidence. Permitting Dr. Corn and Dr. Lee's testimony to go into the record when it should have been excluded under Rule 26 was improper. Had Dr. Corn's testimony been excluded, the respondent's suggestion that unintentional conduct affects the occurrence of AWCs would have been, at the very least, significantly weakened. Had Dr. Lee's testimony been excluded, the respondent would not have presented any evidence on the affect of sprays and scrubber systems on the formation of AWCs. To the extent that the judge relied on this testimony in reaching his final conclusion, that conclusion is not properly supported by substantial evidence.

(iv). The judge erred in relying on Dr. Corn's conclusions on accidental causes of AWCs because they lacked scientific foundation

The assertion of Dr. Morton Corn, the respondent's witness, that events associated with collection, handling, and analysis provided a more plausible explanation for AWCs than tampering was not only improperly admitted, it was not made on the basis of scientific experimentation. Further, in connection with Dr. Corn's digital image analysis study, the judge found it was "*complex, confusing, and contradictory*[" 15 FMSHRC at 1512 (emphasis added). Consequently, to the extent the judge relied Dr. Corn's opinion in this connection to support Dr. Lee's opinions, he erred. For the judge to have relied on Dr. Corn's opinion in this connection to support Dr. Lee's opinions was inconsistent with his rejection of Dr. Corn's digital image analysis

study, upon which Dr. Corn relied in supporting Dr. Lee. Thus, the judge's determination in this connection was not supported by substantial evidence.

(v). The judge erred in accepting the opinion of Dr. Lee over the opinion of Dr. Marple on the effect of sprays and scrubber systems on the formation of AWCs

Initially, the judge erred in accepting Dr. Lee's opinion without adequately articulating his reasons for doing so. A reviewing court "is not compelled to respect" credibility choices "based on an inadequate reason or no reason at all." *Ona Corp. v. NLRB*, 729 F.2d 713, 719 (11th Cir. 1984), quoting *NLRB v. Moore Business Forms, Inc.*, 574 F.2d 835, 843 (5th Cir. 1978). The judge's crediting of Dr. Lee over Dr. Marple was in error. The judge failed to adequately articulate his reasons for crediting Dr. Lee over Dr. Marple and, therefore, his crediting of Dr. Lee can not be sustained. Particularly in light of the serious inconsistencies between Dr. Lee's testimony on the affect of sprays and scrubber systems on the formation of AWCs and the actual affect, as outlined below. *Ona Corp. v. NLRB*, 729 F.2d at 719.

Dr. Lee's testimony regarding the affect of sprays and scrubber systems on the formation of AWCs is unreliable because of his lack of expertise, his failure to make factual observations, and the lack of scientific support for his opinions. Further, the scrubber systems can not explain the sudden decline in AWC appearances on or about March 26 at the Urling mine. On March 19, 1990, MSHA instituted an AWC void code. The void code was issued in response to MSHA's discovery that operators were submitting filters exhibiting white circular areas in the center of the filters -- abnormally white centers -- a phenomenon that was both abnormal and suspicious. The void code was a three-letter code (AWC) which indicated to an operator submitting a respirable dust sample that MSHA would not accept its submitted respirable dust sample to determine whether the operator met the respirable dust standard. In other words, MSHA informed operators that submitted samples were voided because of AWC appearances. Thereafter, MSHA began rejecting submitted respirable dust samples that displayed an abnormally white center. Over all, MSHA issued approximately 5,000 citations to 847 mines and assessed more than \$6.5 million in penalties. Once word of the void code spread throughout the industry, filters with AWCs all but vanished. For example, in the eight months preceding the void code notification date, 58% (36 out of 68) of the samples from three continuous mining units which were not equipped with scrubbers had AWCs while during the eight month period following March 26 of the 65 samples submitted from the same three machines -- which were still not equipped with scrubbers systems -- *none exhibited AWC appearances*. K Stip. No. 94; K Exs. G-544; R-2006A. In light of this uncontradicted evidence it is astonishing that the judge still found that sprays and scrubber systems had an affect on the formation of AWCs. Moreover, this evidence provides compelling proof that it was the institution of the void code and not the sprays and scrubber systems that affected the dramatic reduction in the formation of AWCs. The judge's determination in this regard is unsupported by substantial evidence.

Moreover, the judge's conclusion that Dr. Marple's testimony was inconsistent demonstrates that he did not fully understand Dr. Marple's testimony. In this connection, Dr.

Marple testified that moisture within and on the face of the coal seam could affect the adhesion of the dust particles to the filter. However, Dr. Marple testified that once coal dust was airborne and carried to the filter the dust was not moist and, thus, water scrubbers had no effect on the adhesion of the dust particles to the filter. The judge failed to recognize this important aspect of the testimony and, consequently, his conclusion that Dr. Marple's testimony was inconsistent is simply erroneous and can not be sustained under the substantial evidence test. Dr. Marple's opinions should have been credited over Dr. Lee's opinions, and not doing so was error.

2. The judge erred in failing to consider the optional quartz sampling program

Initially, I reject the judge's conclusion that because the "persons at the [Pittsburgh Health Technology Center] who examined the quartz samples for AWC appearances were not called to testify" it was "impossible" for him to "draw any conclusions from the fact that no appearances on quartz samples were noted or cited by MSHA." 16 FMSHRC at 888. The witness called by the Secretary to present testimony on the results of the optional quartz sampling program at the Pittsburgh Health Technology Center, was Paul Parobeck. Since 1984, Mr. Parobeck had supervised the two individuals at the Pittsburgh Health Technology Center who examined the quartz samples for AWC appearances. Mr. Parobeck observed and reviewed the work of these two individuals, as well as all of the relevant Rochester and Pittsburgh's records.⁸ Therefore, Mr. Parobeck was competent to offer testimony in connection with the results of the optional quartz sampling program at the Pittsburgh Health Technology Center. The judge's determination to the contrary is erroneous.

The judge erred in failing and refusing to consider the results of the optional quartz sampling program at the Urling mine. It is logical to assume that if AWCs were produced on respirable dust samples by inadvertent or unintentional conduct at a given rate, AWCs would also be produced on quartz samples by those same events at a comparable rate. This is so because the quartz samples were collected in the exact same manner and under the exact same circumstances as the respirable dust samples. The critical difference between respirable dust samples and quartz samples is that it was in Rochester and Pittsburgh's interest to achieve low dust levels in the respirable dust sampling program while it was in R&P's interest to achieve high dust levels in the quartz sampling program. Contrary to what one would expect to see if the AWCs were being caused by inadvertent or unintentional conduct, the evidence submitted by the Government established that **none** of the 75 quartz samples taken by R&P exhibited an abnormal appearance while **40%** of the respirable dust samples exhibited an abnormal appearance. This is astonishing evidence and strongly suggests that the respirable dust samples were altered. That the levels of abnormal appearances in the quartz samples were not exhibited at a rate comparable to the levels of abnormal appearances in the respirable dust samples powerfully suggests that the AWCs on the respirable dust samples were not produced by inadvertent or unintentional conduct.

⁸ R&P is the sole owner of Keystone, the operator of the Urling mine. 16 FMSHRC at 858.

The judge reasoned that because the actual quartz samples no longer exist (as a result of the testing process which destroys them) he could not rely on them. While it is true that the actual filters no longer existed because the process of testing the quartz samples destroys them, this fact is insufficient to exclude perhaps the single most powerful piece of evidence of deliberate and intentional conduct in the mine-specific trial. This evidence, enriched by the other evidence and expert testimony, was sufficient to satisfy the Secretary's burden of proof and to establish that the cited AWCs were more likely than not the result of Urling's deliberate and intentional conduct. Urling did not set forth any believable or credible explanation to rebut, counter or explain away this extraordinary evidence.

3. Statistical Evidence

(i). The significance of the void code

On March 19, 1990, MSHA instituted an AWC void code. The void code was issued in response to MSHA's discovery that operators were submitting filters exhibiting white circular areas in the center of the filters -- abnormally white centers -- a phenomenon that was both abnormal and suspicious. The void code was a three-letter code (AWC) which indicated to an operator submitting a respirable dust sample that MSHA would not accept its submitted respirable dust sample to determine whether the operator met the respirable dust standard. In other words, MSHA informed operators that submitted samples were voided because of AWC appearances. Thereafter, MSHA began rejecting submitted respirable dust samples that displayed an abnormally white center. Over all, MSHA issued approximately 5,000 citations to 847 mines and assessed more than \$6.5 million in penalties.

(ii). The judge's determination that the statistical evidence does not establish that AWCs resulted from intentional tampering which ceased after the institution of the void code is not supported by substantial evidence

The mountain of statistical evidence in this case, when combined with the other evidence and the testimony of expert witnesses, points to one inevitable and unavoidable conclusion, and the Secretary's brief put it best when it stated: "*Something dramatic happened on or about March 26, 1990*" and it "defies human credulity and common sense to conclude, as the judge did, that [the statistical evidence does] not constitute compelling support for the Secretary's explanation of why AWCs routinely occurred and then abruptly ceased to occur." *Id.* at 39.

In brief, the statistical evidence establishes that after the institution of the void code the number of voided filters plummeted. Specifically, the evidence demonstrates that after the institution of the void code the number of voided filters sent on to Mr. Thaxton from the Government's Pittsburgh Health Technology Center dropped from an average of 6.5% to an average of less than 1%. Further, the evidence shows that the drop in the rate of samples exhibiting AWCs submitted by all of Rochester and Pittsburgh's mines was even more dramatic: cassettes submitted before March 26, 1990, and manufactured during a nine day period,

manifested AWCs at a rate of 29% while cassettes manufactured during that same period but submitted after March 26, 1990, manifested AWCs at a rate of 1%. The most dramatic drop in the rate of samples exhibiting AWCs, however, was at the Urling mine: cassettes submitted before March 26, 1990, and manufactured during a nine day period, manifested AWCs at a rate of 25% while cassettes manufactured during that same period but submitted after March 26, 1990, manifested AWCs at a rate of 0%. Moreover, R&P's logbooks established that: (1) when Urling used cassettes from the 300,000 series before March 26, 1990, approximately 40% (66 of 165) had AWCs; and (2) when Urling used cassettes from the 300,000 series after March 26, 1990, less than 2% (1 of 59) had AWCs. This brief sampling of the evidence demonstrates quite clearly that it was the void code, and not a miraculous convergence of unrelated natural and unnatural phenomenon that caused the precipitous drop in the rate of AWCs. It stretches the bounds of the human imagination to suggest, as the respondents and intervenors have, that changes in the mine environments; changes in the filter manufacturing process, and changes in the handing of filter cassettes all occurred on or about the third week of March 1990 and this strange and miraculous convergence of events is what caused the AWC rate to plummet. To ask us to believe that is to ask us to believe that elephants fly. The judge erred in discounting the significance of the statistical evidence and, consequently, his decisions are not supported by substantial evidence.

(iii). Contrary to the judge's determination, bimonthly sampling does not merely reflect how operators carry out dust sampling

The evidence established that the samples from the Urling mine were submitted at varying time intervals and were not submitted on a strict and regular bimonthly interval. Consequently, contrary to the judge's determination, bimonthly sampling does not merely reflect how operators carry out dust sampling. Further, the manipulation of the evidence into bimonthly groupings by the respondents, especially the March 1 to April 30, 1990 grouping, masks the significance of the March 26 date by smoothing out the variations in the AWCs rates during that critical time period. Thus the judge's erroneous determination that the samples at Urling were submitted on a strict and regular bimonthly interval is unsupported by substantial evidence. Further, viewing the statistics in a bimonthly format caused the judge to erroneously discount the statistical evidence. As set forth above, the sudden drop in the occurrences of AWCs at the Urling mine was simply astonishing. Obviously what happened here was that the defendant, having been caught, saw to it that the illegal acts were stopped. The judge's discounting of this evidence is similarly mind boggling. Moreover, the judge's determination is simply not supported by substantial evidence.

Contrary to the judge's determination, the evidence shows that March 26, 1990, is the date that Rochester and Pittsburgh's Environmental Safety Department personnel became aware of the void code. Specifically, Mr. Donald Eget, supervisor of the Environmental Safety Department ("ESD"), testified that he knew little concerning the details of MSHA's investigation in February and March of 1990. All of Mr. Eget's information was second hand and he did not recall receiving any details in connection with MSHA and the United States Attorney's investigation of tampering at Rochester and Pittsburgh ("R&P"). Mr. Eget was unfamiliar with the concept of AWCs prior to the void code notification. Upon receipt of the void code Mr. Eget called MSHA

for an explanation of the code. Mr. Eget's assistant, Mr. Houck, had less information than Mr. Eget. Most importantly, after Mr. Eget called MSHA for an explanation of the code, the flow of AWCs from ESD **came to an abrupt halt.**

4. The judge erred in his conclusions regarding filter-to-foil distances

The judge's conclusion that the filters produced before February 13, 1990, were more likely to have a short filter-to-foil distances of 2mm, or less than those produced after February 13, 1990, was based on a woefully inadequate sample size. The evidence establishes that fewer than 100 measurements (out of 200,000 filters) for the before period were taken and more than 1,700 measurements (out of 200,000 filters) for the after group were taken. Further, within each group there were widely varying measurements, with a substantial percentage of short filter-to-foil distances measured in the "before" group. Moreover, the comparisons between the two groups were compromised by data from the more than 4,000 measurements of filter-to-foil distance of filters that were manufactured between October 25, 1990, and February 15, 1992, a period well after the institution of AWC void code. Even so, those 4,000 measurements indicated that 50% of the filters being manufactured during that period had short filter-to-foil distances yet there were almost no AWCs from those groups of filters, not what should be expected if filter-to-foil distances affected the formation of AWCs.

Moreover, Dr. Marple testified that some taunt filters might not move even if they had a short filter-to-foil distance. Further, Dr. Marple found that filter-to-foil distance and floppiness were not likely to affect the formation of AWCs because of the overriding affect of the threshold velocity of the dust on each filter. The only basis provided by respondents' experts for the assertion that filter-to-foil distance affected the probability of AWCs occurring was "common sense." CI 4756, 5004, 5273, 6222, 6831, 7697, and 7897. To the contrary, if anything, common sense leads to an opposite conclusion. Specifically, as noted above, out of the 4,000 measurements of filter-to-foil distance of filters that were manufactured between October 25, 1990, and February 15, 1992, 50% had short foil-to-filter distances. However, overall only 2% of cited AWCs came from this group of filters. If filter-to-foil distance affects the occurrence rate of AWCs common sense would dictate that AWCs would occur at a higher rate than that which occurred. The only fact that would explain why the actual occurrence rate was not at the expected rate is the *institution of the void code*. Consequently, the judge erred in relying on the "common sense" theory posited by respondents' experts. Using "common sense" is a laudatory thing to do; however, in these cases, along with common sense, legal principles must prevail. The defendants, rather than using common sense used common illegality to infect we know not how many miners with silicosis.

Moreover, and perhaps most importantly, Rochester and Pittsburgh's ("R&P") logbooks established that: (1) when Urling used cassettes from the 300,000 series before March 26, 1990, approximately 40% (66 of 165) had AWCs; and (2) when Urling used cassettes from the 300,000 series after March 26, 1990, less than 2% (1 of 59) had AWCs. The AWC rate for the cassettes the judge held were more susceptible to AWC because of manufacturing anomalies was actually

lower than it was for cassettes manufacture on other dates -- again, the exact opposite of that expected if manufacturing anomalies accounted for AWC susceptibility. The overwhelming evidence demonstrates that cassettes submitted before March 26, 1990, and manufactured during a nine day period manifested AWCs at a rate of 25% at Urling and 29% at other R&P mines while cassettes manufactured during that same period but submitted after March 26, 1990, manifested AWCs at a rate of **1% at Rochester and Pittsburgh mines and 0% at the Urling mine!** Again, the only fact that would explain this phenomenon is the *institution of the void code and that the offending companies were caught*. Therefore, the judge's determination that filter-to-foil distances were likely factors in the occurrences of AWCs is not supported by substantial evidence and cannot be sustained.

5. The judge's determination that handling variables affected the AWCs occurrence rate is not supported by substantial evidence

The evidence on "handling variables" does not support the judge's conclusions that the rough handling of the equipment contributed to the occurrence of AWCs. The evidence reflects that only three individuals at R&P's Environmental Safety Department ("ESD") handled Urling dust filters -- Messrs. Eget, Houck, and Snyder. Both Mr. Eget and Mr. Houck admitted that they did not change their handling practices immediately after the void code was instituted. Although Mr. Snyder testified that he made a few changes in the manner in which he handled the sampling units, he could not identify the point in time at which he made the changes. However, he stated that *he did not make any changes in the manner in which he transported the sampling devices until after January 1992, 21 months after the institution of the void code!* Mr. Snyder testified further that he first received instructions on specific modifications he should make in his handling practices after January 1992. Consequently, no reasonable inference can be drawn from this evidence to support a finding that "handling variables" contributed to the precipitous fall in AWCs after the institution of the void code. In fact, the evidence demonstrates that handling practices did not change until almost two years after the institution of the void code.

The judge also relies on the fact that Mr. Eget, admittedly the roughest handler of the sampling devices, was absent between April 9, 1990 and May 10, 1990. However, Mr. Eget handled the devices as *roughly after May 10, 1990 as he had before April 9, 1990*. K 2179, 2362, and 2993. Consequently, the virtual cessation of AWCs after March 26, 1990, can not be explained by the absence of Mr. Eget because he continued to handle them in this same manner until his retirement in January 1992 -- *21 months after the dramatic decline in the AWCs rate*. The findings by the judge in this connection are not supported by substantial evidence and, thus, can not stand.

6. The judge's credibility findings in connection with the ESD personnel can not be sustained.

Where a judge's credibility determinations are based in essence not upon the demeanor of the witnesses, but rather upon an analysis of their testimony and other record evidence, as here,

such determinations are not entitled to special deference. *Consolidation Coal Co. v. NLRB*, 669 F.2d 482, 488 (7th Cir. 1982). Further, material evidence cannot, as the judge did here, be disregarded or eliminated by the causal expedient of crediting or discrediting witnesses. *Medline Industries v. NLRB*, 593 F.2d 788, 795 (7th Cir. 1979). Moreover, the judge's credibility determinations are based on an illogical assumption -- that people do not violate the law because they are aware of criminal and civil penalties. As extraordinary as it may seem, this is what the ALJ said in his opinion speaking of the credibility of Eget and Houck:

Both Eget and Houck knew that tampering was illegal. Eget at least was aware that such acts could result (and had resulted) in criminal sanctions Relying on the absence of any adequate motive for tampering, and the strong disincentive provided by their knowledge of possible sanctions for tampering, I accept as truthful the statements of each of them that he did not tamper with compliance respirable dust samples submitted to MSHA. . . . *I consider these credibility determinations to be of overriding importance in this decision.*

16 FMSHRC at 902-903 (emphasis added).

Jails are full of people who are "aware that [their] acts could result (and had resulted) in criminal sanctions." *Id.* at 902. The judge's credibility determinations are not entitled to weight because he based them on unfounded considerations. *Ona Corp.*, 729 F.2d at 719; *Omni International Hotels v. NLRB*, 606 F.2d 570 573; *Breeden*, 493 F.2d at 1010; *Victor Products Corp v. NLRB.*, 208 F.2d 834 839 (D.C. Cir. 1953). As a result, the judge's credibility determinations are not legally sustainable. In my 40 years as a member of the bar I have never come across as ludicrous a statement as this trial judge made when he said:

Both Eget and Houck knew that tampering was illegal. Eget at least was aware that such acts could result (and had resulted) in criminal sanctions Relying on the absence of any adequate motive for tampering, and the strong disincentive provided by their knowledge of possible sanctions for tampering, I accept as truthful the statements of each of them that he did not tamper with compliance respirable dust samples submitted to MSHA. . . . *I consider these credibility determinations to be of overriding importance in this decision.*

Id. (emphasis added).

7. The judge erred in refusing to admit criminal evidence in the common-issues trial

In the Secretary's Statement and Introduction to Offers of Proof Regarding Potential Testimony of Pysher, *et al.*, he offered evidence of criminal tampering by other operators to demonstrate that tampering was a quick and easy way to remove dust; that tampering had

occurred; and that tampering was not an isolated event. Specifically, the Secretary stated:

Attached are Offers of Proof with regard to five witnesses who have observed or participated in tampering with respirable dust samples. These Offers set forth the testimony these witnesses would present if they were allowed to testify at trial.

With respect to the five proposed witnesses, they would be expected to testify that deliberate tampering and falsification of samples were, in fact, activities engaged in by mine operators who submitted AWCs. These witnesses could establish that deliberate behavior was used to mislead MSHA or misrepresent the actual level of dust concentration at mines and they could describe such deliberate acts either in which they participated or which they personally observed. These witnesses could testify as to why samples were deliberately altered or fraudulently manufactured and they could testify how easily such acts were carried out. These witnesses can rebut the operators' experts' testimony of possible or speculatively potential causes of AWCs by showing what actually did occur at many mines. This testimony is not intended to impute criminal conduct to all operators; rather, it is to establish that such behavior was not isolated, inconsequential or remote. This testimony and related documentary evidence would prove that deliberate tampering is a reasonably likely cause of AWCs and that such likelihood must be weighed against the explanations offered by the operators in this proceeding. These people participated in or observed deliberate attempts to create altered or fraudulent samples at mines which submitted more than 400 of the cited AWCs. Furthermore, the testimony and exhibits related to these witnesses will corroborate the opinions of Robert Thaxton and Dr. Virgil Marple that deliberate behavior created altered samples.

Statement and Introduction to Offers of Proof Regarding Potential Testimony of Pysher, *et al.*
The excluded criminal evidence was clearly relevant in the dust cases. Its probative value was directly related to the issue of how AWCs could occur and, in fact, that they had occurred in the past. In light of the limited purpose for which the evidence was introduced the evidence posed little, if any, potential for any prejudicial impact. This is particularly so given that these proceedings were held before a trial judge.

Because the probative value of the proffered evidence outweighed any potential prejudicial impact it should have been admitted. Respondent complained that the evidence was character evidence -- i.e. offered to show that mine operators were predisposed to intentionally tamper because they had done so in the past. I reject this assertion even though it is a well known fact that such was done in the past (and unfortunately continues from time to time even today). As set forth above, the evidence was patently not offered for this purpose. Further, while the proffered

criminal evidence was also relevant to issues of motive and opportunity to tamper, evidence submitted for these two purpose come under the exceptions to the exclusion of character evidence contained in Rule 404(b). Thus, submitted for this limited purpose, the evidence was clearly relevant to the ultimate question of whether AWCs were more likely than not the result of intentional conduct.

Finally, inasmuch as the Secretary specifically stated that the evidence was not submitted for the purpose of proving that because one operator tampered the respondents tampered and it was heard by an experience trial judge, its probative value outweighed any potential prejudicial effect. Inasmuch as it was offered into evidence for this limited purpose, it was improperly excluded and the judge erred in not considering this evidence. As such, the judge's decisions are not supported by substantial evidence because he failed to admit and weigh this probative evidence. *Wyoming Fuel*, 16 FMSHRC at 1627; *see also, Mid-Continent Resources, Inc.*, 16 FMSHRC 1218, 1222 (June 1994), *citing Universal Camera Corp. v. NLRB*, 340 U.S. 474, 487-89 (1951). As set forth above, a judge must analyze and weigh the relevant testimony, make appropriate findings, and explain the reasons for his decision. *Wyoming Fuel*, 16 FMSHRC at 1627; *Mid-Continent*, 16 FMSHRC at 1222, *citing The Anaconda Co.*, 3 FMSHRC 299, 299-300 (February 1981). The judge failed to do this and, as a result, his findings cannot be affirmed.

VI. Conclusion

Unfortunately, we can not tell and will never know how many men and women were infected with black lung disease as a result of the illegal actions of the company defendants in these cases. Considering the length of time their illegal actions went on, the number could well be in the many thousands. Hopefully, the Government of the United States will in the end prevail, in spite of the insensitive majority decision in this case and for whatever little satisfaction that gives those thousands of people who have been harmed by the defendants' illegal acts, the right thing will have been done by them.



Marc Lincoln Marks, Commissioner

Distribution

Jerald S. Feingold, Esq.
Stephen D. Turow, Esq.
Office of the Solicitor
U.S. Department of Labor
4015 Wilson Blvd., Suite 400
Arlington, VA 22203

R. Henry Moore, Esq.
Buchanan Ingersoll
USX Tower, 57th Floor
600 Grant Street
Pittsburgh, PA 15219

Barry A. Woodbrey, Jr., Esq.
United Mine Workers of America
900 15th Street, N.W.
Washington, D.C. 20005

Laura E. Beverage, Esq.
Jackson & Kelly
1660 Lincoln St.
Denver, CO 80264

Timothy M. Biddle, Esq.
Crowell & Moring
1001 Pennsylvania Ave., N.W.
Washington, D.C. 20004

Michael T. Heenan, Esq.
Smith, Heenan & Althen
1110 Vermont Avenue, N.W.
Washington, D.C. 20005

John Palmer, Esq.
Robinson & McElwee
P.O. Box 1791
Charleston, WV 25326

H. Thomas Wells, Esq.
Maynard, Cooper, Frierson & Gale
1901 6th Avenue, N.W.
Suite 2400 AmSouth/Harbert Plaza
Birmingham, AL 35203

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

1730 K STREET NW, 6TH FLOOR
WASHINGTON, D.C. 20006

November 30, 1995

SECRETARY OF LABOR,	:	
MINE SAFETY AND HEALTH	:	
ADMINISTRATION (MSHA)	:	
	:	
v.	:	Docket Nos. SE 93-9
	:	SE 93-10
S&H MINING, INC.	:	SE 93-98

BEFORE: Jordan, Chairman; Doyle, Holen and Marks, Commissioners

DECISION

BY THE COMMISSION:

These civil penalty proceedings, arising under the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 801 et seq. (1988) ("Mine Act" or "Act"), involve two roof control plan violations. Administrative Law Judge Jerold Feldman concluded that the first violation was not significant and substantial ("S&S") and that the second violation was not the result of unwarrantable failure. 15 FMSHRC 2196, 2198-99 (October 1993) (ALJ). The Commission granted the Secretary of Labor's petition for discretionary review, which challenges those determinations. For the reasons that follow, we vacate and remand.

I.

Factual and Procedural Background

During an inspection at the No. 7 underground coal mine of S&H Mining, Inc. ("S&H"), an inspector of the Department of Labor's Mine Safety and Health Administration ("MSHA") issued two withdrawal orders pursuant to section 104(d) of the Mine Act, 30 U.S.C. § 814(d), alleging violations of 30 C.F.R. § 75.220 for failure to comply with the approved roof control plan.¹ The inspector designated the alleged violations to be S&S and the result of unwarrantable

¹ Section 75.220 states in relevant part:

(a)(1) Each mine operator shall develop and follow a roof control plan

failure. The operator stipulated to the occurrence of both violations but contested the S&S and unwarrantable failure designations.

A. Order No. 3382962

On July 22, 1992, MSHA Inspector Don McDaniel, accompanied by Charles White, superintendent of S&H mines, observed a coal pillar that had not been mined in conformity with the roof control plan. 15 FMSHRC at 2199. Although the plan limited initial pillar cuts to a width of 13 feet, the initial cut of the pillar had been made about 20 feet wide.² *Id.*; Tr. II 67-68.³ White told Inspector McDaniel that the pillar had not been mined according to the plan because the continuous mining machine was too large to be maneuvered to cut the pillar according to the plan's cut sequence. 15 FMSHRC at 2199; Tr. I 187, 192-93. Following McDaniel's issuance of a section 104(d) order, S&H's roof control plan was revised to permit it to round off a corner of the pillar and then make an initial pillar cut 15 feet wide. 15 FMSHRC at 2199; Tr. II 77-78. The judge concluded that this violation was not S&S. 15 FMSHRC at 2199.

B. Order No. 3382964

On the following day, Inspector McDaniel, again accompanied by White, noticed section foreman Steve Phillips operating a continuous miner to clean up loose waste material ("gob") in an entry. 15 FMSHRC at 2198; Tr. I 199. Phillips loaded a shuttle car with gob and, as another shuttle car arrived, positioned the miner against the side of a pillar and began cutting coal without having first installed roof support timbers. Tr. I 199-200. Before Phillips was stopped, he had made a 12-foot-wide, 38-inch-deep, wedge-shaped cut in the pillar. 15 FMSHRC at 2198; Tr. I 200, 204. Phillips told McDaniel that he was still cleaning up gob and had cut the pillar unintentionally. Tr. I 205. The judge concluded that this violation was not the result of unwarrantable failure. 15 FMSHRC at 2198.

II.

Disposition

A. Whether the violation cited in Order No. 3382962 was S&S

The judge concluded that the violation was not S&S because the roof control plan was subsequently modified to "essentially conform" to the operator's method of initial pillar cut, thus precluding him from finding that the cited "mining . . . was structurally unsound." 15 FMSHRC

² The pillars are approximately 35 feet square. Tr. I 182, 205.

³ The hearing was conducted on September 28 and 29, 1993. "Tr. I" refers to the September 28 hearing and "Tr. II" refers to the September 29 hearing.

at 2199. He also found the evidence did not show that miners were exposed to unsupported roof. *Id.*

The Secretary argues that the judge's S&S determination is not supported by substantial evidence and is contrary to precedent. S. Br. at 9-12. He asserts that the judge failed to address McDaniel's testimony regarding the danger of roof fall and the exposure to hazards of miners who traveled in this area. *Id.* at 10-11. He also contends that, contrary to the judge's impression, 15 FMSHRC at 2199, the subsequently revised roof control plan would not have allowed the operator to make the pillar cut for which it was cited. *Id.* at 11-12.

S&H responds that substantial evidence supports the judge's S&S determination. S&H Br. at 8-9. It points out that, although Inspector McDaniel testified generally that the violation would expose miners to the hazard of roof fall, he responded negatively when the judge asked him whether there was exposure to unsupported roof in connection with the violation. *Id.* at 8. S&H further asserts that the 20-foot-wide cut would not have violated the modified roof control plan. *Id.* at 9.

The S&S terminology is taken from section 104(d) of the Mine Act, 30 U.S.C. § 814(d), 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. *Cement Div., Nat'l Gypsum Co.*, 3 FMSHRC 822, 825 (April 1981). In *Mathies Coal Co.*, 6 FMSHRC 1 (January 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). See also *Buck Creek Coal, Inc. v. FMSHRC*, 52 F.3d 133, 135 (7th Cir. 1995), *aff'g* 16 FMSHRC 540, 541-43 (March 1994) (ALJ); *Austin Power, Inc. v. Secretary of Labor*, 861 F.2d 99, 103 (5th Cir. 1988), *aff'g* 9 FMSHRC 2015, 2021 (December 1987) (approving *Mathies* criteria). An evaluation of the reasonable likelihood of injury should be made assuming continued normal mining operations. *U.S. Steel Mining Co.*, 7 FMSHRC 1125, 1130 (August 1985).

We conclude that the judge's S&S determination is contrary to law. The judge failed to set forth or apply the *Mathies* criteria and failed to examine the likelihood of injury in the context

of continued mining operations as set forth in *U.S. Steel*. Further, his findings are not supported by substantial evidence.⁴

The first and second *Mathies* elements are established: S&H concedes the violation of its roof control plan and the record contains un rebutted evidence that the violation created a roof fall hazard. Tr. I 8-9, 207. With respect to the fourth *Mathies* element, the undisputed evidence clearly establishes that injury resulting from a roof fall would be serious in nature. Tr. I 207; Gov't Ex. 14.

The only issue in dispute, therefore, is the third element of the *Mathies* criteria, whether there was a reasonable likelihood that the hazard contributed to will result in an injury. The judge found that the operator's use of an initial 20-foot pillar cut was not structurally unsound because the roof control plan was subsequently modified to "essentially conform" to that method of cutting. 15 FMSHRC at 2199. McDaniel testified without contradiction, however, that the modified roof control plan requires the operator to limit the initial cut to a width of 15 feet. Tr. II 77-78. Thus, the record does not support the judge's implied finding that a 20-foot-wide cut was permitted under the modified roof control plan and, hence, that the operator's mining method did not compromise roof support.

The judge's finding that miners were not exposed to unsupported roof is also without evidentiary support. 15 FMSHRC at 2199. McDaniel testified that the area where the violation occurred was a travelway and that miners in the area were exposed to the hazard of roof fall. Tr. I 188, 207, Tr. II 61-62. He explained, without contradiction, that failure to follow the cut sequence in the roof control plan could cause a roof fall. Tr. I 207. Subsequently, the judge asked McDaniel, "Do you have an opinion whether or not there was any exposure of unsupported roof for the [order] . . . at issue?" Tr. II 80. McDaniel answered "No." *Id.* The judge continued: "They were not under unsupported roof?" *Id.* McDaniel answered "No, sir." *Id.* These questions apparently referenced exposure to unsupported roof *at the time McDaniel issued the order*. The judge's determination that there was no evidence of exposure is based on McDaniel's responses to his questions, even though McDaniel's earlier testimony made clear his opinion that the overcutting posed a continuing hazard to miners using the affected travelway. Commission precedent requires that the likelihood of injury be examined in the context of continued normal

⁴ The Commission is bound by the substantial evidence test when reviewing an administrative law judge's factual determinations. 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 (November 1989) (quoting *Consolidated Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938)). We are guided by the settled principle that, in reviewing the whole record, an appellate tribunal must also consider anything in the record that "fairly detracts" from the weight of the evidence that supports a challenged finding. *Universal Camera Corp. v. NLRB*, 340 U.S. 474, 488 (1951).

mining operations. *U.S. Steel*, 7 FMSHRC at 1130. The judge's decision does not indicate that he considered the likelihood of such exposure during continued operations.

Accordingly, we vacate the judge's determination that the violation was not S&S and remand for further analysis of the third *Mathies* element in light of Commission precedent and the record evidence.

B. Whether the violation cited in Order No. 3382964 resulted from unwarrantable failure

The judge concluded that the violation was not the result of unwarrantable failure because he found it "inconceivable" that the continuous miner operator, knowing that the inspector was present, would intentionally mine a pillar without setting timbers. 15 FMSHRC at 2198. He also determined that, in view of the "angle and size of the cut (38 inches in width)," ⁵ the Secretary failed to prove the violation was "a willful rather than a negligent act." *Id.*

The Secretary argues that the judge's finding that it was inconceivable Phillips, knowing McDaniel was present, would mine a pillar without setting timbers has no support in the record. S. Br. at 7-8. The Secretary also contends that the judge drew an unreasonable inference in finding the angle of the cut indicated that the operator's mining was unintentional. *Id.* at 5-6 n.3. The Secretary points out that the judge failed to discuss the 12-foot width of the cut, and that the cut was made by a foreman in the presence of a mine supervisor. *Id.* at 5-7. He asserts that the judge erred as a matter of law in assuming a violation can be found unwarrantable only if it is "intentional." *Id.* at 8-9.

S&H responds that the judge properly reasoned that Phillips would not intentionally violate the roof control plan knowing of the inspector's presence. S&H Br. at 7-8. It also argues that no proof was presented regarding the angle for making cuts under the roof control plan. *Id.* at 7. S&H maintains the violation was an accident, indicative of nothing more than ordinary negligence. *Id.* at 6.

The unwarrantable failure terminology is taken from section 104(d) of the Act, 30 U.S.C. § 814(d), and refers to more serious conduct by an operator in connection with a violation. In *Emery Mining Corp.*, 9 FMSHRC 1997 (December 1987), the Commission determined that unwarrantable failure is aggravated conduct constituting more than ordinary negligence. *Id.* at 2001. This determination was derived, in part, from the plain meaning of "unwarrantable" ("not justifiable" or "inexcusable"), "failure" ("neglect of an assigned, expected or appropriate action"), and "negligence" (the failure to use such care as a reasonably prudent and careful person would use, characterized by "inadvertence," "thoughtlessness," and "inattention"). *Id.* Unwarrantable failure is characterized by such conduct as "reckless disregard," "intentional

⁵ Notwithstanding the judge's use of the term "width," the record indicates that he was referring to the depth of the cut. See Tr. I 200, 204-05.

misconduct,” “indifference” or a “serious lack of reasonable care.” *Id.* at 2003-04; *Rochester & Pittsburgh Coal Corp.*, 13 FMSHRC 189, 193-94 (February 1991); *see also Buck Creek Coal, Inc. v. FMSHRC*, 52 F.3d at 136, *aff’g* 16 FMSHRC at 543-47 (approving Commission’s unwarrantable failure test). This determination was also based on the purpose of unwarrantable failure sanctions in the Mine Act, the Act’s legislative history, and judicial precedent. *Emery*, 9 FMSHRC at 2002-03.

The judge’s unwarrantable failure determination turned on whether the operator’s conduct was “willful” rather than negligent. 15 FMSHRC at 2198. The Commission has held that conduct that is not intentional may nevertheless be aggravated and, thus, constitute unwarrantable failure. *Youghioghney & Ohio Coal Co.*, 9 FMSHRC 2007, 2011 (December 1987). As noted, the Commission has held that conduct characterized by indifference, serious lack of reasonable care, or reckless disregard may support a finding of unwarrantable failure. Because the judge did not analyze the evidence in light of this precedent, he erred.

Further, the judge’s findings are not supported by substantial evidence. His finding that it was “inconceivable” that the continuous miner operator, knowing the inspector was present, would intentionally mine a pillar without setting timbers, 15 FMSHRC at 2198, lacks record support. There is no evidence that Phillips knew McDaniel was watching him at the time he committed the violation.

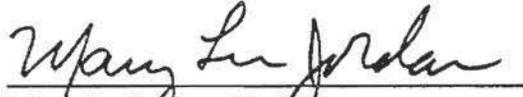
The judge’s reliance on the angle and depth of the cut in determining that unwarrantable failure had not been established is also misplaced. Inspector McDaniel testified that Phillips could not have traveled 12 feet by accident. Tr. I 206-07. The judge did not indicate why he rejected the inspector’s conclusion that, given the width of the pillar cut, it could not have been accidental. In addition, the judge did not discuss the fact that the cut was made by a section foreman and observed by a mine superintendent. A heightened standard of care is required of such individuals. *See Youghioghney & Ohio*, 9 FMSHRC at 2011 (in overseeing compliance with the roof control plan, the section foreman is held to a demanding standard of care). On remand, the judge shall address these issues.

Accordingly, we vacate the judge’s determination that the violation was not the result of unwarrantable failure and remand for further analysis in light of Commission precedent and the record evidence.

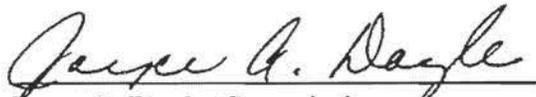
III.

Conclusion

For the foregoing reasons, we vacate the judge's determinations that the violation in Order No. 3382962 was not S&S and that the violation in Order No. 3382964 was not the result of unwarrantable failure. We remand for analysis consistent with this opinion.



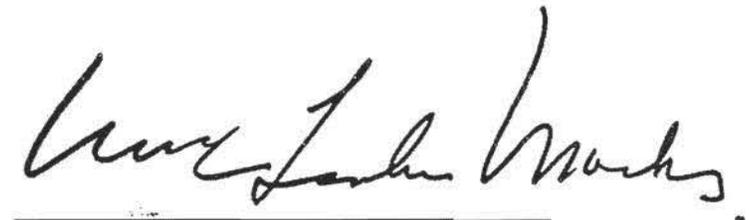
Mary Lu Jordan, Chairman



Joyce A. Doyle, Commissioner



Arlene Holen, Commissioner



Marc Lincoln Marks, Commissioner

Distribution

Susan E. Long, Esq.
Office of the Solicitor
U.S. Department of Labor
4015 Wilson Blvd.
Arlington, VA 22203

Imogene A. King, Esq.
Frantz, McConnell & Seymour
P.O. Box 39
Knoxville, TN 37901

Administrative Law Judge Jerold Feldman
Federal Mine Safety & Health Review Commission
5203 Leesburg Pike, Suite 1000
Falls Church, VA 22041

ADMINISTRATIVE LAW JUDGE DECISIONS

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

OFFICE OF ADMINISTRATIVE LAW JUDGES
2 SKYLINE, 10th FLOOR
5203 LEESBURG PIKE
FALLS CHURCH, VIRGINIA 22041

NOV 3 1995

ROCK OF AGES CORPORATION, : CONTEST PROCEEDINGS
Contestant :
v. : Docket No. YORK 94-76-RM
: Citation No. 4282251; 5/20/94
SECRETARY OF LABOR, :
MINE SAFETY AND HEALTH : Docket No. YORK 94-77-RM
ADMINISTRATION (MSHA), : Order No. 4282252; 5/20/94
Respondent :
: Docket No. YORK 94-78-RM
: Order No. 4282253; 5/20/94
: :
: Docket No. YORK 94-79-RM
: Order No. 4282254; 5/20/94
: :
: Docket No. YORK 94-80-RM
: Order No. 4282255; 5/20/94
: :
: Docket No. YORK 94-81-RM
: Order No. 4282256; 5/20/94
: :
: Docket No. YORK 94-82-RM
: Order No. 4282257; 5/20/94
: :
: Docket No. YORK 94-83-RM
: Order No. 4282258; 5/20/94
: :
: Rock Of Ages Lite Side
: Mine ID 43-00024
: :
SECRETARY OF LABOR, : CIVIL PENALTY PROCEEDING
MINE SAFETY AND HEALTH :
ADMINISTRATION (MSHA), : Docket No. YORK 95-55-M
Petitioner : A.C. No. 43-00024-05518
v. :
: Rock of Ages Lite Side
ROCK OF AGES QUARRIES, INC., :
A/K/A ROCK OF AGES CORP., :
Respondent :

DECISION

Appearances: Henry Chajet, Esq., Patton Boggs, L.L.P.,
Washington, D.C., and M. Shane Edgington, Esq.,
Patton Boggs, L.L.P., Denver, Colorado, for the
Contestant/Respondent;
David L. Baskin, Esq., Office of the Solicitor,
U.S. Department of Labor, Boston, Massachusetts,
for the Respondent/Petitioner.

Before: Judge Feldman

These consolidated contest and civil penalty proceedings are before me as a result of a petition for civil penalty filed by the Secretary of Labor pursuant to section 105(d) of the Federal Mine Safety and Health Act of 1977 (the Act), 30 U.S.C. § 801 *et seq.* These proceedings concern a 104(d)(1) citation and seven 104(d)(1) orders that were issued as a result of the Mine Safety and Health Administration's (MSHA's) accident investigation of the May 20, 1994, death of Michael Bassett, a Rock of Ages (ROA) quarryman. Bassett, a channel burner operator at ROA's Smith Quarry in Graniteville, Vermont, was killed when his torch ignited pyrodex blasting material.¹

Prior to the hearing, the Secretary moved to vacate Order Nos. 4282252, 4282253, 4282254 and 4282258. The petition seeks a total civil penalty of \$135,000 for remaining 104(d)(1) Citation No. 4282251 and 104(d)(1) Orders Nos. 4282255, 4282256 and 4282257.

The hearing was conducted from January 10 through January 13, 1995, in Boston, Massachusetts, and, from April 25 through April 28, 1995, in Montpelier, Vermont. On July 28 and October 19, 1995, ROA filed unopposed Motions to Correct a total of approximately 540 errors in the transcript of these proceedings. However, ROA has not alleged any significant

¹ The Smith Quarry is a component of Rock of Ages' Lite Side Quarry which is the subject mine site in this proceeding.

substantive transcript errors in its post-trial brief. I find the transcript to be substantially accurate, particularly with respect to the transcript pages referenced in this decision. Accordingly, ROA's Motions to Correct are granted with the exception of any requested corrections that are substantively inconsistent with the transcript pages discussed and cited herein.

ROA is a granite manufacturing company that is subject to the Act. ROA is a large operator in that it has approximately 300 employees and annually produces approximately 1.2 million cubic feet of granite. (Tr.II at 453-55; ROA Proposed Findings at p.2).² The parties' post-hearing briefs and replies are of record.

Statement of the Case

ROA's Smith Quarry is a solid massive granite formation where blocks of stone, called benches, are removed by quarrying in a downward, fairly cubicle fashion. Thus, the base of a quarried (removed) bench becomes the top of the bench to be quarried below. A typical bench is approximately 40 feet wide, 35 feet deep and 16 feet high.

Benches are separated by a channel burner operator who proceeds with a torch up one side of the bench, along the back, and then down the other side to create the bench. After channels are burned to separate the bench on the sides and in the rear, the bench is separated from the quarry floor by blasting material that is loaded into lift holes drilled every six inches along the base of the bench at its face.

Typical lift holes are 1-7/8 inches in diameter and approximately 32 feet long. When a lift (blast) is clean, the top half of the lift hole becomes part of the lifted bench, while the lower half of the hole remains at the surface at the top of the next bench to be quarried. If the lift is not clean, caprock may remain in place at the surface after the bench is removed

² Transcript references are cited as "Tr.I" and "Tr.II" for the first and second phases of the trial, respectively.

with the lift hole intact and the possibility of explosives inside.

ROA routinely used a continuous charge of primacord or seismic cord as its lift hole blasting agent prior to 1993. Beginning in February 1993, ROA departed from its usual blasting procedure and substituted pyrodex bags for blasting cord in several shots in February through July 1993. The pyrodex bags were separated at the front, middle and rear of the loaded lift holes without any connecting ignition or detonating agents. The blast procedure contemplated that the flame and heat from each of the pyrodex bags at the mouth (front or collar) of each loaded lift hole would ignite the center and rear bags in sequence.

On Friday, May 20, 1994, channel burner operator Bassett was killed when his torch ignited pyrodex concealed in caprock as a result of misfires that occurred in June 1993. Bassett had been burning a channel at the rear of the bench being quarried. Quarry operations were suspended immediately after Bassett's death, at which time the post-accident investigation revealed, in addition to the fatal charge, two bags of unexploded pyrodex within two feet of Bassett's torch path. Ultimately, MSHA determined there were a total of 22 bags of unexploded pyrodex in the vicinity of the previously quarried June 22, 1993, "death bench." A total of 40 unexploded pyrodex bags, including those found in the "death bench," were found in ROA's Adams and Smith Quarries which are in the Barre complex.

MSHA Inspector Edward Blow arrived at the Smith Quarry on the afternoon of May 20, 1994, to secure the scene and open the investigation. Steven Luzik, who is the Chief of MSHA's Engineering and Testing Division at the Technical Support Center in Tridelfhia, West Virginia, Supervisory Inspectors Donald Fowler and Michael Music, and Inspector Guy Constant conducted the accident investigation from Monday, May 23, 1994, through the closeout conference on June 29, 1994.

As a result of MSHA's accident investigation, the Secretary seeks to impose penalties on ROA for four alleged violations of mandatory safety standards in Subpart E of Part 56, 30 C.F.R. Part 56, which govern hazards associated with explosives. Namely, ROA was cited for an inadequate June 22, 1993, post-blast inspection in violation of 30 C.F.R. § 56.6306(g); permitting

work other than work necessary to remove a misfire in the affected blast area in violation of 30 C.F.R. § 56.6311(b); permitting an open flame within 50 feet of explosive material in violation of 30 C.F.R. § 56.6904; and inadequately trained blasting personnel in violation of 30 C.F.R. § 56.6300(a).

At the hearing the Secretary called Glenn Dean Barrett of the Hodgdon Powder Company, ROA's pyrodex supplier, and investigating officials Blow, Luzik, Fowler and Music. ROA relied upon the testimony of its Chief Engineer, Donald Murray, and ROA employees David Gomo, a channel burner operator, and Arnold Bolio, a front-end loader operator. ROA also called Dr. Chapman Young, a specialist in Geophysics and Material Science Engineering, as an expert witness. However, ROA did not call Earnest Batchelder, the derrick operator who found the critical four pyrodex misfires on or about July 1, 1993, Richard "Bud" Reynolds, the powderman who loaded those misfires, and Earl Kelty, the foreman who supervised Reynolds.

Background

ROA is a granite quarry manufacturing company with approximately 300 employees. The Smith Quarry, the site of the accident, is a solid massive formation in the Barre complex and has approximately 50 to 75 quarrymen. Quarrying proceeds in a fairly cubical fashion. The walls stay fairly straight. The quarry size remains relatively constant as the process proceeds downward, it does not taper. There are typically from five to seven levels of operation at the quarry. At these levels, a total of approximately a dozen benches (individual blocks of stone) are being worked at any given time.

The first step in the stone removal process is the channel burning operation. The channel burner operates the channel burning torch which creates thermal stresses causing the stone to break off. The channel burner proceeds up one side of the bench, along the back and then down the other side to create a channel, approximately six inches wide, on the sides and rear of the bench. Benches vary in size. A typical bench is approximately 40 feet wide, 35 feet in depth and 16 feet in height. (Ex. C-2). The channel burning process is completed in approximately 15 days.

After channel burning, lift holes are drilled at the base of the bench. The lift holes are about 1-7/8 inches in diameter, are drilled approximately six inches on center, and proceed from the base of the open face back into the bench, stopping about one foot from the channel in the back of the bench. The drill holes are approximately one foot from the base of the quarry floor. The lift hole drilling process is completed by the 26th day of the bench quarrying process.

After the lift holes are drilled, a line of vertical holes are drilled every 5-1/2 feet in the top of the bench to create vertical slabs of stone. The vertical holes are drilled four inches apart and are drilled down to within a foot of the lift holes, but they do not intersect. The vertical drill holes eventually create slabs that are about 5-1/2 feet in width. The vertical holes are completed approximately 34 days into the process.

After all the holes are drilled, some, but not all, of the lift holes in the bench are loaded by the powderman and his assistant using various loading patterns. For example, every third or fourth lift hole may be loaded with explosives. With the exception of approximately seven pyrodex shots that occurred from February to July 1993, ROA used seismic cord which is continuous detonating cord placed in various lift holes connected by a trunk line ignited by blasting caps. Following the blast, the powderman, his assistant and the foreman go to the face of the bench to conduct an examination for a successful lift and to look for any evidence of a misfire.

In conducting a post-blast examination, the powdermen look for: (1) proper cracking from lift hole to lift hole; (2) signs of discoloration from blast residue on loaded holes; and (3) any indication of non-initiated blasting materials or other abnormalities. They also observe the top of the bench to see if the bench shifted in the blast. The blasting process is completed approximately 35 days into the process.

After blasting, the bench is quarried by separating slabs approximately 5-1/2 feet in width, by jack hammering a series of shims and wedges into the vertical holes in the top of the bench. The 5-1/2 foot slabs are then split from the bench by a front-end loader with a tipping boom used to topple each line down. As

each line is toppled, fresh stone is exposed beneath and behind the line. The powdermen and quarrymen then examine this newly exposed stone in the same manner they examined the face.

The toppled slabs are split into smaller blocks 5'6" by 5'6" by the height of the bench. These smaller blocks are then transported by the front-end loader to an area underneath one of the derricks where the block is hoisted out of the quarry. The process of splitting off slabs and reducing the slabs to smaller blocks is repeated until the entire bench is quarried. During this 10 to 12 day period following blasting during which the stone is removed, i.e., the post-blast inspection period, the quarrymen continue to examine the freshly exposed stone for misfires or other safety hazards. (See Tr.II at 15-16). The entire bench is removed approximately 10 to 12 days after the blast and 47 days after the initiation of channel burning work on the bench.

Findings of Fact and Conclusions

As noted above, ROA routinely used primacord or seismic cord as the blasting agent at the Smith Quarry. Seismic cord is unlikely to misfire if the blasting caps and trunk line ignite at the mouth of the loaded lift holes and detonate the cord because it is a continuous cord of blasting material. The greatest concern is the potential for a break in the seismic cord by a sharp piece of rock when the cord is unrolled and shoved into the lift hole. A break in the cord can usually be detected by the powderman because the cord would stop unrolling before it approached the rear of the bench. (Tr.I at 233).

The Hodgdon Powder Company is a manufacturer of pyrodex. Pyrodex is often referred to "as a replica of black powder" and is similar to black powder in ingredients. (Tr. I at 128). Black powder is a mixture of charcoal, sulfur and potassium nitrate. Pyrodex has all of the ingredients of black powder plus potassium perchlorate and binders and burning rate modifiers.

Pyrodex is a propellant explosive as contrasted with black powder which is a detonating explosive. A propellant explosive burns generating gas and energy. A detonating explosive generates gas and energy as well as shock energy through

detonation. (Tr.I at 132). The Department of Transportation (DOT) classifies black powder as a Class A Explosive and pyrodex as a Class B Explosive. (Tr.I at 128).

In 1986, ROA was contacted by Glenn Dean Barrett, Vice-President of the Hodgdon Powder Company. Barrett encouraged ROA to use pyrodex as an alternative to seismic cord or other black powder blasting agents. Barrett stressed that pyrodex would have rock fracturing properties that were beneficial to the quarrying process because it could split dimensional stone without radial fracture. (Tr. I at 144). Barrett visited ROA's Adams, Smith, and Rock of Ages quarries, where he performed a total of four pyrodex test shots with Ernie Silly (phonetic) of the Rock of Ages Quarry, Jumbo Harris, foreman of the Adams Quarry, and an individual identified as "JR", foreman of the Smith Quarry. Barrett did not recall meeting Richard "Bud" Reynolds or Earl Kelty, the powderman and foreman, respectively, who conducted pyrodex shots in 1993 at the Smith Quarry. (Tr.I at 136, 149).

Barrett testified that he stressed the need for stemming lift hole collars with paper or rags to ensure the holes were pressurized and gas tight. Pressurization would ensure proper lift because there would be no loss of gas energy. (Tr.I at 141, 147). Although the pyrodex bag placed at the mouth of the lift hole is ignited by an electric squib, pressure creating a flow channel is also essential to ignition of bags placed in the middle and rear of the lift holes as these bags are not connected by any fuse or other ignition device. (Tr.I at 142). Ultimately, ROA Quarry Superintendent Larry Beede informed Barrett that ROA was not interested in pyrodex because the stemming process required to pressurize the lift holes was too labor intensive. (Tr.I at 147-48).

Barrett participated in a subsequent pyrodex test shot at the Smith Quarry in 1987, at which time he also did not recall meeting Reynolds or Kelty. (Tr.I at 149). This shot was used to demonstrate a mechanical plug that addressed ROA's concerns about manual stemming. However, the test shot did not adequately split the rock. Consequently, Beede informed Barrett that ROA was no longer interested in using pyrodex. (Tr.I at 149-50).

In January 1993, Barrett was advised by Beede and Controller Paul Hutchins that ROA was interested in resuming their experimentation with pyrodex. (Tr.I at 150). Barrett sent ROA information concerning the proper pyrodex pre-blast, blasting and post-blasting procedures. The information addressed hole cleaning and testing, loading patterns, blast initiation and hygroscopicity (pyrodex's water absorption qualities that interferes with ignition).

