

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

OFFICE OF ADMINISTRATIVE LAW JUDGES
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June 21, 2000

SECRETARY OF LABOR,	:	CIVIL PENALTY PROCEEDING
MINE SAFETY AND HEALTH	:	
ADMINISTRATION (MSHA),	:	Docket No. PENN 99-132
Petitioner	:	A. C. No. 36-00970-04131
v.	:	
	:	Maple Creek
MAPLE CREEK MINING INC.,	:	
Respondent	:	

DECISION

Appearances: Mark V. Swirsky, Esq., Office of the Solicitor, U.S. Department of Labor, Philadelphia, Pennsylvania, for the Petitioner;
Michael O. McKown, General Counsel, Maple Creek Mining, Inc., Bentleyville, Pennsylvania, for the Respondent.

Before: Judge Feldman

This proceeding concerns a petition for assessment of civil penalty filed pursuant to section 110(a) of the Federal Mine Safety and Health Act of 1977 (the Act), 30 U.S.C. § 820(a), by the Secretary of Labor (the Secretary) against the respondent, Maple Creek Mining, Inc. (Maple Creek). The petition sought to impose a \$6,000 civil penalty for each of three 104(d)(2) Orders, constituting a total civil penalty of \$18,000. 104(d)(2) Order No. 3657936 concerns Maple Creek's alleged failure to maintain a belt structure in safe operating condition in violation of the mandatory safety standard in 30 C.F.R. § 75.1725(a). 104(d)(2) Order No. 3657937 cited Maple Creek for its alleged failure to post a pertinent danger sign, as required by 30 C.F.R. § 75.363(a), for the purpose of alerting miners to the hazardous conditions cited in Order No. 3657936. Finally, 104(d)(2) Order No. 3658016 cited Maple Creek for numerous areas of combustible coal dust accumulations allegedly prohibited by the mandatory safety standard in 30 C.F.R. § 75.400.¹

¹ Section 75.400 provides:

Coal dust, including float coal dust deposited on rock-dusted surfaces, loose coal, and other combustible materials, shall be cleaned up and not be permitted to accumulate in active workings, or on diesel-powered and electric equipment therein.

This matter was heard on April 4, 2000, in Morgantown, West Virginia, at which time Maple Creek stipulated that it is a mine operator subject to the jurisdiction of the Act.² At the hearing, the parties proposed a settlement agreement wherein Maple Creek agreed to pay the \$6,000 civil penalty proposed by the Secretary for 104(d)(2) Order No. 3657936, and to pay a reduced civil penalty, from \$6,000 to \$5,000, in satisfaction of 104(d)(2) Order No. 3657937. The terms of the settlement agreement, including Maple Creek's agreement to pay a total civil penalty of \$11,000 for the subject two Orders, was approved on the record. (Tr. 4-6).

Consequently, the remaining Order for disposition is 104(d)(2) Order No. 3658016 issued on October 29, 1998, for impermissible combustible coal dust accumulations at the New Eagle section of the Maple Creek Mine. At the hearing counsel for Maple Creek stipulated that the cited accumulations constituted a violation of 30 C.F.R. § 75.400. However, Maple Creek challenges both the significant and substantial (S&S) designation of the violation, and the Secretary's assertion that the violation was attributable to its unwarrantable failure.

I. The Secretary's Case

The Maple Creek Mine is a large, underground coal mine located in western Pennsylvania. (Tr. 199). The New Eagle Mine is a single unit mine that is directly adjacent, although not physically connected, to the Maple Creek Mine. The New Eagle Mine produces a low sulfur blend coal for the Maple Creek Mine. (Tr. 196). The subject section of the New Eagle Mine is a ten entry section. (Tr. 203).

On September 15, 1998, Mine Safety and Health Administration (MSHA) Inspector George Rantovich inspected the Maple Creek Mine. Rantovich was accompanied by MSHA Supervisory Inspector Robert W. Newhouse of the Ruff Creek Field Office. (Tr. 146). Newhouse has 33 years of experience in the mining industry and he has been employed by MSHA for almost 24 years. (Tr. 145). During the course of his inspection, Rantovich observed loose coal, fine coal and float coal dust accumulations on the mine floor, belt structure and crosscuts in the No. 2 Mains. The accumulations included fine coal measuring 2 inches to 24 inches in depth that was in close proximity and contacting the moving tailrollers of the 1 East Mains conveyor belt. Based on his observations, Rantovich issued 104(d)(1) Order No. 3657357, not in issue in this proceeding, alleging a violation of 30 C.F.R. § 75.400. (Gov. Ex. 3; Joint Stip. No. 11; Tr. 147).