With respect to his views on proper loading, at trial, Barrett was reluctant to admit that he had recommended that the pyrodex bags be spaced in the lift holes, claiming that bags were touching each other in the 1987 test shot. (Tr.I at 171-72). However, Barrett ultimately conceded on cross-examination that he believed pyrodex bags spaced throughout a 30 to 40 foot lift hole could be ignited by a single squib at the outermost bag, provided there were no obstructions in the lift hole. (Tr.I at 174-77, 186). In fact, Barrett stated he has not advised pyrodex users to cease spacing pyrodex bags in lift holes despite Bassett's fatality. (Tr.I at 176). Finally, Barrett's paper on "Splitting Granite Using Pyrodex" presented to the Society of Explosive Engineers in February 1987, and provided to ROA in January 1993, notes that "powder had to be placed in more than one section of the hole." (Ex. R-4, at p.3) In summary, the evidence reflects Barrett's recommended blasting procedure involved the placement of separated pyrodex bags in pressurized lift holes that were unconnected by any detonating cord or other ignition device.

During the period February through July 1993, ROA used separated bags of pyrodex in several blasts at its Smith and Adams Quarries by using an electric squib to ignite the outermost bag in each loaded lift hole. (Tr.I at 593-94). ROA had been operating the quarry for over 90 years. (Tr.II at 458). However, these were the only production uses of pyrodex as a blasting agent. Consequently, ROA Chief Engineer Donald Murray, Engineer Doug Goldsmith and Foreman Kelty informed MSHA accident investigators Fowler and Constant that pyrodex blasting reports were kept because these pyrodex shots were experimental rather

than routine. (Tr.I at 564, 569, 593). The blasting reports detailed the bench's quarry section location and dimensions, and identified the loading pattern by identifying the lift hole loading pattern and the number and spacing of pyrodex bags in each loaded hole. (See Ex. R-7).

Although blasting reports were made for each pyrodex shot, ROA Chief Engineer Donald Murray claimed blasting reports for three pyrodex shots at the Smith Quarry could not be located. Murray has characterized these "missing report" pyrodex blast sites as "possible pyrodex shots" based on witness recollections, none of whom were called by ROA at the hearing. (Ex. C-10 at p.4; see also n.4, *infra*). The existing reports detail pyrodex shots on February 5, 1993 at the U-1 Section of the Smith Quarry, shots on May 7, May 10 (or May 12), and June 22, 1993, at the U-13 Section of the Smith Quarry (where Bassett was ultimately killed), and a shot on July 29, 1993, at the Adams Quarry. (Exs. R-7, R-24, Tr.II at 638-50).

The June 22, 1993, blasting report reflects that 80 lift holes, 37 feet in length, were drilled approximately 6 inches apart at the base of the bench's 42 foot face. (Ex. R-7). The report further reflects powderman Richard "Bud" Reynolds, under the supervision of Foreman Earl Kelty, loaded a total of 52 pounds of pyrodex in 84 bags by placing four bags in each of 21 holes. (Tr.I at 567-68). The four bags in each loaded hole consisted of one bag at the mouth of the hole, one bag in the center of the hole, and two bags at the rear. The rear bags were placed approximately 32 to 37 feet from the hole's mouth. The loading pattern was every fourth hole, *i.e.*, holes 1-4-8-12-16-20-24-28-32-36-40-44-48-52-56-60-64-68-72-76-80). (Exs. R-7, R-10; Tr.I at 569, 577-78).

Kelty and Reynolds examined the bench after the blast. They noted the bench was "tight in front" and that the "back lifted good." (Ex. R-7). Fowler testified that "tight in front" meant the bench did not separate or move as anticipated. (Tr.I at 582, 638). On or about July 1, 1993, approximately seven to ten days following the June 22, 1993, shot, derrick operator Earnest Batchelder found three or four bags of pyrodex that had shaken loose from blocks of granite lifted from the quarry

floor. (Ex. C-10 at p.5). Batchelder did not observe any matches or detonators with the bags. (Ex. R-19). The pyrodex misfires were reported to Kelty. Foreman Kelty noted that "4 bags [of] powder did not go off" on the June 22, 1993, blasting report. (Ex. R-7; Tr.I at 579-80).

Murray testified for ROA that Kelty ordered Reynolds to wash out the lift holes after Batchelder's find. However, on cross-examination, Murray admitted he did not know whether the holes were first washed in July 1993, after the bags were found by Batchelder, or after Bassett's fatality. (Tr.II at 544-45, 564-65). Inspector Fowler also testified on the extent of Kelty's efforts to find more misfires. Fowler testified he interviewed Kelty on June 1, 1994, shortly after Bassett's death, in the presence of Murray and ROA Engineer Doug Goldsmith. Fowler testified:

Q: Did you ask [Kelty] whether four bags of powder had been found?

A: Yes.

Q: And did he respond?

A: Yes, he did.

Q: What did he say?

A: He said yes, that he was aware of four bags that had been found.

Q: And what did you say to him then?

A: Well, the question was to Mr. Kelty is, if he was aware of four bags of explosives that was not detonated in the 6/22/93 shot, why didn't you follow up on those four bags, the bags that was (sic) not detonated.

Q: And did he respond?

A: He did.

Q: And what did he say?

A: He shrugged his shoulders and said, I forgot.

Q: And what did Mr. Goldsmith do at that point?

A: Dropped his pencil. He was sitting directly across from him. (Tr.I at 586-87).

Fowler also testified that Quarry Superintendent Larry Beede apparently was also aware, prior to Bassett's death, that pyrodex misfires had been found. (Tr.I at 601-04). Neither Kelty, Reynolds, Goldsmith nor Beede were called by ROA as witnesses. Murray testified but he did not rebut Fowler's testimony concerning Fowler's June 1 Kelty interview. While the evidence concerning the washing of holes is equivocal, ROA presented no evidence of any significant efforts to find additional misfires, such as probing under caprock, following the discovery of the June 22, 1993, misfires. However, Murray testified ROA was able to find a total of 40 pyrodex misfires shortly after Bassett's May 20, 1994, death. (Tr.II at 526, 562).

The temperature of a channel burner torch is approximately 4,200 to 4,400 degrees Fahrenheit. (Tr.I at 208). The ignition temperature of pyrodex is between 750 and 800 degrees Fahrenheit. (Tr.I at 187). On May 22, 1994, Bassett was channel burning a bench in the U-13 Section. The bench was approximately 30 feet wide by 35 feet in depth by 18 feet in height. Channels had been cut on the east and west sides of the bench. The channel on the north (rear) side of the bench had been cut approximately 16 feet in length. At approximately 10:58 a.m. witnesses stated Bassett was thrown approximately 10 feet in the air and killed instantly when his channel burner apparently intersected pyrodex bags at the rear of the bench approximately 16 feet from the northwest corner. (Tr.I at 624, 625). ROA stipulated, for the purposes of these proceedings, "that its more likely than not that the cause of the fatality was ignition of Pyrodex bag(s) causing a fatal injury to Mr. Bassett." (Tr.I at 428). In any event, as noted below, Bassett's torch passed within two feet, but missed, two misfired bags of pyrodex just minutes before he was killed.

As indicated, MSHA Investigator Luzik determined Bassett's torch passed within two feet of two bags of unexploded pyrodex encapsulated in caprock only minutes before Bassett's torch tip came within one foot of the fatal explosive material. (Tr.I at

433-34, 541, 688). The proximity of the channel burned by Bassett to these unexploded bags is clearly depicted in photographs proffered by the Secretary. (See Ex. R5-C, R5-D, and R5-E). There were three unloaded holes between the fatal lift hole and the two misfired bags, as depicted in photograph R5-D. At trial, Luzik explained he arbitrarily labeled these lift holes as Hole Nos. 1 through 5 in photograph R5-D, with the fatal hole as Hole No. 1, intervening unloaded holes as Hole Nos. 2, 3 and 4, and, the hole containing the two misfires as Hole No. 5.³ (Tr.I at 455-56, 681). Luzik testified the June 22, 1993, blasting report was the only report that corresponded to the three unloaded holes between every loaded hole loading pattern found at the death scene. (Tr.I at 688-89). The two bags found in the rear of the hole also conformed to the June 22, 1993, loading pattern. (Ex. R-7).

Further investigation of the fatal U-13 bench site revealed 14 additional bags of unexploded pyrodex comprised of two bags in the rear of each of seven lift holes. It is undisputed that several of the seven misfired holes had three unloaded holes between them entirely consistent with the June 22, 1993, loading pattern. (See Ex. R-10). These 14 misfires, when combined with the four misfires found by Batchelder, the two misfires discovered by Luzik near the explosion, and the two bags believed to have caused the explosion, resulted in a total of 22 misfires. Thus, the 22 misfires of the 84 pyrodex bags loaded in the June 22, 1993, shot represent a misfire rate of 26 percent.

³ ROA misstates Luzik's testimony "that he found pyrodex in the fifth hole at the accident site." (ROA br. at p.14). The rear channel had been burned 16 feet when Bassett was killed. Luzik testified he arbitrarily labeled the fatal blast lift hole as Hole No. 1, followed by three intervening unloaded Hole Nos. 2, 3 and 4, and two misfires in the next loaded hole labeled Hole No. 5. This is the equivalent of Hole No. 16 being loaded, with intervening Holes Nos. 17, 18 and 19 unloaded, and Hole No. 20 the next loaded hole, which is consistent with the June 22, 1993, loading pattern.

Further Findings of Fact
and Conclusions of Law

a. Pyrodex Misfires are Governed
by Section 56, Subpart E

As a threshold matter, in an exercise in futility, ROA argues that pyrodex is not an explosive regulated by Part 56, Subpart E, because it is a propellant that ignites or deflagrates, as distinguished from blasting agents such as black powder, or seismic cord, that detonate. In this regard ROA relies on the definition of "misfire" in section 56.6000:

The complete or partial failure of explosive material to detonate as planned. The term also is used to describe the explosive material itself that has failed to detonate (emphasis added).

The plain language of the definition section of 56.6000 defines "an explosive" or "explosive material" as any substance classified as an explosive by the Department of Transportation (DOT) in DOT regulations 49 C.F.R. §§ 173.53, 173.88 and 173.100. Section 173.88 of the DOT regulations defines liquid or solid propellant explosives that function by rapid combustion rather than detonation as Class B Explosives. Thus, it is indisputable that propellants such as pyrodex are "explosives" and "explosive material" under section 56.6000.

Regulations and statutes must be interpreted to harmonize rather than conflict with their intended purpose. See *Emery Mining Corp. v. Secretary of Labor*, 744 F.2d 1411, 1414 (10th Cir. 1984). Here, it is obvious the word "misfire" in section 56.6000 refers to any explosive material that has failed to perform and thereby remains hazardous. Consequently, this provision must reasonably be interpreted to include a misfire of any explosive that has failed to detonate or ignite. Thus, it is clear the 40 bags of unignited pyrodex found at the Smith and Adams Quarries immediately after Bassett's death are properly characterized as section 56.6000 misfires. Any other interpretation is ludicrous for it would exempt pyrodex misfires from Part 56 even though pyrodex is a Part 56 explosive.

b. The June 22, 1993, Blast Site
is the Site of the Fatality

The appearance of a quarry changes as benches are removed and quarrying progresses to lower levels. Therefore, ROA contends "it [is] difficult to determine each location where pyrodex had been used and to correlate that location with a written shot report." (Ex. C-10 at p.3). Thus, ROA argues that the Secretary has not established that the June 22, 1993, pyrodex blast was the site of Bassett's fatal accident.⁴ While, as discussed below, the Secretary has satisfied his burden of proof that June 22, 1993, misfires were the proximate cause of Bassett's death, resolution of this issue is not material to the disposition of important issues in this case, such as the adequacy of ROA's efforts to find and remove misfires. For if ROA had exercised reasonable prudence following the discovery of four misfires shortly after the last documented Section U-13 pyrodex shot on June 22, 1993, regardless of whether this blast was the site of Bassett's fatality one year later, at least 22 misfires would have been found. Discovery of these 22 misfires would have alerted ROA, given the potential use of torches in a virtual mine field, to thoroughly inspect the Smith and Adams Quarries for the additional 18 misfires that were found. In so doing, Bassett would probably be alive today.

Turning to the issue of the accident site location, the June 22, 1993, blasting report conclusively establishes that Bassett was killed by a June 22, 1993, misfire. At the outset, this conclusion is consistent with ROA's own initial accident

⁴ ROA, in its brief, at p.3, n.6, citing Tr.II at 308-310, alleges it was denied due process because the Court placed the burden on ROA to demonstrate the June 22, 1993, pyrodex shot was not the site of the fatal accident. A fair reading of these transcript pages reflects that, given the overwhelming evidence presented by the Secretary demonstrating the June 22, 1993, pyrodex shot as the site of Bassett's fatality, the Court ruled the burden would shift to ROA to show where the accident occurred, particularly if ROA, despite its previous admissions, was now relying on purported blasting reports that no longer exist. It is fundamental that the burden to rebut shifts to the operator when the Secretary presents *prima facie* evidence.

investigation. (See R-8). However, in an effort to refute its own initial accident findings to minimize the significance of the discovered misfires, ROA now attempts to change the facts by portraying the plain meaning of the 1-4-8-12 loading pattern on the June 22, 1993, blasting report as indicative of a 1-4-8-12-15-19-23-27-30-etc., loading pattern (repeating the pattern of only two unloaded holes between Hole Nos. 1 and 4). (See Tr.I at 1050-1051, 1057).

ROA's interpretation of the June 22, 1993, loading pattern is frivolous because: (1) ROA's claim was rejected by Investigators Luzik, Fowler and Constant, who concluded, based on information provided by ROA, that the June 22, 1993, blasting report established loaded holes 16-20-24-etc., followed loaded hole 12 (see, e.g., Tr.II at 105-07); (2) ROA's purported irregular loading pattern of alternating configurations of two or three unloaded holes defeats the purpose of pyrodex's intended goal of creating even splitting and avoiding radial cracking; (3) ROA's claim of different numbers of unloaded holes at the same blast site is inconsistent with all other blast reports which show a constant number of unloaded holes between loaded holes at each pyrodex shot (Ex. R-7); (4) ROA's purported loading pattern as illustrated in Ex. R-10A results in Hole No. 75, rather than Hole No. 80, as the last loaded hole; and (5) ROA's alleged exculpatory loading pattern is belied by ROA's own May 25, 1994, initial accident report wherein it concluded that, "[the fatal] undetonated explosive material must have been remaining from [the] lift blast conducted in June of 1993" (Ex R-8, p.2).

As if this were not enough, the 14 bags found at the rear of seven different lift holes at the "death bench" included several loaded holes separated by three unloaded holes, which is entirely consistent with the June 22, 1993, loading pattern and inconsistent with all other blasting reports. (See Ex. R-10; See also n.4, supra). In this regard, Murray could not explain why Kelty, who supervised the loading of the June 22, 1993, blast site, would draw the diagram, admitted as Ex. R-10, reflecting a

June 22 loading pattern of every forth hole at the fatal accident site.⁵ (See Ex. R-10; Tr.II 663-66). Thus, the purported loading pattern advanced by ROA at trial is insupportable as it is inconsistent with all of the information and documentation concerning the June 22, 1993, loading pattern provided to MSHA officials by ROA during the course of the accident investigation.

ROA's assertion that the pressure of the explosion in each lift hole makes it difficult to determine the original location of misfired bags found at the rear of lift holes is unconvincing. Since the pyrodex bags are spaced to ignite in sequence in extremely small lift holes approximately 1-7/8 inches in diameter, bags found at the rear of holes must have been loaded the furthest distance from the mouth of the lift hole. Therefore, the sets of two bags found at the rear of eight lift holes at the accident site (seven lift holes plus the presumed ignition of two bags at the blast lift hole) are consistent with the June 22, 1993, loading pattern.

ROA's contention that the bags discovered by Batchelder were in intact lift holes indicating underbreak (lift with intact lift holes) that was not present at the accident site is equally unconvincing. Luzik's accident scene photographs depict pyrodex concealed under caprock. Given the 40 misfires found after the fatal accident, it is apparent that many of the misfires remained in intact lift holes on the surface. ROA's assertion that the entire June 22, 1993, bench lifted with intact lift holes is speculative and unsupported by the facts.

⁵ Ex. R-10 is a diagram prepared by Kelty depicting the accident bench as the June 22, 1993, blast site showing the location of the 14 misfired pyrodex bags and a loading pattern of every fourth hole corresponding to "[the] holes loaded in 6/93." This diagram was given to Inspector Fowler by ROA Engineer Goldsmith who obtained it from Murray. (Tr.I at 827-28). This exhibit was marked for identification on January 12, 1995, at which time ROA's counsel requested postponement of admission until Murray could authenticate the document. (Tr.I at 829-30). Murray authenticated the exhibit on April 27, 1995. (Tr.II 656-57, 663-66). However, Ex. R-10 was never formally admitted.

Finally, an admission is any oral or written statement, or conduct, of a party, or his representative, which is inconsistent with respect to the claim of that party with respect to some fact relevant to the issues at trial. Jerome Prince, *Richardson On Evidence*, § 218 (10th ed. 1973). Admissions are entitled to great weight if they were made understandably and deliberately; if they are of pure fact within the knowledge of the party; if they were made under conditions and circumstances conducive to veracity; and if they are not overborne by other facts in evidence. *Id.* at § 229.

ROA's May 25, 1994, accident report finding that Bassett's fatality occurred at the site of the June 22, 1993, misfires is a probative admission worthy of great weight. This finding was based on ROA's own blasting reports as well as facts personally known to ROA blasting personnel. This finding is presumptively truthful because ROA would have no reason to lie given this admission's damaging nature. As a final matter, this admission is supported by the accident investigators' observations of the two misfires near Bassett's body as well as the 14 additional misfires subsequently found by ROA nearby in seven lift holes.

ROA now seeks to distance itself from the admissions made in its initial May 25, 1994, accident report. Thus, ROA has issued a "revised" February 17, 1995, accident report in which ROA attempts to move the fatal accident site from the June 22, 1993, blast location to some other unspecified location in the U-13 section of the Smith Quarry, based on blasting reports that no longer exist for "possible pyrodex shots" that might have occurred. (Ex. C-10). ROA's revised accident report is self-serving, speculative, undocumented, and of little probative value. (See Exs. R-8, C-10 at p.4; and n.4, *supra*). It is also noteworthy this revised accident report was first provided to MSHA on February 27, 1995, more than one month after the initial trial phase in these proceedings. (Tr. 561-62).

While I am mindful that MSHA's investigation revealed the accident bench is 10 feet shorter in width than the June 22, 1993, bench, the accident bench is only two feet shorter,

35 feet as compared to 37 feet, in depth. (Tr.I at 685-87). With respect to the relatively small difference in depth, Murray conceded on cross-examination the dimensions of benches change slightly with depth. (See Ex. R-6, p.3; Tr.II at 566). With respect to the 10 foot variation in width, it must be noted that the MSHA investigators had no reason to take precise measurements as ROA officials Kelty, Murray, and Goldsmith, as well as union representative Price Lewis, had all agreed the fatal site was the June 22, 1993, blast. (See, e.g., Tr.I at 816-19). Therefore, the apparent variation in bench width is far outweighed by the other evidence of record. Thus, the Secretary has established the June 22, 1993, blast site was the scene of Bassett's May 20, 1994, fatality. (See Ex. R-8, p.2).

c. The Applicable Significant and Substantial and Unwarrantable Failure Standards

A violation is properly designated as significant and substantial if there is "a reasonable likelihood that the hazard contributed to will result in an event in which there is [a serious] injury." *U.S. Steel Mining Co.*, 6 FMSHRC 1834, 1836 (August 1984). In addressing the significant and substantial question, the Commission has noted the likelihood of injury must be evaluated in the context of an individual's continued exposure during the course of continued normal mining operations to the hazard created by the violation. *Halfway, Inc.*, 8 FMSHRC 8, 12 (August 1986); *U.S. Steel Mining Co.*, 7 FMSHRC 1125, 1130 (August 1985); *U.S. Steel Mining Company*, 6 FMSHRC 1573, 1574 (July 1984).

Here, continued normal mining operations involved the routine channel burning process. It is evident, as illustrated by the tragic events of this case, that the hazard contributed to by the alleged violations, i.e., a flame in close proximity to misfires, resulted in a fatal event, i.e., an explosion. Consequently, the alleged violations in these proceedings, if established by the Secretary, were properly characterized as significant and substantial in nature.

Unwarrantable failure is "aggravated conduct, constituting more than ordinary negligence, by a mine operator in relation to a violation of the Act." *Emery Mining Corporation*, 9 FMSHRC 1997 (December 1987); *Youghioghney & Ohio Coal Company*, 9 FMSHRC 2007 (December 1987); *Secretary of Labor v. Rushton Mining Company*, 10 FMSHRC 249 (March 1988). In distinguishing aggravated conduct from ordinary negligence, in *Youghioghney & Ohio* the Commission stated:

We stated that whereas [ordinary] negligence is conduct that is 'inadvertent,' 'thoughtless,' or 'inattentive,' unwarrantable conduct is conduct that is described as 'not justifiable' or 'inexcusable.' Only by construing unwarrantable failure by a mine operator as aggravated conduct constituting more than ordinary negligence, do unwarrantable failure sanctions assume their intended distinct place in the Act's enforcement scheme.
9 FMSHRC at 2010.

Ultimate Findings and Conclusions

In addressing the matters in issue, there is one relevant and crucial fact concerning the quarry process. Blasting material is always placed in or near the first and last lift hole, as well as near the rear of all loaded lift holes, to ensure separation of the bench from the granite formation. The channel burner operator tracks the placement of the previously positioned blasting material when he torches the sides and rear of the next lower bench. Consequently, it is of paramount importance to make every reasonable effort to discover and remove all potential misfires in order to minimize, if not avoid, the catastrophic events that occurred in this case. If the likelihood of misfired pyrodex was apparent, but overlooked or ignored, the Secretary must prevail.

ROA, in its brief, argues that negligence is not relevant to the question of fact of the violation. Therefore, ROA asserts "substantial errors of law" were committed when the Court stated at trial that a fundamental issue in these proceedings was whether ROA knew or should have known misfires were present at

the accident site.⁶ (ROA br. at p.8, n.2). ROA misses the point. Although operators are strictly liable for their violative conduct, the requisite precautions necessary to satisfy the mandatory safety standards pertaining to post-blast hazards are dependent upon whether there were any signs of potential misfires at the blast site. ROA's apparent failure to take any meaningful action to find additional misfires after four misfires were discovered is material to the fact of occurrence of each of the cited standards, i.e., inadequate examination for misfires, resumption of work in a blast site, open flames near explosive material, and, inadequate training.

a. Citation No. 4282251
30 C.F.R. § 56.6311(b)

As a result of MSHA's accident investigation, ROA was issued 104(d)(1) Citation No. 4282251 for an alleged violation of the mandatory safety standard in section 56.6311(b), 30 C.F.R. § 56.6311(b). Section 56.6311 provides:

§ 56.6311 Handling of misfires

(a) Faces and muck piles shall be examined for misfires after each blasting operation.

⁶ ROA also contends the Court interfered with its right to present its case because the Court refused to allow "relevant cross-examination intended to rebut MSHA's case." (ROA br. at p.8, n.2). While the extensive eight day transcript in this proceeding reflects ROA was given every opportunity to present its case, this allegation must be briefly addressed. As stated on the record, ROA's right to present its case must be balanced by the Court's responsibility to regulate the course of the hearing under Commission Rule 55, 29 C.F.R. § 2700.55, in order to ensure a fair and accurate record. (See Tr.I at 970-75; see also Tr.I at 963, Tr.II at 247). In this regard, the Court stated, although it "repeatedly permitted the [contestant] to pursue lines of questioning [it] deem[ed] to be irrelevant, there comes a time when the Court must limit the cross-examination to issues that are pertinent to this proceeding." (Tr.I at 972-73).

(b) Only work necessary to remove a misfire and protect the safety of miners engaged in the removal shall be permitted in the affected area until the misfire is disposed of in a safe manner.

(c) When a misfire cannot be disposed of safely, each approach to the area affected by the misfire shall be posted with a warning sign at a conspicuous location to prohibit entry, and the condition shall be reported immediately to mine management.

(d) Misfires occurring during the shift shall be reported to mine management not later than the end of the shift.

ROA argues that it properly disposed of the four misfired bags of pyrodex found by Batchelder and noted by Kelty on the June 22, 1993, blasting report. Consequently, ROA asserts the Secretary has failed to demonstrate a violation of this cited mandatory standard. However, this mandatory standard, when read in its entirety and in conjunction with subsection (a), requires adequate post-blast inspection procedures for the purpose of finding and disposing of misfires. Surely, a perfunctory post-blast inspection that results in the discovery and proper disposal of one misfire, while overlooking numerous other misfires, would not satisfy this mandatory safety standard.

In applying the provisions of section 56.6311, it is important to note the Commission has recognized that mandatory safety standards must be broadly adaptable to a myriad of circumstances. *Kerr McGee Corp.*, 3 FMSHRC 2496, 2497 (November 1981). Consequently, resolution of the fact of occurrence issue requires an analysis of whether an adequate post-blast granite quarry inspection occurred. Thus, the adequacy of ROA's efforts to find and remove misfires at the June 22, 1993, shot must be viewed in the context of distinguishing granite quarry operations from blasts at muck piles or blasts for the purpose of extracting crushed stone. (Tr.II at 15-16).

ROA's assertion that the plain meaning of section 56.6306(g) "clearly requires a single post blast examination" for granite quarry operations is mindless, and, inconsistent with ROA's

proposed findings and conclusions. (ROA br. at 19). Granite quarrying involves the removal, during an approximate ten day period, of multi-ton benches with potential explosives concealed in the middle and rear of lift holes. Even ROA, in its findings and conclusions, admits the post-blast inspection period consists of a series of examinations by powdermen and quarrymen for misfires, just as they examined the face, as new stone is exposed after each line in the bench is toppled and removed during the ten day bench removal period. (See ROA Proposed Findings at p.4, Finding Nos. 24, 30, and 31; Tr.II at 15-16). Thus, Batchelder's discovery, seven to ten days after the June 22, 1993, shot, when the face of the bench was retreating as each slab line was toppled by the front-end loader and hoisted by the derrick operator, occurred during the post-blast inspection period.

Having determined ROA had an obligation to seek and remove misfires throughout the bench removal process, we turn to the dispositive question of whether ROA knew or should have known, through the exercise of reasonable prudence, of the undisputed systematic incomplete ignition (40 unexploded bags) of its non-routine, experimental pyrodex shots performed from February through July 1993.⁷ Assuming, *arguendo*, that ROA had no cause for concern after viewing and examining the pyrodex blasted benches prior to Batchelder's discovery, ROA certainly was on notice one week after the June 22, 1993, blast when four pyrodex misfires were noted by Kelty.

To determine the significance of these four misfires, it is helpful to revisit the pyrodex blasting procedures. These procedures called for sequential ignition of spaced bags of pyrodex, without any connecting ignition sources, from bags with electric squibs placed in the mouth of lift holes. Batchelder, in a written statement, reported he did not find any electric matches or squibs in the bags he discovered during the removal of the June 22, 1993, bench. Thus, it is reasonable to assume that

⁷ ROA objects to the characterization of these five documented (by blasting reports) pyrodex shots as non-routine or experimental. However, these blasts are the only documented production uses of pyrodex by ROA in its 90 year history. (See Tr.I at 592-94).

these bags were not front lift hole bags. Therefore, they could have come from the center of the hole if they were from four separate holes. This would reflect eight additional misfires (two bags in the rear of each of these four holes). Alternatively, the four discovered bags could have come from the rear of two holes. The failure of these two pair of rear bags to be ignited by the middle bags should have alerted a reasonably prudent person familiar with pyrodex blasting of a potential for systematic failure of rear bag ignition as well as a possible failure of middle bag ignition.

Thus, it is clear that the discovery of four pyrodex misfires either ensured the existence of additional misfires, or, at the very least, was a significant indication of the potential for a systematic failure of rear bag ignition. With respect to washing of lift holes, ROA failed to call Kelty or Reynolds to testify regarding whether they had washed down the lift holes. In any event, even ROA expert witness Chapman Young opined that washing holes after bags had been found is not an adequate response when misfires are suspected but the exact location of the misfires is unknown. In such instances, Young stated it is prudent to "probe [the holes] in some fashion to investigate them" if the misfire locations are unknown. (Tr.II 972-73).

In the absence of any meaningful efforts to search for and remove additional misfires prior to Bassett's death, ROA failed to perform the "work necessary to remove misfires" as required by section 56.6311(b). The Secretary, therefore, has established the fact of occurrence of the cited significant and substantial violation.

With respect to the question of unwarrantable failure, it is important to note any potential misfires would not harmlessly remain under tons of rock. On the contrary, these misfires would be exposed on the surface as the bench is removed. Significantly, 40 misfired bags were found after Bassett's death. Kelty's failure to take any meaningful action to probe caprock in search of the apparent likelihood of additional misfires, particularly in view of the channel burning quarrying process, evidenced a callous disregard for the hazards associated with misfires in the presence torch flames. Such conduct is imputable to ROA and clearly constitutes the requisite aggravated conduct to sustain the Secretary's unwarrantable failure charge.

See *Rochester & Pittsburgh Coal Co.*, 13 FMSHRC 189, 194-98 (February 1991).

Finally, ROA's attempt to mitigate its negligence by asserting Bassett did not adequately clean and check the vicinity of the accident prior to channel burning is unavailing. (See, e.g., Tr.II at 893-94). In this regard, the Commission has stated that a requirement that employees work cautiously "does not lessen the responsibility of operators under the Mine Act, to prevent unsafe conditions." *Eagle Nest Incorporated*, 14 FMSHRC 1119 (July 1992).

Accordingly, 104(d)(1) Citation No. 4282251 is affirmed. Given the large size of the operator, the extremely high degree of negligence, the grave consequences of the violation, and, the absence of any significant mitigating factors, the maximum civil penalty of \$50,000 is assessed for Citation No. 4282251.

b. Order No. 4282255
30 C.F.R. § 56.6306(b)

The accident investigation resulted in the issuance of 104(d)(1) Order No. 4282255 for an alleged significant and substantial violation of section 56.6306(g), 30 C.F.R. § 56.6306(g). The effective date of this mandatory standard was January 31, 1994. 58 Fed. Reg. 69596 (1993). Section 56.6306(g) provides:

§ 56.6306 Loading and blasting

* * * * *

(g) *No work shall resume in the blast area until a post-blast examination addressing potential blast-related hazards has been conducted by a person having abilities and experience that fully qualify the person to perform the duty assigned (emphasis added).*

The violation of section 56.6311 for failing to adequately perform a post-blast inspection and remove misfires is distinguishable from a violation of 56.6306(g). Section 56.6311 concerns creating a hazardous condition by failing to adequately search for and remove misfires. Section 56.6306(g) concerns

exposing personnel to the hazardous condition created by the violation of 56.6311. Bassett would not have died had he not resumed work on May 20, 1994, at the June 22, 1993, U-13 blast site.

ROA argues that Order No. 4282255 must be vacated because it is an impermissible retroactive application of a standard that became effective at least seven months after ROA's last pyrodex shot in July 1993. In response, the Secretary asserts the cited violation occurred on May 20, 1994, when Bassett was assigned to continue channel burning operations in the absence of an adequate post-blast examination that addressed potential blasting hazards.

The essence of ROA's contention is that the resumption of work prohibition in potentially unsafe blasting areas does not apply to areas that were blasted prior to January, 31, 1994, the effective date of section 56.6306. The limited applicability of this important mandatory standard would result in the anomalous situation where a channel burner operator's life could be put at risk with impunity simply because of the date of the hazardous misfire. Such an interpretation cannot be reconciled with the intent of the mandatory safety standard.

In addition, ROA argues that it already resumed work at the blast site when it continued to quarry the June 22, 1993, bench. However, the concept of resumption of work is a continuing process. An operator cannot escape liability under section 56.6306(g) simply because it "resumed work" prior to the implementation of this standard.

Nor is ROA prejudiced by the obligation to ensure a safe workplace, particularly one in which torches are used near potential misfires. Rather, ROA is responsible for knowing about and implementing this mandatory safety precaution as of its effective date on January 31, 1994. Thus, when ROA assigned Bassett to channel burn on May 20, 1994, it did so at its own risk. Accordingly, 104(d)(1) Order No. 4282255 is affirmed. In view of the extremely high negligence and serious gravity associated with this violation as discussed above, a civil penalty of \$40,000 is imposed for violation of this mandatory safety standard.

c. Order No. 4282256
30 C.F.R. § 56.6904

As a result of Bassett's fatality, ROA was cited for violation of section 56.6904, 30 C.F.R. § 56.6904. This safety standard provides:

§ 56.6904 Smoke and open flames

Smoking and use of open flames shall not be permitted within 50 feet of explosive material except when separated by permanent noncombustible barriers. This standard does not apply to devices designed to ignite safety fuse or to heating devices which do not create a fire or explosion hazard.

ROA argues the application of this standard requires actual knowledge of both the location and existence of explosive material. (ROA br. at 26) It is clear this mandatory standard requires actual knowledge of the location of the explosive material because it prohibits conduct, i.e., use of an open flame, within a defined 50 foot area. It is also clear that ROA had actual knowledge of the exact location of the pyrodex explosive material by lift hole number, and placement location within each loaded lift hole. In fact, ROA's blasting reports were "road maps" documenting the location of each pyrodex bag.

Finally, it is evident that ROA had actual knowledge that the channel burner operator would be burning in close proximity to the area where pyrodex bags had been placed at the rear of lift holes. In fact, ROA's own witness, channel burner operator David Gomo, admitted the greatest danger is channel burning the rear channel, which intersects the previously loaded lift holes, because pyrodex bags were always placed near the back of these holes to ensure bench separation in the rear. (Tr.II at 832-34).

Having actual knowledge of the placement of this explosive material and the fact that a torch flame would ultimately be used within several feet of its placement, ROA now seeks to escape liability because it ignored the signs of a potential systematic ignition failure in the rear of the lift holes. However, the misfires, discovered by Batchelder and noted by Kelty, provided ROA with constructive knowledge of the likelihood of the

continued existence of the loaded explosive material. Thus, ROA's actual knowledge of the location of the subject explosives and the use of torch flames nearby, coupled with its constructive knowledge of the explosive's continued existence provides a basis for liability under section 56.6904.

Simply put, having closed its eyes to this potentially extremely hazardous condition, ROA cannot hide behind its lack of awareness. Accordingly, Order No. 4282256 is affirmed. The extremely high negligence and serious gravity associated with this violation warrants the imposition of a \$40,000 civil penalty.

d. Order No. 4282257
30 C.F.R. § 56.6300(a)

Finally, ROA was cited for a violation of the mandatory standard in section 56.6300(a), 30 C.F.R. § 56.6300(a), which provides:

§ 56.6300(a) Control of blasting operations

(a) Only persons trained and experienced in the handling and use of explosive material shall direct *blasting operations and related activities*.

(b) Trainees and inexperienced persons shall work only in the immediate presence of persons trained and experienced in the handling and use of explosive material (emphasis added).

As a threshold matter, ROA seeks to have it both ways. On the one hand, ROA argues that propellant explosives such as pyrodex should not be governed by Part 56 because they are different from detonating explosives. On the other hand, ROA asserts Kelty and Reynolds' experience with detonating explosives qualifies them to use propellant explosives. Obviously, the "experienced in the handling and use of explosive material" language contained in section 56.6000(a) must not be broadly construed. Rather, the standard requires blasting personnel to be trained and experienced in the particular explosive being

used. One need look no further than ROA's 26 percent June 22, 1993, misfire rate to conclude that Kelty and Reynolds were not properly trained in the use of pyrodex.

Significantly, in addition to requiring expertise in "blasting operations", the 56.6000(a) standard also requires training in "related activities" such as post-blast inspections and misfire removal. Kelty's failure to take any meaningful action to determine if other misfires occurred after the four bags were found by Batchelder, given the sequential ignition process, alone establishes inadequate training in "related" post-blast activities. Consequently, the evidence clearly supports the fact of occurrence of a significant and substantial violation of the cited mandatory safety standard.

With respect to whether this training violation is attributable to ROA's unwarrantable failure, ROA blames its numerous misfires on the instructions provided to it by Barrett of the Hodgdon Powder Company during his four test shots in 1986 and one test shot in 1987. For example, ROA geophysics expert, Chapman Young, maintains Barrett's spaced loading procedure was flawed because microscopic moisture in a lift hole would prevent sequential ignition. Consequently, ROA argues Barrett did not adequately warn it about the effects of moisture on the ignition process. In contrast, Barrett attributes the systematic ignition failure to ROA's improper use of stemming to pressurize the holes.

Resolution of whether Barrett's pyrodex loading procedure was flawed is unnecessary for disposition of the unwarrantable failure issue. Regardless of the efficacy of Barrett's instructions, there is evidence that Barrett's instructions were not followed. Inspector Fowler testified that he questioned both Kelty and Reynolds in the presence of Murray about whether the June 22, 1993, lift holes were pressurized. Neither Kelty nor Reynolds recalled pressurizing the holes. (Tr.I at 588-89).

Moreover, it is not clear whether Kelty or Reynolds were trained by Barrett. Barrett did not recall ever meeting them. Neither Kelty nor Reynolds testified. What is clear is that ROA personnel received no meaningful training in the use of pyrodex during the approximate six year period between Barrett's last 1987 test shot and ROA's use of pyrodex beginning in

February 1993. ROA seeks to minimize this six year hiatus in pyrodex training as unnecessary "refresher training." (Tr.II at 346; ROA br. at p.15). I view this six year lack of interim training as evidence of an inexcusable and cavalier use of pyrodex explosives by inexperienced and inadequately trained individuals.

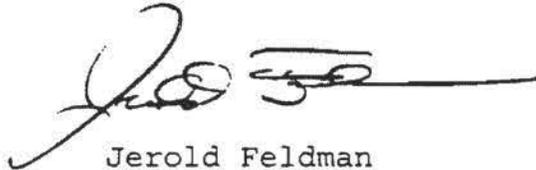
Finally, Kelty's failure to order any meaningful searches for additional misfires after four pyrodex bags were found during the bench removal process, given the separated charge sequential ignition blasting procedure, is further evidence of a grievous lack of training justifying the Secretary's unwarrantable failure charge. Significantly, despite the efficacy of Barrett's loading procedure, Bassett's death could have been prevented if post-blast inspection procedures had been competently conducted. Accordingly, 104(d)(1) Order No. 4282257 is affirmed. The extremely high negligence exhibited by ROA's failure to properly train its blasting personnel in the use of pyrodex and the significance of sequential misfires, as well as the serious gravity that resulted from this lack of training, justifies the imposition of the maximum statutory civil penalty of \$50,000.

ORDER

In view of the above, the Secretary's motion to vacate 104(d)(1) Order Nos. 4282252, 4282253, 4282254 and 4282258 **IS GRANTED**. Consequently, Rock of Age's contests in related Docket Nos. YORK 94-77-RM, YORK 94-78-RM, YORK 94-79-RM and YORK 94-83-RM, **ARE GRANTED**.

IT IS ORDERED that 104(d)(1) Citation No. 4282251, and, 104(d)(1) Order Nos. 4282255, 4282256 and 4282257 **ARE AFFIRMED**. Consequently, Rock of Ages Corporation's contests in related Docket Nos. YORK 94-76-RM, YORK 94-80-RM, YORK 94-81-RM and YORK 94-82-RM, **ARE DENIED**.

IT IS FURTHER ORDERED that Rock of Ages Corporation pay a total civil penalty of \$180,000 within 30 days of the date of this decision in satisfaction of the 104(d)(1) Citation and Orders affirmed herein. Upon timely receipt of payment, the civil penalty matter in Docket No. York 95-55-M **IS DISMISSED.**



Jerold Feldman
Administrative Law Judge

Distribution:

Henry Chajet, Esq., Patton Boggs, L.L.P., 2550 M Street, N.W.,
Washington, D.C., 20037-1350 (Certified Mail)

M. Shane Edgington, Esq., Patton Boggs, L.L.P., 1660 Lincoln
Street, Suite 1975, Denver, CO 80264 (Certified Mail)

David L. Baskin, Esq., Office of the Solicitor, U.S. Department
of Labor, One Congress Street, 11th Floor, P.O. Box 8396,
Boston, MA 02114 (Certified Mail)

/rb

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION
1244 SPEER BOULEVARD #280
DENVER, CO 80204-3582
303-844-3577/FAX 303-844-5268

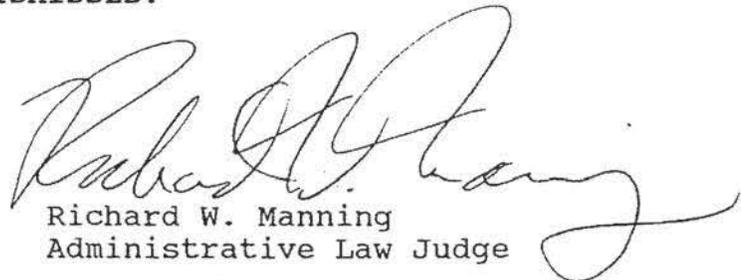
NOV 6 1995

ENERGY WEST MINING COMPANY, : CONTEST PROCEEDING
Contestant :
v. : Docket No. WEST 92-216-R
: Citation 3583185; 12/26/91
SECRETARY OF LABOR, : Deer Creek Mine
MINE SAFETY AND HEALTH :
ADMINISTRATION (MSHA), : Mine I.D. 42-00121
Respondent :
SECRETARY OF LABOR, : CIVIL PENALTY PROCEEDING
MINE SAFETY AND HEALTH :
ADMINISTRATION (MSHA), : Docket No. WEST 92-421
Petitioner : A.C. 42-00121-03763
v. :
Deer Creek Mine
ENERGY WEST MINING COMPANY, :
Respondent :

ORDER OF DISMISSAL

Before: Judge Manning

These cases are before me following a remand from the Commission. 17 FMSHRC 1313, 1319 (August 1995). The Secretary of Labor has filed a motion to vacate these proceedings on the grounds that the cases concern the interpretation of a safety standard that has been superseded by a new standard. The motion states that the new standard "takes care of the issues presented" in the present cases. Energy West Mining Company supports the Secretary's motion. For good cause shown, the motion is GRANTED, and these proceedings are DISMISSED.


Richard W. Manning
Administrative Law Judge

Distribution:

Margaret A. Miller, Esq., Office of the Solicitor, U.S. Department of Labor, 1999 Broadway, Suite 1600, Denver, CO 80202-5716

Thomas C. Means, Esq., CROWELL & MORING, 1001 Pennsylvania Avenue, NW, Washington, DC 20004-2595

RWM

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

1730 K STREET, N.W., 6TH FLOOR
WASHINGTON, D.C. 20006

November 8, 1995

SECRETARY OF LABOR,	:	CIVIL PENALTY PROCEEDING
MINE SAFETY AND HEALTH	:	
ADMINISTRATION (MSHA),	:	Docket No. WEST 95-420-M
Petitioner	:	A. C. No. 10-01907-05505
	:	
v.	:	
	:	Portable Crusher No. 2
BECO CONSTRUCTION COMPANY,	:	
Respondent	:	

ORDER ACCEPTING RESPONSE
DECISION APPROVING SETTLEMENT
ORDER TO MODIFY
ORDER TO PAY

This case is before me upon a petition for assessment of a civil penalty under section 105(d) of the Federal Mine Safety and Health Act of 1977.

The parties had filed a joint motion to approve settlement for the one violation in this case. On September 11, 1995, the parties were ordered to submit additional information to support their motion for the violation in this case. On October 11, 1995, the Solicitor submitted a letter in response to the September 11 order.

Citation No. 4343823 was issued for a violation of 30 C.F.R. § 56.1000 because the operator did not notify MSHA when the crusher was moved. The violation was designated non-significant and substantial but negligence was evaluated as high. The originally assessed penalty was \$1,000. In the settlement motion the parties requested that the citation be modified to reduce negligence from high to moderate and that the proposed penalty be reduce to \$700. According to the parties, the operator mistakenly believed that notification of the commencement of operations at the new location was sufficient to comply with the standard. In the September 11 order I accepted the parties request to modify the citation but expressed concern with respect to the proposed settlement amount which I stated appeared excessive.

The Solicitor in his letter further advises that the operator had been previously cited for violation of the same standard on August 30, 1994, which is six months prior to the violation in this case. The original assessment for that citation was \$1,000 but was subsequently settled for a reduction of the penalty to \$300 which

was approved by Administrative Law Judge Arthur Amchan. The Solicitor states that the operator had promised to notify MSHA of the opening of the mine in the future. Finally, the Solicitor advises that he has conferred with the operator, and requests that the proposed settlement amount be reduced to \$500.

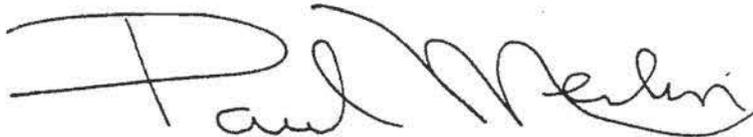
I accept the Solicitor's representations and conclude that the settlement is appropriate under the six criteria set forth in section 110(i) of the Act.

In light of the foregoing, it is ORDERED that the letter filed October 11 is ACCEPTED as a response to the September 11 order.

It is further ORDERED that the recommended settlement for this case be APPROVED.

It is further ORDERED that Citation No. 4343823 be MODIFIED to reduce negligence from high to moderate.

It is further ORDERED that the operator PAY \$500 within 30 days of the date of this decision.

A handwritten signature in cursive script that reads "Paul Merlin". The signature is written in black ink and is centered on the page.

Paul Merlin
Chief Administrative Law Judge

Distribution: (Certified Mail)

Matthew L. Vadnal, Esq., Office of the Solicitor, U.S. Department of Labor, 1111 Third Avenue, Suite 945, Seattle, WA 98101

Merrily Munther, Esq., Penland, Munther, Boardman, 350 North 9th, Suite 500, P. O. Box 199, Boise, ID 83701

/gl

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

OFFICE OF ADMINISTRATIVE LAW JUDGES
2 SKYLINE, 10th FLOOR
5203 LEESBURG PIKE
FALLS CHURCH, VIRGINIA 22041

NOV 13 1995

E.C.C. INTERNATIONAL, INC., Contestant	:	CONTEST PROCEEDING
v.	:	Docket No. SE 94-544-RM
	:	Citation No. 4360565; 6/29/94
SECRETARY OF LABOR, MINE SAFETY AND HEALTH ADMINISTRATION (MSHA), Respondent	:	Buffalo China Clay Co.
	:	Mine I.D. No. 09-01059
	:	
W. F. JACKSON CONSTRUCTION COMPANY, INC., Contestant	:	CONTEST PROCEEDING
v.	:	Docket No. SE 94-545-RM
	:	Citation No. 4360567; 6/29/94
	:	
SECRETARY OF LABOR, MINE SAFETY AND HEALTH ADMINISTRATION (MSHA), Respondent	:	Buffalo China Clay Co.
	:	Mine I.D. No. 09-01059
	:	
SECRETARY OF LABOR, MINE SAFETY AND HEALTH ADMINISTRATION (MSHA), Petitioner	:	CIVIL PENALTY PROCEEDING
v.	:	Docket No. SE 95-412-M
	:	A.C. No. 09-01059-05503 Z46
	:	
W. F. JACKSON CONSTRUCTION COMPANY, INC., Respondent	:	Buffalo China Clay Co.
	:	
	:	
SECRETARY OF LABOR, MINE SAFETY AND HEALTH ADMINISTRATION (MSHA) Petitioner	:	CIVIL PENALTY PROCEEDING
v.	:	Docket No. SE 95-450-M
	:	A.C. No. 09-01059-05507
	:	
	:	Buffalo China Clay Co.
E.C.C. INTERNATIONAL, INC., Respondent	:	

DECISION

Appearances: Ann G. Paschall, Office of the Solicitor,
U.S. Department of Labor, Atlanta, Georgia,
for the Secretary of Labor;
Christopher Hagy, Esq., Sutherland, Asbill &
Brennan, Atlanta, Georgia, and John A. Dana,
Esq., Sandersville, Georgia, for
W. F. Jackson Construction Company, Inc.;
Elizabeth W. Boswell, Esq., Sutherland,
Asbill & Brennan, Atlanta, Georgia, for
E.C.C. International, Inc.

Before: Judge Amchan

Findings of Facts

E.C.C. International, Incorporated (ECCI) owns and operates the Buffalo China Clay Mine in Washington County, Georgia. This is a surface mine at which kaolin, a mineral used primarily in coating paper is extracted. W. F. Jackson Construction Company is employed by ECCI as an independent contractor hauling and dumping clay overburden (Tr. 7-8).

On June 21, 1994, employees of W. F. Jackson Construction Company were dumping overburden into the "E" dump pit at the mine. This pit had two levels. The top level and primary dump site was 40 to 50 feet above the slurry or sludge material into which overburden was being dropped (Tr. 25-26).

Several drivers were operating dump trucks at this pit on June 21. After having dumped several loads, driver Keith Johnson backed his 50-ton Aveling Barford dump truck through the berm at the edge of the pit. The truck overturned and fell into the sludge below. Johnson was asphyxiated (Tr. 8-9, 25-26, 247-48).

The next day this fatal accident was investigated by MSHA representatives Danny Wriston and Merle Slayton. They determined that nothing was wrong with either the steering mechanism or the brakes of Mr. Johnson's truck. The inspectors were told that Johnson had not applied the brakes of his truck until he was through the berm (Tr. 116, 121-23, 182).

The berm in the area which Mr. Johnson had backed his truck had been destroyed in attempts to rescue him the day before (Tr. 26). Thus, the inspectors were unable to determine its height. However, the berm immediately adjacent to this point was between 30 and 48 inches in height (Tr. 95, 162, 230, Exh. G-9). It consisted of the same clay material that was being dumped into the pit (Tr. 26, 228).

Inspectors Wriston and Slayton asked W. F. Jackson Construction Company management personnel to see a representative berm. They were taken to an inactive site and observed a berm averaging 20 inches in height (Tr. 150-51, Exh. G-7). This conforms to Jackson's general practice in erecting berms at dump sites (Tr. 232-33).

On the basis of their investigation of the accident the inspectors issued Citation No. 4360567 to W. F. Jackson Construction Company and Citation No. 43650565 to ECCI. Both citations allege a violation of section 104(d)(1) of the Act and 30 C.F.R. §56.9301. Both allege that the violation was due to "high" negligence. The citation issued to W. F. Jackson Construction Company describes the violation as follows:

An accident resulting in a fatality occurred on June 21, 1994, when an employee, in preparation to dump, backed the truck he was driving over the edge of the overburden embankment. The victim asphyxiated when the truck overturned, submerging the cab by approximately 10 feet of sludge. An adequate berm at the dump site was not provided to impede overtravel and overturning.

The citation issued to ECCI was virtually identical. It alleged further that "[t]he mine operator [ECCI] visited the site periodically and should have known of the unsafe condition

and the unsafe practice of dumping over the edge." Subsequently a \$35,000 civil penalty was proposed for W. F. Jackson and \$15,000 for ECCI¹.

The cited standard and the issue presented in this case

Section 56.9301 provides:

Dump site restraints.

Berms, bumper blocks, safety hooks, or similar impeding devices shall be provided at dumping locations where there is a hazard of overtravel or overturning.

Inspector Wriston interprets this standard in conjunction with §56.9300, entitled Berms or Guardrails. Subsections (a) and (b) of section 56.9300 require that berms or guardrails on the banks of elevated roadways be at least mid-axle height of the largest vehicle that travels the roadway.

The tires of the 50-ton Aveling-Barford dump truck driven by Mr. Johnson are approximately 78 inches in height. Thus, Inspector Wriston concludes that Jackson was required to maintain berms of at least 39 inches at the dump-site at which the accident occurred (Tr. 35, 47).

Inspector Slayton, on the other hand, does not read the mid-axle height requirement into section 56.9301, the dump site standard (Tr. 179). He concludes that the cited standard requires a berm that will impede travel and that a 20-inch berm will not do so (Tr. 150-51, 160).

W. F. Jackson, President of W. F. Jackson Construction Company, contends that a 20-inch clay berm will impede a 50-ton Aveling-Barford dump truck and therefore his reliance on such berms at dump sites satisfies the requirements of the standard.

¹Apparently civil penalties of \$7,500 and \$5,500 have been proposed under section 110(c) of the Act for W. F. Jackson, President of W. F. Jackson Construction Company, and his foreman, George Phillips.

His opinion regarding the impediment is predicated on 37 years experience in hauling and dumping overburden (Tr. 215) and tests his company did after the accident using 20-inch, 30-inch and 40-inch clay berms (Tr. 244-50, 260-78).

On his first test on July 1, 1994, Mr. Jackson's son backed a 50-ton Aveling-Barford into the 20-inch berm and "could feel the impediment" (Tr. 244). It took more of an effort to drive through a 30-inch berm than a 20-inch berm (Tr. 245).

Jackson tested his berms again in August 1995 (Tr. 260, Exh. R-3). The clay was drier than at the time of the accident which made it more solid but provided less resistance to the truck (Tr. 264). Nevertheless, Jackson contends that the test establishes that a 20-inch clay berm does provide resistance to the truck and therefore impedes its motion (Tr. 267). While he concedes that a 40-inch berm impedes more than a 20-inch berm, he argues that if the driver backs up at a speed greater than one mph he is likely to go through the 40-inch berm, as well as the 20-inch berm (Tr. 274, 277-78).

I conclude, on the basis of Mr. Jackson's testimony and the fact that the Secretary did no testing of berms, that the Secretary has not established that the berms used by W. F. Jackson Construction Company on the day of the accident, or used generally at this mine, do not impede the backward motion of a dump truck driven at speeds of 1 mph or less².

²Ironically, the Secretary's evidence fails to show that the berms near the accident site were of a insufficient height to comply with the standard, even according to its theory of the case. Nobody knows the height of the berm through which Mr. Johnson drove. The Secretary has not shown that the berm adjacent to this point was not mid-axle height (Tr. 95-97, 181-82).

I feel compelled, however, to discuss the broader issue of whether W. J. Jackson's general practice in constructing berms complies with the standard. The parties clearly tried this issue and I believe it would be unfair to Jackson to ignore it. If this issue is not decided, Jackson would be subject to citation and possibly withdrawal orders in the future if it continues to rely on 20-inch berms.

"Impede" is defined by Webster as "to interfere with the progress of." The standard gives no indication as to the extent to which the progress of a dump truck must be impeded.

Respondent's President views a dump site restraint essentially as a warning to put the truck in neutral gear and to apply the dump brakes (Tr. 249-251). MSHA, in promulgating section 56.9301, has been unclear as to the purpose of the dump site restraint. If it wishes to require a device that will stop a truck under certain conditions it must be more specific. This record establishes that even a berm which is mid-axle height will not stop a truck that is backing up too fast.

Does Section 56.9301 require that dump site berms be mid-axle height?

In Buffalo Crushed Stone, Inc., 15 FMSHRC 1641, 1644-1646 (ALJ August 1993), Judge Weisberger affirmed a section 56.9301 violation on the grounds that a dump site berm did not reach the mid-axle point of the operator's front-end loader³. Judge Broderick reached a similar result in Target Construction, Inc., 12 FMSHRC 159 (ALJ January 1990). However, I conclude that a dump site berm need not be mid-axle height to comply with §56.9301.

The cited regulation was promulgated on August 25, 1988, 53 Fed. Reg. 32496 et seq. In the old standard, the provision requiring berms on elevated roadways, 30 C.F.R. §56.9022 had no particular relationship to that requiring berms or similar devices to prevent overturning at dumping locations (§56.9054). There was no mid-axle height requirement in either standard.

³The Commission reversed the Judge's finding that the violation was not significant and substantial, 16 FMSHRC 2043 (October 1994). The issue of whether the standard requires dump site berms to be mid-axle height was not before the Commission on review.

Revisions to these rules were proposed in December 1984, 49 Fed. Reg. 49202 (December 18, 1984). In the proposal, Subpart H, entitled Loading, Hauling and Dumping, had five subsections. One subsection, entitled Self-Propelled Equipment, contained the proposed §56.9203. This proposal was identical in relevant part to the final rule which now appears at §56.9300(a) and (b).

Another subsection entitled "Dumping Locations and Facilities" included a proposed §56.9402, entitled "Restraining Devices." The proposal provided that, "[b]erms, bumper blocks, safety hooks, or similar restraining devices shall be provided at dumping locations to prevent overtravel or overturning," BNA Mine Safety and Health Reporter, December 26, 1984 at page 306. There is no indication in the proposed standards or the preamble to the proposal that the mid-axle requirement applies to dumping site restraints.

When the final rule was published, the standard for dump site restraints appeared immediately after the provision for berms or guardrails on roadways. The preamble does not indicate that this was a deliberate attempt to link the two provisions or make the mid-axle height requirement applicable to dump site restraints.

The preamble to the final rule does not suggest that the mid-axle height requirement applied to dump-site restraints. It merely explains that the wording of the proposal had been modified to reflect MSHA's recognition that dump site restraints may not prevent equipment from overturning in all cases:

MSHA agrees that these devices may not provide an absolute barrier. They do, however, provide a restraint or impedance in the form of a physical obstruction to overtravel at the dump site. The final rule clarifies that these devices are intended to impede overtravel or overturning.

53 Fed. Reg. 32496 at 32501.

If MSHA intended to apply the mid-axle height requirement to dump site restraints, it was required to do so more explicitly. Given the rearrangement of the various provisions,

such a relationship between the dump site provision and roadway berm provision is not self-evident. Moreover, such an interpretation of the dump site provision is not reasonable given the lack of opportunity for affected operators to comment on it during the rulemaking process⁴.

Finally, "berm" is defined in §57.9700 as "[a] pile or mound of material along an elevated roadway capable of moderating or limiting the force of a vehicle in order to impede the vehicle's passage over the bank of the roadway." A pile or mound does not have to be mid-axle height to constitute a "berm." Thus, this record does not establish that a "berm" was not provided at the location at which Keith Johnson backed over the edge of the pit. A violation of §57.9301 has not been established.

CONCLUSION

I conclude that the Secretary has not established that a "berm" was not provided by W. F. Jackson Construction Company on the day of the fatal accident. I therefore vacate Citation No. 4360567 and the proposed civil penalty⁵. Since Citation No. 4360565, issued to ECCI, is dependent on the validity of the citation issued to Jackson, it is vacated as well.

⁴There is no indication for example, that MSHA considered the contention made by Jackson in this case that the mid-axle height requirement contributes little to safety when applied to dump sites. Similarly, there is nothing that suggests the agency considered the possibility that the mid-axle requirement might unduly interfere with dumping, which was also raised by Jackson. If there were evidence that MSHA had considered these issues, I would be obligated to defer to its resolution of the various arguments made during the rulemaking process.

⁵The Secretary also suggests that foreman George Phillips failed to adequately train, supervise or discipline Keith Johnson. The day before the fatal accident Johnson got stuck due to improper driving and possibly backing up at an excessive speed (Tr. 136-141). However, this allegation is not covered by the terms of the citation. Moreover, I find that the evidence does not establish an insufficiency of supervision.

ORDER

Citation No. 4360567 and the penalty proposed therefor are **VACATED**.

Citation No. 4360565 and the penalty proposed therefor are **VACATED**.



Arthur J. Amchan
Administrative Law Judge

Distribution:

C. Christopher Hagy, Esq., Elizabeth W. Boswell, Esq.,
Sutherland, Asbill & Brennan, 999 Peachtree Street, N.E.,
Atlanta, GA 30309-3996 (Certified Mail)

John A. Dana, Esq., 119 West Haynes Street, P.O. Box 29,
Sandersville, GA 31082 (Certified Mail)

Ann G. Paschall, Esq., Office of the Solicitor,
U.S. Department of Labor, 1371 Peachtree Street, N.E.,
Room 339, Atlanta, GA 30367 (Certified Mail)

\lh

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

OFFICE OF ADMINISTRATIVE LAW JUDGES
2 SKYLINE, 10th FLOOR
5203 LEESBURG PIKE
FALLS CHURCH, VIRGINIA 22041

NOV 20 1995

SECRETARY OF LABOR, : CIVIL PENALTY PROCEEDING
MINE SAFETY AND HEALTH :
ADMINISTRATION (MSHA), : Docket No. PENN 95-181
Petitioner : A.C. No. 36-05018-04053
v. :
: Cumberland Mine
CYPRUS CUMBERLAND RESOURCES :
CORPORATION, :
Respondent :

DECISION

Appearances: Maureen A. Russo, Esq., Office of the Solicitor,
U.S. Department of Labor, Philadelphia,
Pennsylvania, for the Petitioner;
R. Henry Moore, Esq., Buchanan Ingersoll,
Pittsburgh, Pennsylvania, for the Respondent.

Before: Judge Feldman

This matter is before me as a result of a petition for civil penalty filed by the Secretary of Labor pursuant to section 105(d) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 801 *et seq.*, (the Act). The Secretary seeks to impose a civil penalty of \$3,200 on Cyprus Cumberland Resources Corporation (Cumberland) for 104(d)(2) Order No. 3668716. The Order was issued for an alleged significant and substantial violation, attributable to Cumberland's unwarrantable failure, of the mandatory safety standard in section 75.220(a)(1), 30 C.F.R. § 75.220(a)(1). This standard requires operators to follow the mine specific roof control plan developed by the operator and approved by the Mine Safety and Health Administration (MSHA).

This case was heard on August 8 and August 9, 1995, in Washington, Pennsylvania.¹ The Secretary relied on the testimony of MSHA Inspectors Robert Santee and William Wilson, as well as George Hazuza, an MSHA supervisory roof control safety and health specialist. Cumberland called its Safety Manager, Gary Klinefelter, its General Manager, Charles Zabrosky, and employees Patrick Maher and Michael Konosky. Syd Peng, Ph. D., also testified for the respondent as an expert witness. Dr. Peng is the Chairman of West Virginia University's Mining and Engineering Department. Cumberland stipulated it is a large operator that is affiliated with the Cyprus Amax Coal Company. Cumberland also stipulated that it is subject to the jurisdiction of the Act, and, that the proposed penalty will not adversely affect its ability to continue in business. The parties' post-hearing filings are of record.

Findings of Fact

This case involves the tailgate entry of the proposed 5A longwall panel at the Cumberland Mine. The 5A panel was to be the thirty-first panel Cumberland had mined since it started longwall mining in 1980. The 5A longwall panel is located adjacent and parallel to the 4A longwall panel, the panel being mined on August 2, 1994, when 104(d)(2) Order No. 3668716 was issued. As illustrated by the mine map, the initial faces of the 4A and 5A panels were slightly offset, with the start of the 5A panel located outby the start of the 4A panel. (Exs. P-2, R-17). This offset was unusual in that the initial face of a subsequent panel is ordinarily even with the start of the previous panel.

Adjacent longwall panels are separated by three development entries. Thus, the 5A and 4A panels were separated by entry Nos. 1, 2 and 3. The No. 1 entry, the entry closest to the 5A panel, was to serve as the 5A tailgate entry once mining began on the 5A longwall. The No. 2 entry was the track entry for the active 4A panel. The No. 3 entry was the 4A headgate that contained the 4A belt conveyor.

¹ All transcript references in this decision relate to testimony provided on August 8, 1995.

Although the Cumberland Mine roof control plan had undergone revisions, the longstanding operative provisions pertinent to this proceeding provide:

SAFETY PROCEDURES FOR LONGWALL TAILGATE TRAVELWAYS

A. 1. Typical tailgate roof support will be installed in the longwall tailgate as shown by drawings Nos. 7, 8, or 9. These plans provide a safe travelway out of the longwall section through the tailgate side.

2. Typical tailgate roof support will be installed in the entire length of the tailgate entry of the first longwall panel prior to any mining.

3. *To control frontal abutment stresses, typical tailgate support will be installed a minimum of 50 feet in advance of the longwall face in the proposed tailgate entry of each subsequent panel...* (emphasis added).² (Ex. P-4, p. 14).

Considering the roof control plan in its entirety, it is clear the term "typical tailgate support" referenced in Paragraph A3 means the installation of a single row of cribs in addition to routine roof bolting. (Tr. 60-61, 96; Ex. P-4 at 38A-41A). Consistent with the plan's provisions, Cumberland Mine entries were routinely supported with cribs. (Tr. 56, 87-88, 199, Ex. R-13). With respect to the cited area, Safety Manager Klinefelter admitted he was aware the roof control plan required the installation of cribs in the proposed tailgate entry 50 feet in advance of the active face. (Tr. 238). Although this area was not supported by cribs, extra supplemental support in the form of 20 super roof bolts and T2 channels were installed at the intersection of the proposed 5A longwall and the proposed longwall tailgate. (Tr. 91, 214; Exs. P-4, R-13).

On August 2, 1994, Inspector Santee traveled the track haulage to the 5A section. Santee was accompanied by

² There are two exceptions to the provisions of Paragraph A3 of the roof control plan. These exceptions are not applicable in this proceeding. (Tr. 61).

Mike Konosky, Cumberland's safety escort, and Jerry McCombs, a union local president. At that time, the face of the proposed 5A panel was approximately 4,000 feet inby the actively retreating 4A longwall face. (Tr. 37, 67-68, 130; Exs. P-1, 2, 3). The face of the 4A panel had been adjacent to the initial proposed 5A face on or about May 6, 1994. (Tr. 37, 67; Ex. P-1, 2, 3).

Upon arriving at the 5A section, Santee took ventilation readings prior to proceeding towards the proposed 5A tailgate section. As Santee approached this entry near the 5A face, he noticed that cribs had not been installed in accordance with the approved roof control plan. Consequently, Santee issued 104(d)(2) Order No. 3668716 for an alleged violation of section 75.220(a)(1). The following condition was noted in the Order:

The operator failed to install the required typical tailgate support, in the proposed tailgate of the future 5A longwall section, for a distance of 59 feet outby the face. The present 4A(012) longwall face, according to the mine map as well as information obtained from Company officials, was mined on or about May 6, 1994. The operator's roof control plan (Page 14), "Safety procedures for longwall tailgate travelways," Item A3 requires, "to control frontal abutment stresses, typical tailgate support will be installed a minimum of 50 feet in advance of the longwall face in the proposed tailgate entry of each subsequent panel." This area is required to be pre-shifted as well as traveled weekly by certified persons who are acting as agents of the operator. There were 5 violations issued during the last inspection period from April 1, 1994, to June 30, 1994, of 30 C.F.R. § 75.220(a)(1). (Tr. 40; Ex. P-1)

Santee modified Order No. 3668716 on August 4, 1994, to reflect cribbing was not installed 49 feet rather than 59 feet outby the 5A face. Santee testified he recalculated this distance by measuring outby the 5A face rather than using a crosscut intersection inby that existed as a result of the offset configuration of the 4A and 5A panels. (Tr. 38-39). Santee also terminated the Order on August 4, 1994, after a single row of cribs was installed in the 5A tailgate outby the 5A panel.

(Tr. 38-39, 94-95). Santee did not require the installation of cribs in the No. 1 entry in by the proposed face to abate the Order. (Tr. 201-02; Ex. R-13).

On balance, the testimony reflects the uncribbed roof cited by Santee was not significantly compromised by the abutment pressures from the 4A panel. Cumberland witnesses Klinefelter, Zabrosky, Konosky and Peng testified they did not observe any signs of roof stress or deterioration upon inspection of the area in the days and months following Santee's Order. Even Santee conceded he did not consider the roof condition to be bad in that it did not pose any danger. (Tr. 78-79).

Despite roof control provisions to the contrary, Klinefelter testified Cumberland unilaterally decided to stop cribbing the first 50 feet of the tailgate entry out by the proposed face for more than half of its developed longwall panels. (Tr. 203-04, 223; Ex. R-17). This practice began in 1988 to improve ventilation to the active longwall faces by preventing loss of air to those faces. (Tr. 203, 223, 238).

Cumberland explained why it decided not to crib the subject tailgate areas during the last seven years. At the beginning of each longwall panel air is directed to the face by stoppings in entries behind the face. (Tr. 203-04, Exs. R-14, R-15). In the initial stages of longwall mining, it becomes difficult to maintain proper airflow to the face because of the void left by removal of the coal. (Tr. 86-87, 203, 208, 212). The stoppings behind the longwall may also become compromised by roof falls as the longwall retreats. (Tr. 213). Prior to the initial fall in the longwall gob, air can flow to the bleeder entries through the stopping location behind the gob rather than flowing across the face into the tailgate. (Tr. 86-87, 227-28). This can cause high methane concentration in the tailgate or at the face, or, make it difficult to control respirable dust on the face. (Tr. 87, 208, 227).

Cumberland concluded its ventilation problems could be remedied if the area consisting of the first 50 feet of the proposed tailgate entry was not cribbed. (Tr. 213-14, 227). A lack of cribs would cause the area to fall at an earlier time after mining of the proposed panel began. This would enable Cumberland to maintain ventilation on the face by adding

resistance and restricting airflow through the gob. (Tr. 212-14, 229). Klinefelter testified Cumberland's approved ventilation plan recognizes the problems associated with longwall start up and permits Cumberland to mine 100 feet before it must satisfy the full ventilation requirements for the face. (Tr. 208-09).

Further Findings and Conclusions

A. Fact of Occurrence

Evidence is immaterial if it is relevant to establish or disprove a proposition that is neither in issue or probative of a fact in issue. Jerome Prince, *Richardson On Evidence*, § 4 (10th ed. 1973). The propriety, as a ventilation measure, of Cumberland's lack of cribbing of the first 50 feet of each of its proposed tailgate entries is not in issue. Nor is it probative of the issue of whether Cumberland's failure to crib constitutes a failure to follow its approved roof control plan in violation of section 75.220(a)(1). Thus, Cumberland's reasons for not cribbing are not material with respect to the issue of the fact of occurrence of the cited violation. Similarly, as discussed below, having elected not to inform MSHA of its decision to modify its tailgate cribbing procedures, the rationale for its unilateral modification is not a material mitigating factor with respect to the issue of unwarrantable failure.

Generally, the Secretary's interpretation of a mandatory safety requirement is afforded weight when it is reasonable and consistent with statutory intent. *Western Fuels-Utah, Inc.*, 11 FMSHRC 278, 284 (March 1989). Here, the Secretary contends Paragraph A3 of Cumberland's roof control plan requires tailgate cribbing in the proposed tailgate 50 feet in advance of the adjacent active longwall face. In response, Cumberland argues the roof control language in Paragraphs A2 and A3 is ambiguous.

Cumberland points to Paragraph A2 which requires the "entire length" of the tailgate entry of the "first longwall panel" to be cribbed prior to the initiation of mining in 1980. By comparison, Paragraph A3, which applies to all subsequent longwall panels, does specify the "entire length" of each proposed tailgate. Rather, Paragraph A3 states:

To control frontal abutment stresses, typical tailgate support will be installed *a minimum of 50 feet in advance of the longwall face in the proposed tailgate of each subsequent panel...* (emphasis added)

Cumberland argues the phrase "a minimum of 50 feet in advance" is ambiguous because it is unclear whether it requires typical tailgate support 50 feet inby or outby the proposed panel or 50 feet ahead of the advancing face.

As a threshold matter, it is significant that Cumberland did not view these roof control provisions as ambiguous from 1980 through 1988 when it adhered to proposed tailgate cribbing 50 feet in advance of the active face. Moreover, taking Cumberland at its word, the departure from this procedure in 1988 was motivated by Cumberland's ventilation concerns, rather than its realization of the purported ambiguity in the roof control provisions. Finally, although resolution of ambiguity requires clarification, Cumberland never sought guidance from MSHA.

Notwithstanding the fact that Cumberland's claimed confusion is belied by its own past conduct and testimony, the plain language of Paragraph A3 concerns the "control of frontal abutment stresses." Dr. Peng testified that abutment pressure is caused by the removal of coal from the retreating longwall when the overhanging unsupported gob transfers pressure to the edges of the gob, both in front of the advancing face and to the sides. (Tr. 278). Although Peng opined that abutment pressures are minor at the beginning of the longwall panel and increase as the panel is mined, it is evident that "control of abutment stresses" referenced in Paragraph A3 can only be accomplished with roof support in advance of the active longwall. (Tr. 286).

It is also apparent the operative language in Paragraph A3 requiring cribbing in the "proposed tailgate entry" contemplates roof support installation as the adjacent panel advances. For the tailgate entry ceases to be a "proposed" entry once mining of the proposed panel begins. Thus, when Cumberland advanced the 4A panel when it was adjacent to the 5A face on or about May 6, 1994, without supporting the proposed 5A tailgate 50 feet in advance of the active 4A panel, it did so in contravention of the approved roof control provisions. Consequently, the Secretary

has established the fact of occurrence of the cited mandatory safety standard in section 75.220(a)(1).

B. Significant and Substantial Issue

A violation is properly designated as being significant and substantial (S&S) in nature "if, based on the particular facts surrounding that violation, there exists a reasonable likelihood that the hazard contributed to [by the violation] will result in an injury or an illness of a reasonably serious nature." *Cement Division, National Gypsum*, 3 FMSHRC 822, 825 (April 1981). In *Mathies Coal Co.*, 6 FMSHRC 1 (January 1984) the Commission 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 [by the violation] will result in an injury; and (4) a reasonable likelihood that the injury in question will be of a reasonably serious nature. 6 FMSHRC at 3-4.

See also *Austin Power Co. v. Secretary*, 861 F.2d 99, 104-05 (5th Cir. 1988), *aff'g* 9 FMSHRC 2015, 2021 (December 1987) (approving *Mathies* criteria). The question of whether any particular violation is significant and substantial must be viewed in the context of the continued existence of the cited violation during the course of continued normal mining operations. *Halfway Incorporated*, 4 FMSHRC 8, 12-13 (January 1986).

In applying the *Mathies* and *Halfway* criteria in this case, identification of the particular violation that contributes to the discrete safety hazard, i.e. roof fall, is essential. Significantly, Santee testified Cumberland was not cited for a

violation of section 75.202(a), 30 C.F.R. § 75.202(a), which prohibits persons from working or traveling under unsupported roof, because Santee did not consider the roof condition to be bad.³ (See Tr. 79). Therefore, Cumberland's extensive testimony by Dr. Peng and its other witnesses that the roof area cited by Santee was in good condition, while credited, is not dispositive and does not preclude a significant and substantial finding in this matter.

Rather, the subject mandatory standard in this proceeding is section 75.220(a)(1). This mandatory standard provides:

Each mine operator shall develop and follow a roof control plan, approved by the [MSHA] District Manager, that is suitable to the prevailing geological conditions, and the mining system to be used at the mine. Additional measures shall be taken to protect persons if unusual hazards are encountered. (Emphasis added).

Therefore, an evaluation of the likelihood of serious injury must be accomplished by analyzing the degree of hazard contributed to by Cumberland's longstanding failure to "follow its roof control plan." With respect to the first element in *Mathies*, as noted above, Cumberland violated section 75.220(a)(1). With respect to the second element, the failure to follow an approved roof control plan that is suitable to the specific conditions at the Cumberland Mine contributes to the danger of a roof fall. See, e.g., *Jim Walter Resources*, and case cited therein, 9 FMSHRC 903, 907 (May 1987). The fourth element is also satisfied in that mine roofs are inherently dangerous and roof falls are a leading cause of death in underground mines. *Consolidation Coal Company*, 6 FMSHRC 34, 37 (January 1984).

³ Section 75.202(a) provides:

The roof, face and ribs of areas where persons work or travel shall be supported or otherwise controlled to protect persons from hazards related to falls of the rock, face or ribs and coal or rock bursts.

Turning to the remaining question, the Commission has held the third element of the *Mathies* formula "requires that the Secretary establish a reasonable likelihood that the hazard contributed to will result in an event in which there is an injury." *U.S. Steel Mining Co., Inc.*, 6 FMSHRC 1834, 1836 (August 1984). This third element must be viewed in the context of *Halfway* to determine if there is a reasonable likelihood that Cumberland's continued failure to crib in accordance with the requirements of its roof control plan will result in an event, i.e., a roof fall, that will cause serious injury.

This is not a matter in which Cumberland, on one occasion, inadvertently failed to crib a proposed tailgate in violation of its roof control plan. On the contrary, Cumberland admittedly stopped cribbing the first 50 feet outby the initial face of each proposed tailgate since 1988 (approximately 15 tailgates). Moreover, but for Santee's Order, Cumberland undoubtedly would have continued not to crib future proposed tailgates within 50 feet of their proposed longwall faces. With the exception of the 5A tailgate, all previous uncribbed tailgate areas at the initial faces have fallen into the gob. Therefore, it is impossible to determine the condition of these areas after they were exposed to abutment pressures from the active adjacent longwall panels.⁴

Although no one travels the uncribbed tailgate area outby the proposed face once mining on this face begins, Santee testified that, during the mining of the adjacent longwall panel, the weekly mine examiner is required to travel the uncribbed proposed tailgate area once every seven days and pre-shift examiners must examine this area three times each day. (Tr. 64-65, 210-11, 248). If this area is not pre-shifted, then the on-shift examiner would be exposed. (Tr. 64-65).

⁴ Cumberland argues the Secretary is estopped from citing this practice because MSHA inspectors have failed to cite this condition since 1988. Whether inspectors previously observed this condition is unclear. However, the lack of previous enforcement of a mandatory safety requirement does not constitute a defense to a violation. See *U.S. Steel Mining Company, Inc.*, 15 FMSHRC 1541, 1546-47 (August 1993).

Under these circumstances, for several years, mine examiner personnel were exposed to areas of roof that were intended to rapidly collapse into the gob once mining at each proposed panel began because these areas lacked supplemental roof support. These facts demonstrate there was a reasonable likelihood of a roof fall that would result in serious or fatal injuries to mine personnel traversing the uncribbed areas in issue. Accordingly, the third *Mathies* element has been satisfied. Thus, Cumberland's failure to crib the tailgate areas immediately outby the proposed longwall faces was properly characterized as significant and substantial.

C. Unwarrantable Failure

Finally, we arrive at the question of unwarrantable failure. In *Emery Mining Corp.*, 9 FMSHRC 1997, 2004 (December 1987), the Commission determined that unwarrantable failure is aggravated conduct constituting more than ordinary negligence. This determination was derived, in part, from the plain meaning of "unwarrantable" ("not justifiable" or "inexcusable"), "failure" ("neglect of an assigned, expected, or appropriate action"), and "negligence" (the failure to use such care as a reasonably prudent and careful person would use...characterized by 'inadvertence,' 'thoughtlessness,' and 'inattention'). *Id.* at 2001. Unwarrantable failure is characterized by such conduct as "reckless disregard," "intentional misconduct," "indifference" or a "serious lack of reasonable care." *Id.* at 2003-04; *Rochester & Pittsburgh Coal Co.*, 13 FMSHRC 189, 193-94 (February 1991).

Resolution of whether Cumberland's unilateral disregard of the provisions of its roof control plan manifests an unwarrantable failure requires a review of the plan approval process. Pursuant to section 101 of the Act, 30 U.S.C. § 811, mandatory safety standards are promulgated through the rulemaking process and apply to all similarly situated mines. However, such general industry standards are frequently ineffective when applied to mining practices or conditions unique to a particular mine.

Consequently, Congress, in section 302 of the Act, 30 U.S.C. § 862, provided for MSHA to require mine operators to adopt comprehensive plans tailored to each mine to ensure the most effective measures of roof control. The roof control plan must

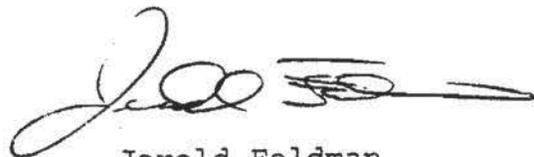
be submitted by the operator for the MSHA District Manager's approval. The plan approval process contemplates negotiations in good faith between operators and MSHA over the plan's provisions. *Jim Walter Resources, Inc.*, 9 FMSHRC at 907. If an agreement cannot be reached, the parties may seek resolution of their disputes in enforcement proceedings before this Commission. *Id.*

The plan approval system would frustrate Congressional intent if operators could selectively follow only those provisions they like while ignoring other provisions. Such conduct eviscerates the plan approval process, compromises safety, and, must not be condoned. See *S & H Mining, Inc.*, 15 FMSHRC 2196, 2199 (October 1993). If Cumberland had an alternative method of roof control without any diminution in safety, it should have sought MSHA's approval. Having failed to do so, Cumberland's unabashed failure to follow its roof control plan since 1988 constitutes intentional and inexcusable misconduct. Such aggravated conduct supports the Secretary's unwarrantable failure charge.

Accordingly, 104(d)(2) Order No. 3668716 is affirmed. Given Cumberland's large operator status, its longstanding failure to follow its roof control plan, the degree of negligence manifest by its intentional misconduct, and, the gravity associated with a potential roof fall, the \$3,200 civil penalty proposed by the Secretary is likewise affirmed.

ORDER

As noted above, 104(d)(2) Order No. 3668716 **IS AFFIRMED**. Consequently, **IT IS ORDERED** that the respondent pay a total civil penalty of \$3,200 in satisfaction of the cited violation in this matter. Payment is to be made to the Mine Safety and Health Administration within 30 days of the date of this decision. Upon timely receipt of the \$3,200 payment, Docket No. PENN 95-181 **IS DISMISSED**.



Jerold Feldman
Administrative Law Judge

Distribution:

Maureen A. Russo, Esq., Office of the Solicitor, U. S. Department
of Labor, 3535 Market Street, Room 14480, Philadelphia, PA 19104
(Certified Mail)

R. Henry Moore, Esq., Buchanan Ingersoll, One Oxford Centre,
301 Grant Street, 20th Floor, Pittsburgh, PA 15219-1410

/rb

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

OFFICE OF ADMINISTRATIVE LAW JUDGES
2 SKYLINE, 10th FLOOR
5203 LEESBURG PIKE
FALLS CHURCH, VIRGINIA 22041

NOV 20 1995

SECRETARY OF LABOR,	:	CIVIL PENALTY PROCEEDING
MINE SAFETY AND HEALTH	:	
ADMINISTRATION (MSHA),	:	Docket No. WEVA 94-377
Petitioner	:	A.C. No. 46-04421-03721
v.	:	
	:	Amonate #31 or #32
CONSOLIDATION COAL COMPANY,	:	
Respondent	:	
	:	
SECRETARY OF LABOR,	:	CIVIL PENALTY PROCEEDING
MINE SAFETY AND HEALTH	:	
ADMINISTRATION (MSHA),	:	Docket No. WEVA 94-379
Petitioner	:	A.C. No. 46-04421-03722-A
v.	:	
	:	Amonate #31 or #31
ROBERT G. WYATT,	:	
Employed by	:	
CONSOLIDATION COAL COMPANY,	:	
Respondent	:	
	:	
SECRETARY OF LABOR,	:	CIVIL PENALTY PROCEEDING
MINE SAFETY AND HEALTH	:	
ADMINISTRATION (MSHA),	:	Docket No. WEVA 94-380
Petitioner	:	A.C. No. 46-04421-03723-A
v.	:	
	:	Amonate #31 or #31
DANNY E. CRUTCHFIELD,	:	
Employed by	:	
CONSOLIDATION COAL COMPANY,	:	
Respondent	:	

DECISIONS

Appearances: Robert S. Wilson, Esq., Office of the Solicitor,
U.S. Department of Labor, Arlington, Virginia,
for the Petitioner;
David J. Hardy, Esq., John Bonham, Esq.,
Jackson and Kelly, Charleston, West Virginia;
for the Respondent Consolidation Coal Company;
Robert B. Allen, Esq., King, Allen and Arnold,
Charleston, West Virginia, for the Respondent
Robert G. Wyatt;
Ricklin Brown, Esq., Bowles, Rice, McDavid, Graff
and Love, Charleston, West Virginia, for the
Respondent Danny E. Crutchfield.

Before: Judge Koutras

Statement of the Proceedings

These consolidated proceedings concern proposals for assessment of civil penalties filed by the petitioner against the respondents pursuant to the Federal Mine Safety and Health Act of 1977, seeking penalty assessments for alleged violations of certain mandatory safety standards found in Part 75, Title 30, Code of Federal Regulations.

Docket No. WEVA 94-377 concerns two alleged violations and proposed civil penalty assessments of \$100,000, filed against the corporate respondent Consolidation Coal Company (Consol) pursuant to section 110(a) of the Act.

Docket No. WEVA 94-379 concerns a civil penalty assessment proposal of \$9,000 against the individual respondent Mine Superintendent Robert G. Wyatt pursuant to section 110(c) of the Act. Mr. Wyatt is charged as an agent of Consol with "knowingly authorizing, ordering, or carrying out" one of the violations filed against Consol (Order No. 2724034).

Docket No. WEVA 94-380 concerns a civil penalty assessment proposal of \$8,000 against the individual respondent Mine Foreman Danny E. Crutchfield pursuant to section 110(c) of

the Act. Mr. Crutchfield is charged as a Consol agent with "knowingly authorizing, ordering, or carrying out" one of the violations filed against Consol (Order No. 2724034).

A consolidated hearing was conducted in these cases in Beckley and Charleston, West Virginia, and the parties submitted posthearing briefs that I have reviewed and considered in the course of my adjudication of these matters.

Applicable Statutory and Regulatory Provisions

1. The Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 801 et seq.
2. Commission Rules, 30 C.F.R. § 2700.1 et seq.
3. Sections 110(a) and 110(c) of the Act. Section 110(a) provides for assessment of civil penalties against mine operators for violations of any mandatory safety or health standards, and section 110(c) provides as follows:

Whenever a corporate operator violates a mandatory health or safety standard or knowingly violates or fails or refuses to comply with any order issued under this Act or any order incorporated in a final decision issued under this Act, except an order incorporated in a decision issued under subsection (a) or section 105(c), any director, officer, or agent of such corporation who knowingly authorized, ordered, or carried out such violation, failure or refusal shall be subject to the same civil penalties, fines, and imprisonment that may be imposed upon a person under subsections (a) and (d). (Emphasis added)

4. An "agent" is defined in Section 3(e) of the Act (30 U.S.C. § 802(e)) to mean "any person charged with responsibility for the operation of all or part of a coal mine or other mine or the supervision of the miners in a coal or other mine."

5. 30 C.F.R. 75.334(b)(1) and 75.364(a)(2).

Issues

In Docket No. WEVA 94-377, the issues include (1) whether Consol violated the cited mandatory safety standards, (2) whether the violations were "significant and substantial" (S&S), (3) whether the violations resulted from an unwarrantable failure to comply with the cited standards; and (4) the appropriate civil penalties to be assessed, taking into account the civil penalty assessment criteria found in section 110(I) of the Act.

In the two individual section 110(c) cases, the principal issue is whether or not the named respondents knowingly authorized, ordered, or carried out the alleged violation, and if so, the appropriate civil penalties that should be assessed for the violation. Additional issues raised by the parties are identified and disposed of in the course of these decisions.

The parties stipulated, in relevant part, to the following (Tr. 11-12; Exhibit ALJ-1):

1. Consol is the corporate owner and operator of the Amonate No. 31 Mine, and the mine operations are subject to the jurisdiction of the Act.
2. In 1993, the Amonate No. 31 Mine produced 614,339 tons of coal and Consol produced approximately 39.7 million tons of coal in all of its operations.
3. The maximum penalty which could be assessed for the violations against Consol pursuant to 30 U.S.C. § 820(a) will not affect its ability to remain in business.
4. Robert G. Wyatt was employed by Consol as Superintendent of the Amonate No. 31 Mine on December 29, 1992, and was an "agent" of the operator within the meaning of Section 3(e) of the Mine Act.
5. Danny E. Crutchfield was employed by Consol as Mine Foreman of the Amonate No. 31 Mine on

December 29, 1992, and was an "agent" of the operator within the meaning of Section 3(e) of the Mine Act.

6. Copies of section 104(d)(1) Order Nos. 2724034 and 2724035 may be admitted into evidence for the purpose of establishing their issuance and not for the purpose of establishing the accuracy of the statements asserted therein.
7. MSHA Inspector William Uhl, Jr., was acting in his official capacity as an authorized representative of the Secretary of Labor when he issued the subject orders.
8. True copies of the orders were served upon Consol or its agent as required by the Act.

Background

On Tuesday, December 29, 1992, at approximately 2:00 p.m., on the day shift, a methane explosion occurred on the 2-1/2 (MMU 015) section. (MSHA has characterized the incident as an "explosion," and the respondent has characterized it as an "ignition.") Although there were no fatalities, five miners suffered serious burns and have not returned to work.

According to MSHA's Report of Investigation (Exhibit G-2), the mine was ventilated by three exhausting main fans, one gob fan, three intake shafts, and one intake drift. The Greasy Creek shaft and Dunford shaft were utilized for both intake and return air courses. There were four mechanized mining units on retreat at the time of the incident, and coal was extracted from the working sections by remote-controlled continuous-mining machines. Coal was transported by shuttle cars to the section dumping points and then carried by belt conveyor to two underground track loadout areas. Haulage continued along the track to the surface. The mine employed 128 underground miners and eight surface miners. Production averaged 3,482 clean tons of coal per 24 hours, on three shifts per day, 5 to 6 days a week. The mine liberated approximately 3,800,000 cubic feet of methane per 24-hour period. A regular MSHA AAA inspection was on-going on December 29, 1992. Respondent Robert G. Wyatt was the general

mine superintendent, and respondent Danny Crutchfield was the general mine foreman.

MSHA initiated an accident investigation on December 30, 1992, and it continued in January and February 1993. Spot inspections were also conducted concurrently with the investigation, and several 104(a) citations, a section 104(d)(1) citation, and several section 104(d)(1) orders were issued for alleged violations of certain mandatory safety and health standards. Two of the orders are the subject of these proceedings.

Section 104(d)(1) "S&S" Order No. 2724034, March 3, 1993, cites an alleged violation of 30 C.F.R. 75.334(b)(1), and the cited condition or practice is described as follows:

An adequate bleeder system was not provided to control the air passing through the worked-out area of the 2-1/2 section, MMU 015, to continuously dilute and move away methane-air mixtures from the active workings and into a return aircourse. Air measurements taken by MSHA ventilation specialists indicated that only 2,037 cubic feet per minute of air was passing through the bleeder regulator. This condition was revealed during an MSHA AFB accident investigation after a methane explosion had occurred.

Section 104(d)(1) "S&S" Order No. 274035, March 3, 1993, cites an alleged violation of 30 C.F.R. 75.364(a)(2), and the cited condition or practice is described as follows:

Based on evidence obtained during this accident investigation, it is determined that adequate weekly examinations were not being made to determine the effectiveness of the 2-1/2 section bleeder system. Statements given by company officials, Bob Wyatt, superintendent, and Danny Crutchfield, mine foreman, were that no one was examining the bleeder regulator and the area was inaccessible. The approved ventilation map indicates that the back side of the 2-1/2 section, MMU 015, can be examined. This is a contributing factor to the methane explosion which occurred on 2-1/2 section, MMU 015, December 29, 1992.

MSHA presented the testimony of five miners who were working when the December 29, 1992, ignition occurred. Continuous miner operator and helper Jackson M. Whitaker, who suffered injuries and has a pending law suit against Consol, testified that drill holes were used as a bleeder and he was aware of regulators on other sections, but was not aware of other drill holes that were used as bleeders. He stated that the roof in the gob area "was falling good," and that three or four pillar rooms were pulled, but he could not see back to the drill holes at the back of the section.

Mr. Whitaker stated that he could not recall exactly what was going on the day of the ignition. He stated that mining began at the No. 4 entry and the methane monitor on the miner machine "gassed off" the machine when the monitor showed 1.5 percent methane. It was not common to find that much methane on the section. Section foreman Bill Bandy came to the area and made gas checks while waiting for an electrician, and he checked the monitor. The problem was cleared up by the existing air and a mechanic certified that the monitor was functioning properly. Mine foreman Crutchfield came to the area after he was notified of the incident.

Mr. Whitaker stated that he made methane checks after the machine stopped and he found none. He proceeded to the No. 5 entry and timbers were installed and curtains were hung before mining continued. He confirmed that he was in the No. 5 entry when the explosion occurred and he had just completed mining a lift. Before the explosion, the roof was dripping and he observed one crack of three or four inches and it was "not out of the ordinary." He loaded out one car and the roof started cracking again. He backed out and decided to take one more load with no problem. The roof "started working a little bit" and started "acting up pretty good and dropping. Things got loud in the gob" and the roof felt like it was going to fall and he started to run down the No. 5 entry. He believed he would be covered up and he looked back and saw "a ball of fire" coming out of the middle of the gob in the roof that had not fallen and he started burning and was picked up and thrown down. He described the injuries he received. He stated that the roof crack was "hairline" before the ignition, but that it kept increasing.

On cross-examination, Mr. Whitaker confirmed that Foreman Billy Bandy instructed him to make ventilation adjustments before the explosion occurred in order to force more air to the return. He confirmed that the check curtains at the No. 3 and 4 entries were properly installed.

Mr. Whitaker stated that ten shuttle cars of coal were loaded out of the Nos. 4 and 5 entries on December 29, prior to the ignition. He confirmed that there were three or four miner "gas-offs," and it was believed that something was wrong with the miner because .1 and .2 percent methane was detected when checked with methane detectors. He confirmed that Mr. Bandy was not consulted about all of the "gas offs" and that Mr. Crutchfield was not present all of the time when these occurred (Tr. 180-254).

Clifford A. Payne testified that he was working on the 2-1/2 section day shift on December 29 as a roof bolter, and the section was in retreat and had been in that mode for more than a week. He stated that he was not familiar or involved with the drill holes on the section. He was aware that drilling was taking place, but has never seen regulators that had been drilled through solid coal blocks.

Mr. Payne stated that he was in the crosscut between the No. 4 and 5 entries when the methane explosion occurred. He described what he observed and heard and stated that he saw "a big ball of flame" that covered the entry. He confirmed that he walked off the section together with two other miners who were in the area (Tr. 30).

On cross-examination, Mr. Payne stated that at the time of the explosion, he had no reason to withdraw himself because he was not aware of any gas in the area, and had no other reason to withdraw because of any hazardous conditions on the section. He stated that when he was at the area where the miner was operating prior to the explosion, the roof "was working hard" and the miner was backed out. The roof started "rumbling" again approximately 20 minutes prior to the ignition (Tr. 30-41).

Worley Whitt testified that he was working on the 2-1/2 section on December 28, 1992, as a scoop operator on the evening 4:00 p.m. to midnight shift, and that he was not

involved in the explosion that occurred on the day shift the next day. The section was engaged in retreat mining and was advancing and retreating for approximately two weeks prior to the explosion. He stated that he helped drill some of the holes at the back of the section. He explained that the holes were initially drilled with two inch diameters and they were re-drilled to three inch diameters and he drilled five of the holes. He was told the holes were used for ventilation, and in his mining experience he had never seen drill holes used as ventilation regulators (Tr. 41-56).

On cross-examination, Mr. Whitt stated that he had a general understanding of his safety rights under the BCOA agreement and was aware of his right to withdraw from unsafe areas. He stated that in December 1992, the section was taking weight, including broken timbers, blocks that were split, and increased rib sloughage. He confirmed that there were no methane problems on the section and that it had "good air."

In response to further questions, Mr. Whitt stated that when he returned to the section on December 30, 1992, the area from the track to the dinner hole appeared different in color. It appeared grey in color and darker than it did before the ignition. He confirmed that he has exercised his safety rights in the past without any problems (Tr. 56-73).

Joseph M. Curry testified that he worked on the 2-1/2 section as a day shift shuttle car operator on December 29, 1992, and was injured in the methane explosion that day and has not returned to work. He was engaged in retreat mining at that time, and this mining had taken place for approximately a month prior to the explosion. He was not familiar with the drill holes at the back of the section, but knew they were there and believed they were being used as a regulator. Regulators are normally constructed with cinder blocks or non-combustible materials.

Mr. Curry marked the location of a regulator on a diagram of the 2-1/2 section and explained that it was cut through where there was a lot of air and four or five ventilation curtains were installed to control the air. He explained that it took two or three days to construct the regulator.

Mr. Curry could not recall how many pillars were pulled on December 29, 1992, and he stated that the miner machine was two breaks back from the gob and that the roof had fallen close to where he was working. The roof had also fallen in the drill area. He confirmed that on December 29, 1992, it was not possible to look back to the drill holes from the pillar line and he could not see back into the gob area. He would be about 50 feet from the gob while loading the shuttle car.

Mr. Curry stated that he arrived on the section at 8:40 a.m., on December 29, 1992, and after a brief safety meeting he proceeded to begin loading. He stated that the miner machine "gassed off" three times that day. On the first occasion, the operator believed the methane monitor had malfunctioned. He parked the machine and waited for an electrician. However, the methane cleared up and none was detected when checked with hand held detectors. The electrician checked the monitor later and found that it was functioning properly. Foreman Bandy stated that he had found methane in the No. 5 entry, and foreman Crutchfield came to the area and some ventilation curtains were changed and tightened up outby the No. 5 entry. Three curtains were tightened and Mr. Curry marked their location on the diagram. He confirmed that it was not common to find methane on the section.

Mr. Curry stated that he never heard Mr. Crutchfield say anything about methane when he came to the section and that he was there for about 15 minutes. After the curtains were tightened, Mr. Curry proceeded to the No. 5 entry and 20 shuttle cars were loaded out. He was at the feeder dumping a load when the explosion occurred. He stated he saw "blue light fire" go down the belt line and come back and that it was hot. He dropped to the ground and went to the breaker by the intake. It was dusty and smoky and he walked out of the area with other miners (Tr. 74-112).

On cross-examination, Mr. Curry described his injuries and confirmed that he has a pending law suit against Consol. He stated that when the miner "gassed out" the second time, electrician Harold Perry checked it out and he did not know if foreman Bandy was notified. When the machine gassed out the third time, Mr. Perry was not needed. Mr. Curry saw Mr. Crutchfield speaking with Mr. Bandy but could not recall

observing Mr. Crutchfield making any methane checks. However, he was not with him all of the time and could not recall telling the MSHA investigator that Mr. Crutchfield was present for 30 minutes. Mr. Curry stated that there was a lot of air pressure between the gob and the regulator and that he was not familiar with any mine map that shows an additional drill hole regulator in the mine.

Mr. Curry confirmed that he was at the No. 5 entry for three minutes before the ignition and that the roof "was working" at that time. The miner operator had backed the machine out and was waiting for the roof to quiet down, and stated that he would load only one more load before pinning the roof (Tr. 112-149).

Eugene Dawson testified that he worked on the 2-1/2 section for approximately a year prior to the methane explosion on December 29, 1992. He has not worked since that time. He was a roof bolter, but worked as a shuttle car operator on the day shift on the day of the explosion. The section had been on retreat for at least a month or two prior to that event. He could not recall complaining to anyone about the conditions, and could not recall the conditions on the section when he arrived at 8:00 a.m., on December 29, 1992. He operated the off-standard shuttle car that day and loaded out ten car loads on the No. 4 entry before his lights went off. He took the car out of service approximately an hour before the explosion. He had little knowledge about the drill holes being used as a regulator and had never seen this in the past. He had no knowledge of the gob roof conditions on December 29, 1992.

Mr. Dawson believed the miner "gassed out" one time on December 29, 1992, and that Mr. Dean, the operator, asked for a mechanic. He had no knowledge of the two subsequent occasions when the machine quit. He recalled roof falls in the gob area prior to December 29, but was never concerned about them.

Mr. Dawson stated that he was in the belt entry with a shuttle car waiting for the electrician when the ignition occurred. He described what occurred and thought it was a roof fall. He smelled heat and felt like his hair and clothes were on fire. After the explosion, he walked off the section to the man bus with Mr. Dean, Mr. Curry, Mr. Payne, and Mr. Whitaker (Tr. 157-170).

On cross-examination, Mr. Dawson confirmed that he has a pending law suit against Consol. He stated that the cut-through on the left side of the section where curtains were installed was made out of concern for the ventilation. There were no methane problems on the section and he was not aware of any other drill holes in the mine (Tr. 171-190).

Franklin M. Walls has been employed by MSHA since August 1970, at the Princeton District No. 4 Field Office. He was hired as an electrical inspector, and in 1986 worked as a refuse and impoundment inspector. He also reviewed and processed mine ventilation plans from 1987 through 1994, and he explained how this was done (Tr. 193-196). He was familiar with the Amonate No. 31 Mine, and since 1990 has been involved in reviewing the mine ventilation plan supplements submitted to MSHA and his usual Consol contact was mine engineer Frank Underwood (Tr. 197).

Mr. Walls was familiar with the 2-1/2 mine section and was involved in the approval of the ventilation plan supplement and map relating to that section (Tr. 198). On voir dire by Consol's counsel, Mr. Walls stated that he reviewed and compared a diagram of the section prepared by MSHA and the original mine ventilation map projections and found them to be consistent. He confirmed that mining was authorized to be conducted anywhere within the areas depicted in the red or pink hash marks shown on the map (Tr. 199-210). Mr. Walls explained the lines, markings, and projections shown on the diagram. He stated that the projections indicate how Consol intended to mine and they are used to develop the ventilation plan. Once they are placed on the ventilation map they become part of the mining plan (Tr. 208-209). However, MSHA can only cite a violation of the plan and not the projections (Tr. 209).

Mr. Walls described the entries that were previously first mined and developed on the section during an earlier time. He explained that Consol intended to mine through the previously mined areas to the back of the section and then come out again during second mining. Once mining is completed, the roof falls and the area is then considered a worked-out gob area (Tr. 213-214).

Mr. Walls confirmed that he was involved in the review and approval of the section ventilation plan and he met and discussed

it with mine superintendent Wyatt and company engineer Frank Underwood. He explained the plan that was to be followed, and it included cutting through two places at the back of the section that were to serve as the main bleeder system. He explained as follows (Tr. 215):

We had two projections on the map. We would cut through and put controls in them. One of them would be a stopping. The other would be a regulator. And we would cut through that block of coal out into the old, existing mine works which was part of the mine bleeder system that went to the fan.

After that was accomplished, we would start retreat mining, retreat back out of this area, with the ventilation basically coming from behind, across the mine, going through the gob and out the back end, which our belief was that was a good way to carry the methane that may be released or any other toxic substances that may be released. It would be carried away from the miners, out the back end of the block, to the fan, to the outside.

Mr. Walls stated that the original mine map had a handwritten notation that stated, "[t]his area can be examined," and it is represented on the diagram that he referred to (Tr. 219). He stated that Mr. Underwood placed the notation on the map to facilitate the plan approval process without the need for an additional cut through drilling plan that would normally be required if an area that is to be cut through cannot be examined (Tr. 220-222).

Mr. Walls stated that there was no discussion as to how the regulator would be constructed because, "we understood what a regulator is when we talk about a plan," and "we basically know what we're going to do" when building a regulator (Tr. 222). He explained that in building a regulator after cutting an entry through, "we take our cinder blocks or cement blocks, some form of incombustible material, and we reduce the size opening to the size that it takes to ... whatever amount of ventilation we decide is going to go through it. It's normally built out of cinder blocks with a certain size opening in it" (Tr. 222-223).

Mr. Walls confirmed that the September 15, 1994, ventilation plan was the twenty-first plan review that he was involved in processing, and that it was still in effect in 1992, subject to any subsequent supplements that may have been submitted and made a part of the plan (Tr. 224; Exhibit G-39). He confirmed that the plan described how regulators and other ventilation controls are to be constructed (Tr. 224-225).

Mr. Walls stated that he has reviewed an average of fifty ventilation plans a year from 1986 or 1987 through 1994, and that he has never seen a proposal to use drill holes as a regulator (Tr. 226). He confirmed that when he discussed the first plan supplement with Mr. Wyatt and Mr. Underwood, it was felt that there should be a minimum of 10,000 cfm of air going through the regulator (Tr. 229).

Mr. Walls further explained the discussion concerning how the bleeder would be evaluated on retreat mining pursuant to the plan supplement (Exhibit G-40), as follows (Tr. 229-230):

Q. Now, was there any discussion as to how the bleeder would be evaluated on retreat mining?

A. Yes.

Q. Would you explain how that would be done?

A. Yes. We were going to -- the air that passed through that regulator would be back into a bleeder system that had air movement from other areas of the mine, to evaluate what was going across the gob and out that hole, we would take cross-sectional readings across the entries of the section, itself, and reduce the air that was traveling normal returns, the air that was traveling back out of the belts, air coming into the section.

And we would deduct all that was leaving the section by those returns outby and the belt outby from what was coming through the section and make the assumption that the remainder was going out the regulator we put in the back end of the section.

Mr. Walls confirmed that the March 6 letter to him from Mr. Underwood concerning proposed ventilation changes and new projections, when read together with the ventilation map and diagram, constitutes the first supplemental ventilation approval (Tr. 236).

Mr. Walls stated that a later additional plan supplement and map were submitted with a limited number of changes to the section ventilation and he reviewed the map and diagram and confirmed that they are accurately depicted on the approval map (Tr. 245). He also confirmed that the second plan supplement and August 31, 1992, map was received by MSHA on September 2, 1992, in the Princeton, West Virginia Office (Tr. 246; Exhibit G-57). (The first supplement is Exhibit G-56; Tr. 247). None of these plan supplement changes affect the requirement for a regulator at the back side of the section (Tr. 248). Mr. Walls stated that he did not discuss the use of drill holes as the regulator, and no one from the mine ever asked him if drill holes were acceptable as a regulator (Tr. 249).

Mr. Walls further explained the cross-sectional readings for evaluating the bleeder system with only one regulator where the air would be leaving the gob and going into the return. Under the proposed changes as reflected in Exhibit G-57, additional regulators would be in the gob. He did not believe there was any way of determining by cross-sectional readings where the air was going once it entered the gob if there was more than one regulator. The additional regulators had to be measured in order to accurately determine what the ventilation was doing, but he did not know when additional regulators were established. The face plan that was with the plan showing how the regulator would be evaluated by cross-sectional readings only showed the one regulator at the back end of the section (Tr. 250). However, if one could travel into the return entries to those regulators, actual air measurements could have been made to determine how much air was coming out (Tr. 250-251).

Mr. Walls stated that if the additional regulators were accessible, cross-sectional readings could be combined with readings of the air leaving those regulators. However, he did not know if the regulators were accessible. He believed those regulators would provide a better overall means of evaluating the overall ventilation (Tr. 254). He confirmed that he was not

involved in issuing the violation, but believed it was issued because the additional regulators were inaccessible and did not provide a means for evaluating the job (Tr. 255).

On cross-examination, Mr. Walls stated he has a high school education and no formal college or engineering training (Tr. 9). He could not comment on whether Consol provided an adequate bleeder system, "because I was not involved in any of that," and that he only knew about what the ventilation plan called for and was not involved in the MSHA accident investigation (Tr. 9).

Mr. Walls stated that the approved written plan, rather than any conversations leading to plan approval, is controlling and he agreed that conversations are not incorporated as part of the plan (Tr. 11). He confirmed that the twenty-first plan review approved in 1989 was the base plan applicable to the section, and the first supplement was approved in approximately March and April 1992 (Tr. 13-14). There were two meetings concerning this supplement, and Mr. Wyatt and Mr. Underwood were at the first meeting, but Mr. Wyatt was not at the second one (Tr. 18-19). Mr. Walls stated that the notation on the ventilation plan indicating that the place at the back section where the holes were drilled was accessible was made by Mr. Underwood at his (Walls) instruction in order to avoid the filing of a cut-through plan (Tr. 21).

Mr. Walls stated that a face ventilation plan, which was part of the plan approved during March/April 1992, showed the holes being developed at the back of the section, and a notation on the plan indicated that the air going through the holes "could be evaluated by cross-sectional readings, something to that effect" (Exhibit G-40; Tr. 2). He confirmed that BEP Ten, the bleeder evaluation point shown on the plan, is the evaluation point that was in place for the air from other mine areas coming through the area where the drill hole cut through was located (Tr. 24-25).

Mr. Walls agreed that Consol was free to mine anywhere on the section within the hash marks shown on Exhibit G-56. He also agreed that when the plan supplement modified projections of August 31, 1992, were submitted, the projections for the five entries shown on Exhibit G-57 had not been driven all the way to the back of the section (Tr. 29). He confirmed that the

additional plan ventilation controls are only proposed controls and Consol could install them as needed (Tr. 31). The three proposed regulators shown in pink on Exhibit G-57, and the one regulator at the back of the section as shown on Exhibit G-56, could have been installed at Consol's discretion (Tr. 31). He explained that these ventilation controls were "additional controls that would be added. Everything is proposed. There is no time limit on it. He puts the controls as he needs to as he goes" (Tr. 35). MSHA's counsel conceded that Consol was free to choose the sequence and direction of mining within the section area, but stated that Consol was "always required to have an adequate bleeder system on that section" (Tr. 39).

Mr. Walls stated that he has had many contacts with Mr. Wyatt over the years in connection with reviewing ventilation plans and considers him to be a good mine superintendent who took an interest in his mine. He stated that, "I think a lot of him in that respect" (Tr. 39). Mr. Walls stated that he also had a high regard for Mr. Underwood and considered him to be a good engineer (Tr. 40). He did not believe that Mr. Wyatt would engage in any "knowing" violations or aggravated conduct (Tr. 40).

Mr. Walls stated that on December 29, 1992, BEP 10 was not an approved evaluation point for the section. The face test plan simply indicated that the section air was going in the direction of BEP 10 and was blended with air coming from other mine areas, but the approved evaluation method on retreat mining was the cross-sectional readings as shown on the plan (Tr. 41-48). Mr. Walls agreed that regulators not designated as BEP points do not have to be accessible and there are many of those all over the mine (Tr. 49).