² On May 31, 2000, the Secretary filed an unopposed request to correct 12 errors in the hearing transcript. The Secretary's request is granted and the transcript is hereby amended to reflect the subject corrections.

Order No. 3657357 was issued to John Parker, Maple Creek's assistant mine foreman and belt foreman, at 11:05 a.m. on September 15, 1998. At that time, Rantovich and Newhouse spoke to Parker about the importance of preventing accumulations, particularly around the moving beltline. (Tr. 149, 165-166; Gov. Ex. 3).

Upon completing the September 15, 1998, underground inspection, Rantovich and Newhouse proceeded to the surface to meet with Maple Creek officials. Newhouse testified that he told Mine Foreman Tony Bertovich and Safety Director Richard Marcavitch that "the cleanup in the [belt] area . . . was just terrible. . . . It was just unacceptable. You can't have accumulations of coal like that in the mine. With all the ignition sources we have in there, it's just unheard of." (Tr. 150, 166).

Although Newhouse could not recall the exact date, he testified that, several days after the September 15, 1998, inspection, he also had a conversation with Jerry Taylor, Maple Creek's Corporate Safety Director, "about the lack of cleanup and lack of attention paid . . ." to the beltline areas. (Tr. 151, 166)

On a Saturday, approximately one to two weeks after Newhouse's September 15, 1998, aboveground meeting with Bertovich and Marcavitch, at the request of Maple Creek's President, Robert Murry, a meeting was held at the Maple Creek Mine between MSHA officials and Maple Creek officials. Participants at the meeting included Newhouse, the MSHA District Manager and Assistant District Manager, and Murry, as well as all of Maple Creek's department heads and supervisory employees. (Tr. 152, 166-167).

MSHA's Assessed Violation History Report reflects 50 citations were issued the previous year, from October 6, 1997, through September 15, 1998, at the Maple Creek Mine for impermissible coal dust accumulations. (Gov. Ex. 7). At the meeting, Newhouse talked about the large number of violations of 30 C.F.R. § 75.400 at the mine and the need for the operator to improve cleanup around the beltlines and in the sections. (Tr. 153-154). The discussion of the need for compliance with 30 C.F.R. § 75.400 was a major part of the meeting. (Tr. 154).

On October 29, 1998, MSHA Inspector Victor Patterson conducted an inspection of the New Eagle section of the Maple Creek Mine. Patterson has been employed in the mining industry for more than 30 years, and he has been a coal mine inspector for more than eight years. As a mine inspector, Patterson has a variety of training, including specialized training regarding the hazards associated with coal dust accumulations. (Tr. 34-38).

Patterson's inspection was in response to an employee complaint alleging accumulations of coal, and a lack of cleanup and rock dusting at the New Eagle section of the mine. The complaint was sent by facsimile to the Ruff Creek Field Office at 10:14 a.m. on October 28, 2000, the day before Patterson's inspection. The complaint was filed pursuant to Section 103(g) of the Act, 30 U.S.C. § 813(g). (Tr. 39, 161). Patterson was aware of Rantovich's 104(d) order that had been issued the previous month for violative coal dust accumulations. (Tr. 49).

Patterson arrived at the mine at approximately 8:00 a.m. on October 29, 1998. (Tr. 40). Patterson proceeded to the 043 portal of the New Eagle section, arriving on the section at 9:15 a.m. (Tr. 41). Patterson was accompanied by mine foreman Bertovich and union representative Larry Harper. (Tr. 41). Upon arriving at the section, Patterson went to the belt tailpiece in the No. 3 entry and observed accumulations of coal consisting of fine, loose dry coal and float coal dust, black in color, beside the belt tail on both sides. The accumulations were under the belt tail rollers and immediately outby the belt tailpiece. (Tr. 42). With Harper's assistance, Patterson measured the accumulations with a tape measure and determined them to be approximately 4 feet wide by 4 feet long and up to one foot in depth. (Tr. 45). The first tail roller outby on the bottom (return) of the belt was in contact with the accumulations. (Tr. 43). Patterson testified that he did not recall the presence of a feeder in line with the tailpiece. (Tr. 126). However, his contemporaneous notes reflect accumulations in contact with the belt tail roller as well as along both sides of the feeder.³ (Tr. 43; Gov. Ex. 5, pp. 3-4).

The belt at the tailpiece appeared to be out of alignment because it was rubbing against the belt structure. (Tr. 52). As a result, Patterson noted the belt structure was too hot when touched. (Tr. 42-43, 55, 127; Gov. Ex. 5, p. 3). Patterson testified he instructed Bertovich to shut the belt down immediately after discovering the heat produced from the belt structure. (Tr. 51). Given the combustible accumulations in proximity to the roller, Patterson considered the misaligned belt as an ignition source. (Tr. 42). Patterson did not issue a separate citation for the defective belt condition because he believed the 30 C.F.R. § 75.400 violation cited in Order No. 3658016 was sufficient to encompass all of the hazards presented at the belt. (Tr. 59-60).

In addition to the 4 feet by 4 feet accumulations in the immediate vicinity of the return tail roller, there was an accumulation of fine, loose coal and float coal dust 15 feet in length, up to four feet in height, and four feet wide on both sides of the belt feeder. (Tr. 43; Gov. Ex. 5, p. 4).⁴

The accumulations observed by Mr. Patterson at the belt line were dry, and they had not been rock dusted.⁵ Based on the extent of the accumulations in the vicinity of the tailpiece,

³ Maple Creek safety director Richard Marcavitch's testimony reflects Patterson's failure to recall if a feeder was present is not a matter of evidentiary significance. (Tr. 218-221). Moreover, Maple Creek has stipulated to the cited accumulations in proximity to the tail roller in the No. 3 entry. (Joint Stip. 12(b)).

⁴ The accumulations along the belt line in the vicinity of the feeder are identified as Location No. 2 in the parties' Joint Stipulation No. 12(b), as well as on the mine maps admitted as Gov. Ex. 6 and Resp. Ex. 3.

⁵ The operator had not rock dusted any of the 12 accumulations cited by the Secretary in this proceeding. (Tr. 81, 101).

Patterson concluded the accumulations existed during the prior midnight shift of October 29, 1998. (Tr. 50). At the time of Patterson's arrival on the section, no cleanup was taking place. (Tr. 129).

After observing the accumulations at the belt line, Patterson proceeded to ascertain whether there were other accumulations as the complaint received by MSHA suggested the presence of accumulations throughout the section. (Tr. 53). In addition to the beltline accumulations, Patterson proceeded to find eleven other areas of accumulations. Ten of these eleven other areas of accumulations were cited in 104(d) Order No. 3658016.⁶ The nature and extent of these twelve areas of accumulations are not in dispute and have been stipulated to by Maple Creek. (Joint Stip. Nos. 12(a) through 12(l)).

The next accumulation observed by Patterson (Identified as Location No. 1 on Gov. Ex. 6) was in the 0 entry at survey spad 2600 about 300 feet from the face. (Joint Stip. No. 12(a); Tr. 55; Gov. Ex. 1, Gov. Ex. 6). The accumulation consisted of fine, loose coal and float coal dust up to 24 inches deep, three feet wide, and 54 feet in length. The accumulated coal was mostly dry, black in color, and it had not been rock dusted. If there were an ignition in the mine, the material in this accumulation would help propagate a fire. (Tr. 57).

Patterson opined that there had been no mining in the area for a "few days". It appeared that the accumulation had simply been left behind when the area was mined. (Tr. 55, 58; Gov. 5, p. 5). In fact, Marcavitch, Maple Creek's safety director, testified that mining in the vicinity of spad 2600 had been completed a few weeks earlier. (Tr. 215).

The next accumulation Patterson observed was in the Number 1 entry at the intersection with the Number 77 crosscut, 100 feet outby the face (identified as Location No. 3A on Gov. Ex. 6). The accumulation measured 18 feet by 18 feet and up to 18 inches deep. (Tr. 64-66). The accumulation did not result from recent mining as the continuous mining machine was located at the other side of the section in the Number 8 entry, and the face area had already been cleaned. (Tr. 64-65). The accumulation consisted of loose, fine coal, ground up coal, and coal dust. It was dry, black in color, and had not been rock dusted. (Tr. 67). The subject area was one where mining equipment would travel during normal mining operations, including the mining machine, shuttle cars, bolting machines, and scoops. (Tr. 66). Ignition sources were present such as electrical cables and the mining equipment itself. (Tr. 67).