Mark D. Hrovatic testified that he formerly served as the assistant mine superintendent for three years and was so employed on December 29, 1992. He is currently employed by the Commonwealth of Virginia as a safety and training technical specialist and has been so employed for two years (Tr. 65). He confirmed that he visited the section once or twice a week and he was familiar with the submitted ventilation plan supplements. The original development plans called for driving entries to the back of the section and cutting through one entry into an existing return air course and establishing a regulator. At a

certain point, however, mining deviated from the original plan and pillar mining proceeded to the left hand side of the section, and mining then continued developing the original projected five entries (Tr. 67-68).

Mr. Hrovatic stated that regulators are normally constructed with concrete and cinder blocks with some of the blocks removed for air passage. A similar type regulator was discussed for the back of the section, but a series of holes were drilled instead, ten feet from the back return entry out of concern that the stopping would crush out allowing more air to go through the section, robbing other mine areas of air (Tr. 71). He discussed this with Mr. Wyatt, Mr. Crutchfield, and Chief Engineer Mike Delgrande. Mr. Hrovatic stated that he was concerned about the possibility of the drill holes crushing out, but did not express these concerns (Tr. 73).

Mr. Hrovatic stated that Mr. Crutchfield informed him of the decision to drill the holes, but did not indicate who made the decision and simply pointed to Mr. Wyatt's office (Tr. 74). He stated that while driving the No. 5 entry, drilling was taking place ahead of the mining to avoid cutting through the return entry, and because the back side of the entry was not accessible. At that time, he was not aware that the ventilation plan indicated that the back area could be examined and only became aware of this after the ignition occurred. He was not aware that anyone had been in that area prior to the cut-through and the roof conditions there were adverse (Tr. 75).

Mr. Hrovatic stated that he "probably" spoke with Mr. Wyatt and Mr. Crutchfield about having 10,000 to 12,000 cfm of air going through the drill holes that were functioning as a regulator. He observed that twenty holes, an inch-and-one half in diameter were drilled and he took an air reading of 6,000 cfm through the holes. An additional five holes were drilled and he decided that the holes should be enlarged. Mr. Wyatt then instructed him to enlarge the five holes to three inches and Mr. Hrovatic instructed the evening shift to do this. After the five holes were enlarged, Mr. Hrovatic measured 6,000 or 7,000 cfm of air passing through the holes. He then ordered the day shift foreman to ream out the rest of the holes with a scoop to assure the passage of 10 to 12,000 cfm of air through the holes. The scoop batteries were low, and he then told the

evening shift crew to ream out the remaining 20 holes. However, he learned the evening after the ignition that the holes were never enlarged.

Mr. Hrovatic stated that he was told that there was approximately 50,000 cfm of air on the section, with 10,000 cfm going through one regulator, and 15,000 cfm through the other three regulators (Tr. 84-86). He stated that after he told Mr. Wyatt that he was going to enlarge the drill holes to three inches, Mr. Wyatt never inquired as to whether or not the holes were redrilled (Tr. 87). He confirmed that methane was never a problem while developing the section and driving the entry, and he occasionally found .2 to .4, but no more than that (Tr. 88). He was aware of other drill holes in the mine that were used as a regulator in the past, but these were not on an active section (Tr. 89).

On cross-examination, Mr. Hrovatic stated that his intake readings on the section would fluctuate between 50,000 and 57,000 cfm's of air and he marked a map with the locations of these readings (Tr. 92-93). He confirmed that after reaming out five of the drill holes there were 6,000 cfm's coming through the holes (Tr. 93). He made the decision to ream out the 25 holes to three inches and he was satisfied that this would provide the desired 10,000 cfm at the back of the section. He agreed that if the holes were drilled out, Mr. Wyatt would be left with the clear impression that there would be 10,000 to 12,00 cfm of air going through the holes (Tr. 94). He further agreed that Mr. Wyatt was conscientious about safety and the welfare of the miners and that he would never engage in any aggravated conduct or a knowing violation of any MSHA regulations (Tr. 95).

Mr. Hrovatic confirmed that he was Mr. Crutchfield's immediate supervisor and that he never told him that enlarging the holes would increase the air flow to 10,000 to 12,000 cfm through the holes. He did not know if Mr. Crutchfield was at any meetings subsequent to the discussions about the advantages and disadvantages of a traditional regulator and the drill hole regulator. He considered Mr. Crutchfield to be a competent supervisor who had the best safety interests of the people working for him at heart and he believed that Mr. Crutchfield would not knowingly authorize, order, or carry out a violation of

the Mine Act (Tr. 98). Mr. Hrovatic stated that Mr. Crutchfield would have been aware of the original projections for the supplemental plan for the section and that he was aware of the drill holes at the back of the section.

Billy T. Bandy testified that prior to his retirement in March 1993, he was employed at the mine as a section foreman and was in charge of the day shift on December 29, 1992, filling in for the regular foreman who was on vacation. He arrived on the section at 8:25 a.m., and found no problems in the No. 4 entry or on the section (Tr. 100-103). He performed pre-shift and on-shift examinations, including methane checks along the gob line. He detected one percent methane coming out of the gob at the breaker timbers at the No. 5 heading and this occurred around the same time the continuous miner gassed off in the No. 4 entry. He believed the methane monitor on the miner machine was set to shut off at one and one-half percent methane. He then called Mr. Crutchfield to come to the section and informed him about the methane he found and the machine gassing off (Tr. 106-107).

Mr. Bandy stated that Mr. Crutchfield came to the section and stayed there about a half an hour. No ventilation changes were made until the miner was moved to the No. 5 entry a hour and a half later. He described the ventilation changes that pushed the air over the miner machine. He confirmed that Mr. Crutchfield came to the section after these changes were made, and that he did not immediately notify Mr. Crutchfield about the miner gassing out (Tr. 111).

Mr. Bandy stated that Mr. Crutchfield was summoned to the section after the miner had cleared up, and that the ventilation changes that were made were routine changes when mining moved to the No. 5 entry and they were not made in response to the miner machine gassing off (Tr. 114). He confirmed that he had no knowledge of the drill holes at the back of the section and could not remember any drill holes used as a regulator. He made no ventilation changes after the machine gassed off because he and Mr. Crutchfield believed that "everything had cleared up" (Tr. 116).

Mr. Bandy stated that his on-shift examination included an evaluation to determine if the section bleeder was operating properly, and he stated that "any time I can get

seventeen thousand feet of air into a bleeder line, I know the bleeder is operating properly" (Tr. 116). He confirmed that he measured 17,000 cfm of air going into the gob right over the miner machine and he measured this with an anemometer at the last pillar block going into the gob line from rib to rib. He recalled that some roof was hanging in by the No. 5 entry into the gob, but did not know how much (Tr. 118). He stated that the bleeder was working and he determined this by checking the amount of air and observing the air pressure on the ventilation curtains (Tr. 120-121).

On cross-examination, Mr. Bandy stated that when he called Mr. Crutchfield to come to the section, he told him he would be right down and arrived 20 to 25 minutes later. He stated that Mr. Crutchfield proceeded to check out the section and he observed him taking readings in the No. 4 and 5 work areas. Mr. Crutchfield then informed him that the section was "okay" (Tr. 123).

Mr. Bandy stated that he has worked with Mr. Crutchfield for more than 20 years and considered him to be a knowledgeable and sensitive person about his job, and absolutely concerned with safety on the job. He stated that Mr. Crutchfield never asked him to perform any unsafe act that would endanger his safety or the safety of miners (Tr. 125). He also worked with Mr. Wyatt for four or five years and agreed that he was concerned with the welfare and safety of everyone in the mine, and that he would never knowingly violate any MSHA regulations or ask anyone else to do so (Tr. 126).

Mr. Bandy further explained the ventilation adjustments that he made and he believed he had good positive air flow across the gob (Tr. 128-132). He confirmed that company policy required pre-operational checks to be made on the equipment while he conducted his fire boss or on-shift checks, and clean up is done all of the time when there is no loading taking place (Tr. 137).

MSHA Inspector Donald White testified that he participated in the accident investigation by conducting a rock dust survey after the explosion occurred, but had no input into the issuance of any of the violations. He confirmed that Appendix C to the accident report is a map of the locations where the rock dust samples were to be taken. The map was plotted prior to his visit

to the section and not all of the requested sample areas were accessible. He identified Appendix D as the results of his sampling (Tr. 166-170).

On cross-examination, Mr. White confirmed that the sample results show the incombustible percentages at the time the survey was taken, and he agreed that samples taken immediately prior to or close to the ignition would be a better indication of the conditions that existed at the time of the ignition, as opposed to the samples taken six or seven days later (Tr. 172, 176-177). He agreed that an ignition or explosion would have an effect on his sample readings (Tr. 178). He also agreed that the combustibility level of an area cannot be determined by "eyeballing it," and that any citations he issues must be verified by samples (Tr. 179). He confirmed that he has read a Bureau of Mines report by Mr. Don Mitchell, where it was stated that the percent of incombustible content was greater after an explosion than before (Tr. 180).

Clete R. Stephan, principal engineer, MSHA Ventilation Division, Pittsburgh, Pennsylvania, testified that he is a registered professional engineer, holds a B.S. degree in civil engineering from the University of Pittsburgh (1976), and has worked for MSHA since 1977 conducting accident investigations (Exhibit G-50 , Tr. 182-185). He was qualified and accepted as an expert in explosions and mine fires, and he confirmed that he participated in the accident investigation in question, and authored pages 23, 25-31 of the report, and Appendix E and J (Exhibit G-1, Tr. 189).

Mr. Stephan confirmed that he concluded that "the ignition that occurred was the result of frictional heating or piezoelectric discharges that occurred during the fall of the roof in the gob" (Tr. 197). Although other potential ignition sources were identified, Mr. Stephan stated that they were eliminated because of the direction of the ignition sources with respect to where the explosion occurred (Tr. 198).

Mr. Stephan explained frictional heating and discharges, the elements necessary for a methane explosion, and the extent and area covered by the explosion (Tr. 199-206). He confirmed that page 27 of the report reflects that the original methane accumulation probably averaged 5.5 to 6.5 percent and he

explained that this was based on "the extent of the flame and the magnitude of the forces" (Tr. 207).

In response to a bench comment concerning any opinion by Mr. Stephan concerning any inadequacies with respect to the cited bleeder, petitioner's counsel responded as follows (Tr. 214-215):

JUDGE KOUTRAS: Is there some way we can speed this up so we can get into his opinion as to why the bleeders were inadequate?

MR. WILSON: Your Honor, Mr. Stephan is not a ventilation expert.

JUDGE KOUTRAS: He is not going to get into that?

MR. WILSON: No, he is not going to get into that.

On cross-examination, Mr. Stephan stated that he did not interview any of the miner eyewitnesses who were on the section at the time of the explosion, including Mr. Wayne Dean. He confirmed that he did not review Mr. Dean's statements to MSHA and State of West Virginia investigators with respect to what he saw when the ignition occurred. He further confirmed that he was not aware of any eyewitness testimony prior to writing his report (Tr. 219). Mr. Stephan expressed several opinions based on the statements of witnesses during the hearing concerning a roof crack previously described by Mr. Dean and the source and location of the ignition (Tr. 220-226).

Mr. Stephan confirmed that he was in the mine only one time on January 4, 1993, for less than one shift, for approximately three hours (Tr. 234). He stated that he was satisfied that he had enough information through his personal inspection or as provided by others involved in the investigation to render an opinion (Tr. 238-239).

Gary G. Wirth, MSHA Mining Engineer, Technical Support Group, Bruceton, Pennsylvania, stated that he has been employed by MSHA since 1989, and previously worked for a construction company and as a mining engineer for U.S. Steel Mining Company. He received a B.S. degree in mining engineering in 1984, from the

University of Pittsburgh, and is enrolled in a master's program at West Virginia University (Exhibit G-49). He is a registered professional engineer and conducts mine ventilation surveys at the request of MSHA's district managers. He was accepted as a mine ventilation expert (Tr. 13, 19). He confirmed that he spent three days at the mine on January 4, 5 and 26, 1993, conducting a ventilation survey of the 2-1/2 section (Tr. 14-19).

Mr. Wirth stated that the survey was conducted by two teams. One person conducted the survey in the outby area or mouth of the section, and he covered the inby face areas, and the drill hole area. He also observed the roof conditions in the gob. He confirmed that he prepared the ventilation part of the accident report, at pages 13 to 19, and Appendix L. He was not involved in the drafting or review of any of the violations issued in these proceedings, or in the investigation and special penalty assessments concerning the individual respondents (Tr. 20-22).

Mr. Wirth stated that a ventilation survey is conducted to determine the extent of the ventilation system, including air flow amounts and directions, and the pressure differentials associated with the air flow. His survey of the 2-1/2 section was intended to encompass the air flow entering and leaving the section. In view of the inaccessibility of several exit points for the section gob, he could not conclusively determine where all of the air flow was going (Tr. 23-24). He confirmed that he visited the drill hole area on January 5, to try and determine the air quantity exiting the holes. He did this by taking anemometer readings inby and outby the holes that exited into a bleeder entry designated as a return on a mine map, and pitot tube and magnahelic gauge readings at each individual drill hole. The pitot tube readings are reflected on Appendix L to the report, but the anemometer readings are not in the report (Tr. 24-32).

Mr. Wirth stated that his calculations reflect that 447 cfm of air would pass through all of the drill holes at a certain pressure differential of water gauge inches, and that regardless of the existence of the gob, he believed that the maximum air flow that could pass through the drill holes was 2,828 cfm of air, regardless of any changes in the conditions (Tr. 37-38). He denied that his inability to reach the regulators on the left hand side of the section had any impact on his evaluation of the drill holes (Tr. 41-42).

Mr. Wirth stated that on January 4, 1993, he measured 10,000 cfm in the No. 5 entry, and 7,000 to 8,000 through all of the curtains. He had no particular reason to question Mr. Bandy's air measurement of 16,000 to 17,000 cfm going into the gob, but did not believe that Mr. Bandy could determine the adequacy of the bleeder system from that one measurement. Measurement of air entering a gob area is only one component of the bleeder system, and one needs to know how much air is entering the gob at different locations, the air distribution within the gob, how much air is leaving the gob, and the methane/oxygen concentrations within the gob and at the gob exit points (Tr. 44).

Mr. Wirth stated that with 17,000 cfm of air going into the gob, and less than 3,000 cfm going through the drill holes, some of the air would return, some would have gone back to the drill holes, and the rest would have gone to the two regulators on the left-side or down the left side return. In short, the difference between the air going through the drill holes and circulating through the gob would eventually work its way back and go out of the regulators (Tr. 46). He confirmed that all of this air circulation constitutes an air bleeder system within the meaning of section 75.334(b)(1) (Tr. 47).

Mr. Wirth was of the opinion that the requirements of section 75.334(b) were not being met on December 29, 1992, because the methane that is usually present at any gob area would migrate to the high right side of the section and would not be diluted because of the limited air quantity and insufficient air velocity in the gob. Given the fact that the section had very little methane in the past, the one percent detected in the No. 5 return, and the gas-off of the machine in the No. 4 push was an "alarming factor" that led Mr. Wirth to conclude that "they were having some sore of problem" (Tr. 52-54).

Referring to Map Exhibits G-58, G-59, and diagram Exhibit G-60, Mr. Wirth further discussed what he believed to be the air flow patterns on the section. He stated that the one percent methane found by Mr. Bandy was in the return air entry taking the air out of the mine (Tr. 59). He believed that methane that had accumulated in the gob due to the low air flow toward the drill holes had migrated to the No. 4 entry

causing the miner machine to gas out. This indicated to him that the bleeder system was not working properly. He agreed that the air flow pattern was sweeping the gob gas and reducing it to one percent in the return and that the remaining air was exiting through the left side regulators (Tr. 61). Mr. Wirth believed that after moving into the No. 5 entry and making ventilation changes, the body of gas that exited was pushed away from the face and back into the gob area (Tr. 62, 64-65).

Mr. Wirth believed that after the miner machine gassed out, air was then available to dissipate the methane detected by the machine monitor, but that the air was again pushed back into the gob. When asked if the foreman knew that, he responded "apparently they didn't" (Tr. 65).

Conceding that the air was sweeping the gob area and had diluted and dissipated the methane that caused the machine to gas out, Mr. Wirth was still of the opinion that the bleeder system did not do what it was supposed to do because the methane was not completely removed from the gob area and was only contained there. Under the circumstances, he concluded that "this was an indication that they had a problem and that the bleeder was not working effectively" (Tr. 66). He did not believe that the gassing out of the machine was an indication of a pocket of methane because methane higher than .3 or .4 percent was never previously encountered on the section. He stated, "that is why it should have alerted them, and in fact it did. Mr. Bandy called for help" (Tr. 67).

Mr. Wirth explained his understanding of cross-sectional readings for evaluating the bleeder system, and he agreed that this would have been an effective way of evaluating the 2-1/2 section pursuant to the initial ventilation plan and map projections where five entries were to be driven to the back of the section and one regulator was to be installed at the location where the drill holes were made. He agreed that the initial plan that showed air exiting the gob at one location at the back of the section was an acceptable method for evaluating how much air was flowing into the bleeder and how much was exiting. However, he did not believe this was an effective bleeder evaluation method on December 29, 1992, because mining had taken place to the left side of the section and additional regulators were installed. Upon pulling back from the back end

of the section, there were three outlets from the gob area into the bleeder system and cross-sectional air readings would not indicate the air flow distribution within the gob. It would only indicate how much air was entering the gob, and would not indicate where it was exiting or how much air was exiting at each gob location. He believed that any prudent experienced mining person would know this (Tr. 69-70).

Mr. Wirth testified that the April 1992, ventilation plan supplement testified to by Inspector Walls was the initial plan that provided for cross-section air readings for evaluating the bleeder system as stated by the notation that appeared in the upper right hand corner of the plan (Exhibit G-40). The notation states that "upon retreat mining the bleeder system will be evaluated by the difference in intake and return readings on the section."

Mr. Wirth stated that the April plan notation constituted a projection given to MSHA as to the bleeder evaluation method, but that a subsequent plan supplement submitted in August or September 1992, did not contain the notation in question (Exhibit G-42; Tr. 73-75). He did not believe that cross-sectional readings were a valid bleeder evaluation method after mining started to the left side of the section and two new regulators were added because no one was travelling to the three regulator locations as required by the regulations, and management had no idea where the air was going (Tr. 77-79).

Mr. Wirth further explained that the three regulator locations were inaccessible and could not be traveled. Weekly examination measurements of the methane, oxygen, and air flow direction where air enters the bleeder were required as part of the bleeder evaluation, but this was not being done because the regulators were not accessible, and "MSHA was told they could travel to this area" (Tr. 79).

Mr. Wirth gave his opinion as to where he believed the "body of methane" was located in the gob area prior to the explosion, and what he believed to be the air pattern that was ventilating the gob area (Tr. 85-87). He stated that approximately 2,000 to 3,000 cfm of air would have been going back toward the drill holes (Tr. 87). He confirmed that in all of his ventilation surveys he has never seen drill holes

used as a regulator. The location of bleeder evaluation point BEP 10 has always been unclear to him and he was unsure as to whether he had ever traveled there (Tr. 90).

On cross-examination, Mr. Wirth stated that at the time of his ventilation evaluation on January 4 and 5, 1993, it was his intent to evaluate the section as it was at the time of the ignition, but he was told that there were some differences. The right return regulator had been blown out and some of the right side stoppings were damaged and leaking (Tr. 92). He was told that an attempt had been made to restore the section to the condition it was in at the time of the ignition, and he was under the impression that "they attempted to do that, and when they got finished, that was the best they could do" (Tr. 95).

Mr. Wirth stated that he was aware of conflicting accounts about the accuracy of the ventilation schematic of the section at the time of the ignition, as depicted in Appendix G to MSHA's accident report, and he denied that this schematic was the foundation of his opinion concerning the adequacy of the bleeder system (Tr. 97, 105). He explained the conflicting information (Tr. 97).

Mr. Wirth did not believe that a pocket of methane released from the strata in the number 4 entry caused the mining machine to gas off, but agreed that this was a possibility (Tr. 107). If this occurred, he further agreed that the pocket of methane "would be ventilated out," and some would go into the gob and some would go out the return in the No. 5 entry (Tr. 108). However, in light of no prior encounters with methane on the section, he believed that the existence of a strata methane pocket would be an abnormality (Tr. 109).

Mr. Wirth agreed that assuming the one percent methane detected by Mr. Bandy in the No. 5 entry occurred at the time the machine gassed off in the No. 4 entry, this would be consistent with the possibility that sufficient methane was released in the No. 4 entry to gas off the machine and that part of that methane went into the gob and part went to the return as it was supposed to do (Tr. 109-110). This would indicate that "the return is doing its job as far as taking return air from the face. It doesn't say anything about the gob" (Tr. 110).

Mr. Wirth could not state whether the "body of methane" reached into the No. 5 entry. He explained that equipment movement could affect the air flow patterns, and he agreed that the methane body was being diluted down to one percent in the No. 5 entry, but that the concentration of any methane body is indeterminable and could vary within seconds in different areas. He believed that changed air flow patterns moved the body of methane, and he stated that his opinion in this regard "is speculation, but it is also ventilation engineering knowledge" (Tr. 114).

Mr. Wirth believed that all of the machine gas offs occurred in the No. 4 entry before mining moved to the No. 5 entry, and he did not dispute Mr. Bandy's air measurement of 17,000 cfm of air (Tr. 116). He stated that the adequacy of the bleeder system is dependent on whether it is moving methane out of the gob area into the return, and this should be determined by methane tests at the gob exit points (Tr. 117).

Mr. Wirth confirmed that he took a series of bottle samples on January 5, to determine the methane and oxygen content of the air exiting the gob area, and he believed that one to two percent methane was detected in the samples. He stated that this "would indicate that methane was coming from the gob exiting the drill holes" (Tr. 120). He did not believe his test results are in his report (Tr. 119). Referring to an MSHA report concerning air test samples collected on January 5, 1993 by Inspector George Martin (Exhibit R-63), Mr. Wirth could not recall if Mr. Martin took those samples and he had not previously seen that particular report (Tr. 123, 125).

Mr. Wirth believed that the methane in the gob on December 29, 1992, would have been consumed by the ignition, and the process would have had to start over again on December 30, and whether or not an inactive bleeder on that day would have resulted in very high methane readings at the drill holes would be speculative. However, it was his opinion that high methane readings probably would have occurred at the drill holes on December 29. He concluded that the methane would have been discoverable by the weekly examinations which he claimed were not conducted, and although he was of the opinion that it accumulated over a period longer than a week, he also stated that he did not know how long it took to accumulate (Tr. 131-132, 135).

Mr. Wirth was of the opinion that under the conditions present on December 29, 1992, no reasonably prudent mining person would have evaluated the section gob or bleeder system based on cross-sectional readings (Tr. 136). He learned through hearsay that the conditions were abated when personnel "went back to the drill hole regulators and picked and shoveled a hole through the block of coal" (Tr. 143).

Mr. Wirth recalled a note he gave to his supervisory accident investigator, "Skip" Castanon, at his deposition stating that it was impossible to completely evaluate the section gob because he could not access the two left side regulators. He believed that his inability to reach those regulators would not affect his opinion about the bleeder system. However, he conceded that it was not possible for him to perform and develop a complete air quantity balance of the entire system (Tr. 146-147).

Mr. Wirth confirmed that he never reviewed the section weekly examination books, or the section pre-shift or on-shift books for the days preceding the ignition to determine whether air readings were taken at the air intake because he did not believe they were relevant to his evaluation of the section (Tr. 150-151).

Mr. Wirth agreed with his prior deposition testimony that it was possible that methane could be released and ignited by a two-inch crack or fall of roof, with a possible release of methane and ignition source from a piezoelectric spark (Tr. 151-153).

Mr. Wirth believed that he had sufficient general information to render his opinion as to the situation that existed on the section at the time of the ignition (Tr. 169). He also believe that he was able to evaluate the ventilation system and the gob air flow, but conceded that he could not determine the exact amount of air exiting the gob (Tr. 170).

Mr. Wirth stated that he has never seen pipes in stoppings used as a regulator. He agreed that at the time of the ignition, pillar recovery was taking place, and a bleeder system existed on the section and it was being used to control the air passing through the area. He did not believe that the air was diluting the methane air mixtures (Tr. 172-173). However, he agreed

that the air bottle samples taken on January 5, 1993, showing 1.38 percent methane at one of the regulator drill holes indicated less methane than was being liberated in the gob area, and that it was diluted with the air and carried out through the drill holes and into the bleeder entry return air course (Tr. 176-178).

Mr. Wirth agreed that falling rock was the explosion ignition point, and he did not totally discount the crack in the roof as the origin of the ignition, or that methane could have been liberated from that crack. Even if he were to accept the eyewitness account of Mr. Dean, he would still conclude that the flame traveled back into the gob and ignited the methane in the gob. He did not believe there was a body of methane in the No. 5 entry beneath the crack because there was sufficient ventilation at that location and the crack would not have liberated a body of methane that would have exploded in that entry (Tr. 183-184). Mr. Wirth was aware of no evidence that Mr. Wyatt knew about the miner machine gas offs (Tr. 185).

MSHA Inspector William M. Uhl, Jr., testified that he also serves as a special investigator, was familiar with the subject mine, and was the resident inspector there for 12 to 18 months in 1988 and 1989. He was "more or less" the lead coordinator in the accident investigation conducted in this case, working under the direct supervision of "Skip" Castanon. He confirmed that the only injured miner he interviewed was Mr. Dean. He stated that he based his conclusion that an explosive range of methane was present in the gob area on the fact that "... it was obviously there. An explosion occurred which resulted in the burns, the men being burnt" (Tr. 200).

Referring to Map Exhibits G-40 and G-42, Mr. Uhl explained what was required and intended in the two mine ventilation plans in question (Tr. 204-210). He further explained why he believed the cited bleeder system was inadequate. He stated that Inspector Walls accepted a plan that would allow the development of five entries to the back side of the section. The air was to be passed through the regulator that was projected on the plans, but it was never established, and Mr. Walls "gave the company an alternative means of evaluating this system" (Tr. 213). Mr. Uhl believed that the only way to effectively evaluate the bleeder was to absolutely follow the projections

and "use this regulator, determine the intake, determine the return air, find the difference, which will automatically tell you that the rest of it is going here" (Tr. 213). However, Consol deviated from its projections, and when it decided to pillar the area, it lost access to the two regulators that had previously been established, and the bleeder was no longer effective (Tr. 214).

Mr. Uhl acknowledged that MSHA was aware of violations of the ventilation plan, but elected not to cite the violations "because of a grace period and some other confusion that entered in" (Tr. 212). He further explained that when an effective evaluation cannot be done, mining must stop and the area re-ventilated or sealed. In the instant case, the mining sequence established by Inspector Wall was not followed through and the weekly examinations indicate only air intake and belt readings, with no return readings (Tr. 215).

Mr. Uhl acknowledged that the 2,000 cfm of air exiting the gob may have been constantly diluting the methane, but the law requires it to be rendered harmless. He believed that the machine gas off should have alerted someone that something was wrong with the functioning of the bleeder and that it was not continuously diluting and carrying away the buildup of methane. He stated that, "Mr. Wyatt may have previously experienced similar situations and I know Mr. Wyatt would not have accepted anything less than ten thousand at that point" (Tr. 218). He further indicated that Mr. Wyatt was given "assumptions," accurate measurements were never taken, and he was never given the actual amount of air that was passing through the drill holes (Tr. 218).

With regard to whether Mr. Wyatt and Mr. Crutchfield acted reasonably and prudently, Mr. Uhl stated that "Mr. Wyatt's plan for the drill holes themselves it not the issue. The issue is the air that he wanted back there and never got there. I think he talked ten to twelve thousand, ... and to me, that would be reasonable" (Tr. 230). Mr. Uhl stated that as the mine superintendent and mine foreman, Mr. Wyatt and Mr. Crutchfield direct everything that goes on at the mine (Tr. 231).

Mr. Uhl stated that the manner in which Mr. Wyatt and Mr. Crutchfield initially intended to mine the section "was

great" and that "they can drive anywhere they want to within these boundaries provided it does not subject these people to an unsafe condition." However, he concluded that when they deviated from the initial planned projections and destroyed access to the regulators as a means of measuring the air leaving the gob "they started destroying the ventilation plan, as it was originally designed for this section" (Tr. 232). Mr. Uhl believed all of this was taking place over a period of "about a month or so" (Tr. 232).

When asked about the 2,000 cfm's of air exiting the back of the gob, Mr. Uhl stated that based on his experience in working with Mr. Wyatt, "he just would not accept two thousand at this area" (Tr. 235). Mr. Uhl agreed that Mr. Wyatt was seeking an amount of air that he believed would be adequate to ventilate the area (Tr. 236). In response to a question as to why Mr. Wyatt was charged with a "knowing" violation, Mr. Uhl responded that "he has knowledge of what took place on this section. He has knowledge that he can not get to these areas and he directed this to be pulled back, and Mr. Wyatt is a knowledgeable man, he knows what needs to be done" (Tr. 236).

Mr. Uhl concluded that it was impossible to evaluate the bleeder "other than the way these experts came in and used complicated equipment to determine where the air was going, ... common sense tells us that the air is not going to flush the gob, it is simply going to skirt the gob ..." (Tr. 236). He also believed that Mr. Crutchfield and Mr. Watt should have conducted a bleeder evaluation to insure that the system was operating and functioning properly (Tr. 237). When asked when Mr. Crutchfield and Mr. Wyatt began discussing the drill holes, Mr. Uhl responded, "I had no knowledge of -- and MSHA had no knowledge of the drill holes" (Tr. 238).

Mr. Uhl testified to his gravity and negligence findings concerning the inadequate bleeder citation, No. 2724034, and he stated that he based his "high negligence" unwarrantable failure finding on the following (Tr. 239-240):

A. Well, we determined the high negligence because of the knowledge that both Mr. Wyatt and Mr. Crutchfield would have had. This is their plan. They hand carried this through. They were fully aware

of the stipulation and the direction and where all of the regulatory measures going to be maintained on the section. They had first-hand knowledge of that.

Mr. Uhl testified to the abatement actions taken and he stated that the violations were verbally issued to Consol Vice President Ron Wooten during the first part of the investigation, with "conversations" with the superintendent and mine foreman, and then reduced to writing in March, 1993. The violations were intended to refer back to the day of the ignition on December 29, 1992 (Tr. 241-242).

Mr. Uhl explained the notation he made on the order that Mr. Wyatt and Mr. Crutchfield stated that "no one was examining the bleeder regulator and that the area was inaccessible" (Tr. 244). He believed that if the bleeder evaluation had been properly made, Mr. Wyatt and Mr. Crutchfield would have been aware of the worsening situation and would have been able to take corrective action. He believed that the mine examiners were not doing anything wrong and falsely believed that the bleeder was working effectively (Tr. 245).

Mr. Uhl stated that Mr. Wyatt and Mr. Crutchfield verbally stated that the one regulator was not being examined, but had indicated on the map that the area was accessible (Tr. 246). When asked about Mr. Walls' testimony about how the map notation was made, Mr. Uhl responded, "that as far as he was concerned, that was to speed up the administrative work as far as the map" (Tr. 247). If the regulator was inaccessible, Consol would have to file for relief not to travel the area. It must otherwise follow its projected mining sequence, and if it decides to deviate from that it must comply with whatever ventilation adjustments are required (Tr. 249).

Mr. Uhl explained some photographs that he took depicting the condition of the gob area (Exhibits G-45; Tr. 251-256). He stated that he based his unwarrantable failure finding for failure to conduct adequate weekly examinations, No. 2724035, on the following (Tr. 256):

THE WITNESS: Well, because of knowledge that management would have of the overall conditions which would tell a person, a prudent person, you know, that

it would be impossible to make that evaluation the way it was being done.

Mr. Uhl did not know whether any air evaluations were being made when mining was taking place on the left side of the section prior to the start of the pillaring from the back of the section, and when asked if there was any evidence that no evaluations were made while mining to the left, he responded, "I don't recall looking at that" (Tr. 258). He agreed that for the week prior to the ignition two evaluations were made with regard to how much air was coming on the section and how much was coming down from the belt.

On cross-examination, Mr. Uhl stated that he was not a mining engineer and has a high school education, with no degree in anything related to mining or mining ventilation. He last worked in the coal mining industry for a coal company in 1975. He served as an assistant mine foreman, but was never involved in any ventilation plan submissions to MSHA (Tr. 261).

Mr. Uhl confirmed that he was familiar with BEP 10, and upon review of an August 31, 1992, map, he noted a seven-inch diameter drill hole reference on the map, but had no knowledge of the hole and could not explain what it was used for (Tr. 264). He acknowledged that if the air was going through the drill hole, it would be routed to BEP 10, as shown by the map arrows (Tr. 266).

Mr. Uhl stated that pursuant to section 75.364(a)(2)(iii), the entire bleeder system must be traveled in its entirety at least once each week, or to other approved locations in the ventilation plan for the purpose of measuring the methane and oxygen to determine if the air is moving in its proper direction (Tr. 270). He stated that Inspector Walls would accept an evaluation of the bleeder by taking a cross-sectional reading, provided the projected regulator was installed and the mining projections followed as stated and approved in the plan (Tr. 72). Mr. Uhl confirmed that the area mined to the left was being evaluated by cross-sectional readings, and that once the regulators became inaccessible, cross-sectional readings would be made (Tr. 276). Mr. Uhl stated that Mr. Wyatt would not willfully violate the law, and that he never accused Mr. Wyatt of acting recklessly or deliberately (Tr. 282).

Mr. Uhl confirmed taking bottle air samples on January 12, 1993, and that they show that almost one percent methane was coming through the drill holes at the back of the section, and he acknowledged that with 2,000 cfm of air going through the holes on December 29, 1992, methane was exiting through those holes (Exhibit R-64; Tr. 284-287). He acknowledged that he was the primary author of the MSHA investigative report, and that the sample results were not included in the report, but he did not believe they were relevant (Tr. 288).

Mr. Uhl stated that he interviewed Mr. Dean in March, 1993, and again in preparation for the instant hearing, and on both occasions Mr. Dean stated that immediately prior to the ignition he was looking at the roof crack and saw blue flame come out (Tr. 292-298). Mr. Uhl identified photographic Exhibit G-45-G as the area where Mr. Dean and Mr. Whitaker said the roof was shifting and where he saw the crack (Tr. 300-301).

Mr. Uhl believed that retreat mining in the area of the drill holes probably began approximately less than two full weeks prior to the ignition, and the last inspector was there about November 15, 1992 (Tr. 303). He confirmed that no re-evaluation of the gob area was made on December 30, 1992, when Consol was permitted to move its equipment out of the section (Tr. 312).

Mr. Uhl reviewed the weekly examination records for methane and hazardous conditions on the section on December 21, 1992, and confirmed that readings were made and recorded on the main intake and belt (Exhibit G-47; Tr. 313). He also confirmed that the weekly records for December 9, 1992, show a full cross-sectional reading for the left and right return, the intake to the pillar, and a belt reading (Tr. 314). He agreed that full and partial cross-sectional readings were made on the section, but was of the opinion that they were not relevant to the evaluation of the bleeder (Tr. 315).

Mr. Uhl stated that he has known Mr. Crutchfield for 20 years and attended mine foreman school with him. He has not alleged that Mr. Crutchfield willfully violated the law, but he believed that Mr. Crutchfield is responsible "to know the activities within the mine properties that he is working at ... and if anybody had reason to know, Mr. Crutchfield would have known." He further stated that, "I am saying he had knowledge

of this ventilation system there, and that there was more than a normal negligence shown in this activity here" (Tr. 318).

Mr. Uhl believed that it was reasonable to expect that Mr. Crutchfield knew and understood the ventilation plan, but he had no information that Mr. Crutchfield delivered the plan to Mr. Walls (Tr. 319). He further believed that any reasonable mine foreman "would look at this situation and have all the reason in the world to know that this is not an effective way of ventilating this section, and that it is not an effective means of evaluating the bleeder system" (Tr. 319).

Mr. Uhl confirmed that Mr. Crutchfield voluntarily gave him testimony, and that he knew that Mr. Crutchfield responded to Mr. Bandy's call to come to the section, and that he stayed there at least 30 minutes conducting methane tests (Tr. 320). Mr. Uhl responded as follows when asked to explain the meaning of "aggravated conduct" in the context of a section 110(c) knowing violation (Tr. 323):

THE WITNESS: Aggravated conduct, he had more than the normal reason to know. He had -- I just drew a blank for the word I am trying to come up with. More than normal negligence. You know, it would take a reasonable man with blinders on not to see this condition with the experience these people had.

And (Tr. 324-325):

JUDGE KOUTRAS: Do you think that a reasonable -- well, let me try it -- that a reasonable mine foreman would normally go into a mine with his eyes wide open, walking into a situation where he knows the bleeder system is not being properly carried out, subjecting not only himself, but the rest of his people to a hazard?

THE WITNESS: I believe that he believed exactly what his section foreman told him; that there was not any hazard up there at that time, and his findings convinced him of that, also.

BY MR. BROWN:

Q. His findings he testified to in your investigation indicated he found no methane after he went to the section and specifically tested for methane, right?

A. Yes, sir.

Q. Now do you believe a reasonable mine inspector in November of 1992, would go into that section of the mine with any knowledge of the ventilation plan that you have testified to?

THE WITNESS: I don't think anyone with any knowledge of this here would have found anything different. If they didn't have any knowledge of this, then they would have found the same thing that the section boss found right there.

Mr. Uhl believed that Mr. Crutchfield was a reasonable and competent foreman who was concerned with the safety and welfare of his workers and who would never engage in any intentional act that would endanger their lives (Tr. 326). Mr. Uhl confirmed that Mr. Hrovatic was Mr. Crutchfield's supervisor, and that Mr. Hrovatic was responsible for overseeing the drilling of the holes at the drill hole regulator (Tr. 328).

In response to his understanding of Mr. Wall's testimony concerning the map notation regarding the accessibility of the drill holes, Mr. Uhl stated as follows (Tr. 329):

A. I think what he said was that if that is an accessible area and that you put that on the map, that when Mount Hope or the ventilation people see that, there would not be a holdup as to them looking for a cut-through plan.

Q. That is exactly right. And he testified that the sole purpose of that language being placed on that map was to preclude the necessity of the preparation of the cut-through plan, right?

A. That is what I heard him say.

Mr. Uhl stated that the drill hole area was accessible to him after some additional supports were installed, but that during the investigation Mr. Wyatt and Mr. Crutchfield told him the area was not accessible and no one was traveling there.

Mr. Uhl stated that he had no reason to doubt Mr. Wyatt's belief that approximately 10,000 cfm of air was going through the drill holes, and that Mr. Hrovatic confirmed this. Mr. Uhl stated that his investigation confirmed that the drill holes were put in because Mr. Hrovatic considered it would be safer than cutting through in light of the excessive pressure and the closeness and proximity of that area to the Dunford fan (Tr. 334).

Mr. Uhl confirmed that the violation was abated by enlarging the drill holes and MSHA accepted this as part of the abatement (Tr. 335). He confirmed that he was aware of no evidence that Mr. Wyatt knew anything about the gas offs or gas problem on the section on December 29, 1992 (Tr. 335).

Mr. Uhl stated that he has worked with Mr. Wyatt for many years and that Mr. Wyatt has always been "truthful and up front and candid" with him, is very safety conscious, and would not "willfully hurt anybody" (Tr. 337). When asked if Mr. Wyatt would "knowingly" endanger anyone, Mr. Uhl responded as follows (Tr. 338-339):

A. In the context you are using it, it is the same as willfully, and I am saying he would not willfully endanger someone.

Q. Or knowingly? Can you use that word?

A. No, sir.

Q. You can't use that word. Why can't you use that word?

A. Because that would be saying -- to me, that would be saying that he willfully did this. Someone had brought it to his attention, he decided well, no

I know what you are saying and I know that is against the law, I am going to go ahead and do it my way anyhow. He is not that kind of an operator.

Respondent's Testimony and Evidence

Cecil W. Dean, formerly employed by Consol, stated that he was working as a miner helper when the ignition of December 29, 1992, occurred and that he was an eye witness to that event. He stated that he gave a taped interview to MSHA Inspector Uhl in March, 1992, and was again recently interviewed by Mr. Uhl, Mr. Castanon, and MSHA counsel Wilson (Tr. 27). Mr. Dean explained where he was located and what he was doing when the ignition occurred (Tr. 27-30).

Mr. Dean confirmed that he initially told the MSHA investigator that the ignition occurred instantaneously when the roof dropped down (Tr. 30). He explained that after taking a 40-foot lift to the right, the miner was backed out, and "the top cracked and set down about one to two inches ... there was a bluish flame coming out of the gob line, looked like an atomic bomb rolling out from under -- coming out of the roof crack, and stated that "it came out of the gob line" (Tr. 33). He confirmed that in his more recent interview with the aforementioned MSHA officials, he told them that he observed a blue flame, but denied telling them it came from the roof crack (Tr. 33).

Mr. Dean stated that when he was interviewed in March, 1993, he had been out of the hospital for less than a week and had been unconscious for 21 days (Tr. 35). (The tape of the interview was played in open court (Tr. 38).) Mr. Dean stated again that he could not remember telling Mr. Uhl that the flame came from the roof crack (Tr. 39-41).

On cross-examination, Mr. Dean stated that he was aware of the drill holes and foreman Larry Brewster told him they were to be used as a regulator. Mr. Dean stated that he helped drill the holes, but was concerned that they would crush out with the weight of the coal (Tr. 47). He stated that on December 29, 1992, one could not look through the gob and see the drill holes while standing in the No. 4 entry (Tr. 48). He confirmed that he has a law suit pending against Consol as a result of the ignition (Tr. 52).

Danny E. Crutchfield, mine foreman, stated that he has 27 years underground mining experience and has never previously been cited individually by the State of West Virginia or MSHA. He served as mine foreman at the subject mine for 10 years, and spent approximately six hours of each shift underground. He stated that he was on vacation a week prior to the December 29, 1992, ignition, and had returned the day before that incident (Tr. 53-59).

Mr. Crutchfield identified a mine ventilation map associated with the April 1992 ventilation plan, and discussed the location of several regulators and BEP points (Tr. 59-63; Exhibit RCR-1). He identified two inaccessible regulator locations outside the cited section and indicated that the ventilation passing through those areas would be determined by BEP points and cross-sectional air readings (Tr. 64-65). He identified one other drill hole location and stated that MSHA inspectors never questioned or cited it (Tr. 65).

Mr. Crutchfield confirmed that he attended a preliminary meeting with Inspector Walls, company mine engineer Underwood, and superintendent Wyatt to discuss the section ventilation and mining projections. He explained that the initial projection was to drive to the back of the panel and establish a regulator and use cross-sectional air readings with BEP-10 as the evaluation point. In view of falls in the old works, a decision was later made to mine to the left of the initial projected area, and two regulators were installed. After that area was mined, retreat mining commenced and pillars were pulled from the back of the section, as initially projected, and the retreat operations were inspected by MSHA (Tr. 68-70, 71-72).

Mr. Crutchfield stated that the drill holes in question were established because the area was subject to crushing and no one ever mentioned that anyone would travel to that area (Tr. 74). He stated that assistant mine superintendent Hrovatic was assigned to drill 25 holes, and Mr. Crutchfield stated he only saw one test hole. Mr. Hrovatic informed Mr. Wyatt of the progress of the drilling, including enlarging the holes from 1-1/2 inches to 2 to 3 inches, and testing the air passing through the holes. Mr. Hrovatic reported that he had 2,000 to 4,000 cfm of air, and Mr. Wyatt told him that he needed 10,000 to 12,000 passing through the holes (Tr. 76).

Mr. Crutchfield stated that Mr. Wyatt did not tell Mr. Hrovatic how many holes to drill, and when there was a problem with the drill bit, Mr. Hrovatic assigned the evening shift maintenance foreman the job of repairing the bit. Mr. Crutchfield heard nothing further about the matter and the last thing he heard Mr. Hrovatic say after drilling five holes was that the bit needed to be repaired and the drilling finished (Tr. 77). Mr. Hrovatic never reported back to him and Mr. Crutchfield had no reason to go to the area to examine the work because Mr. Hrovatic was assigned to take care of it (Tr.78).

Mr. Crutchfield explained the underground work he performed on December 29, 1992. He received a message from Mr. Bandy to go to the 2-1/2 panel, and Mr. Bandy informed him that he had some methane in the right-hand return. Mr. Crutchfield proceeded to the section and Mr. Bandy informed him that he found one percent methane at the No. 5 breaker timbers. Mr. Dean informed him that the miner machine gassed off in the No. 4 entry. Referring to a diagram, Mr. Crutchfield explained what transpired next (Exhibit RCR-2; Tr. 78-83). He confirmed that he made several methane checks at the breaker timbers and found none. The largest amount he found was .2 percent in the left-hand return, and none in the other areas he tested (Tr. 86-87). He observed no problems with the ventilation on the section and explained where he checked the ventilation curtains, and the other areas that he examined before leaving. The curtains "were in good shape," and they had air ventilation pressure, and he saw no ventilation hazards on the section (Tr. 89-90). He confirmed that it was unusual to find methane on the section (Tr. 94).

Mr. Crutchfield stated that in the 27 years he has been mining coal, he could not recall receiving a section 104(d) citation or order. He had no reason to know that the ventilation was inadequate on the day of the ignition because all of the plans had been approved, he assumed there was 10,000 to 12,000 cfm of air going through the drill hole regulator, and he had never experienced any prior ventilation problems on the section (Tr. 97-98).

Mr. Crutchfield stated that the cited bleeder system was evaluated by cross-sectional readings and BEP 10, which was visited every 24 hours by the fire boss. When the methane would

rise, it would be checked and monitored every shift. He had no indication of any methane buildup in the gob on December 29, and if he had, he would have shut the section down (Tr. 101).

Mr. Crutchfield stated that the mine map was up-dated each shift to reflect the areas that were mined and it is available in the mine office for anyone to review (Exhibit R-17; Tr. 104). He also identified a working mine map kept at his desk and he discussed it with each boss every morning (Exhibit R-18; Tr. 107-109).

On cross-examination, Mr. Crutchfield stated that he did not know how much air was going from the 2-1/2 section to BEP 10, but that approximately 180,000 to 186,000 cfm of air was at BEP 10, and approximately 64,000 cfm was going into the section. This section air would eventually go to BEP 10, and he explained how the air would be monitored at BEP 10 (Tr. 114-115).

Mr. Crutchfield explained the ventilation cross-sectional readings evaluation system as follows (Tr. 116-117):

A. You take the return. You take the intake. You take the air going off the belt and you take your other return. You add what air is going off, take it away from what is going up on the intake.

Q. And that tells you what?

A. That tells you what is going out your bleeder taps.

Q. It doesn't tell you, though, how much air is going out each individual outlet, does it?

A. No, it does not. But it tells you that you do have air going into the gob.

Q. And that is all it tells you, is how much air you have going into the gob, right?

A. The same way it would with the rest of them, yes.

Mr. Crutchfield stated that cross-sectional readings would not indicate how much of the air is going to the drill hole regulator or of the other regulators on the left side of the section. One of those regulators was accessible, but three were not, and on December 29, 1992, he would have no way of knowing how much air was going to any of those three regulators (Tr. 117).

Mr. Crutchfield reviewed weekly examination records for December 21, 1992, and confirmed that he countersigned them when he returned from vacation and that Mr. Hrovatic was acting in his place while he was absent that week. He agreed that the two recorded readings do not reflect how much air was going into the gob, and no return readings are recorded (Tr. 118).

Mr. Crutchfield confirmed that Mr. Hrovatic left his employment with Consol two months after the ignition, after 20 years of employment, but did not know if his departure had anything to do with this case (Tr. 123). He stated that Mr. Hrovatic's wife is an MSHA inspector at the Richland's office (Tr. 131).

Mr. Crutchfield confirmed that the section examination book reflects that BEP 10 was evaluated on a daily basis; and that it was the checkpoint for the panel (Exhibit R-2; Tr. 135, 139-140). He explained some of the entries, including the recorded methane levels. He stated that BEP 10 was used to evaluate the gob, and that it was an MSHA approved point for evaluating the section (Tr. 141-146). He stated that the BEP 10 location is marked on the map with directional arrows showing air being coursed to that location, and he considered that to be the evaluation checkpoint for the section, just as he has other similar locations shown on the map for other mine areas (Tr. 147-149).

Mr. Crutchfield stated that he was surprised to learn that the drill holes had not been drilled to allow more air to pass through. He believed the holes had been drilled after Mr. Hrovatic was assigned that project, and stated, "I thought all the time there was ten to twelve thousand feet of air passing through there because that is what Bob wanted through there" (Tr. 158).

Mr. Crutchfield was recalled by the Court and stated that he was interviewed at the mine after the ignition and could not recall discussing the BEP-10 evaluation location with the MSHA investigators. He did not believe that the section examination records (Exhibit R-2) were given to the investigators, but believed that they looked at them (Tr. 10).

Mr. Crutchfield stated that the purpose of the drill holes in question was to ventilate the gob area that would be created after driving the projections and pillaring back (Tr. 13-14). The air ventilating the gob would be monitored by taking cross-sectional readings and monitoring BEP-10 (Tr. 14). He confirmed that BEP-10 was established before the section was developed and that air from at least one other section was also being monitored at that location (Tr. 15).

Robert G. Wyatt testified that he has worked in the mines for 40 years, has a tenth grade education, and was the general mine superintendent for six or seven years beginning in May, 1987. Prior to that he served as general superintendent at another Consol mine for 12 years. He stated that prior to this case, none of his mines received a (d) order or citation, and he has never been charged personally for any violations (Tr. 18-21).

Mr. Wyatt stated that in mid-November 1992, he had a medical problem resulting in his hospitalization in intensive care, and returned to work at the end of that month. He had not been underground from November 4 to the day of the ignition, and Mr. Hrovatic served as assistant superintendent and was assigned to work for him. Mr. Hrovatic was a mining engineer, and had full authority other than any major changes or policy matters.

Mr. Wyatt stated that he had weekly meetings with Mr. Hrovatic, Mr. Crutchfield, and Mike Delgrade, the chief electrician, to discuss the conditions on the section, and ventilation plans were handled by Frank Underwood, the mine engineer (Tr. 26-27). He confirmed that the decision to mine and pillar the section was his and he explained how the development plans were formulated, including a meeting with Mr. Crutchfield, Mr. Walls, Mr. Underwood, and a UMWA safety committeeman (Tr. 29-36). He explained how a ventilation plan is developed and discussed and he described the mine ventilation system (Tr. 37-42).

Mr. Wyatt confirmed that BEP-10 was intended to be used to test any methane coming through the gob and to evaluate the section bleeder system (Tr. 45-49). He believed this was a safe method for evaluating the bleeder air, and he explained how the areas with excessive methane liberation were monitored. He confirmed that BEP-10 was monitored on a daily basis for the B-right section, and the same procedure was used to monitor the 2-1/2 section where all of the air was routed to BEP-10 (Tr. 51-60).

Mr. Wyatt stated that he was not aware of the notation that the drill-hole regulator area could be examined "for quite some time," and it was not discussed during the meeting he attended with Mr. Walls. Mr. Wyatt believed that Roy Smiley, a draftsman working for Mr. Underwood at Consol's Bluefield office, made the notation (Tr. 62).

Mr. Wyatt stated that all of the ventilation plans that were submitted before the 2-1/2 section was mined showing multiple areas going into the BEP-10 were approved by MSHA, and he confirmed that the March 6, 1992, submission (Exhibit G-40), for the 2-1/2 section was approved by MSHA on April 21, 1992 (Tr. 63-64). He explained why changes had to be made in the original mining projections, including mining to the left, and providing for ventilation changes and bleeder controls, and all of this was handled by Mr. Underwood in consultation with Mr. Walls. The ventilation changes are reflected in the letters of September 1 and 30, 1993, with Mr. Underwood (Exhibit G-42; Tr. 65-73).

Mr. Wyatt further explained how the air on the section would be controlled through four regulators, and he believed it was a safe and efficient plan. All of the air would eventually sweep the section and would eventually be directed to BEP-10 (Tr. 79-82).

Mr. Wyatt stated that he has had occasion in the past to use drill-hole regulators. He confirmed that two stopping cut-throughs were initially projected for the back of the section, but out of concern for safety, and the fact that it was not uncommon for such stoppings to crush out, thereby robbing other areas of air, he decided to use something other than a standard stopping and regulator and instructed the drilling of the holes, and Mr. Hrovatic was put in charge of the drilling (Tr. 91).

Mr. Wyatt stated that Mr. Hrovatic informed him of the progress of the drilling and that he informed Mr. Hrovatic that he wanted 10,000 cfm air through the holes. He later informed Mr. Hrovatic to "go ahead and put 12,000 through," and Mr. Hrovatic informed him that he had 12,000 to 14,000 cfm of air going through the holes. Mr. Wyatt stated that "I was well pleased with it, with the whole system" (Tr. 95).

Mr. Wyatt explained the use of cross-sectional readings to evaluate the bleeder air on the section (Tr. 96). He believed the use of a drill hole regulator would be safer than a standard type stopping or regulator, and that it was not a matter of convenience and supplies were available to construct a standard size of regulator (Tr. 98-100)

Mr. Wyatt stated that he would never knowingly violate the law, and that he has in the past shut down mines and withdrawn miners out of safety concerns. He would have done so in this case if he believed there was a potential problem on the section (Tr. 101). With respect to Mr. Crutchfield, whom he has known for six years, Mr. Wyatt stated that he operated the mine in a safe manner, and would never cut corners (Tr. 104-105):

On cross-examination, Mr. Wyatt confirmed that he was not at the meeting with Mr. Walls when the second ventilation plan supplement was submitted and it did not show any projections for driving the left side of the section (Tr. 110-112). He was aware of the ventilation plan requirement for constructing drill holes out of non-combustible materials, and reiterated that he wanted 10,000 cfm of air passing through the drill holes (Tr. 112-113). He did not confer with engineer Underwood or MSHA about the use of drill holes (Tr. 114). He still believes today that he had an adequate bleeder system, and he would never accept 2,600 cfm of air through the drill holes (Tr. 117).

Mr. Wyatt further explained his understanding of the face ventilation diagrams (Tr. 120). He explained that after the ignition occurred, Mr. Hrovatic informed him that the drill holes had been redrilled to three inches, and that 12,000 to 14,000 cfm of air was going through the holes before the ignition (Tr. 122-123). Mr. Hrovatic also informed him that 6,000 cfm of air was going through the holes when they were drilled with

the 1-1/2 inch diameters, and that he had 6,000 to 8,000 cfm of air when five of the holes were re-drilled to three inch diameters (Tr. 123). He then instructed Mr. Hrovatic to put 12,000 cfm through the holes, but did not specifically tell him how many additional holes should be drilled. Mr. Hrovatic assured him that this had been done (Tr. 124-125).

Mr. Wyatt stated that while he was in the hospital in November 1992, Mr. Hrovatic served as acting mine superintendent (Tr. 132). When asked if he ever asked Mr. Hrovatic how he measured the air going through the holes, Mr. Wyatt stated as follows (Tr. 133):

A. No, sir, I don't recall questioning him. You know, he is an engineer. I've got a tenth grade education. You know, I wouldn't question the boy on the numbers. I'm sure he is qualified to take the air readings. Or the man. Excuse me. I didn't mean to call him a boy.

Mr. Wyatt stated that he was not aware of the gob roof conditions on December 29, 1992, and he described the conditions as they appeared to him the next day (Tr. 134-137). In response to further questions, he confirmed that he had no knowledge of the mining machine gas-offs prior to the ignition (Tr. 137). He believed that the ignition was caused by a major crack in the roof that released methane gas under pressure and "our bleeder system got overrode, ... and we've had some kind of an ignition source in there that you don't normally expect to have" (Tr. 141).

Mr. Wyatt stated that in his years of mining experience prior to the ignition he has never known of methane ignitions or explosions originating in the gob area. He believed that the failure of the bleeder results in a loss of pressure going in the gob that releases methane on to the active section where there are ignition sources. He has always been trained to keep gas away from the working place and to keep a positive pressure on the gob (Tr. 142-145).

Donald W. Mitchell, consulting mining engineer specializing in ventilation, mine fires, and explosions, was accepted as an expert witness. His resume reflects that he has a B.S. degree in

mining engineering from Penn State, and an MS degree in mining engineering from Columbia University. He has authored approximately 100 publications and a book on mine fires that will soon be published as a third edition. Mr. Mitchell was previously employed by the U.S. Bureau of Mines, MESA, and MSHA, from 1951 until July, 1978, was involved in the passage of the 1969 Coal Act, and served as an assistant chairperson of a task force that drafted the regulations that were promulgated in March, 1970. The task force responsible for writing the ventilation regulations worked under his direction. He has also worked as an international consultant in Nova Scotia, Australia, Columbia, Great Britain, India, and China in matters concerning mine fires and explosions (Tr. 151-156; Exhibit R-6).

Mr. Mitchell stated that he became involved in the analysis of the December 19, 1992, ignition in August, 1993, and has worked on that project as a consultant "off and on" to the present time. He considered a number of documents that are part of the record as hearing exhibits, including preshift, on-shift, and daily reports, records of methane readings, roof control plans, photographs, locations of core drill holes, weather data, a 1990 ventilation survey he conducted at the mine, a January, 1993 ventilation survey, ventilation fan data, equipment location data, ventilation maps, and schematics showing the ventilation as of August, 1990, ventilation plan supplement of October 30, 1990, additional plan supplements, several drawings that he made, computer analysis of the mine and section ventilation, computerized ventilation simulations, recent studies of frictional ignitions, and various research papers concerning massive roof falls and wind blasts and ignitions, coking, shock waves, reports of methane ignitions caused by roof falls in the gob areas, methane ignitions caused by sandstone roof and equipment frictional sources, and reports and papers concerning frictional ignitions in several foreign mines (Tr. 157-213).

Mr. Mitchell was of the opinion that the ignition in question was "a result of a fall of roof igniting methane associated with the rock that was falling" (Tr. 206). He confirmed that he reviewed all of the aforementioned written information and approximately 29 interviews taken during the investigation in making his analysis of the ignition (Tr. 213).

Mr. Mitchell stated that occluded methane in rock is usually not affected or dissipated by the ventilation system because

there is no way to dissipate it and it does not release until the rock breaks (Tr. 215). He confirmed that he went underground as part of his analysis and visited all five headings up to the gob line in the 2-1/2 section. He looked back toward the gob drill hole area in each of the headings, but was unable to see the drill holes (Tr. 218).

Mr. Mitchell acknowledged that he misspoke when he gave his deposition indicating that he could see all the way back toward the drill holes when he was underground and that he could see the barrier pillar. He stated that "there was no way I could see at least a distance of 100 to 150 feet at minimum" (Tr. 222).

Referring to two drawings that he made, Mr. Mitchell explained his opinion as to the cause of the ignition. Referring to the testimony of miner witness Whittaker and Curry that they could hear the roof cracking and working "high up," Mr. Mitchell stated that the centilever roof structure started to fail, and a tension crack started forming close to the edge of the pillar. Since there is nothing holding up the weakened roof, it falls. Based on his best estimation, he believed that there was a fall of a 30 foot block of sandstone roof from the No. 5 heading to the No. 4 heading, four to six feet on the edge of the gob (Tr. 222-224).

Mr. Mitchell stated that based on his miner discussions, the term "from the gob" means inby the breaker posts. He described two locations on his drawings as the point of ignition. He believed the No. 1 crack location was the point of ignition because it is more consistent with the testimony of flame coming from the gob, than location No. 2, but stated that "both could be or either could be" (Tr. 227). He further explained as follows (Tr. 228-229):

I take the position that it is not reasonable to assume that we had many or more than one simultaneous fall of a large block of stressed rock at the same instant. And therefore, I am taking this as a point that in my opinion, the most probably point of ignition was the fall -- was the breaking up, the forming of the crack one and the forming of the crack two.

* * * *

Q. Mr. Mitchell, do you agree with MSHA's conclusion that the ignition source was a frictional ignition?

A. Yes, I agree with that conclusion. That is my opinion and finding as the most probable source.

Q. From where did the methane gas come?

A. It is my opinion that the methane, the great majority, if not all of the methane that was involved in this ignition, came from the fractional planes propagated and came out, was liberated through the fracture planes in that sandstone, as indicated by lines one and two on that exhibit.

Mr. Mitchell stated that the fact that the ignition occurred does not indicate that the gob was poorly or improperly ventilated. He explained as follows (Tr. 230-231):

A. This major outflow of methane -- there is no gob in the United States, no ventilation system in the United States that is capable of handling sudden outbursts. In fact, we're not even able -- in most mines where we have outbursts of methane in active workings, we have no means to militate against these even where we have positive, strong ventilating currents.

With regard to Citation No. 2724034, Mr. Mitchell stated that the air measurement of 2,037 cfm of air passing through the bleeder regulator had no relation to the ignition because it was only one of four regulators that were controlling the air flow from the active working faces and through the gases contained within the gob, into the bleeder. He believed the rest of the air circulating through the gob was keeping methane within the gob from coming out on the working face and directing that methane and other contaminants within the gob to the four regulators that intersect the bleeder system for the 2-1/2 section (Tr. 232).

Mr. Mitchell stated that he was involved in the drafting of the original regulation in 1970 concerning the ventilation

of the gob and the bleeder system, and that the intent of the standard "was to keep the methane that was normally associated with the gob away from the working faces where it could be ignited by the equipment and by the people in the active workings." He further stated that at the time the regulation was promulgated, "none of us considered any possible outbursts of gas in the gob. This was something alien to our knowledge" (Tr. 233).

Mr. Mitchell was of the opinion that the violation was issued because there was an ignition (Tr. 235). He was of the further opinion that the drill hole regulator did not contribute to the alleged violation because that particular cited location was only one of four exit points that allowed methane/air mixtures to move from the worked out area into a return air course as required by the regulation (Tr. 241). Based on his experience and understanding of section 75.334(b)(1), he did not believe that Citation No. 2724034 described a valid violation (Tr. 242).

In response to questions as to whether he believed there was a "proper and good bleeder system" on the section prior to the December 29, 1992, ignition, Mr. Mitchell stated that given the pressure against the curtains and the flow of air in the November 5 heading, "there was a good bleeder system in action" (Tr. 242). With regard to the No. 4 entry, he believed that the gas-offs indicated that the bleeder system was working (Tr. 243). He concluded that the bleeder system "did the job intended" (Tr. 242), and he disagreed with Mr. Wirth's "body of methane" in the gob testimony, notwithstanding his original perception that the probable source of the ignition fuel was a body of methane in the gob (Tr. 246-248).

Mr. Mitchell stated that based on his review of his pressure differential calculations from the No. 4 and No. 5 active faces to the back of the bleeder and the four regulators, and the gas bottle sample readings obtained by Mr. Wirth and by Mr. Uhl, he concluded that as of January 5, 1993, the drill hole regulator was regulating the flow of air from the active workings through the worked-out area, and into the return air entry (Tr. 250).

Mr. Mitchell was of the opinion that the drill hole regulator in question met the definitional test of "non-combustible

material" as stated in regulatory section 75.301, but does not meet the ventilation plan requirement that it be constructed of "incombustible" material, because coal is capable of being burned (Tr. 250-253).

Mr. Mitchell stated that he has questioned mining personnel at other mines in the area and found that they were ignorant of the phenomenon of a sudden inundation of methane and an ignition resulting from friction (Tr. 254). He believed that the event in question was an ignition and not an explosion, and he explained his conclusion in this regard (Tr. 255-262).

On cross-examination, Mr. Mitchell expressed agreement with Mr. Wirth's calculations concerning the amount of air going through the drill hole regulator (Tr. 264). He was aware that Mr. Wirth took additional readings of the air passing through the regulator when he returned on January 26, 1993, and that Consol engineers did not measure the air, but relied on a balance analysis. He agreed that his 1990 ventilation survey was made when the 2-1/2 section was not in existence, and that he took a later survey of that section more than a year after the ignition, but never went to the drill holes (Tr. 267). He agreed that he may have stated that it would have been desirable to go to the drill holes when he gave his deposition and, in any event, agreed that it would have been a good thing to do. He did not go to the drill holes because he was tired (Tr. 268-269).

Mr. Mitchell confirmed that he was in error when he stated in his prior deposition that the roof was hanging all the way back to the drill holes, and that he has corrected his prior statements (Tr. 270-273). He conceded that he changed his prior testimony that he could see back to the gob where the coal barrier was during the earlier hearing in this matter and after Mr. Wyatt corrected him and indicated that they could only see 150 feet (Tr. 276).

Mr. Mitchell stated his judgment that at one point in time on December 29, 1992, the bleeder system was inadequate and this was when the 15,000 or more cubic feet of air was returning down the No. 5 heading into the main return, rather than into the gob. He would have preferred a positive ventilation at that entry, rather than a return. However, he believed this was corrected when the No. 5 entry ventilation was changed and it became an

intake (Tr. 280-281). He then, "in retrospect," corrected his prior opinion as to the inadequacy of the bleeder, and indicated that his opinion had nothing to do with the bleeder system, but rather, the available air being directed into the gob (Tr. 281-282).

MSHA's Arguments

Fact of Violation

Order No. 2724034, 30 C.F.R. 75.334(b)(1)

MSHA asserts that after an exhaustive investigation, it determined that the explosion that injured five miners resulted from an inadequate bleeder system which allowed methane to accumulate in the gob in the explosive range. MSHA concludes that the body of methane was ignited in the gob by frictional heating or piezoelectric discharges during a roof fall, and it rejects Consol's position that the explosion was the result of a sudden and unpredictable release and inundation of methane from the overlying roof strata.

MSHA argues that the clear intent of section 75.334(b)(1) is to prevent an accumulation of methane which could result in an explosion, and it maintains that the evidence is overwhelming that the 2-1/2 section bleeder system was not in compliance with the requirements of section 75.334(b)(1) on December 29, 1992, when the explosion occurred.

In support of its theory that a body of explosive methane in the gob caused the explosion, MSHA asserts that the credible eyewitness testimony of Mr. Whitaker and Mr. Dean reflect that the flames came out of the gob. MSHA further relies on the fact that the gassing off of the miner machine prior to the explosion was an indication that the bleeder system was failing and allowing methane to accumulate in the gob. Since the section had not previously encountered significant amounts of methane, MSHA concludes that it was unlikely that pockets of methane would be encountered in quantities that were encountered when the miner gassed off, particularly since the miner gassed off at least three times a few hours prior to the explosion. MSHA rejects Consol's arguments that it was purely coincidental that these events occurred so close in time, and takes the position that

such a coincidence is highly improbable and completely unsupported by any credible evidence.

MSHA argues that the only evidence to support Consol's theory is the testimony of its expert witness Donald Mitchell. However, MSHA asserts that the evidence relied on by Mr. Mitchell is not credible, and his opinions and conclusions are likewise not credible. MSHA points out that Mr. Mitchell based his opinion upon a ventilation survey done two years prior to the existence of the 2-1/2 section, a partial survey by Consol engineers after the explosion which Mr. Mitchell admits contained errors, non-existent eyewitness statements that the explosive flame came from the roof, and his own observations when he visited the section more than a year after the explosion.

In further support of its case, MSHA states that Mr. Mitchell's observations are not credible. MSHA argues that in his deposition, Mr. Mitchell stated that when he went to the section he was able to see through the gob from the No. 3 and 4 entries and was able to see the drill holes at the back side of the gob. However, MSHA points out that these statements were contradicted by every witness, including Mr. Hrovatic and Mr. Crutchfield who testified it was impossible to see to the drill holes from where Mr. Mitchell was because a cap lamp would not shine that far and because the roof in the gob had caved in. MSHA notes that Mr. Mitchell changed his testimony on this point at the hearing after hearing the other witnesses contradict his deposition statements.

MSHA takes issue with the accuracy of Mr. Mitchell's statements and observations about the gob roof conditions and the source of the flame at the time of the explosion in a paper that he published on wind blasts caused by rock falls. MSHA maintains that Mr. Mitchell's theory that the explosion was the result of a sudden release of methane from the roof is not plausible, and it concludes that his testimony was designed to justify Consol's theory regarding the cause of the explosion. In this regard, MSHA points to a report submitted by Consol pursuant to Part 50 of the regulations explaining the cause of the accident which states that "the methane gas was liberated from the Pocahontas # 5 seam with the pillar fall. Amonate # 31 Mine produces coal from the # 4 seam, which lies below the # 5 seam." MSHA concludes that it is clear that rather than reviewing the facts

and then drawing conclusions from those facts, Mr. Mitchell developed a theory which would substantiate a conclusion which had already been reached months earlier by Consol. Under the circumstances, MSHA believes that Mr. Mitchell's conclusions and opinions in this matter should be given no weight.

MSHA argues that the evidence supports a finding that the explosion resulted from an ignition of a body of methane in the gob, and that the methane was allowed to accumulate because the bleeder system was inadequate. MSHA asserts that the manner in which the bleeder system was set up, and because it was not being properly evaluated, allowed the methane to accumulate in the gob. MSHA points to the testimony of Mr. Wirth and Mr. Uhl that the bleeder system was not adequately ventilating the worked-out area between the pillar line and the drill holes because the drill holes were not allowing enough air to exit through that location and because the other regulators on the left side of the section caused the air going into the gob to go directly to where those regulators were located and to simply sweep the fringe area of the gob.

MSHA further argues that all of the testimony presented by both sides indicates that a minimum of 10,000 to 12,000 cubic feet per minute of air was considered to be the amount of air flow necessary at the drill hole regulator on the back side of the section to adequately ventilate the gob. MSHA cites Mr. Wirth's testimony that at the time of the explosion slightly more than 2,000 cfm of air was going through the drill holes, and that at no time was more than 2,828 cfm going through the holes. With regard to Mr. Hrovatic's testimony that he measured a greater amount of air flow at the drill holes, MSHA concludes that these measurements were not reliable because Mr. Hrovatic improperly used an anemometer to make the measurements. Further, MSHA emphasizes the fact that no other witness contradicted Mr. Wirth's testimony concerning the amount of air going through the drill holes, and that Mr. Mitchell agreed that Mr. Wirth's calculations were consistent with the "best engineering principles."

MSHA asserts that an additional factor contributing to the inadequacy of the bleeder was the fact that the regulators on the left side of the section were drawing the air along the pillar line. MSHA relies on the testimony of Mr. Wirth and

Mr. Uhl that the air flow pattern in the gob was such that as the air entered the gob from the section, and it followed the path of least resistance, and split toward the left hand side of the section, skirting the fringe of the gob, and traveled to the left side regulators. Since the air between the pillar line and the drill holes was a path of relatively high resistance because the roof in the gob had caved in, and because only slightly more than 2,000 cfm was exiting the drill holes, MSHA believes that the rest of the 17,000 cfm that was measured going into the gob must have been going to the regulators on the left side of the section.

In response to Consol's argument that because the section foreman measured 17,000 cfm of air going up the No. 5 entry into the gob, there was adequate ventilation of the gob, MSHA points out that, as explained by Mr. Wirth, measuring the amount of air entering the gob gives only one component of the bleeder system, and that in order to effectively evaluate the entire bleeder system Consol needed to determine the air flow patterns or distribution of air throughout the gob, where the air was exiting the gob, and the methane and oxygen concentrations at the points where the air exited the gob into the return entry.

MSHA concludes that it has proved by much more than a preponderance of the credible evidence that there was a body of methane in the gob which was ignited and that the body of methane was able to accumulate because there was an insufficient amount of air going through the worked out areas of the gob to dilute and render harmless that methane, and that even superintendent Wyatt did not seriously dispute that the bleeder system, as it was set up on December 29, 1992, was unacceptable. Accordingly, MSHA believes that the order should be affirmed.

Order No. 2724034, 30 C.F.R. 75.364(a)(2)

MSHA argues that section 75.364(a)(2) requires Consol to evaluate the effectiveness of bleeder systems every seven days. It points out that the order states that mine superintendent Wyatt and mine foreman Crutchfield indicated that no one was examining the bleeder regulator and that the area was inaccessible. MSHA asserts that the evidence establishes that the only evaluation of the bleeder that Consol was doing was taking air readings on the active section and at BEP 10, and

that there is no dispute that persons were not traveling the return entry to where any of the regulators were prior to the explosion on December 29, 1992. In response to Consol's position that the approved ventilation plan allowed them to evaluate the bleeder system by using cross-sectional readings taken on the section, MSHA maintains that given how the section was developed, cross-sectional readings were not an effective method for evaluating the bleeder system.

In support of the violation, MSHA argues that even assuming that cross-sectional readings was an approved and effective method for evaluating the bleeder, Consol was not even taking proper cross-sectional readings in that such air readings must be taken in the intake, return, and belt entries. In this case, MSHA states that the most recent entry in the weekly examination book, dated December 21, 1992, shows that readings were taken only in an intake entry and in the belt entry, and that Mr. Crutchfield testified that these readings alone do not provide the necessary information for determining how much air was entering the gob. Further, MSHA points out that as explained by Mr. Wirth, although cross-sectional readings would have been an effective means of evaluating the bleeder when the section was initially intended to be developed, with one exit point in the gob for the air to enter the bleeder entry, once Consol deviated from its initial projections and installed the other regulators on the left side of the section, cross-sectional readings would not enable Consol to determine where the air was going once it entered the gob.

MSHA takes the position that Consol's mining of the section out of sequence is not, in and of itself, a violation of anything, so long as the actual mining sequence does not create a hazardous condition. Conceding that the original ventilation plan supplement allowed for cross-sectional readings as an acceptable method for evaluating the bleeder under the scenario presented to Mr. Walls, MSHA maintains that there is no question that the scenario presented to Mr. Walls is not what was present on the section on December 29, 1992 and that any reasonably prudent mining person would know that cross-sectional readings were not an effective method of evaluating the bleeder system. Since there was more than one bleeder outlet where the air exited the gob into the bleeder entry, MSHA concludes that there was no way for Consol to know where the air was going in the gob. Under

these circumstances, MSHA concludes that the only information that Consol could obtain from cross-sectional readings was limited to only one component of a bleeder system, namely, how much air was going into the gob.

MSHA argues that Consol did not follow the original mining plan in that the intended projections were not followed, additional regulators were installed, a proper regulator was not established on the back side of the section, the agreed upon amount of air at that proposed regulator was not provided, the left side of the gob was not ventilated with intake air, and the regulators at the back side of the gob were all inaccessible, despite Mr. Wyatt's representation to Mr. Walls that the area near the drill holes could be examined.

In response to Consol's assertion that BEP 10 was the bleeder evaluation point for the section, MSHA agrees that the air was going to that location, but disagrees that this establishes that it was the section evaluation point. MSHA points out that air in excess of 200,000 cfm was going to BEP 10, including, at most, 64,000 cfm that was from the 2-1/2 section. Therefore, MSHA concludes that readings at BEP 10 would not have been an effective way to evaluate the section bleeder system, and the weekly examination entries for the section do not list readings taken at BEP 10.

In response to Consol's suggestion that any inadequacy resulting from cross-sectional readings was Mr. Wall's responsibility because he approved that method of evaluating the bleeder, MSHA states that it is clear that cross-sectional readings were approved on the basis of conditions quite different from those present on December 29, 1992. MSHA points out that there was a myriad of conditions and circumstances which could not possibly have been anticipated by Mr. Walls, such as Consol altering its projections for developing the section, or not installing a regulator where one was proposed. In any event, MSHA believes that Consol must be held responsible for ensuring that an adequate bleeder system is provided where one is required, and that the results of not doing so are gravely obvious from the events that occurred giving rise to this case. MSHA believes that Consol failed in this obligation, and that the order should be affirmed.

Consol's Arguments

With regard to the inadequate bleeder system violation, Consol asserts that in order to prove a violation, MSHA must establish by a preponderance of the evidence that the bleeder system did not move the methane-air mixtures away from the section and into a return air course. Consol believes that MSHA has failed to carry its burden because the evidence established that the ventilation on the section at all relevant times moved methane-air mixtures from the working areas, through the gob, and into the return.

Consol argues that its theory regarding the cause of the ignition is supported by expert witness Mitchell's analysis based on the existing evidence and well known scientific principles. Consol concludes that MSHA's investigators and experts ignored key evidence that should have cast doubt on their theory that the "explosion" resulted from the ignition of accumulated gob gases. In this regard, Consol asserts that MSHA's characterization of the ignition as an explosion is not in accordance with the definitions of those phenomena developed at the Bureau of Mine's experimental mine as testified to by Mr. Mitchell in a paper he co-authored distinguishing the damaging forces of "explosions" and "ignitions."

In support of its theory that the ignition was caused by a spontaneous outburst of methane from the type of sandstone roof found on the section, Consol relies on the eyewitness testimony of Wayne Dean that he observed the roof "set down" one to two inches, followed by a blue flame coming from the roof crack, and Mr. Mitchell's explanation that the existence of a blue flame is associated with higher concentrations of methane such as would be released in spontaneous outbursts from the sandstone roof. Consol further relies on Mr. Mitchell's testimony that the observation of a return flame by the miners, and the lack of flame damage in all directions, is consistent with a spontaneous methane outburst from the roof, and supports his conclusion that the methane ignition did not originate in the gob.

Consol asserts that MSHA's theory regarding an accumulation of gob gases appears to be based upon a misunderstood notation on the approved section ventilation plan. Consol points out that the inspector noted in the order that "[t]he approved ventilation

map indicates that the back side of 2-1/1 section, MMU 015, can be examined." Given that mine superintendent Robert Wyatt and mine foreman Danny Crutchfield had informed investigators that the area at issue was inaccessible and could not be examined, Consol suggests that the investigator apparently concluded that the bleeder system must have been inadequate, and must have been the cause of the ignition.

Consol maintains that MSHA's theory is full of unexplained holes and significant omissions. As one example, Consol points out that while Mr. Mitchell relied upon personal observations and accounts of witnesses who gave a precise indication of the point of ignition, MSHA's expert witness, Clete Stephan, did not consider any witness accounts, and could only state that the ignition point was somewhere in by the continuous miner at an undetermined point somewhere along the gob fringe area. Further, Consol asserts that Mr. Stephan and MSHA expert Wirth contradicted each other with respect to the origin of the ignition, and that Mr. Wirth theorized that it occurred at the crack viewed by Mr. Dean, and that the flame traveled back into the gob and ignited accumulated methane. Contrasted with this is Consol's assertion that Mr. Mitchell supported his theory with an analysis of the rock fall and seams involved, and pertinent scientific literature regarding stress fractures, the methane holding ability and incentive properties of different types of rock.

Consol cited further examples of omissions by MSHA, including the omission from its accident report of bottle sample methane readings taken by Mr. Wirth at the drill hole regulator. Consol believes that the samples showed that the gob ventilation was sufficient to move air and gases through the bleeder drill holes in quantities and at velocities sufficient to dilute and render harmless methane contained in the gob.

Consol cites the failure of Mr. Wirth to recognize the significance of the 2.2 inch water gauge reading he obtained from the bleeder system, and his lack of understanding of the relation of pressure differentials and air flow in evaluating the effectiveness of the bleeder system. Mr. Mitchell, on the other hand, made it clear that such water gauge readings are a key element in evaluating bleeder systems, and that a 2.2 reading is considered "outstanding."

Consol points out that while Mr. Wirth indicated that a fall in barometric pressure caused methane from an unventilated gob area to flow out into the No. 4 push, leading to the gas-offs in that push, and eventually, to the ignition, he failed to include this analysis or information regarding the barometric pressure readings in his report. Mr. Mitchell, however, presented weather data for the month of December, 1992, demonstrating that the slow decrease in barometric pressure occurred too close to the time of the ignition to have any effect on gob gases.

Consol asserts that Mr. Wirth contradicted his own theory regarding the outflow of methane from the gob and indicated that the more likely explanation for the miner machine gas-off was that it hit a pocket of methane, and not that methane was flowing out from the gob. On the other hand, Mr. Mitchell stated that Mr. Bandy's finding of methane in the No. 5 entry return at the time of the gas-offs showed that the bleeder system was working to sweep air away from the active workings into the gob, and then to the return. Mr. Mitchell further opined that the methane that caused the gas-offs emanated from lesser cracks in the sandstone roof of the No. 4 entry, which led to short-lived outflows of methane that were swept away by the ventilating air.

Consol argues that MSHA's experts and investigators have proceeded in this case on the theory that a violation of section 75.334(b)(1) must have occurred because an ignition occurred. Consol asserts that this is contrary to MSHA's own pronounced acknowledgment in Secretary v. Ozark, Inc., 14 FMSHRC 941 (June 1992). Consol further argues that the occurrence of an accident or fatality is insufficient to establish a violation, especially when eyewitness testimony demonstrates that no hazardous conditions or violations existed prior to the accident. See also: Secretary v. Ideal Cement Co., 11 FMSHRC 1776, 1783 (September 1989), Donovan v. Federal Clearing Die Casting Co., 655 F.2d 793, 797 (7th Cir. 1981), cited by Consol.

Consol argues that unsubstantiated assertions that a bleeder system is inadequate are insufficient to support a finding of a violation. Beckley Coal Mining Co. v. Secretary of Labor, 3 FMSHRC 2593 (November 1981). Relying on several Commission decisions dealing with comparable provisions of the former ventilation regulations, Consol asserts that a bleeder system is considered adequate if air is moving away from the working

area, through the gob, into the bleeder and out to a return. If these ventilation facts are established, Consol asserts that a bleeder system will be considered in compliance, even though high levels of methane are located in the gob itself. Itman Coal Co., 2 FMSHRC 1986 (July 1980); Island Creek Coal Co., 15 FMSHRC 339 (March 1993); V-P Mining Co., 15 FMSHRC 1531 (August 1993). Consol concludes that these cases make clear that the test for whether a bleeder system is adequate is whether air is moving through the gob and into the bleeder, and whether methane is being diluted as it travels from the gob, through the bleeders, and into a return.

Consol emphasizes the fact that it was not cited for any violation of its mine ventilation plan, or for failing to construct regulators in a manner preferred by MSHA. Under the circumstances, Consol concludes that MSHA's arguments regarding whether it had air flowing in the appropriate directions in various entries on the section, whether drill holes can be used as regulators, and whether such drill holes are "non-combustible" are irrelevant to determining liability in this case, except to the extent, if any, they relate to the adequacy of bleeder system ventilation on the 2-1/2 section.

Consol maintains that the cited section was "one well ventilated section," typically intaking between 50,000 and 57,000 cfm of air. Consol points out that methane was rarely found on the section, and, when found, concentrations were usually well below one percent, with methane readings of .1 and .2 percent recorded in the Preshift/Onshift Daily Report book for December 28 and 29, 1992, and well within the range of methane readings that former assistant superintendent Hrovatic testified were found on the section.

In response to Mr. Wirth's belief that the presence of even minimal methane, and the occurrence of a gas-off on a section which typically had no methane problems, should have alerted management that methane was accumulating in the gob and backing up onto the section, Consol relies on the conclusions by the miners and supervisors who investigated the cause of the gas-offs that the machine had hit a pocket of methane, the absence of methane at the gob line across the entire section when examined by Mr. Crutchfield, and the appearance of the gob line curtains demonstrating that positive pressure existed into the gob.

Consol emphasizes several deficiencies in MSHA's theories that the bleeder ventilation was insufficient at the time of the ignition. Consol points out that Mr. Wirth did not dispute the fact that 16,000 to 17,000 cfm of air was flowing over the mining machine into the gob at the No. 5 entry at the time of the ignition, and he failed to take any smoke tests to support his conjecture that the air would skirt the edge of the gob because of the manner in which the bleeder was set up. Consol further concludes that Mr. Wirth's own testimony established that air was entering the gob at numerous points, and some of it was sweeping to the left and entering the bleeder system through the two left regulators, while other air swept to the back of the gob entering the bleeder system and right returns through the drill holes. Finally, Consol points out that none of MSHA's witnesses offered an opinion as to what quantity of air is necessary to "adequately" ventilate a gob, and Mr. Uhl stated that no regulation exists specifying any particular air quantity.

With regard to the alleged failure to perform adequate weekly examinations of the bleeder system to determine the effectiveness of the system, Consol asserts that in order to prove a violation, MSHA must establish that Consol failed to take methane and oxygen measurements and air direction tests at "locations approved in the ventilation plan." Consol concludes that MSHA has not met its burden, since the preponderance of the evidence established that the locations for methane and oxygen measurements were approved in the ventilation plan in lieu of traveling the bleeder, the required measurements and tests were conducted not only weekly, but at least daily and, if necessary, more frequently at locations approved in the ventilation plan.

In response to Mr. Wirth's assertion that Consol failed to conduct weekly examinations that could have detected the pre-ignition body of methane that flowed from the gob, Consol points out that Mr. Wirth admitted that he never reviewed the weekly pre-shift or on-shift books before determining that the alleged methane body could have been detected through such examinations, but instead supposedly relied upon verbal reports by unidentified others that the examinations were not performed properly. Consol concludes that had Mr. Wirth consulted the examination books, he would have learned that excessive levels of methane had not been detected on the section in the days or weeks preceding the ignition.

Consol asserts that the real dispute in this matter centers on an interpretation of the requirement in 30 C.F.R. § 75.364(a)(2)(iii) that bleeder systems be traveled weekly in their entirety "or to locations approved in the ventilation plan where measurements of methane and oxygen concentrations and a test to determine if the air is moving in its proper direction can be made." Consol contends that this regulatory option allows the required tests to be made at MSHA approved bleeder evaluation points (BEPS) that are typically designated when travel through a bleeder entry would subject an examiner to hazards caused by deteriorating roof and ground conditions.

Consol states that the allegation by Mr. Wirth and Mr. Uhl that the bleeder evaluation was inadequate was based in part on the inaccessibility of the drill hole regulator and the two left side regulators, and Consol's ability to take the required methane and air readings at those locations. Consol concludes that based on a ventilation map notation stating, "[t]his area can be examined," MSHA assumed that at least the bleeder drill hole regulator was required to be accessible, despite testimony by Mr. Walls that the notation was one of convenience placed on the map to avoid the necessity of filing a cut-through plan.

Consol argues that MSHA offered conflicting testimony as to whether regulators are required to be accessible. Consol points out that Mr. Walls stated that regulators not designated as BEP's are not required to be accessible, while Mr. Wirth testified that a specific regulation requires the operator to travel to regulators. However, Mr. Wirth neither cited any such regulation, nor indicated that Consol had been cited for violating the alleged specific requirement. Consol further points out that MSHA's argument that the bleeder system could not be adequately evaluated on December 29, 1992, unless the regulators were accessible, is called into doubt by Mr. Wirth, who testified that he was able to develop an effective and reliable ventilation survey for the section, notwithstanding his inability to access the left regulators.

In response to MSHA's contention that Consol invalidated the bleeder evaluation methane approved by Mr. Walls when it deviated from the ventilation plan approved mining sequence by first driving to the left, rather than straight to the back of the

section, Consol maintains that an approved and adopted plan must provide it with notice as to what is required for compliance. Based on all of the testimony, Consol concludes that Mr. Wyatt and Mr. Crutchfield had absolutely no indication that Mr. Walls was requiring that the section be driven first directly to the back, that driving to the left first would invalidate the use of cross-sectional readings for bleeder evaluation, or that BEP-10 was not the designated BEP for the section.

Consol asserts that both Mr. Walls and Mr. Wyatt relied on the ventilation map markings as a means of understanding the ventilation plan requirements, and that Mr. Walls initially testified that markings on the face of the ventilation map indicated to him that cross-sectional readings were to be used as the approved bleeder evaluation method, and that air on the section must pass through BEP-10 to get to the fan. Though Mr. Walls later contradicted himself, arguing that air from the section did not directly pass through BEP-10, Consol concludes that his original testimony lends support and credence to the argument of Mr. Wyatt and Mr. Crutchfield that their understanding was that the bleeder system was to be evaluated by taking cross-sectional readings and conducting the required measurements and tests at BEP-10. Consol further concludes that its interpretation of the MSHA approved ventilation map and plan as permitting the use of cross-sectional readings and evaluations at BEP-10 was not only reasonable, but supported by Mr. Wyatt's past dealings with Mr. Walls and MSHA.

Findings and Conclusions

Fact of Violation - Order No. 2724034

Consol is charged with a violation of mandatory safety standard 30 C.F.R. 75.334(b)(1), because of its alleged failure to provide an adequate bleeder system for the cited 2-1/2 section on December 29, 1992. The order, on its face, states that the bleeder system did not control the air passing through the worked-out area to continuously dilute and move away methane air-mixtures from the active workings and into a return air course. MSHA has the burden of proving these allegations by a preponderance of the credible evidence. Section 75.334(b)(1) provides as follows:

During the pillar recovery a bleeder system shall be used to control the air passing through the area and to continuously dilute and move methane-air mixtures and other gases, dusts, and fumes from the worked-out area away from active workings and into a return air course or to the surface of the mine.

As noted earlier, the event which resulted in these penalty proceedings occurred on December 29, 1992, nearly three years ago. Following a rather extensive accident investigation which began the day after the incident, and continued into January and February, 1993, MSHA concluded that the explosion occurred as a result of methane accumulations in the gob area of the 2-1/2 section due to an inadequate bleeder system and management's failure to properly examine the bleeder to determine its effectiveness.

In the course of the hearing, the parties went to great lengths in examining the cause and effect of the "ignition" or "explosion." MSHA believes that the "explosion" occurred after an explosive body of methane that was allowed to accumulate in the gob was ignited during a roof fall in the gob. Consol believes that the "ignition" did not originate in the gob, and that it was caused by a spontaneous and unpredictable outburst from a sandstone roof crack that had suddenly developed in the roof area where the continuous miner was mining immediately before the incident.

After careful review and consideration of the entire record in these proceedings, I cannot conclude that MSHA or Consol has, with any reasonable degree of evidentiary certainty, established the cause of the ignition or explosion. In my view, both parties presented speculative causation theories based on after-the-fact "best guesstimates," assumptions, and opinions based on information that I find conjectural, contradictory, or unreliable. Under the circumstances, I can only conclude that the cause of the accident remains unknown.

MSHA Inspector Frank Walls confirmed that he has no formal college or engineering training, but nonetheless has been involved with the review and approval of mine ventilation plans since 1990, and was directly involved in the plan approval

process for the cited section. The testimony by Mr. Walls is primarily directed to the plan provisions. He was not involved in the accident investigation or the issuance of the violations, and he could not comment on whether or not the section bleeder system was adequate. With regard to the violation, he believed it was issued because the additional regulators that were installed were inaccessible and did not provide a means for evaluating the gob area.

Although Mr. Walls believed that accessible additional regulators in the gob area would provide a better means of evaluating the overall ventilation, he agreed that the installation of any projected ventilation controls are discretionary and not mandatory, and that Consol could have installed them "as needed." With regard to the accessibility of the additional regulators that were on the section at the time of the ignition, Mr. Walls confirmed that he had no knowledge as to whether they were in fact accessible. With respect to the map notation indicating that the drill hole regulator was accessible, I am convinced that the notation was made as a matter of convenience to avoid undue delay in the processing of the supplemental ventilation plan and that Mr. Walls was aware that this was the case. Further, with respect to any conversations that may have taken place between Mr. Walls and mine officials during the ventilation plan approval process, MSHA suggests that they were part of the understanding as to how the section would be developed and ventilated (Tr. 237). However, Mr. Walls testified that any such discussions, not incorporated as part of the approved plan are not controlling (Tr. 11).

Retired section foreman Billy Bandy, who was called by MSHA as a witness, and who was the foreman at the time of the ignition, testified that his on-shift examination included a determination as to whether the bleeder was operating properly, and he was of the opinion that the 17,000 cfm of air going over the mining machine and into the gob, and his air checks and observations of air pressure against the ventilation curtains, indicated to him that the bleeder was operating properly and that there was good positive air flow across the gob. Mr. Bandy's testimony regarding the air flow into the gob stands unrebutted.

MSHA Inspector Donald White, whose participation in the post-ignition accident investigation was limited to a rock-dust survey, confirmed that he had no input into the issuance of the violations. The record reflects that he collected his samples on January 4-5, 1993, and he was of the opinion that samples taken immediately prior to or close to the day of the ignition would better indicate the conditions that existed on the day of the ignition, as opposed to samples taken six or seven days later, and that an ignition or an explosion would have some effect on his sample results.

MSHA principal engineer Clete R. Stephan, who was qualified and accepted as an expert in explosions and mine fires, tendered opinion testimony concerning the probable cause and effect of the explosion. With regard to Mr. Stephan's discussions concerning the "Extent of Flame Forces," at page 25 of MSHA's Accident Investigation Report, I take note of his statement that part of the information in support for his conclusions "was gathered during the underground investigation from discussions with persons who are knowledgeable of the facts surrounding the explosions," and from "reports on the condition of the surviving victims after the explosion." However, during the hearing, Mr. Stephan testified that he was not aware of any eye witness testimony prior to writing his report, that he did not interview any of the miner eye witnesses who were on the section at the time of the explosion, and that he had not reviewed Mr. Dean's statement to MSHA or State investigators with respect to what he saw when the ignition occurred.

Mr. Stephan further confirmed that he was in the mine only one time on January 4, 1993, for less than one shift. With regard to any opinion on his part as to whether the bleeder system was adequate, MSHA's counsel stated that Mr. Stephan was not a ventilation expert and that such an opinion was beyond his expertise (see Mr. Stephan's previously cited testimony (Tr. 214-215)).

MSHA mining engineer Gary Wirth, who was accepted as a ventilation expert, testified that he was not involved in the review or drafting of the violations issued in these proceedings, that he was "somewhat" familiar with this case (Tr. 182), and that he was "in general" able to render an opinion with regard to the gob air flow that existed on the day of the

ignition, and that he had sufficient information "in general" on which to base that opinion (Tr. 169). His testimony is based on a three-day post-ignition ventilation survey that was made on the section on January 4, 5, and 26, 1993. After careful scrutiny of Mr. Wirth's testimony, I have serious reservations and doubts concerning the accuracy, consistency, and credibility of the information he relied on in support of his opinions and conclusions concerning the inadequacy of the bleeder, and my reasons in this regard follow.

Mr. Wirth stated that the intent of his January 4 and 5, 1993, ventilation survey was to evaluate the section as it was at the time of the December 29, 1992, ignition, and that an "attempt" had been made to restore the section to its pre-ignition condition. However, he confirmed that he was advised prior to going underground that the section conditions were not the same when the survey was made and that a return regulator was blown out and some of the right side stoppings were damaged and leaking. Although Mr. Wirth subsequently took additional air readings on January 26, 1993, he still relied on his January 4 and 5, 1993, survey information based on conditions that were different from those that existed on the day of the ignition.

I take note of the fact that Appendix G to MSHA's accident report is a ventilation schematic diagram that is labeled Ventilation Schematic Immediately Prior to Explosion and Locations of Equipment, and the report at page 14, authored by Mr. Wirth states that the schematic "is a face-ventilation diagram showing the face ventilation at the time of the explosion," followed by a discussion and conclusions concerning the ventilation based on that diagram. Although Mr. Wirth denied that his diagram was at the foundation of his opinion concerning the adequacy of the bleeder system, he acknowledged that he was aware of the conflicting hearing testimony of the miner crew with respect to the accuracy of the information on the diagram.

Although Mr. Wirth was of the opinion that no reasonably prudent mining person would have used cross-section readings to evaluate the bleeder system on December 29, 1992, the MSHA-approved supplemental plan of April 21, 1992, permitted cross-sectional readings. When asked if this were true, Mr. Wirth stated that he was not familiar with the entire ventilation plan and could not state whether the plan allowed

or prohibited cross-sectional readings at that time. He also acknowledged that he did not review the plan in formulating his opinion (Tr. 137-138).

In its post-hearing brief, at page 45, MSHA asserts that mine superintendent Wyatt did not seriously dispute that the bleeder system on December 29, 1992, was unacceptable (Tr. 117). I have reviewed Mr. Wyatt's testimony in context during his cross-examination (Tr. 112-117) and find that it is not a clear-cut admission as suggested by MSHA. In fact, Mr. Wyatt explained that no one has convinced him that the bleeder system was inadequate, and he believed, and still believes, that the bleeder was adequate, notwithstanding 2,500 cfm of air passing through the regulator. Further, Mr. Wyatt clarified his response to the question posed, and stated that he would not accept 2,600 cfm of air for that entire panel or for the entire section within the "hack" lines shown on the mine map (Tr. 113, 117).

Mr. Wirth testified that the adequacy of a bleeder system is based on several ventilation components, and not solely on the amount of air entering the gob area. He stated that his survey was intended to encompass the air flow entering and leaving the section. However, he confirmed that because of the inaccessibility of several gob exit points, he could not conclusively determine where all of the air flow was going, or the exact amount of air exiting the gob. Further, although anemometer and pitot tube readings were made at the drill holes, the anemometer readings are not included as part of the accident report. He also confirmed that he took a series of bottle samples on January 5 to determine the methane and oxygen content of the air exiting the gob area, but did not believe the test results are included in the accident report. He also believed that one to two percent methane was detected in the samples, and that this would indicate that methane was exiting the gob through the drill holes.

Although Mr. Wirth denied that his inability to reach the left side regulators impacted on his evaluation of the drill hole regulator, he acknowledged his prior deposition statement to accident investigation supervisor Castenon that it was impossible to completely evaluate the section gob area because he could not reach those regulators, and he conceded that it was not possible

for him to perform and develop a complete air quantity balance of the bleeder system. This contradictory and conflicting testimony casts doubts on the accuracy and credibility of Mr. Wirth's survey, and its relevance to the alleged inadequate bleeder system.

Although Mr. Wirth was of the opinion that high methane readings "probably" would have occurred at the drill holes on the day of the ignition, and that the presence of high methane at the drill holes would have been discoverable by the weekly examinations, he confirmed that he never reviewed the section weekly examination books or the pre-shift or on-shift books for the days preceding the ignition to determine whether air readings were taken at the intake because he did not believe they were relevant. Since Mr. Wirth acknowledge that intake air is a component of a bleeder system, I fail to understand why such air readings would not be relevant to a survey taken to evaluate such a system.

Mr. Wirth's opinion that the requirements of section 75.334(b) were not being met on December 29, 1993, was based on his belief that the limited air quantity and insufficient air velocity in the gob area failed to dilute the methane that had migrated to the high right side gob area. He further believed that the absence of methane on the section in the past, coupled with the one percent methane reading in the No. 5 return, and the gas-off of the miner machine in the No. 4 push with the methane monitor set at 2.5 percent, indicated a problem and an ineffective bleeder system.

With regard to the one percent methane found by Mr. Bandy in the return, Mr. Wirth agreed that the air flow pattern was sweeping the gob gas and reducing it to one percent with the return air leaving the mine, and that the remaining air was exiting through the left side regulators. With regard to the machine gas-off, Mr. Wirth conceded that the air sweeping the gob area diluted and dissipated the methane that caused the gas-off. Although he was of the initial opinion that the machine gas-off was not the result of a methane "pocket," he later testified that assuming the one percent found by Mr. Bandy occurred with the machine gas-off, a release of methane was possible. He agreed that the return was doing the job of sweeping and diluting the return air away from the working face.

With regard to his "body of methane" theory, Mr. Wirth initially could not state whether it reached the No. 5 entry, but in fact later expressed his belief that it did not appear in that entry because there was sufficient ventilation at that location. He also agreed that the concentration of any methane body is indeterminable and could vary within seconds in different mine areas. I believe this lends some credence to Consol's theory of a sudden release of methane from the roof strata, rather than a gob build-up resulting from an ineffective bleeder system.

Even though he believed that the bleeder system was inadequate, Mr. Wirth acknowledged that based on his bottle sampling on January 5, 1993, the methane percentage exiting one of the drill holes was less than it probably was when it entered the gob, and that this would indicate that it was being diluted and mixing with the air before exiting into the bleeder return air course. With regard to his opinion that changed air flow patterns moved "the body of methane" back into the gob area, Mr. Wirth acknowledged that his opinion was "speculative," but also stated it was based on ventilation engineering knowledge." I cannot reconcile this inconsistent and contradictory testimony, nor can I accept it as reasonable evidentiary support for any conclusion that there was in fact a lack of sufficient air in the gob to dilute and carry away methane through the return. Indeed, the evidence, including Mr. Wirth's testimony, establishes otherwise.

MSHA Inspector Uhl confirmed that he has a high school education, is not a mining engineer, has no degree in anything related to mining or mine ventilation, and his past experience in the mining industry does not include ventilation plan submissions to MSHA. Mr. Uhl testified that the only injured miner he interviewed was Mr. Dean, and the record reflects that Mr. Dean was not called as a witness in this case by MSHA because his credibility was in doubt. Mr. Uhl further testified that his conclusion that an explosive range of methane was present in the gob area was based on the fact that "it was obviously there" since "an explosion occurred." However, as correctly argued by Consol in its post-hearing brief, the occurrence of an accident or an injury does not ipso factor establish a violation, or a violative condition, particularly in the absence of any reliable evidence establishing the cause of the accident with

any reasonable degree of certainty. Consol's expert witness Mitchell was also of the opinion that the occurrence of any ignition does not establish a poorly or improperly ventilated gob area (Tr. 230).

Mr. Uhl believed that the bleeder system began to fail earlier than December 29, 1992, and he confirmed that even though MSHA was aware of violations of the ventilation plan, no violations were issued because, as stated by Mr. Uhl, "we elected not to because of a grace period and some other confusion" (Tr. 212). It seems to me that if MSHA believed that Consol was in violation of its approved plan, it should have cited the particular violative conditions, rather than attempting to establish an inadequate bleeder system through post-ignition investigative assumptions, theories, and conclusions based on conjecture, speculation, and contradictory information and testimony that I find lacking in credible evidentiary support.

Mr. Uhl testified that one of the reasons he believed the bleeder system was inadequate was because Consol failed to follow the initial mining projections, particularly with respect to the projected regulators. However, Mr. Walls testified that projections are not enforceable as violations until they are specifically incorporated as part of the MSHA-approved ventilation plan (Tr. 209). He also confirmed that Consol was free to mine in any direction and sequence within the "pink hash marks" shown on the mine map.

Although Mr. Uhl believed that the bleeder system was no longer effective when Consol deviated from its projections and "lost access" to the two previously established regulators when it began pillaring the section, he admitted that he was aware of no evidence that ventilation evaluations were not being made while mining was conducted to the left side of the section because he did not recall looking into that and did not consider or evaluate this activity. He indicated that the scope of his investigation consisted of looking "at the overall picture as to what occurred here and what led up to it" (Tr. 258). Mr. Uhl later testified that the area mined to the left was being evaluated by cross-sectional ventilation readings, and once the regulators became inaccessible, cross-sectional ventilation readings could be made. I find Mr. Uhl's testimony to be confusing and contradictory. On the one hand, he believed

that the bleeder was no longer effective when access to the regulators was lost, and on the other hand, he stated that notwithstanding the loss of access to the regulators, cross-sectional ventilation evaluations would be permissible. As a matter of fact, he confirmed that full and partial cross-sectional ventilation readings were made on the section, but he did not believe they were relevant to any evaluation of the bleeder.

I am convinced that MSHA's post-ignition investigatory conclusion that the bleeder system was inadequate was based on two principal factors, namely, the occurrence of the ignition, and the assumption that there was insufficient air flow through the drill hole regulator to dilute and render harmless the "body of methane" that MSHA assumed was accumulating in the gob area.

As noted earlier, the occurrence of the ignition is not, in of itself, evidentiary proof of an inadequate bleeder system. With regard to the amount of air that may have been passing through the regulator immediately prior to the ignition, Mr. Walls testified that there was no way of pinpointing the amount of air going out of the regulator (Tr. 55). He confirmed that any discussions concerning the ventilation requirements are not binding unless reduced to writing and incorporated as part of the approved ventilation plan. I find nothing in any of the ventilation plans approved by MSHA requiring 10,000 cfm of air through the drill hole regulator, and Mr. Walls confirmed that "we did not write that on anything," and that none of the relevant ventilation plans contain any such notation (Tr. 61). Mr. Uhl confirmed that there is no regulatory requirement for any specific amount of air through a regulator.

Mr. Walls further clarified his testimony concerning the requirement for a minimum of 9,000 cfm of air at the pillar intake. He explained that this is the amount of air going into the gob area as a whole, and not what is required through the regulator (Tr. 58). Further, MSHA's counsel confirmed that although there is no regulatory requirement for any specific amount of air passing through the regulator, Consol would be held "to a standard of adequacy ventilating the system" (Tr. 60). When asked if the reported 2,360 cfm's air exiting the regulator was relevant to that key issue, counsel responded, "we will let the experts discuss that" (Tr. 60).

Mr. Wirth's post-accident air measurements of January 5, 1993, at the drill hole regulator showed 2,037 cfm of air passing through the holes, and re-measurements made at Consol's request on January 27, 1993, showed just over 2,000 cfm. Using these readings, Mr. Wirth concluded that at no time prior to the explosion was there more than 2,828 cfm of air going through the drill holes.

Mr. Hrovatic testified that he measured 5,000 to 6,000 cfm of air passing through the regulator when the holes were drilled at 1-1/2 inch diameters, and he described the measuring instrument as a standard, three or four inch anemometer larger than the measured holes. After the holes were enlarged to three inches, Mr. Hrovatic calculated 6,000 to 7,000 cfm's of air passing through the holes, using the same type anemometer and following the same procedures as his prior calculations. Mr. Wyatt testified credibly that Mr. Hrovatic informed him that 6,000 cfm of air was going through the 1-1/2 inch diameter holes, and when five of the holes were enlarged to three inches, 6,000 to 8,000 cfm was passing through the regulator (Tr. 123). Although Mr. Wirth believed that Mr. Hrovatic's use of an anemometer was improper, I note that he too used such an instrument in making his survey.

Mr. Uhl believed that with only 2,000 cfm of air passing through the regulator, a methane-air mixture was exiting through the regulator holes and into the return air course. Mr. Wirth believed that methane was exiting the gob through the regulator, and, as noted earlier, he acknowledged that the air flow pattern was sweeping the gob gas and reducing it to one percent and diluting it with the air leaving the mine, and that the air sweeping the gob was diluting and dissipating the methane that caused the miner machine to gas-off. This is precisely what a bleeder system is designed to do, as required by cited section 75.334(b)(1). Under all of these circumstances, I remain unconvinced that the amount of air that MSHA assumed was passing through the regulator, a factor that is but one component of the total bleeder system, supports a conclusion that the bleeder was inadequate and failed to provide a means for controlling the air passing through the cited gob area to continuously dilute and move away methane-air mixtures from the active workings and into a return air course. Accordingly, I conclude and find that MSHA has failed to establish a violation of section 75.334(b)(1), and the contested order **IS VACATED**.

Fact of Violation - Order No. 274035

Consol is charged with a violation of mandatory safety standard 30 C.F.R. 75.364(a)(2), because of its alleged failure to perform adequate weekly examinations to determine the effectiveness of the 2-1/2 section bleeder system. Section 75.364(a)(2) provides as follows:

At least every 7 days, a certified person shall evaluate the effectiveness of bleeder systems used under § 75.334(b) and (c) as follows:

(i) Measurements of methane and oxygen concentrations and a test to determine if the air is moving in its proper direction shall be made where air enters the worked-out area.

(ii) Measurements of methane and oxygen concentrations and a test to determine if the air is moving in its proper direction shall be made immediately before the air enters a return split of air.

(iii) At least once each week, bleeder entries used as a part of a bleeder system under § 75.334, shall be traveled in their entirety, or to locations approved in the ventilation plan where measurements of methane and oxygen concentrations and a test to determine if the air is moving in its proper direction can be made.

The initial mine ventilation plan approved by MSHA pursuant to 30 C.F.R. 75.316, on September 15, 1989, prior to the development of the 2-1/2 section, provided for the evaluation of bleeders when travel to those areas was unsafe. (Item 14, at page 4 of the plan, Exhibit G-39). Under this provision, a bleeder evaluation was required "at least once each week," and the evaluation method was left to the discretion of Consol pursuant to section 75.316-2(f)(2), which simply required an "adequate" evaluation.

The first supplement to the approved ventilation plan was submitted to Mr. Walls on March 16, 1992, by Consol's mining engineer Frank Underwood, and it included a diagram of projections for the 2-1/2 panel, which contains a hand-written notation indicating that "upon retreat mining the bleeder system will be evaluated by the difference in the intake and return readings on the section." The plan supplement, including this cross-sectional bleeder evaluation method, was approved by MSHA on April 21, 1992 (Exhibit G-40).

A subsequent ventilation plan supplement was submitted to Mr. Walls by Mr. Underwood on September 1, 1992, covering the pillar line and bleeder controls for the 2-1/2 panel. A mine map was included as part of the submission, and it contains the notation, "[t]his area can be examined," at the approximate location of the drill hole regulator (Exhibits G-41 and R-28).

It would appear to me from the foregoing plan approvals that Consol was permitted to generally conduct an "adequate" evaluation of its bleeders, and this was to be done at least once a week. During retreat mining, Consol was permitted to evaluate the bleeder system by cross-sectional readings. The subsequent approved supplemental plan, which contained the mine map notation indicating that the bleeder area could be examined, did not specifically revoke or otherwise affect MSHA's prior approval of cross-sectional readings as an adequate method for evaluating the bleeder. In short, it was still in effect on December 29, 1992.