Patterson next noted an accumulation in the last open crosscut from the No. 1 to the No. 2 entry, 18 inches by 18 inches along both ribs and 36 feet in length (identified as Location No. 3B on Gov. Ex. 6). Mr. Patterson estimated this area had been mined two to three shifts earlier. (Tr. 68). The accumulation consisted of fine, loose coal and float coal dust. It was dry, black in color, and it was not rock dusted. The subject area was one where the continuous mining machine, shuttle cars, bolting machines, and scoops would travel during normal mining

⁶ Order No. 3658016 was amended at the hearing to include an area of accumulations in the No. 77 crosscut between the No. 2 and 3 entries. *See fn. 6, infra.*

operations. Ignition sources were present such as electrical cables and the mining equipment itself. (Tr. 72).

Patterson also found an accumulation in crosscut 77 (the last open crosscut) between the Number 2 and 3 entries, 68 feet outby the face (identified as Location No. 3C in Gov. Ex. 6). (Tr. 75).⁷ The accumulation measured 36 feet in length, 18 inches deep, and approximately 18 feet wide, along both ribs and occupying nearly the entire crosscut. (Tr. 73). In addition, there was an additional accumulation, located along the right rib from crosscut 77 to the face, of fine, loose dry coal and float coal dust. The material was dry, black in color, up to 18 inches deep, 18 inches wide, and 68 feet in length. (Gov Ex. 5, p. 7, Gov. Ex. 6; Tr. 76-77.) Both of the accumulations described in this paragraph are included within Location No. 3C. The dry nature of the material in accumulation 3C is representative of all 12 of the accumulations cited by Patterson with the exception of Location Nos. 4 and 6 that were wet. (Tr. 77-78).

Patterson next encountered a lengthy accumulation in the Number 3 entry, which had not been cleaned or scooped for a distance of about 100 feet (identified as Location No. 4 on Gov. Ex. 6). The accumulation extended up to 20 feet outby crosscut 77, the last open crosscut, and consisted of loose, fine coal, up to 18 inches deep from rib to rib. (Gov Ex. 1, Gov. Ex. 5, p. 8; Tr. 78). Patterson approximated the length of this accumulation by counting roof bolts which were put in on four foot centers. (Tr. 79; Gov Ex. 5, p.8). The subject area was one where mining equipment would travel during normal mining operations. Ignition sources were present such as electrical cables and the mining equipment itself. (Tr. 72, 79).

Patterson also noted accumulations in the Number 4 entry up to 160 feet in length, 18 feet wide, and up to 12 inches in depth (identified as Location No. 5 on Gov. Ex. 6). This accumulation was similar to the others cited by Patterson, except for the unusually long length. (Tr. 83-84, 86). In this entry Maple Creek had scooped out the last 40 feet down the middle of the entry (leaving material along the ribs), but had left a 160 feet long area behind the partially cleaned area that had not been cleaned at all. (Tr. 86-89; Gov. Ex. 5, p. 9).

Patterson next observed an accumulation in crosscut 77 between the No. 3 and No. 4 entries (identified as Location No. 6 on Gov. Ex. 6).⁸ The accumulation consisted of fine, loose coal and float coal dust, black in color, up to 18 feet wide and 12 inches deep. (Gov. Ex 1, Gov. Ex. 5, p. 9). Compared to the other eleven accumulations cited by Patterson, this accumulation was unusually deep, up to three feet in depth along the ribs. According to Patterson, the area "was never cleaned up whatsoever. It was just left, otherwise there wouldn't have been that much accumulation there." (Tr. 91-92).

⁷ Location 3C was described in Patterson's notes and appears on the mine map in Gov. Ex. 6. However, it was not included in the original order. The order was amended without objection at the beginning of the hearing to include this accumulation. (Tr. 20).

⁸ Although Maple Creek does not challenge the nature and extent of the accumulation, it contends the accumulation was in crosscut 77 between the No. 4 and No. 5 entries. (Tr. 89).

There was also an accumulation located in the No. 5 entry (identified as Location No. 7 on Gov. Ex. 6). The accumulation consisted of fine loose coal and float coal dust, black in color, along both ribs. It was 18 inches deep, 18 inches wide, and up to 70 feet in length. (Gov. Ex. 1, Gov. Ex. 5 at p. 10, Gov. Ex. 6). There was a roof bolting machine and trailing cable in this area that provided a potential ignition source. (Tr. 92-93). Although Patterson observed that cleaning in this entry at survey spad 2950 had begun, the cleaning efforts were occurring approximately two hours after Patterson's arrival at the mine, and about forty-five minutes after his arrival at the section. (Tr. 93-94).

Patterson proceeded to observe an accumulation in crosscut 77 between entries 5 and 6 (identified as Location No. 8 on Gov. Ex. 6). The accumulation consisted of fine, loose coal and float coal dust, black in color. The material was along both ribs and was up to 18 inches deep, 18 inches wide, and 36 feet in length. (Gov. Ex. 1, Gov. Ex. 5, p. 10, Gov. Ex. 6).

The next accumulation was in the Number 6 entry, inby the 77 crosscut all the way to the face, a distance of about 100 feet (identified as Location No. 9 on Gov. Ex. 6). The accumulation was 12 inches deep along the ribs, and consisted of loose, fine coal, and float coal dust, black in color. (Tr. 96-97; Gov. Ex. 1, Gov. Ex. 5, p. 11, Gov. Ex. 6). There was an accumulation of coal and coal dust up to four feet in depth along the right rib, which was the deepest accumulation Mr. Patterson observed. (Tr. 99). An accumulation of this depth presents a health hazard from dust inhalation as well as a fire and an explosion hazard. (Tr. 100). Patterson also noted an accumulation along the left rib of the 7 entry (identified as Location No. 10 on Gov. Ex. 6). The accumulation consisted of fine, loose coal and float coal dust up to 18 inches deep and 40 feet in length. (Tr. 97; Gov. Ex. 1, Gov. Ex. 5, p. 12, Gov. Ex. 6).

The next accumulation observed by Patterson was in the No. 77 crosscut between the number 7 and 8 entries (identified as Location No. 11 on Gov. Ex. 6). The accumulation consisted of fine, loose coal and float coal dust, 12 inches deep along both ribs and up to 18 inches wide. (Tr. 98; Gov. Ex. 1, Gov. Ex. 5, p. 12, Gov. Ex. 6).

As with many of the other accumulations, accumulations identified as Nos. 9, 10, and 11 occurred in areas where mining equipment would be used during normal mining operations. (Tr. 101). These accumulations had the same characteristics as nearly all the other accumulations -- black in color; fine, loose coal, and float coal dust.

Although Maple Creek apparently did not have a written cleanup plan, as a general proposition, under a normal mining cycle, mine operators clean to within the last 40 feet of the last cut at the face, rock dust, and maintain the area. (Tr. 109). Although Patterson previously had observed Maple Creek clean each entry as the face was advanced, based on his observations on the morning of October 29, 1998, Patterson concluded Maple Creek was driving all ten entries before coming back to perform an adequate cleanup. Patterson opined such a practice is hazardous and unacceptable. (Tr. 137-138, 141).

Patterson determined there were a total of 13 miners working on the section at the time of the inspection who were exposed to the violative coal dust accumulations cited in 104(d) Order No. 3658016. (Gov. Ex. 1; Tr. 101).

Patterson testified that he made a gravity finding of "significant and substantial" based on the following factors: the amount and extent of the accumulations, the locations, the heat source presented at the conveyor belt, and the presence of mining equipment which would move through the accumulation areas. In particular, Patterson considered the bit of the roofbolter drilling into the roof as a potential source of sparking. Furthermore, Patterson concluded the large amount of coal dust itself posed a health hazard. (Tr. 101-103, 130).

With respect to the unwarrantable failure issue, Patterson testified that he considered the violation attributable to an unwarrantable failure for many reasons. As a threshold matter, Patterson concluded the cited accumulations had existed "for a considerable period of time" based on their locations extending a considerable distance from the face.⁹ (Tr. 107). Patterson believed the No. 2 through No. 7 entries had been cut during the previous three shifts during which time travel over the accumulations occurred as the faces in each entry advanced. (Tr. 66, 69, 107).