The essence of the alleged violation is found in subsection 2(iii) of section 75.364(a), which requires weekly examinations of the effectiveness of a bleeder system by traveling to a bleeder entry used as part of a bleeder system, or to other locations approved in the ventilation plan, and making measurements of the methane and oxygen concentrations and testing to determine whether the air is moving in its proper direction. My interpretation of this evaluation requirement is that Consol had two options for insuring the effectiveness of the bleeder regulator in question. The first option was to travel to the regulator area and make the required tests. If this could not be done, Consol could make the tests at another location approved in the ventilation plan.

Mr. Wirth, who confirmed that the location of BEP-10 was never clear to him, and that he was not sure that he ever traveled to that area, believed that a violation occurred because no one was traveling to the inaccessible regulators to test for methane, air, and air direction.

I find MSHA's testimony concerning the accessibility of the cited regulator to be confusing and contradictory. Mr. Wirth testified that the regulator was required to be examined weekly "by law," but this was not done because it was inaccessible (Tr. 78-79). However, Mr. Walls confirmed that a regulator that is not designated as a BEP point was not required to be accessible (Tr. 48-49). Since the regulator in question was not a designated BEP point, I conclude that Consol was not obliged to keep it accessible as long as it provided an alter-nate plan approved location where methane and air readings could be made. Consol asserts that this location was BEP-10. Mr. Uhl testified that once the regulator became inaccessible, cross-sectional readings to evaluate the bleeder could be used (Tr. 276). This lends support to Consol's assertion that cross-sectional readings, coupled with the recorded BEP-10 air and methane readings, complied with the cited standard.

In view of the MSHA approved cross-sectional readings evaluation method during retreat mining, it would appear to me that this evaluation method was still available to Consol, notwithstanding the notation that the bleeder was accessible when in fact it could not be traveled.

MSHA concedes that Consol was not prohibited from mining out of sequence within the established parameters of the 2-1/2 section, and agrees that air readings were taken on the section and at BEP-10. MSHA further agrees that cross-sectional readings were an effective means of evaluating the bleeder regulator when the section was initially developed. The crux of MSHA's case is that once Consol deviated from its initial mining projections and installed additional regulators, it could no longer rely on cross-sectional readings because access to those regulators was lost when the area was mined out, and there was no effective way of monitoring or evaluating the air ventilating the gob. MSHA also disputes Consol's claim that BEP-10 was the bleeder evaluation point for the section.

Consol's pre-shift and on-shift daily inspection reports for the 2-1/2 section reflect that daily inspections for hazardous conditions, methane in the working places, and methane in the returns were being made immediately prior to December 29, 1992, in the gob line, pillars, returns, intake, and haulage areas (Exhibit G-46). The weekly examination reports of full sectional air and methane readings reflect air readings for October, air readings for November, and air readings in the left and right return entries for December, 1992 (Tr. G-47). The daily reports of examinations for hazardous conditions and methane include notations for daily tests made at BEP 10 and other intake and return locations for the period October through December 30, 1992 (Exhibit R-2).

Mine foreman Crutchfield, a man with 27 years of underground mining experience, testified credibly that during a preliminary meeting with Mr. Walls concerning the initial mining projections for the section, it was his understanding from the approved ventilation plan that cross-sectional air readings on the section could be used to evaluate the drill hole regulator area, and that BEP-10 would be the section evaluation point (Tr. 67).

With regard to the violation in question, Mr. Crutchfield stated that the bleeder system was evaluated by taking cross-sectional readings, and visits to BEP-10 every 24 hours by the fire boss to monitor any methane (Tr. 100-101). He believed that BEP-10 was the check point for the 2-1/2 panel (Tr. 135), and he identified the weekly examination book records showing the daily examinations of BEP-10 (Tr. 140; Exhibit R-2). He further testified that the ventilation plan print showing the flow of air toward the direction of BEP-10, coupled with these locations shown on the mine map, led him to conclude that BEP-10 was an approved checkpoint for evaluating the bleeder system on the 2-1/2 section, and that this was no different from similar BEP locations in other mine areas (Tr. 147-148).

Mine Superintendent Wyatt, a man with over 40 years of mining experience, including 18 years as a superintendent, and a credible witness, confirmed that during the initial meeting with Mr. Walls, the projected mining and evaluation of the section was discussed. Mr. Wyatt stated that once retreat mining began, the regulator at the back of the section was established to allow air from the gob to pass through the

regulator and be routed into the return to BEP-10. Even though air from other areas was routed to BEP-10, Mr. Wyatt was not concerned and believed that this was a safe method for evaluating the 2-1/2 section, and he confirmed that it was normal procedure to use a bleeder evaluation point covering different mine areas (Tr. 49-52). He explained that BEP-10 was monitored daily, and if there was an unusual rise in the methane readings, the working section would be monitored every shift to determine if there was a problem. He believed that Mr. Walls was well aware of the section ventilation system (Tr. 53-60).

Mr. Walls confirmed his discussions with Mr. Wyatt and Mr. Underwood concerning bleeder evaluation during retreat mining. Although he denied that BEP-10 was an approved bleeder evaluation point for the section, Mr. Walls agreed that it was the evaluation point for air coming from other mine areas through the same drill hole regulator area where air was routed into the return fan area and out the mine (Tr. 215). He agreed that a ventilation plan sketch indicated that the air ventilating the gob area would be routed through the regulator and to BEP-10, which was located near the fan drawing air from the section after it passed through the regulator (Tr. 230, 24).

Mr. Walls testified that all of the aforementioned air from the section routed to BEP-10, "has to go through BEP-10 to get to the fan," and he confirmed that once mining started, with the regulator in place, "that would be the way it would be evaluated." Further, if the regulator was accessible, cross-sectional readings could be combined with the readings of the air passing the regulator (Tr. 25, 225). This testimony, in my view, lends support to Mr. Crutchfield's and Mr. Wyatt's belief, which I find reasonably plausible and credible, that cross-sectional readings and the daily air and methane evaluations at the BEP-10 location was an acceptable method for evaluating the cited bleeder.

After careful review and consideration of all of the testimony and evidence with respect to this alleged violation, I conclude and find that MSHA has failed to establish by a preponderance of the credible evidence that Consol's weekly examinations of its section bleeder system was less than adequate. To the contrary, I conclude and find that Consol was in substantial compliance with the requirements of the cited standard by using cross-sectional readings and daily

monitoring at the BEP-10 location as a reasonably proper method for evaluating the cited bleeder in question. Accordingly, the contested order **IS VACATED**.

Docket Nos. WEVA 94-379 and WEVA 94-380

Mr. Crutchfield and Mr. Wyatt were only cited in these section 110(c) proceedings with allegedly "knowingly" violating mandatory safety standard 30 C.F.R. 75.334(b)(1), as stated in contested section 104(d)(1) Order No. 2724034. Since I have vacated that order, the section 110(c) proceedings filed against these respondents, including the proposed civil penalty assessments, should be dismissed. In this regard, even if I were to find a violation of the cited standard, I would not conclude that the evidence adduced by MSHA established a "knowing" violation by Mr. Crutchfield or Mr. Wyatt, within the intent and meaning of section 110(c) of the Act.

ORDER

In view of the foregoing findings and conclusions,
IT IS ORDERED as follows:

1. Section 104(d)(1) "S&S" Order No. 2724034, March 3, 1993, 30 C.F.R. 75.334(b)(1), **IS VACATED**, and the proposed civil penalty assessment **IS DENIED AND DISMISSED**.
2. Section 104(d)(1) "S&S" Order No. 274035, March 3, 1993, 30 C.F.R. 75.354(a)(2), **IS VACATED**, and the proposed civil penalty assessment **IS DENIED AND DISMISSED**.
3. The proposed civil penalty assessments filed against the section 110(c) respondents, Robert G. Wyatt and Danny E. Crutchfield, **ARE DENIED AND DISMISSED**, and these proceedings **ARE DISMISSED**.


George A. Koutras
Administrative Law Judge

Distribution:

Robert S. Wilson, Esq., Office of the Solicitor,
U.S. Department of Labor, 4015 Wilson Blvd., Suite 516,
Arlington, VA 22203 (Certified Mail)

David J. Hardy, Esq., John Bonham, Esq., Jackson & Kelly,
1600 Laidley Tower, P.O. Box 553, Charleston, WV 25322
(Certified Mail)

Robert B. Allen, Esq., King, Allen & Arnold, 1300 Bank One
Center, 707 Virginia Street, East, P.O. Box 3394, Charleston,
WV 25333-3394 (Certified Mail)

Ricklin Brown, Esq., Bowles, Rice, McDavid, Graff & Love,
16th Floor Commerce Square Lee Street, P.O. Box 1386,
Charleston, WV 25325-1386 (Certified Mail)

/lh

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

OFFICE OF ADMINISTRATIVE LAW JUDGES
2 SKYLINE, 10th FLOOR
5203 LEESBURG PIKE
FALLS CHURCH, VIRGINIA 22041

NOV 22 1995

SECRETARY OF LABOR, : DISCRIMINATION PROCEEDING
MINE SAFETY AND HEALTH :
ADMINISTRATION (MSHA) : Docket No. PENN 95-1-D
on behalf of : MSHA Case WILK CD 94-01
WILLIAM KACZMARCZYK, :
Complainant : Ellangowan Refuse Bank
v. : No. 45
: :
READING ANTHRACITE COMPANY, :
Respondent :

DECISION ON DAMAGES; ASSESSMENT OF CIVIL PENALTY

Appearances: Stephen D. Turow, Esq., Office of the Solicitor,
U.S. Department of Labor, Arlington, Virginia,
for Complainant;
Martin J. Cerullo, Esq., Cerullo, Datte &
Wallbillich, P.C., Pottsville, Pennsylvania,
for Respondent.

Before: Judge Amchan

Background

On October 15, 1993, Complainant, William Kaczmarczyk, was transferred from a light duty position at Respondent's mine to workers compensation status. He filed a complaint with the U.S. Department of Labor alleging that this action was taken in retaliation for his activities as a walkaround representative during an MSHA inspection that was completed on October 14, 1993.

The Secretary of Labor filed a complaint with the Commission on Mr. Kaczmarczyk's behalf and an application for his temporary reinstatement to his light duty position. After a hearing on the application I found the complaint "not frivolous" and ordered Complainant temporarily reinstated on September 12, 1994.

On May 24, 1995, after a second hearing, I found that Complainant's transfer to light duty violated §105(c) of the Act. One month before that decision the Secretary filed a motion to enforce the temporary reinstatement order, alleging that Respondent had "constructively suspended" Complainant by repeatedly pressuring him to do tasks that were beyond his physical limitations between April 17, and 20, 1995¹. After a third hearing, I ruled on June 21, 1995, that Respondent had violated the terms of the order, but that it had not "constructively suspended" Mr. Kaczmarczyk.

The May 24, 1995 decision on liability directed the parties to inform me within thirty days whether they could stipulate as to the amount of damages and an appropriate civil penalty. After an enlargement of that period, the parties advised that they could not reach agreement on these issues. Thereafter a fourth hearing was held on September 28, 1995, on the issue of damages. That hearing primarily concerned Mr. Kaczmarczyk's claim that he was unable to refinance his mortgage loan due to the discriminatory transfer to workers compensation. However, in its post-hearing brief, Complainant and the Secretary withdrew their claim in this regard.

Stipulated Damages

The parties have stipulated that Mr. Kaczmarczyk is entitled to the following amounts to compensate for economic loss suffered as the result of his discriminatory transfer:

Lost Compensation and Benefits, Lost Overtime and Workers' Compensation Payments: \$4,342.42 (Jt. Exh. DH-1 & DH-1A)².

Interest: \$600 (Letter of Secretary's counsel dated November 13, 1995).

¹The temporary reinstatement order stated that Respondent could not require Complainant to perform tasks that he was incapable of doing.

²Respondent has agreed to reimburse the unemployment compensation fund for the \$14,539.00 paid to Mr. Kaczmarczyk.

Disputed Amounts

The Secretary contends that Complainant is also entitled to interest on the amount of unemployment compensation benefits received. I reiterate the holding of my order of August 16, 1995, that Mr. Kaczmarczyk is not entitled to such payments since he had the use of these funds while he was on workers compensation.

Complainant seeks \$156.00 for travel expenses incurred as the result of his search for alternative employment while he was on workers compensation. Respondent contends it should be required to reimburse him for \$87, because those expenses incurred in trips not required by its compensation carrier should be excluded.

I conclude that Complainant is entitled to the \$156 claimed because he would not have taken these trips but for the discriminatory transfer. Moreover, I believe Mr. Kaczmarczyk was not acting unreasonably in going beyond what was required of him in seeking alternative employment.

Assessment of A Civil Penalty

The Secretary seeks assessment of an \$8,000 civil penalty for Respondent's violation of §105(c). However, the Commission assesses penalties without regard to the Secretary's proposal in accordance with six factors specified in section 110(i) of the Act. I assess a penalty of \$2,000.

The parties have stipulated with regard to three of the six statutory factors. They have agreed that MSHA properly considered Respondent's size and previous history of violations in proposing an \$8,000 penalty. The parties also stipulated that such a penalty would not affect Reading Anthracite's ability to stay in business. My assessment of the other three factors is as follows:

Gravity of the Violation: As Respondent points out, Mr. Kaczmarczyk suffered a rather modest economic loss as the result of his transfer on October 15, 1993. Indeed, much of

the money due him is for additional workers compensation benefits that he should have been paid even if the transfer had not occurred or had not been discriminatory.

Nevertheless, a section 105(c) violation is a serious matter, even if the economic loss to the miner is small. Such violations, if not discouraged, inhibit miners from exercising their rights under the Act, and are likely to adversely affect safety.

Ironically, the civil penalty may be somewhat more important in deterring violations of section 105(c) in cases where the economic loss to the miner is small than it is in cases where the loss is large. A large backpay award is itself a powerful deterrent. Thus, the rather modest economic loss suffered by Mr. Kaczmarczyk cuts both ways in assessing an appropriate civil penalty.

In assessing a lower penalty than that proposed by the Secretary I am influenced in large part by my conclusion that the nexus between Complainant's protected activity and his transfer was far from overwhelming. I concluded that such a nexus existed largely due to statements made by Safety Director David Wolfe during and after the October 1993 MSHA inspection. Complainant served as a walkaround representative. However, as previously noted, nothing Mr. Kaczmarczyk did during this inspection would suggest a reason for retaliation. There appears to be a considerable degree of animus towards Mr. Kaczmarczyk that may arise from other issues with management.

Negligence: Respondent did not accidentally transfer Mr. Kaczmarczyk to workers compensation, it did so intentionally. Nevertheless, there is little in the record to suggest that Respondent intended to discourage Complainant or other miners, from exercising their rights under the Act. Mr. Wolfe's statement that citations issued to Respondent were "another reason" for the transfer was made in the course of a heated exchange concerning other issues as well. I am not convinced that Wolfe sought to discourage the exercise of miners' rights under the Act.

Good Faith In Attempting to Achieve Rapid Compliance:

Respondent did reinstate Complainant as ordered. However, over the course of four days in April 1995, Respondent repeatedly pressured him to do tasks beyond his physical limitations in contravention of the temporary reinstatement order.

On the other hand, Respondent believed, and I ultimately found, that Complainant was not justified in leaving work without permission on April 20, 1995, and staying home until May 1, 1995. Nevertheless, Respondent agreed to his reinstatement on May 1, 1995, without discipline. I believe this should be considered in assessing a civil penalty, as well as the violation of the temporary reinstatement order.

ORDER

Respondent is hereby ordered within thirty days of this decision to:

1. Pay to Mr. Kaczmarczyk the amount of damages specified herein;
2. Pay to the Secretary of Labor a \$2,000 civil penalty.



Arthur J. Amchan
Administrative Law Judge

Distribution:

Stephen D. Turow, Esq., Office of the Solicitor,
U.S. Department of Labor, 4015 Wilson Blvd., Suite 400,
Arlington, VA 22203 (Certified Mail)

Martin J. Cerullo, Esq., Cerullo, Datte & Wallbillich,
P.C., Second Street & Laurel Blvd., P.O. Box 450, Pottsville,
PA 17901 (Certified Mail)

/lh

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

OFFICE OF ADMINISTRATIVE LAW JUDGES
2 SKYLINE, 10th FLOOR
5203 LEESBURG PIKE
FALLS CHURCH, VIRGINIA 22041

NOV 24 1995

WILLIE SIZEMORE, : DISCRIMINATION PROCEEDING
Complainant :
v. : Docket No. KENT 95-632-D
: MSHA Case No. MADI CD 95-02
ANDALEX RESOURCES, INC., :
Respondent : Island Mine No. 3

DECISION APPROVING SETTLEMENT

Before: Judge Fauver

The parties have moved for approval of a settlement agreement based upon the terms stated to the judge in a conference call on November 9, 1995.

The settlement agreement is approved.

ORDER

WHEREFORE IT IS ORDERED that:

1. The motion to approve the settlement is **GRANTED**.
2. The parties are directed to comply with the terms of the settlement agreement.
3. The hearing scheduled for November 14, 1995, is **CANCELED**.
4. Pursuant to the approved settlement agreement this proceeding is **DISMISSED** with prejudice.

William Fauver
William Fauver
Administrative Law Judge

Distribution:

Neville Smith, Esq. Smith & Wells, 110 Lawyer St., P.O. Box 447,
Manchester, KY 40962

G. Christopher Van Bever, Esq., Andalex Resources, Inc.,
9300 Shelbyville Rd., Suite 1200, Louisville, KY 40222

/lt

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

OFFICE OF ADMINISTRATIVE LAW JUDGES
2 SKYLINE, 10th FLOOR
5203 LEESBURG PIKE
FALLS CHURCH, VIRGINIA 22041

NOV 28 1995

SECRETARY OF LABOR, : DISCRIMINATION PROCEEDING
MINE SAFETY AND HEALTH :
ADMINISTRATION (MSHA), : Docket No. WEST 95-147-D
ON BEHALF OF GARY BELVEAL, : DENV CD 94-03
Petitioner :
v. : Deserado Mine
: Mine ID 05-03505
WESTERN FUELS UTAH, INC., :
Respondent :

DECISION

Appearances: Margaret A. Miller, Esq., Office of the Solicitor,
U.S. Department of Labor, Denver, Colorado, for
Complainant;
J. Keith Killian, Esq., Keith Killian &
Associates, P.C., Grand Junction, Colorado, for
Respondent.

Before: Judge Hodgdon

This case is before me on a complaint of discrimination brought by the Secretary of Labor, acting through his Mine Safety and Health Administration (MSHA), on behalf of Gary Belveal against Western Fuels Utah, Inc., under Section 105(c) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 815(c). For the reasons set forth below, I find that, while Mr. Belveal engaged in activities protected under the Act, the Respondent was not motivated in any part by that activity when Mr. Belveal was placed on temporary total disability or reprimanded.

A hearing was held on July 24 and 25, 1995, in Grand Junction, Colorado. MSHA Inspectors Art C. Gore, Jr., and Gary W. Jones, miners Charles Cudo, John J. Jones, Curtis Roy and Bradley K. Allen, and the Complainant testified in support of his case. Western Fuels employees Roland Heath, Terry Gunderson and

Gelean H. Bell, and David F. Hamilton testified for the Respondent. In addition, deposition testimony of Paul W. Miller, M.D., (Govt. Ex. 1), and Ronald C. Pinson, M.D., (Resp. Ex. A), was presented. The parties also submitted briefs which I have considered in my disposition of this case.

FACTUAL SETTING

The basic facts are not disputed. As of the hearing, Gary Belveal had been employed by Western Fuels for nine and one-half years. Most of that time, and specifically during the fall of 1993 that is significant to this case, he worked as a roof bolter. Throughout his employment with Western Fuels he was an active member of the union. During the period when the activities resulting in this case occurred, he was the chairman of the union safety committee.

On September 28, 1993, Mr. Belveal injured his right knee stepping off of his roof bolting machine. He reported the incident to his immediate supervisor, but did not seek medical attention and continued performing his job as a roof bolter.

Prior to, and during, this period, Mr. Belveal had been participating in discussions between the union and management concerning the company's Accident, Violation, Reduction Program (AVRP) which had apparently resulted in some miners being reprimanded by the company for accidents that they reported. It was the union's position that this program was similar to one which Consolidation Coal Company had in effect at its Dilworth Mine and which a Commission judge had determined to be facially discriminatory in violation of Section 105(c) of the Act.¹

Unable to reach an accord about the implementation of the AVRP, the Complainant, with other union members, filed a 105(c) complaint concerning the program with the local MSHA office on October 6, 1993. On or about October 8, Mr. Belveal informed mine management that the complaint had been filed.

¹ *Swift et al v. Consolidation Coal Co.*, 14 FMSHRC 361 (Judge Melick, February 1992). This decision was subsequently reversed by the Commission. *Swift et al v. Consolidation Coal Co.*, 16 FMSHRC 201 (February 1994).

In the meantime, Mr. Belveal's knee had not shown any signs of improvement and he decided to go to the doctor. On October 11, he told Gelean Bell, a safety specialist who handled workman's compensation claims for the company, that he wanted to see a doctor the next day. She told him to tell his supervisor when he was going so that his supervisor could accompany him to the appointment.

Mr. Belveal made an appointment with Dr. Miller for 9:00 a.m. on October 12. He worked the midnight shift on October 11-12, getting off of work at 7:00 a.m. He did not tell his supervisor that he had a doctor's appointment, although he did mention it to Ed Daniels of the safety office in the course of discussing some non-related safety issues with him prior to leaving for the appointment.

Mr. Belveal went to his appointment with Dr. Miller unaccompanied by anyone from the mine. Dr. Miller diagnosed that the Complainant had a strained anterior cruciate ligament and prescribed a knee brace and Relafen, an anti-inflammatory medication. He also instructed Mr. Belveal not to do a lot of bending, stooping or lifting, to work only on flat surfaces and to return to see him in a week.

During the visit, Dr. Miller had a telephone conversation with Roland Heath, the mine superintendent, concerning what Mr. Belveal would do on his return to work. While all agreed that he would return to full time work, but not full duty, i.e. that he would be working full time but not performing all of the functions required of a roof bolter, there was confusion as to exactly what type of job he would be performing. Notwithstanding, Mr. Belveal returned to work as a roof bolter. His partner, Brad Allen, tried to do as much as he could to help him. Other than initially discussing it with Mr. Gunderson, Mr. Belveal made no further attempts to be placed in some other type of work.

Mr. Belveal returned to see Dr. Miller on October 19, as scheduled. Dr. Miller concluded that his knee had not improved and referred him to an orthopedic specialist. When the doctor called Gelean Bell to tell her what he was doing, she told him to tell Mr. Belveal that he was on disability. In his chart, Dr. Miller indicated that Mr. Belveal could return to work the next day, subject to the findings of the orthopedist.

The Complainant saw Dr. Pinson, the orthopedist, the next day, October 20. Dr. Pinson determined that Mr. Belveal should not return to work until he saw him again on October 28. When Dr. Pinson examined Mr. Belveal on October 28, he concluded that the Complainant could return to work. During the period from October 20 to October 28 that he did not work, the Complainant received workers' compensation wage loss benefits for total temporary disability.

Because he had not been given duties driving a tractor as had fellow roof bolters Chuck Cudo, when he injured his hand, and John Jones, when he injured his left knee, Mr. Belveal began inquiring into the mine's practices concerning injuries. He concluded that the company was not properly reporting injuries to MSHA and discussed the matter with Bob Hanson, the safety director. Concurrently, he filed the instant 105(c) complaint on November 15, 1993. He also filed a 103(g) complaint² concerning injury reporting with MSHA on November 24, 1993. As a result of the 103(g) complaint, MSHA investigated the matter and issued two citations to the company for improperly reporting injuries. (Govt. Exs. 3A and 3B.)

Sometime during the last week of November and the first week of December 1993, Mr. Belveal and Mr. Allen brought to the attention of their foreman a concern that some of the entries in the mine were in excess of the permitted width. Not receiving

² Section 103(g)(1) of the Act, 30 U.S.C. § 813(g)(1), provides, in pertinent part:

Whenever a representative of the miners . . . has reasonable grounds to believe that a violation of this Act or a mandatory health or safety standard exists, or an imminent danger exists, such . . . representative shall have a right to obtain an immediate inspection by giving notice to the Secretary . . . of such violation or danger. Any such notice shall be reduced to writing, signed by the representative . . . and a copy shall be provided the operator or his agent no later than at the time of the inspection The name of the person giving such notice and the names of individual miners referred to therein shall not appear in such copy or notification

satisfaction from him, they took the matter to their shift foreman, Mr. Gunderson. He proposed a solution that they found reasonable.

The matter apparently would have ended there, except that in a discussion with Bob Hanson about safety matters in general, Belveal and Allen used the entries as an example of safety problems in the mine. Evidently not aware that they were satisfied with Gunderson's solution, Hanson called Mr. Heath into the meeting and apprised him of the situation.

Mr. Heath, believing that the two miners had taken the specific problem from Gunderson to the Safety Director, rather than to him, gave the miners oral reprimands on December 3, 1993, for not following the chain of command. Although the reprimands were oral, they were noted in the miners's personnel files as disciplinary letters.

On December 5, the two miners mailed a 105(c) complaint to MSHA concerning the reprimands. On December 6, Belveal and Allen informed Mr. Heath that they did not agree with the reprimands and were invoking the grievance procedures to have them removed. After several steps in the grievance procedure, the letters were removed from Belveal's and Allen's files on January 20, 1994. In February 1995, Belveal and Allen wrote to MSHA stating that they wished to drop the 105(c) action.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

In order to establish a *prima facie* case of discrimination under Section 105(c) of the Act,³ a complaining miner bears the

³ Section 105(c) of the Act provides that a miner cannot be discharged, discriminated against or interfered with in the exercise of his statutory rights because: (1) he "has filed or made a complaint under or related to this Act, including a complaint . . . of an alleged danger or safety or health violation;" (2) he "is the subject of medical evaluations and potential transfer under a standard published pursuant to section 101;" (3) he "has instituted or caused to be instituted any proceeding under or related to this Act or has testified or is about to testify in any such proceeding;" or, (4) he has exercised "on behalf of himself or others . . . any statutory right afforded by this Act."

burden of establishing (1) that he engaged in protected activity and (2) that the adverse action complained of was motivated in any part by that activity. *Secretary on behalf of Pasula v. Consolidation Coal Co.*, 2 FMSHRC 2768 (1980), rev'd on other grounds sub nom. *Consolidation Coal Co. v. Marshall*, 663 F.2d 1211 (2d Cir. 1981); *Secretary on behalf of Robinette v. United Castle Coal Co.*, 3 FMSHRC 803 (1981); *Secretary on behalf of Jenkins v. Hecla-Day Mines Corp.*, 6 FMSHRC 1842 (1984); *Secretary on behalf of Chacon v. Phelps Dodge Corp.*, 3 FMSHRC 2508 (1981), rev'd on other grounds sub nom. *Donovan v. Phelps Dodge Corp.*, 709 F.2d 86 (D.C. Cir. 1983).

The operator may rebut the *prima facie* case by showing either that no protected activity occurred or that the adverse action was in no part motivated by the protected activity. *Pasula*, 2 FMSHRC at 2799-800. If the operator cannot rebut the *prima facie* case in this manner, it nevertheless may defend affirmatively by proving that it was also motivated by the miner's unprotected activity and would have taken the adverse action for the unprotected activity alone. *Id.* at 2800; *Robinette*, 3 FMSHRC at 817-18; see also *Eastern Assoc. Coal Corp. v. FMSHRC*, 813 F.2d 639, 642 (4th Cir. 1987); *Donovan v. Stafford Const. Co.*, 732 F.2d 954, 958-59 (D.C. Cir. 1984); *Boich v. FMSHRC*, 719 F.2d 194, 195-96 (6th Cir. 1983) (specifically approving the Commission's *Pasula-Robinette* test).

In the Amended Complaint of Discrimination filed by the Secretary on behalf of Mr. Belveal it was alleged that he suffered the following acts of discrimination: (1) As a result of filing a 105(c) complaint on October 6, 1993, he was placed on temporary total disability on October 19, 1993, for a knee injury received on September 28, 1993, rather than being placed on light duty like other miners; and (2) As a result bringing a safety problem to the attention of the mine manager, he received disciplinary action on December 3, 1993.

The allegations of discrimination are phrased somewhat differently in his post-hearing brief. There he argues:

When Mr. Belveal injured his knee and subsequently saw Dr. Miller, he was to be placed on alternate duty, as Cudo and Jones had been. Instead, Belveal was returned to his original job of roof bolting and saw no improvement in his knee. As a result of being refused

modified duty, Mr. Belveal was forced to be placed on temporary disability which resulted in an economic loss. In addition to the denial of light duty, Belveal received a reprimand in a situation where a reprimand was certainly not justified.

(Br. at 17.)

There is no doubt that filing 105(c) complaints, 103(g) investigation requests and raising safety concerns with management, either as a representative of miners or individually, is activity protected under the Act. Therefore, I find that Mr. Belveal engaged in protected activity. However, I conclude that, with respect to his knee injury, Mr. Belveal did not suffer any adverse action and that, even if he did, it was not related to his protected activity. I further conclude, with respect to the reprimand, that it was not in any part motivated by his engaging in protected activity.

The Complainant waited two weeks to decide that he needed medical attention for his knee. When he did decide to go, he failed to follow company policy and notify his supervisor, even though he knew he was supposed to do that, he had been reminded the day before that he was supposed to do that and he knew that someone from management was supposed to accompany him to the doctor. Consequently, I find that any confusion over his work status after his first visit to the doctor was caused by him.

The two other instances of roof bolters being assigned to drive a tractor are distinguishable from his. In the first place, a supervisor had accompanied both miners to the doctor so that both management and the miner were aware of the limitations established by the doctor. In the second place, both miners specifically asked for other assignments when they returned to work.⁴

On the other hand, since no one from the company went to the doctor's with Mr. Belveal, the evidence is confused, although not necessarily contradictory, as to what Mr. Belveal could do on his return. Dr. Miller testified that "[i]t was my understanding

⁴ Mr. Cudo's amputated finger obviously left no doubt that he could not return to roof bolting, even if he had not requested other work.

that he would not be doing his regular job." (Govt. Ex. 1, p. 12.) Mr. Heath testified that:

. . . I suggested to the doctor that, you know, as a roof bolter that he works on a platform, and I explained to him how the bolter was laid out and basically what he could do, and as we discussed that more and more the doctor felt, or my understanding of the conversation, was that the platform would be the best place for him, and I reached the same thought.

(Tr. 416.) Mr. Heath further stated "I told him [Dr. Miller] that other jobs that he normally would do along with the roof bolter, that we would see that someone else did that." (Tr. 419.) Finally, the Complainant testified that "I was under the impression I was to return to something other than my regular job, which was not roof bolting." (Tr. 240.)

When Mr. Belveal returned to work that night, he questioned Terry Gunderson about returning to roof bolting. He testified that:

I talked to him a little bit about it, indicated that I didn't think that the doctor was -- you know, going back and running the bolter was really what the doctor had in mind as far as taking care of my knee, and he indicated to me that he had talked with Mr. Heath about that, and he had been told that everything was okay and that I was basically to take care of it.

(Tr. 248.) He further testified that he did not recall Mr. Gunderson offering any other type of work in the mine.

On the other hand, Terry Gunderson testified as follows concerning Mr. Belveal's return to work:

Q. . . . Did you have a conversation with Gary Belveal on October 12 at the beginning of the swing shift about his trip to the doctor?

A. Yes, I did.

Q. Did he advise you about what he understood had occurred as far as the doctor visit?

A. No. Somehow I knew, and I believe Roland had said something to the effect of climbing and walking up a grade.

Q. Okay. That would be problems that he would have?

A. Yes.

Q. Okay. Did you discuss with Gary Belveal the fact that you understood he had some limitations?

A. I went out and I told Gary that I had other work available.

Q. Okay. Did you discuss what these other jobs were?

A. No.

Q. Okay. You told Gary that he could do work other than roof bolting for you?

A. That I had other work available, yes.

Q. Okay. And did Gary Belveal ask to be assigned to some job other than a roof bolter?

A. No.

(Tr. 460-61.)

There is no doubt that on his release, Dr. Miller only limited Mr. Belveal to working on level surfaces. This is certainly consistent with Mr. Heath's recounting of his discussion with Dr. Miller that a roof bolter worked on a level platform and is not refuted by the doctor's deposition.

More significantly, by his own account, Mr. Belveal made no complaint or request not to return to roof bolting after his initial discussion with Mr. Gunderson. Furthermore, Mr. Belveal's failure to recall whether Mr. Gunderson offered him other work is particularly consequential in view of the fact that Mr. Belveal went to great lengths to document his case as evidenced by the three file folders of notes he brought with him to the hearing and one would not expect him to be unable to recall so crucial a matter.

Finally, while there is evidence that Mr. Belveal's knee injury was not aggravated by his return to roof bolting, the record is silent as to whether the extra week prevented the knee from healing and, therefore, caused him to be placed on temporary total disability. There is no doubt that Dr. Pinson's taking the Complainant off of work for eight days was purely a medical decision in no way influenced by the company.

Accordingly, I conclude that Mr. Belveal's return to roof bolting was not an adverse action by the company, but was mainly the result of his actions. I further find that, based on the evidence in this record, Mr. Belveal would have been put on temporary disability the next week even if he had been given other work, so that even if returning him to roof bolting was an adverse action, it did not result in his being placed on disability. Lastly, even if returning the Complainant to his job was an adverse action which did cause him to be placed on temporary disability, there is nothing, other than a closeness in time, to connect his filing of the 105(c) complaint on behalf of all miners with the adverse action of which he complains.

Nor is there any evidence that the reprimand received by Mr. Belveal for not following the chain of command was related to any of his complaints or safety questions. Viewing the matter two years after it occurred, it is apparent that Mr. Heath misunderstood the situation when he issued the reprimand. However, there is no evidence that he deliberately misunderstood or that the reprimand was merely a subterfuge to get back at Mr. Belveal for his complaints and investigation requests.

In addition, I do not find it significant that at the first step grievance proceeding Mr. Heath suggested that the 105(c) complaints over the reprimands be withdrawn if he removed the reprimands from Messrs. Belveal's and Allen's files. That seems to be a reasonable *quid pro quo*. Furthermore, it appears that the only reason that the complaints were not withdrawn until over a year later was so that the miners could use them as leverage in negotiating with the company over exactly what the chain of command would be.

ORDER

I conclude that Mr. Belveal engaged in protected activity but that he either was not discriminated against by the company

for engaging in that activity, or if he was treated adversely, it was not because he engaged in the protected activity but because of his own real or perceived misconduct. Accordingly, it is **ORDERED** that the complaint of the Secretary filed on behalf of Gary Belveal against Western Fuels Utah, Inc., under Section 105(c) of the Act, is **DISMISSED**.



T. Todd Hodgdon
Administrative Law Judge

Distribution:

Margaret A. Miller, Esq., Office of the Solicitor, U.S.
Department of Labor, 1999 Broadway, Suite 1600, Denver,
CO 80202-5716 (Certified Mail)

J. Keith Killian, Esq., Keith Killian & Associates, P.C., Western
Fuels Utah, Inc., 225 North Fifth, Suite 1010, P.O. Box 4848,
Grand Junction, CO 81502 (Certified Mail)

/lt

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

OFFICE OF ADMINISTRATIVE LAW JUDGES
2 SKYLINE, 10th FLOOR
5203 LEESBURG PIKE
FALLS CHURCH, VIRGINIA 22041

NOV 29 1995

SECRETARY OF LABOR, : CIVIL PENALTY PROCEEDING
MINE SAFETY AND HEALTH :
ADMINISTRATION (MSHA), : Docket No. CENT 95-139-M
Petitioner : A. C. No. 14-01480-05515
v. :
 : Plant No. 1
SEDAN LIMESTONE COMPANY, INC., :
Respondent :

DECISION

Appearances: Margaret A. Miller, Esq., Office of the Solicitor,
U. S. Department of Labor, Denver, Colorado, for
the Secretary;
Richard E. Blake, President, Sedan Limestone
Company, Inc., Sedan, Kansas, for Respondent.

Before: Judge Maurer

This case is before me upon the petition for civil penalty filed by the Secretary of Labor pursuant to section 105(d) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 801 et seq., the "Act," charging Sedan Limestone Company, Inc., with two violations of the regulatory standards found in Part 56, Title 30, Code of Federal Regulations. The general issues before me are whether the respondent violated the cited regulatory standards and, if so, the appropriate civil penalty to be assessed in accordance with section 110(i) of the Act.

Pursuant to notice, the case has heard at Sedan, Kansas, on September 19, 1995. At the hearing, Inspector Chrystal Ann Dye testified for the Secretary of Labor. Mr. Richard E. Blake, the owner/operator of Sedan Limestone Company, Inc., and Mr. Mike Roberts, the Superintendent, testified for respondent.

Inspector Dye testified concerning the two non-"S&S" section 104(a) citations that were issued to the respondent on July 27, 1994, one for a nonfunctioning horn and the other for a nonfunctioning windshield wiper on the same 980C Caterpillar front-end loader. The respondent was given 2 days to abate the violations, but when the inspector returned on September 20, 1994, the wipers and horn still had not been repaired. The Superintendent, Mr. Roberts, had no particularly good reason why they were not fixed, it was just not done. Since there was no reason to extend the time for abatement, the inspector issued section 104(b) orders to shut down the equipment. Up to that time, the equipment had not been tagged out and was sitting with the rest of the company's equipment.

On September 26, 1994, Mr. Blake called the MSHA office to inform them the windshield wipers and horn had been repaired. On September 27, 1994, the equipment was inspected and everything worked. At this point, the citations were finally abated, but the damage had been done as far as the civil penalty assessment was concerned. The respondent was assessed a \$3500 civil penalty for these relatively picayune violations, which would normally have been assessed a civil penalty of \$50 each.

The operator, for his part, readily admits the two regulatory violations. The respondent's defense against the enhanced penalties is that the equipment was parked after the original citations were issued and not used until it was fixed. The cited front-end loader was not needed during this time frame because there were six loaders on the job site and not all of them were needed to operate the plant.

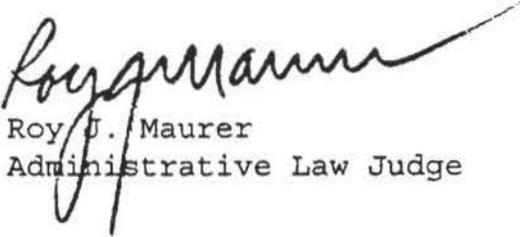
I accept the parties representations including the gravity and negligence factors included in the citations themselves. I also find the abatement to have been untimely. However, a \$3500 penalty for two non-"S&S" and nonserious violations with only moderate negligence on the part of an operator of this size appears excessive using the criteria contained in section 110(i) of the Act.

Considering the relevant criteria under section 110(i), I find that a civil penalty of \$100 per violation, or a \$200 total civil penalty is appropriate for the violations charged.

ORDER

1. Citation Nos. 4408967 and 4408968 **ARE AFFIRMED.**

2. The Sedan Limestone Company, Inc. **IS ORDERED TO PAY** the Secretary of Labor a civil penalty of \$200 within 30 days of the date of this decision.


Roy J. Maurer
Administrative Law Judge

Distribution:

Margaret A. Miller, Esq., Office of the Solicitor,
U. S. Department of Labor, 1999 Broadway, Suite 1600, Denver, CO
80202-5716 (Certified Mail)

Richard E. Blake, President, Sedan Limestone Company, Inc.,
Drawer J, Sedan, KS 67361 (Certified Mail)

dcp

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

OFFICE OF ADMINISTRATIVE LAW JUDGES
2 SKYLINE, 10th FLOOR
5203 LEESBURG PIKE
FALLS CHURCH, VIRGINIA 22041

NOV 29 1995

SECRETARY OF LABOR, : CIVIL PENALTY PROCEEDINGS
MINE SAFETY AND HEALTH :
ADMINISTRATION (MSHA) : Docket No. PENN 94-23
Petitioner : A.C. No. 36-05466-03980
v. :
 : Docket No. PENN 94-166
CYPRUS EMERALD RESOURCES, : A.C. No. 36-05466-03990
CORPORATION, :
Respondent : Emerald No. 1 Mine

DECISION

Appearances: Myrna A. Butkovitz, Esq., Office of the Solicitor,
U.S. Department of Labor, Philadelphia,
Pennsylvania, for Petitioner;
R. Henry Moore, Esq., Buchanan Ingersoll Corp.,
Pittsburgh, Pennsylvania, for Respondent.

Before: Judge Fauver

These are civil penalty cases under § 105(d) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 801 et seq.

The principal issues are whether Respondent's placement of coal refuse was a "refuse pile" under 30 C.F.R. § 77.215, whether the accident-reporting and investigating standard in § 50.10 and § 50.11 applied to a collapse of coal refuse on December 27, 1992, and, if violations are found, whether they were significant and substantial and due to an unwarrantable failure to comply.

Having considered the hearing evidence and the record as a whole, I find that a preponderance of the substantial, probative, and reliable evidence establishes the following Findings of Fact and further findings in the Discussion below:

FINDINGS OF FACT

1. Respondent owns and operates Emerald Mine No. 1, which produces coal for sales in or affecting interstate commerce.

2. On April 2, 1993, MSHA received a § 103(g)¹ complaint alleging dangers involved in a partial collapse of a refuse pile on that date.

3. On April 5, 1993, Federal Mine Inspector Walter Daniel investigated the complaint and issued an imminent danger order and three citations alleging safety violations.

4. During the investigation on April 5, 1993, Inspector Daniel received another § 103(g) complaint alleging that there had been a failure of the same refuse pile on December 27, 1992. After investigating the complaint, Inspector Daniel issued five citations and orders alleging safety violations.

Impoundment Plan

5. Respondent has an MSHA-approved plan for disposing of the refuse from its coal preparation plant. Known as the Impoundment Plan (short for "Slurry Impoundment Coal Refuse Disposal Facility"), it calls for four stages of construction of an impoundment embankment built up from refuse material. Stages II and III involve upstream construction, whereby refuse material is systematically placed over a slurry pond in compacted lifts according to certain construction standards. Stage IV involves downstream construction as well as upstream construction as the slurry pond is finally filled in and covered over. Stage IV is to be constructed to a final crest elevation of 1310 feet.

6. The Impoundment Plan provides that each layer of the impounding embankment:

¹ Section 103(g) of the Act provides in part: "Whenever a representative of the miners or a miner in the case of a coal or other mine where there is no such representative has reasonable grounds to believe that a violation of this Act or a mandatory health or safety standard exists, or an imminent danger exists, such miner or representative shall have a right to obtain an immediate inspection by giving notice to the Secretary or his authorized representative of such violation or danger."

should be compacted by either a sheepsfoot roller, rubber-tired construction equipment, or approved compaction equipment exerting a force of 10 tons or more. For uniformity of compaction, a minimum of two passes of the roller should be made for each layer. A complete roller pass is defined as the passing of a specified roller over the entire surface of the layer once, with a minimum overlap of one foot between successive trips of the roller. Subsequent lifts should not be placed until the layer under construction has been thoroughly compacted. . . .

7. The Impoundment Plan provides specific lift limitations for upstream construction in Stages II and III:

for upstream construction, the initial lift of coarse refuse over the settled fines of the previous stage should be approximately five to six feet thick to provide a working pad for earth-moving equipment. Subsequent lifts should be two feet thick or less.

8. Under the Impoundment Plan, Stage IV development is expected to be completed in the year 2002.

Respondent's Practice of Piling Refuse Material

9. Coal and refuse material were brought up from the mine to the preparation plant where the coal was washed and separated. The refuse was then moved by conveyor belt to a 500-ton refuse storage bin.

10. At the bin, refuse was loaded onto 35-ton dump trucks and under the Impoundment Plan the refuse was to be taken to the impoundment embankment for use in its construction.

11. At the time of the inspection in April 1993, the regular lay down area for the impoundment embankment was approximately southeast of the 500-ton bin and was at a crest elevation of about 1255 feet.

12. Coarse refuse deposited at the impoundment embankment is required to be placed in lifts and compacted pursuant to the Impoundment Plan. The Impoundment Plan provides specific lift limitations for upstream construction in Stages II and III:

for upstream construction, the initial lift of coarse refuse over the settled fines of the previous stage should be approximately five to six feet thick to provide a working pad for earth-moving equipment. Subsequent lifts should be two feet thick or less.

13. At the time of the inspection in April 1993, a practice had existed for the last 18 years of depositing coal refuse on a refuse pile located southwest of the 500-ton bin. The refuse pile, which abutted the shore line of a large part of the slurry pond, was commonly referred to as the "short haul area." In inclement weather, or when the road to the impoundment embankment was considered to be too muddy, icy, or dusty to travel, refuse was hauled to the refuse pile rather than to the impoundment embankment. Thirty-five ton dump trucks were used to haul refuse from the 500-ton bin and dump loads along the edge of the refuse pile. Bulldozers spread the piles and pushed refuse over the edge of the refuse pile toward the slurry pond to make room for more refuse. This practice was followed for years before December 1992, and continued from December 1992 until a failure of the refuse pile on April 2, 1993. By the time of the inspection in April 1993, the practice of depositing coal refuse in the area southwest of the 500-ton bin had created a large refuse pile that was about 1,000 feet long, 60-80 feet high, and 300 feet wide.

14. The practice of pushing coal refuse over the edge of the refuse pile toward the slurry pond caused the toe of the refuse pile to extend over the slurry pond. The refuse pile lacked compaction. As more coal refuse was pushed over the edge, the weight of the refuse pile over the slurry pond increased and the angle of the slope became very steep. These conditions caused the refuse pile to be unstable.

15. The refuse pile was not part of the impoundment embankment and was not designed, constructed, or maintained in accordance with the requirements of the Impoundment Plan or the requirements of the refuse pile standards in 30 C.F.R. § 77.215.

16. The refuse pile was not intended to be an impoundment embankment, nor was it intended to be a temporary stockpile. Although a small part of the refuse on the refuse pile was used at times to build up the impoundment embankment, the great majority of the refuse deposited on the refuse pile was pushed

over the edge toward the slurry pond to make room for more refuse material.

17. Under the Impoundment Plan, as Stage IV construction advances, some of the area adjacent to the 500-ton bin is to be developed as part of the impoundment embankment. Any part of the refuse pile that will be affected by the growing impoundment embankment under Stage IV construction will have to be removed or regraded into two foot lifts before it can be incorporated into the impoundment embankment. The reason for this is that the refuse pile does not meet the standards for the impoundment embankment under the Impoundment Plan.

December 27, 1992, Incident

18. On December 27, 1992, there was a failure of part of the refuse pile. A 35 foot-wide section of coarse refuse material broke off, caved in, and slid down toward the slurry pond. An employee was operating a bulldozer on the part of the refuse pile that failed. The bulldozer slid about 30 feet down the refuse pile toward the slurry pond and was partially buried in refuse material. Ropes were thrown down to the employee to help him climb up the steep slope of the refuse pile.

19. The bulldozer that slid down the refuse pile was covered by coarse refuse material midway up the cabin and the blade was buried in the coarse refuse.

20. Respondent knew that the refuse pile had collapsed and the bulldozer and driver slid down the refuse pile on December 27, 1992.

21. After the accident Respondent did not rope off or danger off the area where the refuse pile had collapsed.

April 2, 1993, Incident

22. On April 2, 1993, there was another failure of the refuse pile. An area about 350 feet long, 60 feet high, and 40 feet wide broke off, caved in, and slid into the slurry pond.

23. The steepness of the refuse pile slope, the instability of the refuse pile material, and the slurry foundation's inability to support the weight of the coarse refuse deposited on

the refuse pile were the primary causes for the refuse failures in December 1992 and April 1993.

24. Over the years, including the period from December 1992 through April 2, 1993, coarse coal refuse was hauled by 35-ton trucks from the 500-ton bin to the refuse pile. The dump trucks deposited piles of coarse refuse along the land-side edge of the refuse pile. Bulldozers were used to spread the piles of coarse refuse and to push refuse over the pond-side edge of the refuse pile.

25. The coarse refuse piled on the refuse pile was not compacted or deposited in layers two feet or less.

26. The operator was aware of the fact that miners were bulldozing the coarse refuse material over the edge of the refuse pile toward the slurry pond.

27. The operator was aware of the fact that coal deposited on the refuse pile was not being compacted and was not being placed in lifts two feet or less. The operator knew that this practice had been in existence before December 1992, and continued through April 2, 1993.

28. From December 1992 through April 2, 1993, the majority of the coarse refuse hauled from the 500-ton bin was deposited on the refuse pile.

29. The lack of compaction of the refuse material deposited on the refuse pile and the failure to deposit the refuse material in lifts two feet or less contributed to the failures of the refuse pile in December 1992 and in April 1993.

30. Slope instability was one of the primary factors causing the failures of the refuse pile in December 1992 and April 1993.

31. The slope instability was caused, in major part, by the fact that the refuse pile was developed over the years by coarse coal refuse being dumped on the refuse pile, pushed over the edge, and allowed to settle on the fines of the slurry pond.

32. Over time, the foundation of the fines of the slurry pond could not bear the weight of the heavy coarse refuse deposited on the refuse pile.

33. The refuse pile was not constructed in a way to prevent the refuse material from shifting and ultimately sliding off.

34. The coarse refuse deposited on the refuse pile was not placed pursuant to any engineering plan and did not meet the engineering principles and requirements of either Respondent's Impoundment Plan or the refuse pile standards in 30 C.F.R. § 77.215.

**MSHA's Investigation of
December 27, 1992, Incident**

35. During the inspection in April 1993, Inspector Daniel received a § 103(g) complaint concerning a failure of the refuse pile on December 27, 1992. After investigating the complaint, he found that a 35-foot wide section of the refuse pile had broken away, caved in, and slid down toward the slurry pond. A miner was operating a bulldozer on top of the refuse section that broke away, caved in, and slid down toward the slurry pond. He and the bulldozer slid down the slope and came to rest near the slurry pond.

36. At the time of the refuse pile failure on December 27, the operator of the bulldozer was pushing coarse refuse material over the edge of the refuse pile toward the slurry pond.

37. Dump trucks traveled on the refuse pile, including the area that failed, in order to deposit loads of coarse refuse along the edge of the refuse pile.

38. Respondent knew that dump trucks were hauling coarse refuse from the 500-ton bin to the refuse pile and bulldozers were pushing material over the edge of the refuse pile. Respondent also knew that the trucks and bulldozers were operating on a refuse pile that was not stable and presented a serious risk of collapse.

39. Before the failure in December 1992, a report from the Pennsylvania Department of Environmental Resources noted that refuse material was being deposited on the refuse pile.

40. Before and after December 27, 1992 (until April 2, 1993), Respondent failed to take reasonable steps to prevent vehicles from depositing coarse refuse material on the refuse pile and pushing it over the edge toward the slurry pond. After

the December 27 incident, Respondent continued the same practice that led to a second failure of the refuse pile on April 2, 1993.

ISSUES

1. Whether the incident on December 27, 1992, was an "accident" as defined in 30 C.F.R. § 50.2 so that it had to be reported under 30 C.F.R. § 50.10 and investigated under 30 C.F.R. § 50.11(b).

2. Whether Respondent violated §§ 50.10 and 50.11(b) and if a violation of 30 C.F.R. § 50.11(b) occurred, whether it was properly designated "significant and substantial."

3. Whether 30 C.F.R. §§ 77.215(f) and (h) applied to Respondent's placement of refuse material southwest of the 500-ton bin and whether Respondent violated those standards.

4. If violations of §§ 77.215(f) and (h) occurred, whether they were significant and substantial and due to an unwarrantable failure to comply.

5. If violations of § 77.1608(b) occurred, whether they were significant and substantial and due to an unwarrantable failure to comply.

6. Whether the proposed penalties are appropriate under the criteria for penalties in §110(i) of the Act.

DISCUSSION WITH FURTHER FINDINGS, CONCLUSIONS

As a result of its investigation of both the December 27, 1992, and the April 2, 1993, failures of the refuse pile, MSHA issued an imminent danger order and eight citations and orders alleging violations.

Order No. 3658637

Order No. 3658637 was issued under § 107(a) on April 5, 1993, alleging an imminent danger due to the April 2 failure of the refuse pile. The order states in part:

. . . [A] section of the lay down area sheared off into the slurry pond. (Approximately 40 feet of material). The area

that sheared off has been an area in which mobile equipment has been operating.

Citation No. 3658682

Citation No. 3658682 was issued under § 104(a) on April 7, 1993, alleging a violation of 30 C.F.R. § 50.10, concerning the December 27, 1992, incident as follows:

An accident occurred at the Emerald Mine No. 1, and the operator did not immediately contact the MSHA District or Subdistrict office having jurisdiction over its mine, in that, an unstable condition in the mine refuse pile in by the 500-ton bin at the edge toward the slurry pond failed causing approximately 35 feet of material to slide along with the bulldozer and the operator. The bulldozer slid down the material approximately 34 feet. There was 1 violation issued during the last inspection period 10-1-92 through 12-31-1992 of C.F.R. 50.10.

As modified, the citation alleges a non-significant and non-substantial violation with high negligence. The proposed penalty is \$400.

Section 50.10 provides:

If an accident occurs, an operator shall immediately contact the MSHA District or Subdistrict Office having jurisdiction over its mine. If an operator cannot contact the appropriate MSHA District or Subdistrict Office, it shall immediately contact the MSHA Headquarters Office in Arlington, Virginia by telephone, at (800) 746-1553.

The term "accident" in § 50.10 is defined in § 50.2(h). Subpart (10) of § 50.2(h) states that an "accident" includes:

An unstable condition at an impoundment, refuse pile, or culm bank which requires emergency action in order to prevent failure, or which causes individuals to evacuate an area; or, failure of an impoundment, refuse pile, or culm bank.

The Secretary contends that the event on December 27, 1992, was a "failure of a refuse pile" and was therefore a reportable accident. Respondent contends that the incident was not a

reportable accident because the collapsed refuse was in a temporary stockpile, not a refuse pile, and the incident did not jeopardize the integrity of the impoundment embankment and residents downstream of the impoundment

I find that the failure of refuse material was in a refuse pile, not a temporary stockpile. The refuse pile was built up over many years and the great majority of the refuse was left as refuse or was pushed over the edge toward the slurry pond to make room for more refuse.

The definition of a reportable accident includes "failure of a refuse pile." It also includes an "unstable condition at ... [a] refuse pile ... which requires emergency action in order to prevent failure ..." § 50.2(h)(10). There is no requirement that the condition must cause individuals to be evacuated, or that it must also affect the integrity of an impoundment. This is clear from a comparison with § 77.215(e) which prohibits using a refuse pile to impound water. If § 50.2(h)(10) were intended to cover only failures that affect an impounding structure, then failure of a refuse pile, which may not be used to impound water, would not be included in the definition of a reportable accident without words connecting a refuse pile failure to the integrity of an impoundment.

I therefore hold that the failure of the refuse pile on December 27, 1992, was a reportable accident.

Failure to notify MSHA immediately after an accident is a clear violation of the regulation. In JBA Industrial Fuel, Inc., 16 FMSHRC 1778 (1994), the "operator delayed almost 12 hours" before notifying MSHA of the accident. The judge found that "the operator could have called MSHA's 24-hour phone number to comply with this regulation" and upheld a violation of § 50.10, stating that "the requirement that an operator immediately report certain types of accidents to MSHA is an important part of mine safety and enforcement in terms of both accident investigation and assistance to injured or trapped miners." Id. at 1780.

Respondent knew that part of the refuse pile failed on December 27, 1992, and that a bulldozer, with its driver, slid down the refuse pile toward the slurry pond and was partially buried. Respondent did not contact MSHA.

Respondent's failure to call MSHA cannot be dismissed as a mere difference of opinion as to what is a reportable accident. No witness for Respondent testified that at the time a reasoned decision was made that, in his or her best judgment, the failure of the refuse pile in December 1992 was not a reportable accident. John Meyers, preparation plant foreman, knew about the failure and did not notify MSHA. He presented no testimony indicating that he consulted with management or Respondent's safety director and received an opinion that contacting MSHA was not required under the regulations. Gary Bochna, Respondent's safety director, testified that although it was his responsibility to conduct accident investigations and complete accident reports, management never consulted him about whether the December 1992 failure was a "reportable accident" and he was not informed of the December 1992 failure until April 1993. Mr. Bochna acknowledged that under Respondent's policies, the December 1992 incident should have been reported to him.

I find that Respondent's failure to report the December 27 accident was due to high negligence and that the violation was serious. Considering all the criteria for civil penalties in § 110(i), I find that a penalty of \$400 is appropriate for this violation.

Citation No. 3658696

Citation No. 3658696 was issued under § 104(a) on May 26, 1993, alleging a violation of 30 C.F.R. § 50.11(b) concerning the December 27, 1992, incident as follows:

An accident occurred at the Emerald Mine No. 1, and the operator did not investigate the accident, in that, an unstable condition in the mine refuse pile in by the 500-ton bin at the edge toward the slurry pond failed causing approximately 35 feet of material to slide along with the bulldozer and the operator. The bulldozer and the operator slid down the material approximately 34 feet. There was 0 violations issued during the last inspection period 10-01-92 through 12-31-92 of C.F.R. 50.11(b).

The citation alleges a significant and substantial violation with high negligence. The proposed penalty is \$3,000.

Section 50.11(b) provides:

Each operator of a mine shall investigate each accident and each occupational injury at the mine. Each operator of a mine shall develop a report of each investigation. No operator may use Form 7000-1 as a report, except that an operator of a mine at which fewer than twenty miners are employed may, with respect to that mine, use Form 7000-1 as an investigation report respecting an occupational injury not related to an accident. No operator may use an investigation or an investigation report conducted or prepared by MSHA to comply with this paragraph. An operator shall submit a copy of any investigation report to MSHA at its request. Each report prepared by the operator shall include,

- (1) The date and hour of occurrence;
- (2) The date the investigation began;
- (3) The names of individuals participating in the investigation;
- (4) A description of the site;
- (5) An explanation of the accident or injury, including a description of any equipment involved and relevant events before and after the occurrence, and any explanation of the cause of any injury, the cause of any accident or cause of any other event which caused an injury;
- (6) The name, occupation, and experience of any miner involved;
- (7) A sketch, where pertinent, including dimensions depicting the occurrence;
- (8) A description of steps taken to prevent a similar occurrence in the future; and
- (9) Identification of any report submitted under § 50.20 of this part.

On December 27, 1992, part of the refuse pile failed. About 35 feet of refuse material broke off, caved in, and slid down toward the slurry pond. A bulldozer was operating on the part of the refuse pile that failed. The bulldozer, along with the driver, slid down with the fallen material about 30 feet toward the slurry pond, and was partially buried. Respondent, through management personnel, including Ron Stotka and Jim Graznak, knew of the failure of the refuse pile shortly after it occurred. The foreman, John Meyers, participated in the efforts to assist the operator of the bulldozer in climbing up the steep slope.

Despite its knowledge of the failure of the refuse pile, Respondent did not investigate and develop a report of the failure and measures needed to prevent a recurrence until after MSHA's investigation, four months after the accident.

Soon after the failure, the only "investigation" into the failure was initiated by the miner representative for the United Mine Workers, not the Respondent. Tim Brown, acting safety committeeman, was asked by Mr. Prodan, UMW safety committee chairman, to look into the failure of December 27, 1992. In response, Mr. Brown asked Mr. Meyers, preparation plant foreman, to accompany him to the area of the failure.

In the failure area, Tim Brown expressed his concern for the safety of the miners. Mr. Brown did not participate in the writing of an investigative report of the failure. Mr. Brown relied upon the oral comments of John Meyers that the practice of pushing piles over the edge would be stopped. However, the practice of pushing piles over the edge continued. The evidence shows an indifferent attitude by management, demonstrated by its failure to properly investigate the December accident, to develop a report, and to take reasonable measures to prevent future similar accidents. When asked whether he took preventive measures after the December 27, 1992, accident, Mr. Meyers, the preparation plant foreman, testified:

If my memory serves me right, I believe everyone was instructed here that there would be no more pushing over the side of the impoundment. In fact, I believe that there were -- I wouldn't want to swear to this, but it sticks in my mind that there were piles dumped along the haul road, more or less to barricade, to keep people out of there, but it didn't work. [Emphasis added.]

If Respondent had conducted a reasonable investigation with a report of steps to prevent future similar accidents, the failure of the refuse pile on April 2, 1993, could have been prevented and employees would not have continued the dangerous practice of operating trucks and bulldozers on an unstable refuse pile.

Respondent's accident report was not prepared until April 1993, and was prompted not by the accident but by MSHA's investigation on April 5, 1993.

The importance of the investigation and report required by § 50.11(b) was addressed by the Commission in Steele Branch Mining, 15 FMSHRC 597 (1993). The Commission noted that § 50.11(b) "requires operators to investigate all accidents and to 'develop a report' of each investigation." Id. at p. 601. The Commission took note of "the purpose of the regulation which is to ensure that operators are in fact investigating accidents and injuries and are engaged in constant upgrading of health and safety practices. 42 Fed. Reg 65534 (December 30, 1977)." Id. at 602.

Respondent violated the regulation by not investigating and developing a report of the December 1992 failure of the refuse pile including measures needed to prevent a recurrence, until prompted by MSHA four months after the accident. Respondent introduced into evidence a report of investigation dated April 23, 1993. This report was prepared about four months after the accident occurred. The portion dealing with preventive steps was not completed until April 30, 1993. Respondent's delay demonstrates not only a violation of the regulation, but a high degree of negligence regarding the violation.

Respondent challenges the "significant and substantial" finding in Citation No. 3658696 on the ground that § 50.11(b) is not a mandatory safety or health standard and therefore not within the scope of § 104(d)(1). However, the citation was issued under § 104(a), not § 104(d). An allegation of a "significant and substantial" violation in a § 104(a) citation is an allegation of gravity, not an assertion of jurisdiction to apply the sanctions of § 104(d). Accordingly, I do not reach the issue whether the sanctions of § 104(d) apply to a violation of Part 50.

I find that Respondent's violation of § 50.11(b) was significant and substantial. Continued operations without investigating the causes of a failure of a refuse pile and the measures needed to prevent a recurrence could contribute significantly and substantially to another failure of the refuse pile with a risk of serious injury. In fact, another failure occurred little more than three months after the December failure.

I also find that the violation was due to high negligence. There was a serious failure of the refuse pile on December 27. An employee was operating a bulldozer on the refuse material that

failed. The bulldozer, along with the driver, slid down a steep slope toward the slurry pond. The operator of the bulldozer was frightened by this accident. This was a serious accident. A reasonably prudent operator would have thoroughly investigated it and prepared a report of measures needed to prevent another failure of the refuse pile. Respondent did neither.

Considering all the criteria for civil penalties in § 110(i) of the Act, I find that a penalty of \$3,000 is appropriate for Respondent's violation of § 50.11(b).

Order No. 3768690

Order No. 3768690 was issued under § 104(d)(1) on April 26, 1993, alleging a violation of § 77.215(f) concerning the December 27, 1992, incident as follows:

The refuse being deposited on the mine refuse pile was not constructed in such a manner as to prevent accidental sliding and shifting of the material, in that, a section of the lay down area sheared off at the edge toward the slurry pond. The mine refuse failed causing approximately 35 feet of material to slide along with the bulldozer and the operator. The bulldozer slid down the material approximately 34 feet. There were 0 violations issued during the last inspection period 01-01-93 through 3-31-93 of C.F.R. 77.215(f).

The order was initially issued as a § 104(a) citation with "high" negligence, which was modified to "moderate" negligence and then back to "high." The citation was modified to a § 104(d)(1) order. The proposed penalty is \$8,000.

Section 77.215(f) provides:

Refuse piles shall be constructed in such a manner as to prevent accidental sliding and shifting of materials.

On December 27, 1992, part of the refuse pile failed. The shifting and sliding of the refuse material resulted from the unsafe manner in which the refuse pile was constructed. Over the years, refuse material was dumped on the pile and pushed over the edge toward the slurry pond. This was done without an engineering plan and without adherence to accepted engineering practices to prevent accidental sliding and shifting of

materials. Accordingly, the refuse pile was plainly in violation of § 77.215(f).

For the reasons stated here and in the discussion of Citation No. 3658639, below, I find that the violation was significant and substantial and was due to high negligence and therefore unwarrantable within the meaning of § 104(d)(1) of the Act.

Respondent knew that the refuse pile was developed without an engineering plan to prevent accidental sliding and shifting of refuse materials. Its risk-taking in this regard was more than ordinary negligence. Continued operations without abatement of the violation was reasonably likely to result in serious injury.

Considering all the criteria for civil penalties in § 110(i), I find that a penalty of \$8,000 is appropriate for this violation.

Citation No. 3658639

Citation No. 3658639 was issued under § 104(a), on April 5, 1993, alleging a violation of 30 C.F.R. § 77.215(f) concerning the April 2, 1993, incident as follows:

The refuse being deposited on the mine refuse pile was not constructed in such a manner as to prevent accidental sliding and shifting of the material, in that, a section of the lay down area sheared off into the slurry pond. The area that sheared off has been an area in which mobile equipment has been operating. This citation was one of the factors that contributed to the issuance of imminent danger order No. 3658637 dated 04-02-93. There were 0 violations issued during the last inspection period 10-01-92 through 12-31-92 of C.F.R. 77.215(f).

The citation initially alleged "moderate" negligence but was modified first to allege "high" negligence and then "reckless disregard." The proposed penalty is \$8,500.

Slope instability was one of the primary factors causing the failure of the refuse pile. This was caused, in major part, by the fact that the refuse pile was developed over the years by coarse coal refuse being dumped on the refuse pile, pushed over the edge, and allowed to settle on the fines of the slurry pond.

Over time, the foundation of the fines of the slurry pond could not bear the weight of the heavy coarse refuse deposited on the refuse pile.

On April 2, 1993, a substantial amount of refuse material shifted, caved in, and slid into the slurry pond. The area that failed was about 350 long, 60 feet high, and 40 feet wide. The refuse pile had been constructed over the years without an engineering plan to prevent the refuse material from shifting and sliding. This was plainly a violation of § 77.215(f).

I find that the violation was significant and substantial in that continued use of vehicles on the unstable refuse pile was reasonably likely to result in a failure of the pile with serious injuries.

I also find that the violation was due to high negligence. Respondent knew that the refuse pile was not being constructed in accordance with the engineering requirements for an impoundment embankment, i.e., in its Impoundment Plan. This is clear from Respondent's acknowledgment that before the refuse pile could be incorporated into the impoundment embankment, the refuse material would have to be regraded and compacted. The regrading and compacting would not be necessary if the material had been properly graded and compacted in the first instance. Respondent also knew from the December 27 failure of the refuse pile that the refuse pile was not being "constructed in such manner as to prevent accidental sliding and shifting of materials" as required by § 77.215(f). After the December incident, Respondent continued the same practice of depositing refuse on the pile and pushing it over the edge toward the slurry pond. I find that its continued violation was due to high negligence. However, I do not find that its conduct amounts to "reckless disregard" for the safety of its employees as alleged in the citation. The citation will be modified to change "reckless disregard" to "high negligence."

Considering all the criteria for a civil penalty in § 110(i), I find that a penalty of \$8,500 is appropriate for this violation.

Citation No. 3658640

Citation No. 3658640 as amended was issued under § 104(d)(1) on April 5, 1993, alleging a violation of 30 C.F.R. § 77.215(h) concerning the April 2, 1993, failure as follows:

The refuse being deposited on the mine refuse pile was not constructed in compacted layers and not exceeding 2 feet in thickness and shall not have any slope exceeding 2 horizontal to 1 vertical (approximately 27°) in that, the refuse was not constructed in compacted layers and did exceed the 2 feet in thickness, and the slope exceeded 2 horizontal to 1 vertical approximately 27°. This citation was one of the factors that contributed to the issuance of Imminent Danger Order No. 3658637 dated 04-02-93. There was 0 violations issued during the last inspection period 10-01-92 through 12-31-93 of CFR 77.215(h).

The regulation requires that refuse piles "shall be constructed in compacted layers not exceeding 2 feet in thickness and shall not have any slope exceeding 2 horizontal to 1 vertical (approximately 27°). . . ." The evidence plainly shows a violation of this regulation.

The citation alleges a substantial and significant violation due to high negligence, and therefore an unwarrantable violation. The proposed civil penalty is \$8,500.

The refuse material hauled from the 500-ton bin to the refuse pile was routinely dumped on the refuse pile. It was not compacted and was not constructed in lifts two feet or less. Most of the refuse was simply pushed by bulldozers over the edge of the refuse pile to make room for more refuse. The refuse pile was not compacted and constructed in lifts so as not to exceed a 27 degree slope. The slope was much steeper.

I find that the violation of § 77.215(h) was significant and substantial. The safety hazard contributed to was a failure of the refuse pile. Continued use of vehicles on the unstable refuse pile was reasonably likely to result in a failure of the pile with serious injuries.

I also find that the violation was due to high negligence, and therefore was unwarrantable under § 104(d)(1) of the Act. Respondent knew that the refuse pile was not being constructed

properly and that it posed a high risk to the miners working on it. Its conduct was aggravated and showed a serious disregard for safety.

Considering all of the criteria for civil penalties in § 110(i), I find that a penalty of \$8,500 is appropriate for this violation.

Citation No. 3658683

Citation No. 3658683 as amended was issued under § 104(a)(d)(1) on April 7, 1993, alleging a violation of § 77.215(h) concerning the December 27, 1992, incident as follows:

The refuse being deposited in the mine refuse pile was not constructed in compacted layers and did exceed 2 feet in thickness and also the slope exceeding horizontal to 1 vertical approximately 27° resulting in an unstable condition in the mine refuse pile inby the 500-ton bin at the edge toward the slurry pond. The mine refuse failed causing approximately 35 feet of material to slide along with the bulldozer and the operator. The bulldozer slid down the material approximately 34 feet. There was 0 violations issued during the last inspection period 10-01-92 through 12-31-92 of C.F.R. 77.215(h). This citation will be terminated when the 107(a) Order no. 3658637 is terminated.

The citation was initially issued under § 104(a), alleging a significant and substantial violation with "high" negligence. The negligence was modified to "moderate" and then back to "high." The citation was modified to a § 104(d)(1) citation. The proposed penalty is \$7,000.

For the reasons stated as to Citation No. 3658640, above, I find that Respondent violated § 77.215(h) as to its manner of developing the refuse pile. The violation concerning the December 27 failure of the refuse pile was significant and substantial, due to high negligence, and was therefore an unwarrantable violation.

Considering all the criteria in § 110(i), I find that a civil penalty of \$7,000 is appropriate for this violation.

Order No. 3658698

Order No. 3658698 was issued under § 104(d)(1) on May 26, 1993, alleging a violation of § 77.1608(b) concerning the December 27, 1992, incident as follows:

The ground where refuse dump trucks were dumping failed and the trucks did not start dumping a safe distance back from the edge of the refuse bin, in that, an area of the mine refuse pile inby the 500-ton bin at the edge toward the slurry pond failed causing approximately 35 feet of material to slide along with the bulldozer and the operator. The bulldozer and the operator slid down the material approximately 34 feet. There was 0 violations issued during the last inspection for 10-01-92 through 12-31-92 of C.F.R. 77.1608(b).

The order alleges a significant and substantial violation due to high negligence and an unwarrantable failure to comply. The proposed penalty is \$9,500.

Section 77.1608(b) provides:

Where the ground at a dumping place may fail to support the weight of a loaded dump truck, trucks shall be dumped a safe distance back from the edge of the bank.

During the investigation in April 1993, Inspector Walter Daniel received a § 103(g) complaint alleging a failure of the refuse pile on December 27, 1992. His investigation revealed that on December 27 a part of the refuse pile, about 35 feet wide, had broken away, caved in and slid down toward the slurry pond. A miner was operating a bulldozer on the part of the refuse pile that failed. The bulldozer was pushing coarse refuse material over the edge of the refuse pile. When the refuse pile failed, the bulldozer slid with the collapsed material about 35 feet down the slope and was partially buried. The driver was pulled up the slope with a rope.

As found above as to violations of § 77.215(f), the refuse pile was unstable and constructed in violation of § 77.215(f), which requires that refuse piles be "constructed in such manner as to prevent accidental sliding and shifting of materials...."

Dump trucks traveled on unstable parts of the refuse pile, including the area that failed, in order to deposit coarse refuse. Before the failure in December 1992, a report from the Pennsylvania Department of Environmental Resources noted that refuse material was being deposited on the refuse pile.

I find that Respondent violated § 77.1608(b) by having dump trucks drive on a refuse pile that might fail to support the weight of a loaded dump truck. I also find that the violation was significant and substantial in that it was reasonably likely that, if unabated, the violation would result in serious injury.

I also find that the violation was "unwarrantable" under § 104(d)(1) of the Act. An "unwarrantable" violation has been determined by the Commission to be aggravated conduct constituting more than ordinary negligence. This may be established by showing that the violative condition or practice was due to "reckless disregard," "intentional misconduct," "indifference," or a "serious lack of reasonable care." Emery Mining Corp., 9 FMSHRC 1997, 2203-2204 (1987); Rochester & Pittsburgh Coal Co., 13 FMSHRC 189, 193-194 (1989); Virginia Crews Coal Co., 15 FMSHRC 2103, 2106-2107 (1993).

Respondent knew of the longstanding practice of dump trucks dumping coarse refuse on the refuse pile. Statements made by management that they attempted to "encourage" operators to dump the material closer to the 500-bin is a plain indication of their awareness of the danger of dumping on the refuse pile. Despite awareness of this danger, no reasonable steps were taken to prevent dump trucks from dumping on an unstable refuse pile. The fact that Respondent was aware of the practice, anticipated the danger, and took no reasonable steps to prevent danger to the miners constitutes high negligence and therefore an unwarrantable violation.

Considering all the criteria in § 110(i), I find that a penalty of \$9,500 is appropriate for this violation.

Citation No. 3658700

Citation No. 3658700 was issued under § 104(a) on June 1, 1993, alleging a violation of 30 C.F.R. § 77.1608(b) concerning the April 2, 1993, incident as follows:

The ground where refuse dump trucks were dumping failed, and the trucks did not start dumping a safe distance back from the edge of the refuse bank, in that, an area of the mine refuse pile in by the 500-ton bin at the edge toward the slurry pond failed causing approximately 40 feet of material to slide, the area sheared off has been an area in which mobile equipment has been operating. There was 0 violation issued during the last inspection period 10-01-92 through 12-31-92 of C.F.R. § 77.1608(b).

The citation alleges a significant and substantial violation due to reckless disregard for safety. The proposed penalty is \$9,500.

The regulation requires that "where the ground at a dumping place may fail to support the weight of a loaded dump truck, trucks shall be dumped at a safe distance back from the edge of the bank."

Dump trucks were dumping loads of coarse coal refuse along the edge of the refuse pile. The refuse pile was not stable. The trucks were driven on the part of the refuse pile that failed on April 2. Photographs of the slide area show the presence of tire tracks to the edge of the area that broke away. An area about 350 long, 50 feet high, and 40 feet wide broke off, caved in, and slid into the slurry pond.

I find that loaded dump trucks were operated in an area that might fail to support the weight of a loaded dump truck. Therefore, there was a violation of the standard.

Because of the instability of the refuse pile, it was reasonably likely that a failure of the refuse pile would occur and cause a dump truck to roll over or fall with collapsed refuse material, resulting in serious injury. The violation was therefore significant and substantial.

Respondent knew in December 1992 that part of the refuse pile had failed and caused a bulldozer and driver to slide down the slope, partially burying the bulldozer. However, Respondent took no reasonable steps to prevent dump trucks from dumping on the unstable refuse pile. By failing to take corrective action after the December incident, the operator demonstrated high negligence. The violation was therefore "unwarrantable" within the meaning of § 104(d)(1). However, I do not find that the

facts sustain a finding of "reckless disregard" for safety. Accordingly, the citation will be modified to change "reckless disregard" to "high negligence."

Considering all the criteria for civil penalties in § 110(i) of the Act, I find that a penalty of \$9,500 is appropriate for this violation.

Imminent Danger

The immediate dangers presented by the violations found as to Citation No. 3658639, Citation No. 3658640, Citation No. 3658700, and Order No. 3658698 combined to create an imminent danger within the meaning of § 107(a) of the Act on April 5, 1993.

CONCLUSIONS OF LAW

1. The judge has jurisdiction in these proceedings.

2. Respondent violated the safety standards as alleged in the following citations and orders (Citation Nos. 3658639 and 3658700 being modified to delete "reckless disregard" and substitute therefor "high negligence"):

<u>Citation or Order</u>	<u>30 C.F.R.</u>
Citation No. 3658682	§ 50.10
Citation No. 3658696	§ 50.11(b)
Order No. 3768690	§ 77.215(f)
Citation No. 3658639	§ 77.215(f)
Citation No. 3658640	§ 77.215(h)
Order No. 3658683	§ 77.215(h)
Order No. 3658698	§ 77.1608(b)
Citation No. 3658700	§ 77.1608(b)

ORDER

WHEREFORE IT IS ORDERED that:

1. The term "reckless disregard" in Citation Nos. 3658639 and 3658700 is deleted and the term "high negligence" is substituted therefor. With the modifications, all citations and orders are **AFFIRMED**.

2. Within 30 days of the date of this Decision and Order, Respondent shall pay civil penalties of **\$54,400**.



William Fauver
Administrative Law Judge

Distribution:

Myrna A. Butkovitz, Esq., Office of the Solicitor, U.S.
Department of Labor, 3535 Market St., 14480 Gateway Bldg.,
Philadelphia PA 19104 (Certified Mail)

R. Henry Moore, Esq., Buchanan Ingersoll Corp., One Oxford
Centre, 301 Grant St., 20th Floor, Pittsburgh, PA 15219-1410
(Certified Mail)

/lt

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

OFFICE OF ADMINISTRATIVE LAW JUDGES
2 SKYLINE, 10th FLOOR
5203 LEESBURG PIKE
FALLS CHURCH, VIRGINIA 22041

NOV 29 1995

SECRETARY OF LABOR, : CIVIL PENALTY PROCEEDING
MINE SAFETY AND HEALTH :
ADMINISTRATION (MSHA) : Docket No. PENN 94-530
Petitioner : A.C. No. 36-00830-03556
v. :
: Kerry Coal Strips
KERRY COAL COMPANY, :
Respondent :

DECISION

Appearances: Pamela W. McKee, Esq., Office of the Solicitor,
U.S. Department of Labor, Philadelphia,
Pennsylvania, for Petitioner;
Bruno A. Muscatello, Esq., Kerry Coal Co., Butler,
Pennsylvania, for Respondent.

Before: Judge Fauver

This civil penalty case concerns two citations and a related imminent danger order issued under the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 801 et seq.

Order No. 3663273 alleges that:

The 988-B front end loader s/n [serial number] 50w2486 was observed working under a working overhang in the Lower Kittanning pit at pit 034.

The loader was working under a 45-foot spoil bank and due to mining operations a[n] overhang was created which was actively working, sending rocks and spoil material down around the machine. [Language added on February 18, 1994:] The following conditions, which collectively constitute an imminent danger, were observed in the lower Kittanning pit of Pit 034. 30 C.F.R. 77.1002 [N]ecessary precautions to minimize spoil material from rolling into the pit were not taken. 30 C.F.R. 77.1004(b) [C]orrective action to remove an overhang in the spoil bank [was] not taken. Men and equipment were permitted to work under these conditions.

The crux of the controversy is whether an overhang existed at the time of the inspection, whether proper sloping precautions were taken with respect to the left spoil bank and box end spoil bank, and whether these conditions constituted an imminent danger and violations of the cited safety standards.

Having considered the hearing evidence and the record as a whole, I find that a preponderance of the substantial, probative, and reliable evidence establishes the Findings of Fact and further findings in the Discussion below:

FINDINGS OF FACT

1. On February 17, 1994, Federal Mine Inspector Randy P. Myers inspected the Kerry Coal Strips Mine, which produces coal for sale or use in or affecting interstate commerce.
2. Upon arrival Inspector Myers went to the Lower Kittanning 034 coal pit, where the mine operator was using the box end method of surface mining.
3. At the end of the box cut was a spoil bank, described as the "box end spoil bank." Perpendicular to the box end spoil bank were the right side highwall and the left side spoil bank.
4. The box end spoil bank was 90 feet long, 45 feet high. The left side spoil bank was 94 feet long, 25 feet high. The right side highwall was 45 feet long, 35 feet high.
5. Inspector Myers observed that the toe of the left spoil bank and the box end spoil bank had been substantially removed and the two spoil banks were not sloped at a 60 degree angle, as required by the operator's ground control plan. Instead, they were cut close to a 90 degree angle.
6. The operator did not measure the slope of the left spoil bank or the box end spoil bank.
7. In the pit, the inspector observed an employee, Robert Jeffries, operating a front-end loader at the right hand corner of the box end spoil bank.
8. The front-end loader was removing spoil from the toe of the box end spoil bank to expose the coal seam, while extending the bucket of the machine to about 20 feet. In the process, rock

and debris were falling towards the front-end loader from a height of about 45 feet. The material falling included two to three-foot rocks and other unconsolidated spoil material.

9. Enough material was falling that Mr. Jeffries leaned over the steering wheel in an effort to look up and see where the material was coming from.

10. While removing material from the toe of the box end spoil bank, the front-end loader was cutting into the wall of the spoil bank. Through the spoil removal operations, the front-end loader and other equipment had created an overhang extending about two to four feet from the wall. The overhang was about 30 feet long, 20 feet high. At the time of the inspection, the overhang was "working," i.e., dropping loose rocks and other spoil material.

11. When the equipment operator backed away from the box end spoil bank to load a rock truck, Inspector Myers issued an order § 107(a) withdrawal order and directed that Mr. Jeffries and the front-end loader be removed from the pit.

12. The inspector then went to the top of the spoil banks, where he observed three large cracks: two on top of the box end spoil bank and one on top of the left side spoil bank.

13. The dimensions of the two cracks on top of the box end spoil bank were as follows: the first crack averaged about six inches wide and was about four feet back from the edge of the spoil bank. It extended from the corner of the spoil bank about 25 feet toward the center of the bank. The second crack averaged about seven inches wide and was about 30 feet long.

14. When Inspector Myers stood behind the first crack, he could look through the crack into the pit where the front-end loader had been operating.

15. While Inspector Myers observed the crack on the top of the box end spoil bank, material was falling into the pit in the area in which the front-end had been operating. He could see the two cracks settling toward the pit.

16. Inspector Myers measured the third crack on top of the left side spoil bank. This crack ranged from 7 to 12 feet wide, about 34 feet long.

17. The cracks on top of the box end spoil bank and the left side spoil bank indicated to the inspector that the banks were unstable and improperly sloped.

18. Between the time that Inspector Myers issued the imminent danger order and the time that Respondent took photographs of conditions in the pit, one of the box end spoil bank cracks and the overhang apparently had either fallen into the pit or were taken down by the operator. It is more probable that they fell into the pit since a large amount of spoil material was falling into the pit during Inspector Myers' inspection.

19. At the time of the inspection, miners had been working in the pit over several shifts.

DISCUSSION WITH FURTHER FINDINGS, CONCLUSIONS

Citation No. 3663274

Citation No. 3663274 alleges a violation of 30 C.F.R. § 77.1002 based on the following condition or practice:

[T]he operator ... failed to take the necessary precautions to minimize spoil material from rolling into the pit. The operator was utilizing the box cut mining method and removed the toe of the spoil on the left spoil bank and box end spoil bank.

Section 77.1002 provides that:

When box cuts are made, necessary precautions shall be taken to minimize the possibility of spoil material rolling into the pit.

As the front-end loader removed spoil material from the toe of the box end spoil bank, large quantities of spoil material fell into the pit from a 45 foot height in the bank. The falling material included two to three-foot rocks and other spoil material. The presence of large cracks in the spoil bank indicated that the bank was unstable and that it had not been properly sloped. The cracks permitted material to fall into the pit. The inspector could see through one crack down into the pit. He could also see other evidence of subsidence of the spoil bank.

The unstable condition of the spoil banks, with substantial quantities of rocks and other spoil material falling into the pit during the inspection, demonstrated that the operator had not taken "necessary precautions to minimize the possibility of spoil material rolling into the pit." This was a violation of § 77.1002.

In addition, Respondent was operating under an MSHA-approved ground control plan that specified that spoil banks were to be maintained at an angle of 60 degrees or less. The angle of the operator's spoil banks greatly exceeded the 60 degree limit in its ground control plan. The MSHA-approved ground control limit was plainly a "precaution" that the operator was required to observe under § 77.1002. By failing to maintain the slopes at an angle of 60 degrees or less, Respondent violated both its ground control plan and § 77.1002.

The citation alleges that the violation was "significant and substantial." The Commission has held that this requires the Secretary to prove:

(1) [T]he 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 injury; and (4) a reasonable likelihood that the injury in question will be of a reasonably serious nature.

Mathies Coal Company, 6 FMSHRC 1, 3-4 (1984). See also Cement Division, National Gypsum, 3 FMSHRC 822, 825 (1981); Southern Ohio Coal Company, 13 FMSHRC 912 (1991); Consolidation Coal Co., 6 FMSHRC 34, 36 (1984).

I find that the four elements of the Commission's test were present. First, the operator violated a mandatory safety standard when it failed to take necessary precautions to minimize the possibility of spoil material rolling into the pit. Its lack of precautions included removing the toe of spoil from both spoil banks and its failure to maintain a 60 degree slope as required by the ground control plan.

Second, the violation contributed to a discrete safety hazard -- falling material that could injure miners working in the pit. Jeffries was operating a front-end loader under the box end spoil bank as rocks and other material fell near his machine.

Continued operations without abatement of the violation were reasonably likely to result in an accident.

Third and fourth, there was a reasonable likelihood that the hazard contributed to would result in serious injury. When the inspector arrived, material was falling from a height of 45 feet and landing near the front-end loader. The material falling included two to three-foot rocks and other unconsolidated material. Continued operations without abating the violation was reasonably likely to result in an accident causing serious injury. Given the amount of subsidence along the 30 foot crack in the box end spoil bank, there was a potential for a great deal of material to fall on the front-end loader and seriously injure the operator.

The citation alleges high negligence. I find that the evidence sustains this charge. The operator had a major role in formulating its ground control plan and therefore knew or should have known of the sloping requirements of the spoil bank. The dangerous angle of the walls was obvious and failure to correct this condition was due to high negligence.

Considering all the criteria for a civil penalty in § 110(i) of the Act, I find that a penalty of \$5,100 is appropriate for this violation.

Citation No. 3663275

Citation No. 3663275 alleges a violation of 30 C.F.R. § 77.1004(b) based on the following condition or practice:

The operator at the Lower Kittaning Pit at Pit 034 failed to take corrective action to remove an overhang in the spoil Bank while permitting men and equipment to work under the hazardous condition. No abatement time is given because this condition is part of imminent danger order number 3663273.

Section 77.1004(b) provides:

Overhanging highwalls and banks shall be taken down and other unsafe ground conditions shall be corrected promptly, or the area shall be posted.

The inspector observed an overhang of loose spoil above the front-end loader. The overhang was about 30 feet long, 20 feet high, on the box end spoil bank. The front-end loader was removing spoil from the right hand corner of the box end. The process of removing the spoil had created the overhang.

The inspector observed that the overhang was "working," i.e., dropping loose rocks and other spoil material that were bouncing off the spoil bank toward the machine.

During the hearing the judge asked Inspector Myers to look through his notes and point out any references to an "overhang." The inspector testified that he used the term "overhang" in the imminent danger order and in Citation No. 3663275 but "I did not use the word overhang in my notes, but I did say that the bucket was inserted into the spoil bank." Tr. 232. The inspector apparently was limiting his reply to only a part of his notes, since his notes (Exhibit G-4) refer to "overhang" in a number of places. For example, at pp 32-34 his notes state that "the overhang was created during mining operations of a D10 dozer side cutting the spoil bank down the level where a 988 front-end loader could load the overburden on to a R50 Euclid rock truck to expose the coal seam. In an effort to remove the toe of the spoil, the dozer operation had side cut the spoil and aided in the creation of the condition. As the loader worked below the wall the vibrations dislodged the loose material from the wall creating the overhang."

I find that Inspector Myers' notes are explicit and reflect careful observations and attention to detail. His testimony and notes provide reliable evidence of the conditions he observed.

The inspector rated the operator's negligence as high because men had been working in the area for several shifts and the operator had made no effort to correct the hazards or to post the hazardous areas. The failure to remove the overhang or to post it so employees would not work in proximity to it constituted aggravated conduct beyond ordinary negligence. The condition of the two spoil banks presented an imminent danger and the violations in Citation Nos. 3663273 and 3663274 combined to create an imminent danger. The failure to prevent violations that combine to create an imminent danger reflects high negligence.

Considering all the criteria for civil penalties in § 110(i) of the Act, I find that a penalty of \$5,100 is appropriate for this violation.

Imminent Danger Order No. 3663273

Section 107(a) of the Mine Act provides:

If, upon any inspection or investigation of a coal or other mine which is subject to this Act, an authorized representative of the Secretary finds that an imminent danger exists, such representative shall determine the extent of the area of such mine throughout which the danger exists, and issue an order requiring the operator of such mine to cause all persons, except those referred to in section 104(c), to be withdrawn from, and to be prohibited from entering, such area until an authorized representative of the Secretary determines that such imminent danger and the conditions or practices which caused such imminent danger no longer exist. . . .

Section 3(j) of the Mine Act defines "imminent danger" as follows:

"Imminent danger" means the existence of any condition or practice in a coal or other mine which could reasonably be expected to cause death or serious physical harm before such condition or practice can be abated. . . .

The Commission and the courts have recognized that an inspector must act quickly when he or she perceives a condition to be dangerous and that the inspector's decision should be supported unless there was an abuse of discretion or authority. For example, in Old Ben Coal Corp. V. Interior Board of Mine Operations Appeals, 523 F.2d 25, the Court of Appeals for the Seventh Circuit stated:

Clearly, the inspector is in a precarious position. He is entrusted with the safety of miners' lives, and he must ensure that the statute is enforced for the protection of these lives. His total concern is the safety of life and limb. . . . We must support the findings and the decisions of the inspector unless there is evidence that he has abused his discretion or authority.

Similarly, in Rochester & Pittsburgh Coal Co., 11 FMSHRC 2159, 2164 (1989), the Commission stated: "Since he must act immediately, an inspector must have considerable discretion in determining whether an imminent danger exists." This principle was re-affirmed by the Commission in Utah Power & Light Co., 13 FMSHRC 1617, 1627 (1991) and Island Creek Coal Company, 15 FMSHRC 339, 345 (1993).

The Commission held in Rochester & Pittsburgh, *supra*, that:

... an imminent danger is not to be defined "in terms of a percentage of probability that an accident will happen."
* * * Instead, the focus is on the "potential of the risk to cause serious physical harm at any time" [quoting the legislative history of the Mine Act]. The [Senate] Committee stated its intention to give inspectors "the necessary authority for the taking of action to remove miners from risk."

In Utah Power & Light, the Commission stated that "imminent danger" means the "hazard to be protected against must be impending so as to require the immediate withdrawal of miners." 13 FMSHRC at 1621. "Where an injury is likely to occur at any moment, and an abatement period, even of a brief duration, would expose miners to risk of death or serious injury, the immediate withdrawal of miners is required." 13 FMSHRC at 1622.

In the litigation of a § 107(a) order, the judge must determine whether a preponderance of the evidence shows that "the conditions or practices, as observed by the inspectors, could reasonably be expected to cause death or serious physical harm before the conditions or practices could be eliminated." Island Creek 15 FMSHRC at 346, Wyoming Fuel Co., 14 FMSHRC 1282, 1291 (1992). The fundamental issue is whether "the inspector made a reasonable investigation of the facts, under the circumstances, and whether the facts known to him, or reasonably available to him, supported issuance of the imminent danger order." Island Creek 15 FMSHRC at 346; Wyoming Fuel, 14 FMSHRC at 1292.

The inspector observed rocks and other spoil material falling into the pit near a front-end loader that was operating close to a dangerous overhang and an improperly sloped spoil bank. I find that the inspector made a reasonable investigation of the facts and that the facts known to him or reasonably available to him supported issuance of an imminent danger order.

His finding was confirmed by conditions he observed on top of the spoil banks. Large cracks indicated that the spoil banks were unstable and too steeply sloped.

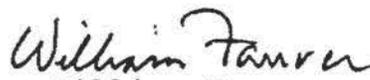
CONCLUSIONS OF LAW

1. The judge has jurisdiction.
2. Respondent violated the safety standards as alleged in Citation Nos. 3663274 and 3663275.

ORDER

WHEREFORE IT IS ORDERED that:

1. Citation Nos. 3663274 and 3663275 and Order No. 3663273 are AFFIRMED.
2. Within 30 days of this Decision, Respondent shall pay civil penalties of \$10,200.


William Fauver
Administrative Law Judge

Distribution:

Pamela W. McKee, Esq., Office of the Solicitor, U.S. Department of Labor, 3535 Market St., Philadelphia, PA 19104 (Certified Mail)

Bruno A. Muscatello, Esq., Kerry Coal Co., 228 S. Main St., Butler, PA 16001 (Certified Mail)

/lt

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

OFFICE OF ADMINISTRATIVE LAW JUDGES
2 SKYLINE, 10th FLOOR
5203 LEESBURG PIKE
FALLS CHURCH, VIRGINIA 22041

NOV 29 1995

SECRETARY OF LABOR, : CIVIL PENALTY PROCEEDINGS
MINE SAFETY AND HEALTH :
ADMINISTRATION (MSHA), : Docket No. SE 95-178
Petitioner : A.C. No. 01-01247-04185
v. :
: Docket No. SE 95-185
JIM WALTERS RESOURCES, INC., : A.C. No. 01-01247-04159
Respondent :
: No. 4 Mine
:
: Docket No. SE 95-256
: A.C. No. 01-01401-04071
:
: No. 7 Mine

DECISION

Appearances: Carla J. Gunnin, Esq., Office of the Solicitor,
U.S. Department of Labor, Birmingham, Alabama,
for the Petitioner;
R. Stanley Morrow, Esq., Jim Walter Resources,
Inc., Brookwood, Alabama, for the Respondent.

Before: Judge Feldman

These matters are before me as a result of petitions for civil penalties filed by the Secretary of Labor pursuant to section 105(d) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 801 et seq., (the Act). The hearing in these proceedings was conducted on October 18, 1995, in Hoover, Alabama. Pertinent stipulations concerning jurisdiction and statutory civil penalty criteria are of record.

At the hearing, the parties moved to settle the citations associated with Docket Nos. SE 95-178¹ and SE 95-185 in their entirety. Remaining Docket No. SE 95-256 concerns 18 citations issued under 104(a) of the Act, and, 104(d)(2) Order No. 3184069. The parties moved to settle all 18 of the citations issued in Docket No. SE 95-256. However, the parties failed to reach agreement on Order No. 3184069. (Tr. 10-19).

The parties' settlement motions were presented and approved on the record after the settlement terms were determined to be consistent with the civil penalty criteria in section 110(i) of the Act, 30 U.S.C. § 820(i). A summary of the approved settlement terms is incorporated in this decision.

The only matter heard was 104(d)(2) Order No. 3184069. At the conclusion of the hearing, the parties elected to make closing statements in lieu of filing post-hearing briefs. This decision formalizes the bench decision issued at the conclusion of the parties' closing presentations.

Order No. 3184069 was issued on August 31, 1994, by Mine Safety and Health Administration (MSHA) Inspector John Terpo. Terpo issued the Order as a result of a 103(g) complaint by Keith Plylar who is the UMWA Chairman of the Health and Safety Committee at the respondent's No. 7 Mine.² The Order was issued after Terpo, consistent with Plylar's complaint,

¹ Docket No. SE 95-178 only concerns 104(d)(2) Order No. 3183836. Two other unrelated citations were erroneously included in the proposed assessment and were subsequently deleted.

² Section 103(g)(2) of the Act, 30 U.S.C. § 813(g)(2), authorizes any miner, or, a miner's representative, to provide written notification of an alleged violation of a mandatory safety standard to an MSHA inspector prior to or during an inspection.

observed extensive coal dust accumulations at the West B belt header extending inby approximately 7,000 feet in violation of the mandatory safety standard in section 75.400, 30 C.F.R. § 75.400. This mandatory standard 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 electric equipment therein.

At trial, the respondent stipulated to the fact of occurrence of the cited section 75.400 violation. (Tr. 100-01). Therefore, the outstanding issues are whether the violative condition was properly designated as significant and substantial, and, whether the violation was attributable to the respondent's unwarrantable failure.

The essential facts are not in dispute and can be briefly stated. For approximately one month prior to the August 31, 1994, issuance of the subject Order, Plylar complained to mine officials including foreman Larry Morgan, and deputy manager Charlie Beasley, about malfunctions in the West B belt. The malfunctions consisted of misalignments in the beltline that caused the belt to cut into the belt structure resulting in significant coal dust accumulations and float coal dust. Plylar testified mine management ignored his verbal complaints despite acknowledging that the beltline was defective. The safety committee subsequently performed its bi-monthly inspection on August 18, 1994, at which time committee members provided each shift foreman and the deputy mine manager with a written inspection report that noted the West B belt malfunctions and coal dust accumulations.

Plylar's testimony was corroborated by the preshift examination book. Pertinent coal dust accumulations were repeatedly noted in the preshift examination book prior to Terpo's inspection during the period from August 25 through August 31, 1994. (Ex. R-1). For example, the preshift book reflects the following number of people were assigned to clean the West B belt on the days preceding Terpo's inspection: two people on August 25, 1994; five people on August 26, 1994; five people on August 28, 1994; four people on August 30, 1994; and

five people on August 31, 1994. The evening preshift notation reflects 39 people were assigned to clean the West B belt for eight hours on August 31, 1994, after Terpo issued Order No. 3184069. Id.

On the morning of August 31, 1994, Terpo arrived at the respondent's No. 7 mine to conduct a routine inspection. Terpo was approached by Plylar and given a written complaint concerning hazardous accumulations along the West B belt. Terpo provided copies of Plylar's complaint to mine management and proceeded to inspect the subject area in the presence of Plylar, day shift foreman Paul Phillips and deputy mine manager Beasley. They began at the West B belt discharge point and walked the entire 7,000 feet length of the belt from the header to the tail.

The West B belt is located in the No. 3 entry. The No. 3 entry is 24 feet wide from the left to right rib. The West B belt is 54 inches wide and runs on lower rollers that vary in height from four to 12 inches from the surface depending upon the pitch of the mine floor. The back side of the West B belt is between 24 and 36 inches away from the left rib. The front side of the belt is approximately four feet from the No. 3 track and 10 to 12 feet from the right rib. (Joint Ex. 1). Thus, dust accumulations are more accessible, for cleaning purposes, on the front side rather than the back side of the belt. In this regard, accumulations can be shoveled from the front side without deenergizing the belt. In contrast, cleanup of accumulations under the back side of the belt requires deenergizing the belt.

As a general proposition, Terpo testified the majority of the cited accumulations were located under the back side of the belt. Terpo observed coal dust and float coal dust accumulations approximately 24 inches in depth at the discharge point. Terpo also observed airborne float coal dust traveling approximately 350 feet downwind (in intake air) from the discharge point. The airborne float coal dust was created by bottom rows of rollers at the discharge point that were turning in coal dust. Terpo noted this float coal dust was accumulating on the belt drive motor and transmission case. The transmission case was extremely hot to the touch.

Terpo proceeded inby and at the No. 59 brattice where he observed two bottom rollers in coal dust 12 inches deep for a

distance of 20 feet. These accumulations were under the back side of the belt. These rollers created very fine airborne float coal dust transported inby via the intake air. Terpo continued down the belt and noted four bottom rollers in accumulations 16 inches deep for 40 feet at the "F" track location between the 59th and 75th brattice. Further along the beltline, at the 75th brattice, Terpo observed four rollers in accumulations 14 inches in depth. One of these rollers was locked up which generated significant heat from the friction of the belt sliding on the stationary roller. (Tr. 130-31).

Terpo continued down the belt and observed four bottom rollers turning in 12 inches of accumulations for a distance of 40 feet at the G drop belt area; three bottom rollers turning in coal dust between the 80th and 81st brattices; two bad (stationary) rollers in coal dust 12 inches in depth for a distance of 60 feet between the 82nd and 83rd brattices; four rollers turning in ten inch deep coal dust for a distance of 40 feet at the 84th brattice; three rollers in 12 inches of coal for 30 feet at the 87th brattice; four rollers in 14 inches of coal dust for a distance of 100 feet at the 88th brattice; three rollers in 12 inches of coal for 20 feet at the 93rd brattice; and nine rollers in ten to 16 inches of coal dust for 100 feet two crosscuts inby the No. 2 belt discharge point.

Terpo testified that he considered the hot transmission box, and the locked up rollers, as significant ignition sources. Terpo also stated the numerous rollers turning in coal dust ground the coal dust into very fine particles which became airborne by the intake air. The suspension of float coal dust traveled down the entire length of the belt along the air course as it split to the working sections. Terpo characterized the violative coal dust accumulations as significant and substantial in nature because of the likelihood of combustion due to the suspended float coal dust and combustible accumulations in the presence of multiple ignition sources along the entire length of the intake belt entry. In the event of fire, Terpo opined that the 21 persons who worked in the two working sections ventilated by the West B belt entry would be exposed to significant fire or smoke inhalation hazards.

Terpo issued 104(d)(2) Order No. 3184069 for the loose coal, coal dust and float coal dust accumulations that were present from the West B belt header inby approximately 7,000 feet. The Order noted these accumulations were previously noted in the preshift examination book.

Day shift assistant mine foreman Paul Phillips, who accompanied Terpo during his inspection, estimated coal accumulations over a total length of between 800 and 900 feet along the West B belt in addition to approximately 20 rollers that were turning in coal. (Tr. 196-97). Phillips and Terpo stated the accumulations were located primarily under back rollers and along the back side of the belt. Phillips testified 25 or 26 people were assigned to clean the West B belt from 8:50 a.m. until 11:00 p.m. on August 31, 1994, to abate Order No. 3184069. As noted above, the preshift examination book reflects 39 people were assigned to clean the West B belt for eight hours on August 31, 1994. The cleanup occurred while the belt was deenergized.

Based upon the testimony and exhibits in this matter, I issued the following bench decision which is edited with non-substantive changes:

The issues in this proceeding concern a violation of section 75.400 which prohibits the accumulation of combustible coal dust. Section 75.400 provides: "Coal dust, including float coal dust deposited on rock dusted surfaces, loose coal dust and other combustible materials shall be cleaned up and not be permitted to accumulate in active workings or on electrical equipment therein."

Thus, the dispositive issue is whether the respondent permitted the coal dust to accumulate. Mr. Morrow has stipulated to the fact of occurrence of the section 75.400 violation. Thus, the remaining questions are whether the violation was significant and substantial in nature, whether it was attributable to Jim Walter Resources' unwarrantable failure, and, the appropriate civil penalty to be assessed.

Addressing the first issue, to prevail on the significant and substantial question, the Commission's decision in Mathies Coal Co., 6 FMSHRC 1, 3-4 (January 1984), requires the Secretary to establish a reasonable likelihood that the hazard contributed to by the violation will result in an event in which there is a serious injury. This issue must be viewed in the context of continued mining operations in the face of these continued violative accumulations. Halfway Incorporated, 8 FMSHRC 8, 13 (January 1986). Viewing this issue in its component parts, the hazard contributed to by the violation is the danger of combustion and the event is explosion and fire. The initial question is whether there was a reasonable likelihood that the violation would result in the event, i.e., fire.

The elements of combustion are suspension, fuel, oxygen and an ignition source. Here, there was significant airborne float coal dust (suspension) created by a combination of the numerous rollers operating in coal dust accumulations (fuel) and the intake air (oxygen) carrying the float coal dust suspension along the West B belt entry. With respect to the remaining element of an ignition source, the evidence reflects the coal suspensions and accumulated coal were in close proximity to heat generated from the belt cutting into the structure, as well as heat generated from the transmission box and tailpiece motor. In addition, these accumulations were also present near heat caused by belt movement over locked up rollers and heat resulting from completely worn bearings in inoperable rollers. When viewed in the context of continued mining operations, there was a reasonable likelihood that the presence of combustible fuel in contact with sources of heat along the West B beltline would result in an explosion or fire.

Having determined there was a reasonable likelihood of the occurrence of an explosion or fire as a result of this violation, we turn to whether it was reasonably likely that this event would cause serious injury. I credit Inspector Terpo's testimony that, in the event of fire, considering the amount of accumulations along the entire belt and the significant amounts of airborne float coal dust, the fire would spread very rapidly, particularly because it would be fed with high velocity intake air. The flames and smoke would follow the intake air path down the beltline and then split to the continuous mining and longwall working sections. In such an event, it is reasonably likely that personnel in these working sections would sustain serious smoke inhalation or burn injuries. Consequently, the evidence demonstrates that the cited violation was properly characterized as significant and substantial.

With regard to the next issue, an unwarrantable failure is evidenced by aggravated conduct that is unjustifiable or inexcusable, as distinguished from ordinary negligence which is characterized by inattentiveness or carelessness. Youghioghney & Ohio Coal Company, 9 FMSHRC 2007, 2010 (December 1987). The Commission's leading case on the question of unwarrantable failure as it applies to a section 75.400 infraction for violative coal dust accumulations is Peabody Coal Company, 14 FMSHRC 1258 (August 1992).

In Peabody, the Commission set forth four tests for resolving the unwarrantable failure issue. These tests are: (1) the extent of the violative condition; (2) the length of time that it has existed; (3) whether the operator had been placed on notice that greater efforts were necessary for compliance; and (4) the adequacy of the operator's efforts in abating the violative condition after the operator's awareness of the problem. 14 FMSHRC at 1261.

It is evident that all of the Peabody criteria establish an unwarrantable failure in this case. With respect to the first element, while denying accumulations existed along the entire 7,000 foot beltline, even assistant mine foreman Phillips, who accompanied Terpo during the inspection, admitted the accumulations totaled a distance of approximately 900 feet along the beltline in addition to 20 rollers that were turning in coal. Such accumulations can only be described as extensive.

The second test in Peabody addresses the length of time the accumulations existed. The preshift examination book reflects notations of this condition at the West B belt for the six days that preceded Terpo's August 31, 1994, inspection. These preshift entries confirm the testimony of safety committeeman Plylar that he provided written notice of the condition to mine management on August 18, 1994, during his bimonthly safety inspection. These facts, as well as the extent of the accumulations, manifest by the 25 to 39 people required to clean for up to 14 hours in order to abate the 104(d)(2) Order, support Plylar's testimony that the condition existed for at least one month.

The third Peabody element concerns whether the operator had notice of the violation. Once again, the evidence supports Plylar's reported repeated complaints to mine management over a period of at least one month. The respondent's awareness of the problem is further demonstrated by its inadequate efforts to clean the area by assigning only several people to clean the track side of the belt while beltline operations continued. Thus, the third test in Peabody is clearly satisfied.

Having been aware of the condition, the final Peabody criterion relates to the respondent's efforts to remedy the problem. As previously noted, mine management responded by assigning an inadequate number of people to address the problem by cleaning only the track side of the belt while the beltline continued to operate. For example, the preshift entries reflect that several people were assigned to clean the West B belt on several occasions during the period August 25 through August 30, 1994. This cleaning did not address the accumulations under the back side of the belt, between the belt and the rib, that could only be accessed if mine production was interrupted and the beltline was deenergized. The inadequacy of the respondent's efforts is reflected by the 25 people reported by Phillips, or, the 39 people noted in the preshift book, that were required to work approximately 14 hours, while the beltline was inoperable, to clean the cited violative accumulations. There was also unrefuted testimony from Plylar that the West B belt structure was ultimately repaired to correct the alignment of the belt.

Thus, it is obvious that the respondent's efforts to address the problem were woefully inadequate. Consequently, applying the Peabody criteria, it is clear that the respondent's conduct in this matter was aggravated in nature justifying the Secretary's assertion that the cited condition was attributable to the respondent's unwarrantable failure. Accordingly 104(d)(2) Order No. 3184069 is affirmed.

Finally, with respect to the appropriate penalty to be assessed, the Secretary seeks to impose a civil penalty of \$9,500. In considering the appropriate penalty, I note that even Inspector Terpo conceded the respondent was conscientious enough to adequately clean the more

readily accessible front side of the belt. This is a mitigating factor in favor of the respondent. On the other hand, the respondent was not diligent enough to shut down the belt to clean under the back rollers which would result in an interruption of production. This is an unfavorable factor in considering the penalty.

I am also mindful that this 7,000 foot beltline is approximately 1 1/2 miles long with very large numbers of rollers. Thus, the accumulations in this matter, while clearly extensive, must be kept in perspective. Accordingly, on balance, I have concluded that \$6,500 is the appropriate penalty considering the degree of negligence, gravity and other pertinent statutory penalty criteria in section 110(i) of the Act. (Tr. 252-68).