In addition, face boss Greg Miller's initials were marked on the date board in the 0 entry between the 75 and 76 crosscuts at 9:00 a.m., on October 29, 1998. There was also a date board at the tailpiece feeder of the conveyor belt. Despite the evidence of onshift examiners in the vicinity of prohibited examinations, no efforts were made to clean the accumulations until after Patterson arrived on the section. (Tr. 106, 222-223). Based on Maple Creek's admission that some of the accumulations existed since at least the midnight shift, the accumulations should have been noted and ordered to be cleaned by the preshift examiner. (Tr. 104-106, 130).

Patterson considered Maple Creek's violation history, Rantovich's order citing a 30 C. F.R. § 75.400 only six weeks before citing similar accumulations in the vicinity of the tailpiece, and repeated meetings with company officials that placed Maple Creek on notice that greater cleanup efforts were required, as additional evidence that Maple Creek's conduct was unwarrantable. (Tr. 69, 106-107).

As a final matter, Patterson testified, notwithstanding the eleven additional areas of accumulations, he would have issued an unwarrantable failure order based solely on the first accumulation observed at the tail of the conveyor belt due to the extent of the accumulation and its proximity to the belt roller and the hot belt structure. (Tr.108).

⁹ The Commission has determined the duration of accumulations may be established through circumstantial evidence, and that an inspector need not possess actual knowledge of the length of time the accumulations existed. *Windsor Coal Company*, 21 FMSHRC 997, 1002-1003 (September 1999).

Clete R. Stephan was called by the Secretary as an expert witness. (Tr. 173-174). Stephan has been employed as a mine engineer by MSHA for 23 years. (Tr. 173; Gov. Ex. 8). Stephan is one of only two certified mine fire and explosion investigators in the United States. (Tr. 173). He has conducted 52 investigations of mine fires and explosions. (Tr. 173; Gov. Ex. 8). He also has written 29 reports on fires and explosions, and he has conducted extensive training classes on fire and explosion hazards before government and industry groups. (Gov. Ex. 8).

Stephan testified there are three prerequisites for a fire -- fuel, heat, and oxygen. These three elements are known as the "fire triangle." (Tr. 175-176). Stephan testified that the oxygen required for a fire or explosion is always present in a mine. (Tr. 177-178). Fuel is also an ever present hazard in the form of coal accumulations. (Tr. 178, 180). Ignition sources in an underground mine include heat from hot belt rollers and arcing from electrical cables on mining equipment. (Tr. 178, 185-186).

Stephan opined there was an enhanced danger of fire in the cited areas because of the accumulations which increased the exposure of fuel to potential ignition sources. (Tr. 179). Where there is an accumulation of coal, air can flow through the loose material more easily, thereby bringing additional oxygen to a fire and feeding a flame. (Tr. 186). In a fire, any size particle of coal can become involved. (Tr. 185). A hot roller on a beltline, and movement of equipment through a mining section, present ignition sources that accentuate the hazard. (Tr. 185-186).

In addition to the three elements for a fire, Stephan testified two additional elements are necessary for an explosion -- suspension of the fuel and confinement. These five elements -- fuel, heat, oxygen, suspension and confinement -- are known as the "explosion pentagon". (Tr. 175-176). Stephan explained that, by its very nature, the underground mine environment provided the containment necessary for an underground explosion. (Tr. 187).

With respect to the remaining element of suspension, Stephan stated that the "relatively extensive" cited accumulations "would make explosion propagation so much easier because the fuel is readily available and can easily be suspended and ignited." (Tr. 189). In this regard, Stephan calculated that it would take approximately ten cubic feet of coal dust to engulf the entire New Eagle section inby the last open crosscut in the flame of an explosion. Stephan calculated that, by considering only the top half-inch of the accumulations cited by Patterson as material capable of suspension, there was a potential for 350 cubic feet of coal dust that could be put in suspension. (Tr. 181-184).

Finally, Stephan testified, in the event of a fire or explosion at the mine, fatal injuries would result to people in the explosion zone. He stated that anywhere the explosion flame would travel, fatalities would likely result because the explosion consumes all available oxygen. Even if people did not succumb to the heat of the flame or the force of the explosion, they would die from lack of oxygen and inhalation of the toxic products of combustion. (Tr. 189). In Stephan's expert opinion, the three elements necessary for a fire, and the five elements necessary

for an explosion, were present under the conditions described in Patterson's 104(d) order. (Tr. 175-178, 190).

II. Maple Creek's Case

As previously noted, Maple Creek has stipulated that the subject twelve areas of accumulations constitute a violation of the mandatory safety standard in 30 C.F.R. § 75.400. However, Maple Creek contests the "significant and substantial" designation, as well as the Secretary's assertion that the violation is attributable to its unwarrantable failure. (Tr. 194).

Maple Creek called safety director Richard Marcavitch and section foreman (face boss) Gregg Miller to testify on its behalf. Marcavitch did not arrive at the New Eagle section until approximately 10:00 a.m. on October 29, 1998, about one hour after Patterson's inspection began. (Tr. 201). Marcavitch arrived on the section after Patterson had instructed mine foreman Tony Bertovich to de-energize the tailpiece because it was in close proximity to coal dust accumulations around the tail roller. (Tr. 202).

Marcavitch also did not have direct knowledge about when cleanup of the cited accumulations would have occurred if Patterson had not inspected the section. (Tr. 235). The priority given to removing accumulations was determined by Bertovich or Miller. Bertovich did not testify, and Miller did not testify concerning any cleanup activities other than at the conveyor belt. (Tr. 237, 279).

Upon arriving on the section Marcavitch did travel to the tailpiece because cleanup had already begun in that area. (Tr. 202, 214). Rather, Marcavitch proceeded to observe accumulations already seen by Patterson in the zero entry, in the No. 1 entry, in the two to one cut-through, and in the No. 2 entry. After observing the No. 2 entry, Marcavitch joined Patterson and Bertovich who were walking through the section together. (Tr. 202).

The New Eagle section is a ten entry section. Equipment on the section consists of a Joy scrubber remote continuous miner, two Fletcher twin boom roofbolters, three shuttle cars, and three scoop tractors. One scoop is dedicated to hauling supplies from the surface to the mine. The remaining two scoops are kept on the section for cleanup, with one in use and one on charge. (Tr. 204).

The mine cutting sequence is from the zero entry to the No. 9 entry. The length of cuts in each entry varies from zero to as long as 40 feet. (Tr. 205). Marcavitch testified that the New Eagle section has a 25 feet long Stamler feeder attached to the tailpiece. (Tr. 208). Marcavitch approximated the last inby set of rollers was four to five feet from the end of the tailpiece structure. (Tr. 212). Marcavitch stated that coal accumulations typically occur at the end of the tailpiece where spillage occurs when coal is transferred from the feeder to the somewhat lower conveyor belt. (Tr. 210, 212-213). Marcavitch stated ". . . based on my experience . . . when you have a problem with a feeder being on [the tailpiece] your accumulations will show up first directly underneath the tailpiece in contact with the tailroller." (Tr. 220). Marcavitch conceded a malfunctioning roller could be a source of heat. (Tr. 220). However, he stated that

his ". . . understanding was, what was warm was what Mr. Patterson was saying was the structure [of the tailpiece]" rather than the rollers. (Tr. 213).

Marcavitch , referring to the numerical designations on the mine map admitted into evidence as Gov. Ex. 6, testified about when each area where cited accumulations were located was mined. Marcavitch stated Location No. 1 was mined "a couple of weeks before;" Location Nos. 3, 3c, 4, 7, 9, and 10 on the midnight shift; Location No. 5 half-mined on the midnight shift and half-mined on the previous afternoon shift. (215-217).

Marcavitch did not dispute that the accumulations cited by Patterson existed at the time Miller performed his onshift examination at 9:00 a.m. on October 29, 1998. (Tr. 222-223). Miller also performed the preshift examination earlier that morning at 5:00 a.m. (Tr. 215). It is apparent that at least some of the accumulations noted by Patterson existed at the time of Miller's preshift examination. There is no evidence of any preshift or onshift examination notations alerting personnel that cleanup efforts were required on the section.