The penalty assessment decided on the merits for Order No. 3184069 as well as the civil penalties provided in the parties' settlement of the other citations in these proceedings are as follows:

DOCKET NO. SE 95-178

<u>Citation Or Order No.</u>	<u>Proposed Assessment</u>	<u>Settlement</u>	<u>Modification</u>
3183836	\$5,500.00	\$3,500.00	

DOCKET NO. SE 95-185

<u>Citation Or Order No.</u>	<u>Proposed Assessment</u>	<u>Settlement</u>	<u>Modification</u>
3184179	\$8,000.00	\$1,000.00	104(d) to 104(a)

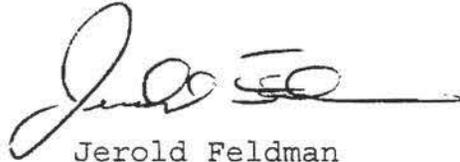
<u>Citation Or Order No.</u>	<u>Proposed Assessment</u>	<u>Settlement</u>	<u>Modification</u>
3184069	\$9,500.00	\$6,500.00 ³	
3184051	\$1,155.00	\$ 150.00	Delete S&S
3183877	\$ 362.00	\$ 150.00	Delete S&S
4484467	\$ 50.00	\$ 50.00	
3194259	\$ 50.00	\$ 50.00	
4484542	\$ 903.00	\$ Vacated	
4484301	\$ 362.00	\$ 362.00	
4484275	\$ 362.00	\$ 362.00	
4484737	\$ 506.00	\$ 506.00	
4484738	\$ 50.00	\$ 50.00	
4484739	\$ 50.00	\$ 50.00	
4484280	\$ 506.00	\$ 125.00	Delete S&S
4476181	\$ 309.00	\$ 309.00	
4476182	\$ 50.00	\$ 50.00	
4476183	\$ 362.00	\$ 362.00	
4476185	\$ 362.00	\$ 100.00	Delete S&S
4476187	\$ 309.00	\$ 309.00	
4476189	\$ 50.00	\$ 50.00	
2807519	\$ 235.00	\$ 235.00	
Subtotal	\$15,533.00	\$9,770.00	
Total	\$29,033.00	\$14,270.00	

ORDER

This decision formalizes the bench decision with respect to Order No. 3184069 and constitutes the approval of the parties' settlement motions with respect to the remaining citations and orders in issue. Accordingly, 104(d)(2) Order No. 3184069 **IS AFFIRMED**. The respondent **SHALL PAY** a total civil penalty of \$14,270 within 30 days of the date of this decision. This total

³ As reflected in this decision, 104(d)(2) Order No. 3184069 was affirmed and assessed a civil penalty of \$6,500. All other penalties noted above are the settlement amounts agreed upon by the parties.

penalty consists of the \$6,500 penalty for Order No. 3184069, in addition to the \$7,770 agreed upon total settlement for all of the other matters in issue. Upon timely receipt of payment, Docket Nos. SE 95-178, SE 95-185, and SE 95-256 **ARE DISMISSED**.

A handwritten signature in black ink, appearing to read "Jerold Feldman", with a long horizontal flourish extending to the right.

Jerold Feldman
Administrative Law Judge

Distribution:

Carla J. Gunnin, Esq., Office of the Solicitor, U.S. Department of Labor, Suite 150, Chambers Building, Highpoint Office Center, 100 Centerview Drive, Birmingham, AL 35216

R. Stanley Morrow, Esq., Jim Walter Resources, Inc.,
Post Office Box 133, Brookwood, AL 35444

/rb

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

OFFICE OF ADMINISTRATIVE LAW JUDGES
2 SKYLINE, 10th FLOOR
5203 LEESBURG PIKE
FALLS CHURCH, VIRGINIA 22041

NOV 30 1995

SECRETARY OF LABOR, : CIVIL PENALTY PROCEEDING
MINE SAFETY AND HEALTH :
ADMINISTRATION (MSHA), : Docket No. PENN 93-15
Petitioner : A. C. No. 36-07270-03526
v. :
: L & J Energy Company
L & J ENERGY COMPANY, INC., :
Respondent :

DECISION ON REMAND

Before: Judge Weisberger

On February 24, 1994, I issued a decision in this civil penalty proceeding sustaining six of the seven violations charged. L & J Energy Company, Inc., 16 FMSHRC 424 (February 1994). L & J Energy Company, Inc. (L & J) filed a petition for discretionary review and/or motion for remand for correction of the record, arguing, *inter alia*, that a stipulation which was recounted in my decision did not reflect the parties' agreement. The Secretary also moved for remand. The Commission denied the motion, but granted the petition for review, and remanded the matter to determine whether the stipulation in question correctly represented the agreement of the parties, and to reconsider the decision, if necessary. On remand, I took cognizance of the parties' agreement, but declined to reconsider the initial decision. The Commission denied L & J's petition for review.

Subsequently, L & J filed its appeal in the U.S. Court of Appeals for the District of Columbia Circuit. On June 6, 1995, the Court issued its decision remanding the case to the Commission "for a new determination based on the full record." L & J Energy Co., Inc. v. Secretary of Labor, 57 F.3d 1086 (D.C. Cir. 1995). The Court determined that my legal conclusion "disclaiming reliance on anything but expert testimony," rendered "irrelevant" my statement that I reviewed the testimony of other witnesses. 57 F.3d, *supra*, at 1087, citing 16 FMSHRC at 441.

The Court further stated that if, on remand, the Commission reaches the same conclusion, "it must simply explain why the eyewitness [i.e., non-expert] testimony is discredited or disconnected in whole or in part." *Id.*, at 1087. Finally, the Court held that the Commission should address each of the six statutory criteria for determining civil penalties "before assessing a fine." *Id.*, at 1088, citing Sellersburg Stone Co., 5 FMSHRC 287, 292-93 (March 1983); 30 U.S.C. § 820(i). On August 8, 1995, the Court issued its Mandate and Judgment in this matter, returning the case to the Commission's jurisdiction. On September 5, 1995, the Commission issued an order remanding this matter to me, "... for a new determination based on the entire record." (L & J Energy Co., Inc., 17 FMSHRC 1515, 1517 (September 1995)). On November 1, 1995, the parties each filed a Brief on Remand. ¹

Following the dictates of the Court of Appeals, as referred to by the Commission in its remand order, I make the following further explanations:

1. Why eyewitness testimony was discounted

In evaluating the issue of whether dangerous conditions existed on the highwall prior to the accident, I discount the testimony of the eyewitnesses who testified on behalf of L & J, and instead rely upon the expert testimony due to the experience and expertise of the experts who testified. An evaluation of the experts' testimony is set forth in my initial decision, 16 FMSHRC supra, at 443. In addition, as set forth in my initial decision, 16 FMSHRC, supra, at 443, the testimony of L & J's witnesses is discredited because the inspector's testimony that on February 6, loose material covered at least 75 percent of the highwall, was not contradicted or impeached. Also, L & J's expert witness Scovazzo, and lay witnesses Todd and Woods recognized the depiction of some loose materials in photographs taken the morning of February 6.

¹To the extent that the arguments in the parties' briefs are inconsistent with this decision, or are beyond the scope of the remand order, they are rejected.

2. The six statutory criteria

Upon reconsideration of the entire record, I reaffirm the findings and discussion relating to the statutory criteria of the gravity of the violations, the negligence of L & J, and the effect of a penalty on L & J's ability to continue in business.

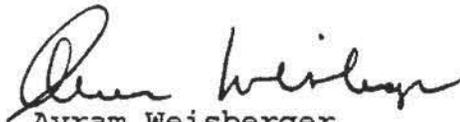
I accept the Secretary statements in his brief that L & J demonstrated good faith in attempting to achieve compliance after notification of the violations, and that there is no history of prior violations. L & J has not challenged the assertions by the Secretary that the size of its business is evidenced by the fact that it employs 15 miners, and has an annual revenue of one million dollars.

In evaluating the statutory criteria in determining the proper penalty to be assessed, I consider most significant the very high level of gravity of the violations found herein, and the more than moderate level of L & J's negligence. I reiterate herein the reasoning set forth in the original decision 16 FMSHRC supra. I further reaffirm my findings and reasoning set forth in the initial decision, 16 FMSHRC, supra, at 449-450, that L & J did not establish that the imposition of penalties would significantly impair its ability to continue in business. I further reaffirm my initial findings regarding the proper penalties for the violations found to have been established.

ORDER

It is ORDERED as follows:

1. Order No. 3490035 be sustained.
2. Order No. 3490201 be dismissed.
3. If L & J has not paid the civil penalty pursuant to the initial decision in this matter, then it shall, within 30 days of this decision, pay a civil penalty of \$87,500.00.


Avram Weisberger
Administrative Law Judge

Distribution:

Linda M. Henry, Esq., Office of the Solicitor, U.S. Department of Labor, 14480 Gateway Building, 3535 Market Street, Philadelphia, PA 19104 (Certified Mail)

Henry Chajet, Esq., Patton Boggs, L.L.P., 2550 M Street, N.W., Washington, D.C. 20037 (Certified Mail)

/ml

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

OFFICE OF ADMINISTRATIVE LAW JUDGES
2 SKYLINE, 10th FLOOR
5203 LEESBURG PIKE
FALLS CHURCH, VIRGINIA 22041

NOV 30 1995

SECRETARY OF LABOR, : CIVIL PENALTY PROCEEDING
MINE SAFETY AND HEALTH :
ADMINISTRATION (MSHA), : Docket No. SE 95-331-M
Petitioner : A.C. No. 09-00265-05521
v. :
 : Junction City Mine
BROWN BROTHERS SAND COMPANY, :
Respondent :

DECISION

Appearances: Terry E. Phillips, Conference and Litigation
Representative, Mine Safety and Health
Administration, U.S. Department of Labor,
Birmingham, Alabama, for the Petitioner;
Steve Brown, Partner, Brown Brothers Sand Company,
Howard, Georgia, for the Respondent.

Before: Judge Feldman

This matter is before me as a result of a petition for civil penalty filed by the Secretary of Labor pursuant to section 105(d) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 801 et seq., (the Act). The petition seeks a civil penalty of \$50.00 for each of two alleged nonsignificant and substantial violations of mandatory safety standards in Part 56, 30 C.F.R. Part 56. This matter was heard in Macon, Georgia, on October 24, 1995. The parties stipulated that Brown Brothers Sand Company is a small operator subject to the jurisdiction of the Act. (Tr. 13-15; Joint Ex. 1). At the culmination of the hearing the parties waived the filing of post-hearing briefs. This decision formalizes the bench decision made at the conclusion of the hearing.

Citation No. 4302160

The essential facts are not in dispute. As of January 31, 1994, the Mine Safety and Health Administration changed its policy concerning the enforcement of the mandatory safety

standard in section 56.12028, 30 C.F.R. § 56.12028. This standard provides:

Continuity and resistance of grounding systems shall be tested immediately after installation, repair, and modification; and annually thereafter. A record of the resistance measured during the most recent tests shall be made available on a request by the Secretary or his duly authorized representative.

On January 31, 1994, Program Policy Letter No. P94-IV-1 was distributed to all mine operators advising them of the requirements of section 56.12028. (Ex. P-4). The policy statement noted that conductors in fixed installations, such as rigid conduit, armored cable, raceways and cable trays, that are not subject to vibration, flexing or corrosive environments, may be examined annually by visual observation to check for damage in lieu of an annual resistance test. All other installations, including power cables that supply power to tools and portable equipment must be tested by a resistance meter. Records of all testing, whether by observation or meter, must be kept by the operator. Id.

In March 1994, Mine Safety and Health Administration (MSHA) Electrical Inspector Donald Collier and Metal/Nonmetal Mine Inspector Kenneth Pruitt reminded Greg Brown, a partner of Brown Brothers Sand Company, of the recent Policy Letter requiring annual continuity and resistance testing for all existing electrical installations. This testing will alert the operator if a problem exists in the grounding system which may not allow the circuit protective devices to quickly operate when faults occur. The inspectors advised Greg Brown to conduct such testing immediately.

Inspector Pruitt returned to the respondent's Junction City facility on September 13, 1994. Pruitt asked Greg Brown if he had conducted the requisite resistance testing of the mine site grounding systems. Greg Brown replied that he had not yet performed the testing because he was waiting for his cousin, who had been unavailable, to perform the tests. The testing requires a multi-tester ohms resistance meter that measures the resistance of the ground field at various intervals between the disconnect boxes, circuit breakers and motors. (Tr. 33).

As a result of Brown's failure to perform any visual or metered continuity and resistance testing, Pruitt issued 104(a) Citation No. 4302160 for a violation of section 56.12028. Pruitt characterized the violation as nonsignificant and substantial because he concluded that the failure to perform the testing alone, in the absence of an intervening ground fault, would not contribute to the likelihood of an injury. (Tr. 20). The citation was abated on February 27, 1995, after the required testing had been performed. (Tr. 63-66).

Citation No. 4300557

On March 14, 1995, MSHA Inspector Ronald Grabner observed that a ground wire about one-half to three quarters of an inch in length had broken off on the 110-volt pump for the portable diesel storage tank. (Tr. 74, 109-110). The ground wire was not readily visible in that it was very short in length and located at the rear of the pump. (Tr. 110). Grabner issued Citation No. 4300557 citing a violation of the mandatory standard in section 56.12025, 30 C.F.R. § 56.12025. This safety standard requires all electrical circuits to be grounded, or, to be provided with equivalent protection. Grabner considered the violation to be nonsignificant and substantial because, with the exception of the ground wire, there was no evidence of frayed or broken wires indicative of a potential short. (Tr. 82).

At the conclusion of the hearing I issued the following bench decision which is edited with non-substantive changes:

This proceeding concerns two 104(a) citations issued for violations characterized as nonsignificant and substantial. The first citation, Citation No. 4302160, was issued for a failure to perform the required annual continuity and resistance testing as required by section 56.12028 of the regulations. The uncontroverted testimony is that Collier and Pruitt informed Greg Brown of the section 56.12028 testing requirements during an inspection on or about March 22, 1994.

Pruitt returned to the mine site on September 13, 1994, and determined that the requisite testing had not been

performed. Consequently, Pruitt issued the subject citation. The only issues before me are the fact of occurrence of the violation and the appropriate penalty, if any, to be assessed. While there may be a legitimate difference of opinion concerning whether a particular electrical circuit requires visual or meter resistance testing, the respondent has admitted that it had performed neither procedure when Pruitt returned to the mine site on September 13, 1994. Consequently, the Secretary has established the fact of the occurrence of the cited violation.

With respect to the appropriate penalty to be assessed, I note that Pruitt has testified that MSHA had postponed the enforcement of section 56.12028 on several occasions prior to its January 31, 1994, Policy Letter advising operators that this mandatory standard would now be enforced. In addition, Grabner testified that the continuity and resistance test results obtained during the course of abating the citation revealed all grounding systems in the electrical circuits were functioning properly. I view these two factors as mitigating circumstances. Accordingly, I am assessing a civil penalty of \$25.00 for Citation No. 4302160.

Remaining Citation No. 4300557 was issued for a broken ground wire on the diesel pump motor. Greg Brown, who accompanied Grabner on his March 14, 1995, inspection was not called to testify to confirm or deny the condition cited by Grabner. In the absence of any contradictory testimony, I have no reason to question Grabner's credibility. Consequently, the evidence reflects the cited portable pump did not have the ground protection required by section 56.12025.

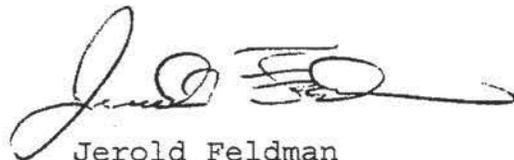
However, I find the degree of negligence attributable to this nonsignificant and substantial violation to be minimal. The broken ground wire was less than one inch in length and it was not readily visible as it was located behind the pump motor. There is also no evidence that this condition had existed and gone undetected for any significant period of time.

Consequently, I am assessing a civil penalty of \$15.00 for Citation No. 4300557.

As a final matter, a previous proceeding before me in Docket No. SE 94-417-M, concerned three separate citations issued to Brown Brothers on March 22, 1994, for three nonsignificant and substantial grounding violations of section 56.12025. See Brown Brothers Sand Company, 17 FMSHRC 578, 582-584 (April 1995). When there is a general grounding problem at a particular mine site, particularly at a mine of a small operator as in the current case, there comes a point when similar violations should be consolidated into the same citation rather than the issuance of cumulative citations. For example, as an extreme illustration, there comes a time when \$50.00 penalties for each of 1,000 pieces of ungrounded equipment, become disproportionate to the gravity of nonsignificant and substantial violative conditions. While I recognize that section 104(a) of the Act authorizes an inspector to issue a citation for each violation of a mandatory safety standard, and, the grounding citations issued to Brown Brothers are not so numerous as to constitute an abuse of discretion, MSHA should consider the propriety of consolidating similar violations in the same citation in instances where such consolidation is consistent with the penalty criteria in section 110(i) of the Act. (Tr. 135-144).

ORDER

In view of the above, Citation Nos. 4302160 and 4300557 **ARE AFFIRMED**. Brown Brothers Sand Company **SHALL PAY** a total civil penalty of \$40.00 in satisfaction of these citations within 30 days of the date of this decision. Upon timely receipt of payment, Docket No. SE 95-331-M **IS DISMISSED**.



Jerold Feldman
Administrative Law Judge

Distribution:

Terry E. Phillips, Conference and Litigation Representative,
Mine Safety and Health Administration, U.S. Department of Labor,
135 Gemini Circle, Suite 212, Birmingham, AL 35209
(Certified Mail)

Steve Brown, Brown Brothers Sand Company, Highway 90, Box 82,
Howard, GA 31029 (Certified Mail)

/rb

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

OFFICE OF ADMINISTRATIVE LAW JUDGES
2 SKYLINE, 10th FLOOR
5203 LEESBURG PIKE
FALLS CHURCH, VIRGINIA 22041

NOV 30 1995

DEBORA BOYCE,	:	DISCRIMINATION PROCEEDINGS
Complainant	:	
v.	:	Docket No. WEVA 95-126-D
	:	MORG CD 95-01
CONSOLIDATION COAL COMPANY AND	:	
SUPERIOR SECURITY, INC.,	:	Robinson Run #95 Mine
Respondents	:	
	:	
	:	
	:	Docket No. WEVA 95-127-D
	:	MORG CD 95-01
	:	
VILETTA M. MOORE,	:	Robinson Run #95 Mine
Complainant	:	
v.	:	
	:	
CONSOLIDATION COAL COMPANY AND	:	
SUPERIOR SECURITY, INC.,	:	
Respondents	:	

DECISION

Appearances: Debora Boyce and Viletta M. Moore, Mannington, West Virginia, *pro se*; Elizabeth Chamberlin, Esq., Pittsburgh, Pennsylvania for Consolidation Coal Company; James B. Zimarowski, Esq., Morgantown, West Virginia for Superior Security.

Before: Judge Melick

These cases are before me upon the complaints by Debora Boyce and Viletta M. Moore under Section 105(c)(3) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 801 et seq., the "Act," alleging discrimination in violation of Section 105(c)(1) of the Act.¹

¹ Section 105(c)(1) of the Act provides as follows:

No person shall discharge or in any manner discriminate against or cause to be discharged or cause discrimination against or otherwise interfere with the exercise of the statutory rights of any miner, representative of miners

In complaints of discrimination filed with the Department of Labor's Mine Safety and Health Administration (MSHA) on November 8, 1994, Boyce and Moore both allege in relevant part as follows:

During the past year, I have worked as a security guard at various facilities owned by Consolidation Coal Company. During that time I was exposed to various hazards which I believe were life threatening. At various times I complained about the hazards I encountered to my supervisor, Tom Davis. Because of my complaints, my time was reduced and what work I did receive was only at remote locations with no communications or sanitary facilities provided. When I questioned Tom Davis in regard to the lack of sanitary facilities at the job site, I was told that I could go to the woods, that it was my problem.

Brenda Fluharty is in charge of scheduling personnel for work at the various sites. After I made complaints regarding my health and safety to her (particularly regarding the lack of communications at remote locations), Mrs. Fluharty began reducing my work time. As the result, my time was diminished approximately 60% from what it was prior to my making health and safety related complaints.

Gary Fluharty, Superintendent for Consolidation Coal Company, who is the husband of Brenda Fluharty, was

Footnote 1 Continued

or applicant for employment in any coal or other mine subject to this Act because such miner, representative of miners or applicant for employment has filed or made a complaint under or related to this Act, including a complaint notifying the operator or the operator's agent, or the representative of the miners at the coal or other mine of an alleged danger or safety or health violation in a coal or other mine, or because such miner, representative of miners or applicant for employment is the subject of medical evaluations and potential transfer under a standard published pursuant to Section 101 or because such miner, representative of miners or applicant for employment has instituted or caused to be instituted any proceeding under or related to this Act or has testified or is about to testify in any such proceeding, or because of the exercise by such miner, representative of miners or applicant for employment on behalf of himself or others of any statutory right afforded by this Act.

aware of the safety hazards at the various sites. I believe that Brenda informed Gary and visa [sic] versa of the hazards that were reported in our complaints.

The Commission has long held that a miner seeking to establish a *prima facie* case of discrimination under Section 105(c) of the Mine Act bears the burden of persuasion that he engaged in protected activity and that he suffered adverse action which was motivated in any part by that activity. *Secretary on behalf of Pasula v. Consolidation Coal Co.*, 2 FMSHRC 2786, 2797-2800 (1980), rev'd on grounds, *sub. nom. Consolidation Coal Co. v. Marshall*, 663 F.2d 1211 (3rd Cir. 1981); and *Secretary on behalf of Robinette v. United Castle Coal Co.*, 3 FMSHRC 803, 817-18 (1981). The operator may rebut the *prima facie* case by showing either that no protected activity occurred or that the adverse action was in no part motivated by the protected activity. If an operator cannot rebut the *prima facie* case in this manner, it may nevertheless defend affirmatively by proving that it would have taken the adverse action in any event on the basis of the miner's unprotected activity alone. *Pasula, supra*; *Robinette, supra*. See also *Eastern Assoc, Coal Corp. v. FMSHRC*, 813 F.2d 639, 642 (4th Cir. 1987); *Donovan v. Stafford Construction Co.*, 732 F.2d 954, 958-59 (D.C. Cir, 1984); *Boich v. FMSHRC*, 719 F.2d 194, 195-96 (6th Cir. 1983) (specifically approving the Commission's *Pasula-Robinette* test). cf.. *NLRB v. Transportation Management Corp.*, 462 U.S. 393, 397-413 (1983) (approving nearly identical test under National Labor Relations Act.)

Respondent Superior Security, Inc. is in the business of providing security guards on a contractual basis. During the period of time at issue it was under contract to provide security guards at various Consolidation Coal Company (Consol) mines and, specifically, at remote pump sites to protect equipment while not in use. According to Thomas Davis, Secretary/Treasurer of Superior Security, Inc. they utilize both full-time and part-time or "on-call" guards. The complainants were hired as part-time "on-call" guards who were called for work only periodically and for short term assignments, usually for only one or two days but occasionally for up to two weeks when providing security at various remote pump sites. Ordinarily Superior Security received calls from Consol each day they determined that security personnel were needed at various pump sites. These sites are generally at more remote and less desirable locations than where the permanent full-time staff work. According to Davis Superior Security maintains a seniority list of part-time employees and when a request for a part-time security guard is made by Consol they proceed down the list in order of seniority, passing on those who cannot be reached or who are unavailable.

In their complaints in these cases Boyce and Moore allege that they suffered discrimination in the year preceding the filing of their complaint with MSHA on November 8, 1994, in that after they made their complaints of "life threatening" hazards to Tom Davis, presumably those complaints associated with their being required to work as security guards at "very remote locations with no communication or sanitary facilities", their work time was reduced and the work that they did receive was only at "very remote locations with no communications or sanitary facilities". They also complain that when their supervisor at Superior Security, Tom Davis, was questioned in regard to the lack of sanitary facilities at the job sites, they suffered discrimination when he purportedly told them that they "could go to the woods". They maintain that the Consolidation Coal Company (Consol) was also responsible for the discrimination they suffered in that Gary Fluharty, alleged to be a Consol superintendent, was the husband of Brenda Fluharty who was an employee of Superior Security and who they claim informed her husband of their complaints.

Even assuming, *arguendo*, however, that the complainants had engaged in protected activity as alleged, they have failed to sustain their burden of proving that they suffered adverse action as a result of such activity. The undisputed evidence shows that both Moore and Boyce had always, from the beginning of their employment as part-time "on-call" security guards for Superior Security, been assigned to remote worksites primarily to guard pump equipment at various Consol mine properties. The communication facilities at some of these locations had always been limited to the voluntary use of "walkie talkies" and some apparently never had on-site bathrooms.² There is moreover no evidence that the conditions at these worksites were worse after the alleged health and safety complaints. Moreover, there is no record evidence to indicate that the complainants were assigned more often to these remote worksites after their alleged complaints.

In addition, while Boyce and Moore further allege that they suffered diminished work time "approximately 60% from what it was prior to . . . making health and safety related complaints", Moore conceded at hearing that, upon its investigation, MSHA, in fact, found no significant reduction in their work time. Moore further acknowledged at hearing that she had no evidence to dispute MSHA's finding in this regard. Indeed neither complainant produced any credible evidence at hearing to show

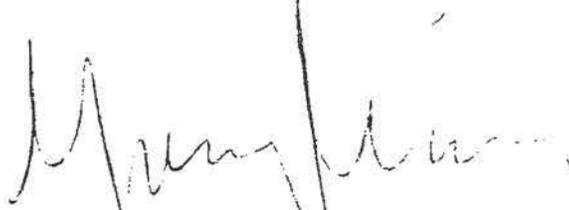
² It is not disputed that Moore and Boyce had access to vehicles which they were permitted to use to transport themselves to sanitary facilities available near the remote locations.

that their work time had, in fact, been reduced following their purported safety and health complaints.

Under the circumstances, wherein the complainants have failed to sustain their burden of proving that they suffered any adverse action, there is no need to pursue any further legal analysis. Those complaints must accordingly be dismissed.

ORDER

The complaints of discrimination by Debora Boyce and Viletta M. Moore in the captioned proceedings are hereby dismissed as against both Consolidation Coal Company and Superior Security, Inc.



Gary Melick
Administrative Law Judge
703-756-6261

Distribution:

Elizabeth Chamberlin, Esq., Consolidation Coal Company, 1800 Washington Road, Pittsburgh, PA 15241 (Certified Mail)

James B. Zimarowski, Esq., 265 High Street, Suite 501, Morgantown, WV 26505 (Certified Mail)

Ms. Debora Boyce, Route 1, Box 243, Mannington, WV 26582 (Certified Mail)

Ms. Viletta M. Moore, Route 1, Box 302, Mannington, WV 26582 (Certified Mail)

/jff

ADMINISTRATIVE LAW JUDGE ORDERS

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

OFFICE OF ADMINISTRATIVE LAW JUDGES
2 SKYLINE, 10th FLOOR
5203 LEESBURG PIKE
FALLS CHURCH, VIRGINIA 22041

November 24, 1995

SECRETARY OF LABOR, : CIVIL PENALTY PROCEEDINGS
MINE SAFETY AND HEALTH :
ADMINISTRATION (MSHA), : Docket Nos. LAKE 94-72, etc.
Petitioner :
v. : Buck Creek Mine
BUCK CREEK COAL INC., :
Respondent :

ORDER GRANTING CONTINUED STAY OF CIVIL PROCEEDINGS

On July 17, 1995, a 90 day stay of 80 orders and citations from among the more than 500 orders and citations in these cases was granted. *Buck Creek Coal, Inc.*, 17 FMSHRC 1294 (Judge Hodgdon, July 1995). On October 16, 1995, the Secretary filed a motion requesting a continuance of the stay for 45 of the orders and citations. Buck Creek opposes the motion. For the reasons set forth below, the motion is granted.

In support of the motion, the Secretary asserts that the 45 orders and citations, which are found in 14 civil penalty dockets, are "subject to and within the scope of an ongoing criminal investigation into possible willful violations of federal law and mine safety standards at the Buck Creek Mine." The motion goes on to state that at least the first phase of the criminal investigation is expected to be completed "shortly." As in its previous motion, the Secretary maintains that "[t]he violations which the Secretary seeks to have continued as stayed are either directly involved in the courses of conduct under [criminal] investigation or are of the same type, location and hazards as the core conduct and are considered possibly motivated by the same concerted course of action." In further support of the motion, the Secretary has submitted another affidavit of the Assistant U.S. Attorney for *in camera* consideration.

In opposing the motion, Buck Creek argues that the Secretary has not shown a commonality of evidence between the orders and citations he wishes to have stayed and the criminal investigation. The Respondent further argues that a continuance of the stay would extend "the unending denial of Buck Creek's rights to an expeditious and fair disposition of the citations and orders contested in this matter," would "disrupt Buck Creek's discovery efforts" and would not conserve judicial resources. Finally, Buck Creek contends that consideration of the affidavit *in camera* violates its right to due process and, therefore, should not be done.

In a prior decision in these cases, the Commission set out five factors to be considered in determining whether to grant a stay of civil proceedings when a related criminal proceeding exists. *Buck Creek Coal Inc.*, 17 FMSHRC 500, 503 (April 1995). It further stated that the first factor, "commonality of evidence" between the two proceedings, was a "key threshold factor" that had to be established in the record before the other four factors could be considered. *Id.*

The Commission did not discuss what types of evidence would be sufficient to establish a nexus between the civil and criminal matters. While the decision stated that an "assertion that a stay would be 'beneficial' to the Government falls short of the demonstration required," no additional guidance is provided. *Id.* Presumably, however, more than an assertion by the Secretary that the matters are related is necessary.

When charges have been drafted and indictments returned, it would seem to be a simple matter to compare the charges with the civil matters. Even then, the U.S. attorney may be reluctant to reveal to the defendant his evidence before trial. When the criminal proceeding is just in the investigative stage, as here, there are numerous reasons why the government would not want to make public what the investigation involves. See e.g. 17 FMSHRC at 1295. Accordingly, if the Secretary's claim that there is a commonality between the civil and criminal matters is not sufficient, it appears that the only way to resolve the issue without compromising the criminal investigation is to review the Secretary's *in camera* submission. See *In Re John Doe, Inc.*, 13 F.3d 633, 636 (2d Cir. 1994).

Having reviewed the Assistant U.S. Attorney's submission, I conclude that a commonality of evidence and issues has been demonstrated.¹ Buck Creek argues that the test "requires commonality of evidence -- not of 'issues'." That misreads the Commission's decision. Although the Commission only mentioned commonality of evidence in enumerating the five factors, it clearly stated in its conclusion that "we vacate the February 15 Order Continuing Stay without prejudice to the imposition by the judge, upon request, of a limited stay covering particular proceedings based on the criteria set forth herein, *including the commonality of issues and evidence between the civil and criminal matters.*" Buck Creek at 505 (emphasis added). Consequently, in reaching this decision, I have considered commonality of both evidence and issues.

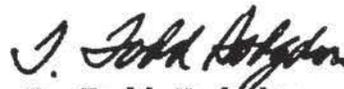
I also conclude that the remaining considerations for granting a stay are as they were in my previous grant and, accordingly, find that a continuance of the stay is appropriate. With regard to Buck Creek's allegation that it is being denied an expeditious disposition of these cases, I note that so far there has been no request to begin hearing any of the cases that have not been stayed since the Commission's April 25 decision. With his latest motion the Secretary has added 35 orders and citations to the already large number available for hearing.²

Accordingly, it is **ORDERED** that proceedings in Order Nos. 3843374, 3843376 and 3843377 in Docket No. LAKE 94-21; Order No. 3843511 in Docket No. LAKE 94-42; Citation Nos. 3843532, 4055892 and 4055893 in Docket No. LAKE 94-50; Order No. 3843667 in Docket No. LAKE 94-72; Order No. 4055899 in Docket No. LAKE 94-81; Citation Nos. 4262051 and 4262257 in Docket No. LAKE 94-600; Citation Nos. 4259169, 4259170, 4262070, 4262307, 4262308,

¹ The current submission provides little in the way of new information and incorporates by reference the previous submission, therefore, I am essentially finding that the previous submission suffices to continue the stay.

² It would be impractical, if not impossible, to hear all of these cases at one hearing, but there does not appear to be any reason why hearings in manageable groupings of cases could not begin to be scheduled. In this connection, it would appear that such hearings will be taking place long after the instant stay has been lifted or expires.

4262313 and 4262314 in Docket No. LAKE 94-602; Citation Nos. 4262128 and 4259175 in Docket No. LAKE 94-669; Order Nos. 4259813, 4259814, 4262068, 4262080 and 4262275 and Citation Nos. 3843968, 4261879, 4262303, 426304, 4262305 and 4262334 in Docket No. LAKE 94-708; Order Nos. 4259171, 4261728, 4262075 and 4262317 in Docket No. LAKE 94-709; Order No. 4262078 in Docket No. LAKE 94-746; Order Nos. 4259848, 4262374 and 4262375 and Citation Nos. 4262277, 4262278 and 4262279 in Docket No. LAKE 95-49; Order No. 3843970 in Docket No. LAKE 95-94; and Citation No. 4259854 in Docket No. LAKE 95-173 are **STAYED** for 60 days from the date of this order.³



T. Todd Hodgdon
Administrative Law Judge

Distribution:

Henry Chajet, Esq., Fiti A. Sunia, Esq., Patton Boggs, L.L.P.,
2550 M Street, N.W., Washington, DC 20037-1350 (Certified Mail)

Rafael Alvarez, Esq., Office of the Solicitor, U.S. Department of
Labor, 230 South Dearborn Street, Chicago, IL 60604 (Certified
Mail)

Thomas A. Mascolino, Esq., Deputy Associate Solicitor, Office of
the Solicitor, Mine Safety and Health, U.S. Department of Labor,
4015 Wilson Blvd., Arlington, VA 22203 (Certified Mail)

/lt

³ The dockets listed are civil penalty dockets. In those cases where a notice of contest was filed concerning one of the orders or citations listed, the contest docket is also stayed.

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

1730 K STREET NW, 6TH FLOOR

WASHINGTON, D.C. 20006

November 28, 1995

SECRETARY OF LABOR, : CIVIL PENALTY PROCEEDING
MINE SAFETY AND HEALTH :
ADMINISTRATION (MSHA), : Docket No. KENT 95-596
Petitioner : A. C. No. 15-17077-03543
v. :
: RB No. 5 Mine
R B COAL COMPANY, :
INCORPORATED, :
Respondent :

DECISION TO REOPEN ORDER TO FILE PENALTY PETITION

Appearances: Mark Malecki, Esq., Office of the Solicitor,
U.S. Department of Labor, Arlington, Virginia,
for the Petitioner;
Richard D. Cohelia, R B Coal Company Inc.,
Pathfork, Kentucky, for Respondent.

Before: Judge Merlin

The issue presented is whether the operator may be allowed to proceed to a hearing on the merits of its claim or whether the case should be dismissed because the operator did not request a hearing within the period allowed by the Mine Act and Commission regulations.

On November 28, 1994, an inspector of the Mine Safety and Health Administration issued to the operator Citation No. 4247308 under section 104(d) of the Act, 30 U.S.C. § 814(d). On the same date the operator was also issued Order No. 4247309 under section 104(d). Thereafter, on March 23, 1995, the Mine Safety and Health Administration issued a Notice of Proposed Assessment for the subject citation and order as well as for a citation issued under section 104(a).¹ The notice advised the operator that it had 30 days from the date it received the proposed assessment to either pay or notify MSHA that it wished to contest the proposed assessment and was requesting a hearing. The notice further told the operator that if it did not exercise these rights within 30 days, the proposed assessment would become a final order of the Commission. The notice was mailed certified mail return receipt requested and received by the operator on March 28, 1995.

¹The 104 (a) citation was paid and is not involved in this case.

The 30th day from the date of the operator's receipt of the proposed assessment was April 27, 1995. MSHA's Civil Penalty Compliance Office received a request for hearing from the operator which is date stamped May 26, 1995. The hearing request is signed and dated May 12, 1995, by the operator's engineer. On June 8, 1995, MSHA wrote the operator that the proposed assessment was final and that the hearing request could not be honored because the case had not been timely contested.

On June 16, 1995, the operator through its engineer wrote the Commission seeking permission to contest these civil penalty assessments. The operator admitted that it had failed to contest the assessments within the 30 day period specified in section 105(a) of the Act, 30 U.S.C. § 815(a), and section 2700.26 of Commission regulations, 29 C.F.R. § 2700.26. According to the engineer's letter, the hearing request was not filed on time because it was misplaced in the paperwork of numerous assessments. The letter further stated that the company had just recently begun implementing a program aimed at contesting citations which it considered excessive and that it was learning by trial and error, because it would be more expensive to hire an attorney than pay the assessments.

On July 18, 1995, the Commission issued an order treating the operator's letter as a petition for discretionary review and stated that it was unable to evaluate the merits of the operator's position. Therefore, it remanded the case for a determination whether relief was appropriate under applicable criteria. 17 FMSHRC 1110.

On July 25, 1995, I issued an order requiring the Solicitor to show cause why the case should not be assigned to an Administrative Law Judge for disposition on the merits. Thereafter, on August 14, 1995, the Solicitor filed a response to the order to show cause, asserting that the operator had not demonstrated that it was entitled to relief and arguing that even if the reasons advanced justified relief, they were not presented in such a manner as to obviate the need for a hearing.

Attached to the Solicitor's motion were copies of the citation and order issued to the operator for the alleged violations which had been designated significant and substantial and due to unwarrantable failure. Also attached was a copy of the notice of the proposed assessment, dated March 23, 1995, together with the assessment sheet. The first alleged violation was assessed at \$1,200 and the other at \$1,500.

A notice of hearing was issued on September 28, 1995, and a hearing was held on November 1, 1995.

At the hearing the operator's engineer testified that he is the individual at the mine who is served with citations and orders, receives the notices of proposed assessments, and decides whether to pay or contest them (Tr. 5-6, 10-11). He is the only person at the mine who performs these tasks. Because the operator is small with only 100 to 120 total employees and in view of the present state of mining, he has many other duties to perform (Tr. 16, 58). These other duties include training new employees, performing surveys, taking dust samples, inspecting sections before the MSHA inspector comes and accompanying the inspectors on their inspections (Tr. 5-6, 16). After receiving a citation he disagrees with, the engineer has a closeout conference with the inspector and if the matter remains unresolved, a health and safety conference is held and if a resolution is not reached, he requests a hearing before the Commission (Tr. 6-7). All citations issued by an inspector on the same day do not come on the same proposed assessment notice (Tr. 8). If a citation is going to be paid, the engineer tries to stagger payments depending upon the operator's cash position at the particular time so that a few are paid at a time (Tr. 12). Therefore, citations he decides to pay are not always forwarded immediately to the operator's corporate office for payment (Tr. 12). If he decides to appeal to the Commission, he also staggers mailing hearing requests so that hearings will not all be at the same time (Tr. 28, 47-48). Due to his other responsibilities he cannot spend all his time during a given period contesting citations (Tr. 16). According to the engineer, the operator routinely contests citations and orders issued under section 104(d) of the Act, supra, because it disagrees with the findings of significant and substantial and unwarrantable failure (Tr. 7, 30). Also the assessments in these cases are expensive and significant and substantial findings count toward their "pattern of violations" under section 104(e), 30 U. S. C. § 814(e) (Tr. 32). In the engineer's opinion these findings have been excessive and he has been successful in having them changed and securing settlements (Tr. 30-31, Op. Exh. No. 3). He does not necessarily let 104(a) citations slide either (Tr. 11).

The engineer testified that two or three months before he received the notice of proposed assessment in this case, he obtained a new computer (Tr. 8-9). When he received this notice, he was entering on the computer citations and notices of assessment back to 1993 (Tr. 25, 51). For each case he enters the

citation number, the assessment control number, dollar amount, prior action, and status (Tr. 9-10, Op. Exh. No. 3). This case is the only time he failed to request a hearing timely (Tr. 59-60). After the late filing in this case, he purchased additional software whereby he now has a daily calender and can bring up deadlines (Tr. 49-50). If he had had this software when he received this notice, he would not have been late (Tr. 50).

The engineer explained that it is his practice to put contested citations in a file cabinet with their number on the file (Tr. 27). Citations that are to be paid are placed in a basket on his desk to be taken to the corporate office at Brookside which is 40 miles away (Tr. 10-11, 25). He circles the citations he is going to contest and leaves a note for the ones to be paid (Tr. 37, Gov't. Exh. 1). He knew when he first saw the 104(d) citation and order in this case that they would be appealed (Tr. 28). At that time he was working on about 20 assessment sheets (Tr. 14-15). He could have filled out the explanation portion of the hearing request entered the data on the same day he received the proposed assessment, a couple of days later or even 15 days later (Tr. 28-29, 38-40). Several orders were issued by the inspector at that particular time and the engineer tried to space them out (Tr. 29). He does not dispute the date of receipt as March 28 and said that the return receipt card had been signed by an individual who works in the warehouse (Tr. 34-35). Subsequently, on May 12 he signed the hearing request and gave it to be mailed (Tr. 42-43). As already stated, he staggers hearing requests so that all the hearings will not occur at the same time, and he did not intend this request to be late (Tr. 48). The engineer did not know why the request was mailed almost two weeks after he signed it (Tr. 33). When he signs a request for hearing he gives it to the office worker to mail (Tr. 33-34). He subsequently found the request for hearing in the basket for assessments to be paid, which was the wrong pile (Tr. 25, 29, 49). Mail goes to several different places and may have been put in the wrong pile or misplaced (Tr. 47). The individual working in the office who is responsible for mailing is a miner's widow and does not know too much about secretarial work (Tr. 46). She just more or less answers the telephone (Tr. 34). She could have sent the hearing request to Brookside by mistake (Tr. 47).

According to the engineer, all citations issued on the same day do not come out in the same notice of proposed assessment and assessment sheet (Tr. 8). The number of notices and assessment sheets vary (Tr. 8). As previously set forth, the citation and

order at issue were included in the notice of proposed assessment, and constitute the items in this docket number. However, on November 28, 1994, the day these items were issued, two more citations also were issued (Tr. 29, Op. Exh No. 2). All these items were considered at the same Health and Safety Conference (Tr. 17 Op. Exh. No. 2). However, the other two citations were in a different notice of proposed assessment and therefore, when a hearing was requested for them, they were in a different docket number (Tr. 18). I take official note that according to Commission records the docket number for those citations is KENT 95-343 and that the Secretary's penalty petition there was filed late by a Conference and Litigation Representative ("CLR"), 29 C.F.R. § 2700.28. The reasons given for the late filing were the newness of the CLR program in which non lawyer MSHA employees represent the Secretary in selected cases, and the confusion of the CLR over the correct contest date. On May 26, 1995, I accepted the explanations offered and issued an order accepting the Secretary's petition. I noted that the CLR program represents a new approach which I had approved in prior cases. I also pointed out that the operator was not prejudiced by the delay. Subsequently those cases were settled (Tr. 19, 21).

Section 105(a) of the Act, supra, provides that an operator has 30 days within which to notify the Secretary that it wishes to contest the citation or proposed assessment. If within 30 days of receipt of the Secretary's notification, the operator fails to notify the Secretary that it intends to contest the citation or proposed assessment, the proposed assessment becomes a final order of the Commission. Id. In Jim Walter Resources, Inc., 15 FMSHRC 782 (May 1993), the Commission held that it has jurisdiction to decide whether final judgments can be reopened.

Commission Rule 1(b) provides that the Commission and its judges shall be guided so far as practicable by the Federal Rules of Civil Procedure. 29 C.F.R. § 2700.1(b). In its July 18 order, the Commission once again stated that it possesses jurisdiction to reopen uncontested assessments which have become final under section 105(a), supra, and that these determinations are made with reference to Federal Rule 60(b). Federal Rule 60(b)(1) provides as follows:

On motion and upon such terms as are just,
the court may relieve a party or a party's
legal representative from a final judgment,

order, or proceeding for the following reasons: (1) mistake, inadvertence, surprise, or excusable neglect * * *.

In Pioneer Investment Services Company v. Brunswick Associates Limited Partnership, 113 S. Ct. 1489 (1993), 123 L.Ed 2d 74, the Supreme Court recognized that Bankruptcy Rule 9006(b)(1), which contains the same "excusable neglect" standard as Rule 60(b)(1), grants a reprieve for out-of-time filings delayed by "neglect". 123 L.Ed 2d at 85. In interpreting this provision, the Court first turned to the ordinary meaning of "neglect", which it said was to give little attention or respect to a matter or to leave undone or unattended to, especially through carelessness. Id. The Court said that the word "neglect" therefore, encompassed both simple, faultless omissions to act and, more commonly, omissions caused by carelessness. Id. The Court further held that absent sufficient indication to the contrary courts assume that Congress intends words in its enactments to carry their ordinary contemporary common meaning. Id. Consequently, based on the plain meaning of neglect, the Court rejected an inflexible approach that would exclude every instance of inadvertent or negligent omission. Id. at 89.

With respect to the meaning of excusable neglect the Court in Pioneer stated as follows:

Because Congress has provided no other guideposts for determining what sorts of neglect will be considered "excusable," we conclude that the determination is at bottom an equitable one, taking account of all relevant circumstances surrounding the party's omission. These include, . . . the danger of prejudice to the debtor, the length of the delay and its potential impact on judicial proceedings, the reason for the delay, including whether it was within the reasonable control of the movant, and whether the movant acted in good faith.

Id. at 89.

Many Courts of Appeals have acknowledged and followed the test set forth in Pioneer. It has been explicitly recognized that the decision in Pioneer represented a change from prior law

and adopted a new and more lenient interpretation. U.S. v. Hooper, 9 F.3d 257 (2nd Cir. 1993); Matter of Christopher, 35 F.3d 232 (5th Cir. 1994); U.S. v. Clark, 51 F.3d 42 (5th Cir. 1995); Reynold v. Wagner, 55 F.3d 1426 (9th Cir. 1995); City of Chanute, Kansas v. Williams Nat. Gas Co., 31 F.3d 1041 (10th Cir. 1994); Information Systems and Networks Corp. v. U.S., 994 F.2d 792 (Fed. Cir. 1993). See also, In Re SPR Corp., 45 F.3d 70 (4th Cir. 1995). Although Pioneer was a case that arose under the bankruptcy rules, it has been applied beyond the context of bankruptcy to other situations where pertinent rules contain the same standard of "excusable neglect". U.S. v. Hooper, supra at 259; U.S. v. Clark, supra at 44; Reynold v. Wagner, supra at 1429; Information Systems and Networks Corp. v. U.S., supra at 796.

Applying the criteria of Pioneer, I find first that there will be no prejudice to the Secretary if the operator is allowed to proceed on the merits. There has been no allegation that the delay which occurred here will hinder the Secretary in the presentation of his case on the merits. In addition, a trial on the merits is always favored over default. Information Systems and Networks Corp. v. U.S., supra at 795. The fact that the operator was not represented by counsel is another factor to be taken into account. As described above, the operator's engineer testified how he treats citations, notices of proposed assessments, and requests for hearing. I found him truthful and credible. His methods were sensible and obviously undertaken in good faith. That he was in the process of computerizing his records and that there were a large number of cases going back to 1993 are relevant circumstances. Most importantly, this is the only time this small operator has been out of time in requesting a hearing. Nor do I believe reopening this case will have an adverse impact on Commission proceedings given the circumstances and the short delay involved. After balancing all the above factors and bearing in mind the Supreme Court's admonition that the determination of what sorts of negligence are excusable is at bottom an equitable one, I conclude that the operator's late filed hearing request should be allowed and the case reopened.

This conclusion is also consistent with Commission precedent. In vacating defaults and remanding cases for determination whether reopening is warranted, the Commission has repeatedly reminded its Judges that default is a harsh remedy. See, e.g., A.H. Smith Stone Company, 11 FMSHRC 796, 798 (May 1989). The Commission itself has ordered a case reopened under Rule 60(b)(1) where the operator did not timely file an appeal, relying upon

the fact that the operator was without benefit of counsel. C&B Mining Company, 15 FMSHRC 2096, 2097 (Oct. 1993). In its remands the Commission has considered the absence of counsel in the forefront of relevant reasons that could justify reopening. Kelley Trucking Company, 8 FMSHRC 1867, 1868 (Dec. 1986). See also, CG&G Trucking, Inc., 15 FMSHRC 193 (Feb. 1993); Mustang Fuels Corporation, 13 FMSHRC 1061, 1062 (July 1991). The Commission has also recognized that an operator proceeding without counsel may be entitled to relief when serious personal problems are responsible for the untimeliness. James D. McMillen, Employed by Shillelagh Mining Company, 13 FMSHRC 778, 779 (May 1991). The absence of bad faith is another factor which should be taken into account. Kenneth Howard v. B & M Trucking, 11 FMSHRC 499, 500 (April 1989). All the foregoing factors support a reopening in the instant matter.

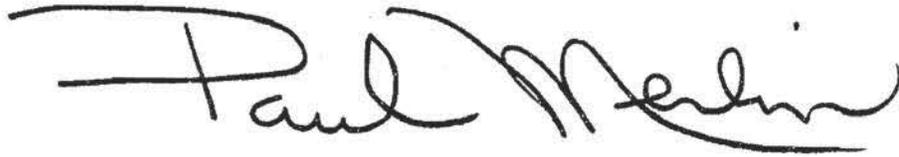
It is clear that this case is an isolated instance where the operator slipped up. As appears above, I have excused the Secretary's own late filing in the companion case. The grounds here for operator relief are at the very least equally persuasive as those advanced by the Secretary in the companion case and in many other such cases where the Secretary seeks to have his late filings allowed. Salt Lake County Road Department, 3 FMSHRC 1714; Rhone-Poulenc of Wyoming Company, 15 FMSHRC 2089 (Oct. 1993) aff'd, 57 F.3rd 982 (10th Cir. 1995); Roberts Brothers Coal Company, Inc., 17 FMSHRC 1103 (June 1995); Lone Mountain Processing, Inc., 17 FMSHRC 839 (May 1995); Ibold Inc., 17 FMSHRC 843 (May 1995); Long Branch Energy, 16 FMSHRC 2192 (Oct. 1994); Southmountain Coal Company, Inc., 15 FMSHRC 2421 (Nov. 1993); Power Operating Company Incorporated, 15 FMSHRC 931, (May 1993).

The operator however, is cautioned that if in the future it should be late in filing the equities might not be in its favor. The operator is now on notice that some of its procedures, including mailing, need improvement.

The parties have filed post-hearing briefs and statements. To the extent they are inconsistent with this decision, they are rejected. The Solicitor appears unaware of Pioneer and the decisions that follow it.

In light of the foregoing, it is ORDERED that this case be REOPENED.

It is further ORDERED that within 45 days of the receipt of this order, the Solicitor file the penalty petition for this case.

A handwritten signature in black ink that reads "Paul Merlin". The signature is fluid and cursive, with a large initial "P" and a long, sweeping underline.

Paul Merlin
Chief Administrative Law Judge

Distribution: (Certified Mail)

Mark R. Malecki, Esq., Office of the Solicitor, U.S. Department of Labor, 4015 Wilson Blvd., Suite 516, Arlington, VA 22203

Richard D. Cohelia, Safety Director, R B Coal Co., Inc., Route 1, Box 374, Evarts, KY 40828

Mr. David J. Partin, R B Coal Co., Inc., 8174 East Highway 72, Pathfork, KY 40863

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FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

1730 K STREET NW, 6TH FLOOR
WASHINGTON, D.C. 20006

November 30, 1995

SECRETARY OF LABOR, : CIVIL PENALTY PROCEEDING
MINE SAFETY AND HEALTH :
ADMINISTRATION (MSHA), : Docket No. LAKE 95-323-M
Petitioner : A. C. No. 47-03050-05501
:
v. : Rohl Limestone
ROHL LIMESTONE INCORPORATED, :
Respondent :

DECISION DISAPPROVING SETTLEMENT
ORDER TO SUBMIT INFORMATION

Before: Judge Merlin

This case is before me upon a petition for assessment of a civil penalty under section 105(d) of the Federal Mine Safety and Health Act of 1977. The Solicitor has filed a motion to approve settlement for the one violation in this case. A reduction in the penalty from \$1,000 to \$300 is proposed.

Citation No. 4423778 was issued for a violation of 30 C.F.R. § 56.9314 because the No. 1 road base stockpile was not trimmed, resulting in an injury. According to the Solicitor, negligence for this citation remains unchanged. Nevertheless, he asserts that the suggested reduction in the penalty is acceptable based on the operator's assertions that the characterization of negligence may be inaccurate. The Solicitor states that the operator alleges that he did everything possible to avoid the hazard from causing injury. The Solicitor advises that based on mitigating circumstances the evidence may not conclusively confirm a characterization of negligence as moderate. In addition, the Solicitor states that the operator is small in size and has no prior history of violations.

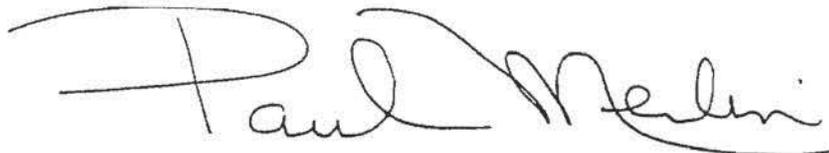
I cannot approve this settlement motion. The parties are reminded that the Commission and its judges bear a heavy responsibility in settlement cases pursuant to section 110(k) of the Act. 30 U.S.C. § 820(k); See, S. Rep. No. 95-181, 95th Cong., 1st Sess. 44-45, reprinted in Senate Subcommittee on Labor, Committee on Human Resources, 95th Cong., 2d Sess., Legislative History of the Federal Mine Safety and Health Act of 1977, at 632-633 (1978). It is the judge's responsibility to determine

the appropriate amount of penalty, in accordance with the six criteria set forth in section 110(i) of the Act. 30 U.S.C. § 820(i); Sellersburg Stone Company v. Federal Mine Safety and Health Review Commission, 736 F.2d 1147 (7th Cir. 1984). A proposed reduction must be based upon consideration of these criteria.

The Solicitor's representations with respect to negligence are inadequate. The Solicitor offers no details of the alleged mitigating circumstances nor does he state that he accepts these allegations. I cannot approve a 70% reduction in the penalty where the degree of negligence remains unchanged, especially where the violation involves an injury. Either the evidence supports the finding of moderate negligence not justifying a large penalty reduction or the evidence is such that the citation should be modified to reduce negligence and the proposed penalty. The Solicitor cannot have it both ways. That the operator is small and has no prior history of violations cannot alone justify the large reduction.

In light of the foregoing, it is ORDERED that the motion for approval of settlement be DENIED.

It is further ORDERED that within 30 days of the date of this order the Solicitor submit appropriate information to support his settlement motion. Otherwise, this case will be set for hearing.



Paul Merlin
Chief Administrative Law Judge

Distribution: (Certified Mail)

Ruben R. Chapa, Esq., Office of the Solicitor, U.S. Department of Labor, 230 S. Dearborn Street, 8th Floor, Chicago, IL 60604

Mr. Leo Rohl, President, Rohl Limestone Inc., 406 County Road U, River Falls, WI 54022

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