Maple Creek's description of its mining-clean up cycle was equivocal. Counsel for Maple Creek stated its cleanup cycle began after all the entries inby the last open crosscut had been mined and roof bolted. (Tr. 228). Marcavitch indicated that when areas of the section were cleaned was "kind of a floating thing." (Tr. 235). He testified, "[we clean up] as soon as [we] could get to it. It may be two or three entries . . . Depending on what was going on with the section." (Tr. 235).

Marcavitch stated the section would have been cleaned sooner if Maple Creek's scoops had not broken down. One scoop reportedly developed electrical problems on the afternoon shift of October 28, 1998. The second scoop reportedly was taken out of service during the midnight shift due to a broken bucket. The remaining scoop normally used to haul materials into the mine was reportedly taken out of service during the day shift of October 29, 1998, because of a battery problem. (Tr. 237-243). However, the thrust of Marcavitch's testimony was that at all times during the several shifts preceding Patterson's inspection at least one scoop (the haulage scoop) was available for cleanup.

In fact, Marcavitch conceded the reported scoop problems were not the main reason for the lack of cleanup. Marcavitch testified:

The Court: Okay. So what I'm trying to distinguish is whether or not the [cited accumulations] weren't cleaned up . . . because scoops weren't available, assuming that's a defense, or whether or not they weren't cleaned up because Maple Creek hadn't gotten to it yet? It seems to me you're saying essentially they hadn't been cleaned up because Maple Creek just hadn't gotten to it yet; is that correct?.

Marcavitch: I would say that would probably be a correct statement.
(Tr. 244).

Marcavitch went on to explain that Maple Creek does not place any priority on cleaning an entry once it has been mined and roof bolted and the equipment has been removed from the face in that entry until equipment returns to take an additional cut. (Tr. 257-260).

Greg Miller testified that the spillage at the tailpiece occurred after the feeder had been knocked off the tailpiece by a shuttle car during the midnight shift. (Tr. 265). Miller testified that, prior to Patterson's arrival on the section, the belt had been turned on and off to remove the spillage. Miller testified he could not recall Patterson instructing Bertovich to shut the belt down. (Tr. 279). Miller also testified he did not see Patterson touch the belt structure to determine if it was hot. (Tr. 276). As previously noted, Maple Creek did not call upon Bertovich to testify.

III. Further Findings and Conclusions

Maple Creek has stipulated to the fact of occurrence of the violation of 30 C.F.R. § 75.400 cited in 104(d)(1) Order No. 3657357. The remaining issues of whether the violation was properly characterized as S&S, and whether it was unwarrantable will be discussed in turn.

A. Significant and Substantial

A violation is properly designated as 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).

In *United States Steel Mining, Inc.*, 7 FMSHRC 1125, 1129, (August 1985), the Commission explained its *Mathies* criteria as follows:

We have explained further that 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.*, 6 FMSHRC 1834, 1836 (August 1984). We have emphasized that, in accordance with the language of section 104(d)(1), it is the contribution of a violation to the cause and effect of a hazard that must be significant and substantial. *U.S. Steel Mining Company, Inc.*, 6 FMSHRC 1866, 1868 (August 1984).

The Commission subsequently reasserted its prior determinations that as part of any "S&S" finding, the Secretary must prove the reasonable likelihood of an injury occurring as a result of the hazard contributed to by the cited violative condition or practice. *Peabody Coal Company*, 17 FMSHRC 508 (April 1995); *Jim Walter Resources, Inc.*, 18 FMSHRC 508 (April 1996).

Resolution of whether a particular violation of a mandatory safety standard is S&S in nature must be made assuming continued normal mining operations. *U.S. Steel Mining*, 7 FMSHRC 1125, 1130 (August 1985). Thus, consideration must be given to both the time frame that a violative condition existed prior to the issuance of citation, and the time that it would have existed if normal mining operations had continued. *Bellefonte Lime Co.*, 20 FMSHRC 1250 (November 1998); *Halfway, Inc.*, 8 FMSHRC 8, 12 (January 1986).

With regard to the first element of *Mathies*, Maple Creek has stipulated that the numerous and extensive accumulations that are cited in 104(d)(1) Order No. 3657357 constitute impermissible combustible accumulations prohibited by the mandatory safety standard in 30 C.F.R. § 75.400. Because coal dust accumulations are combustible, if combustion were to occur, *i.e.*, fire or explosion, there is a reasonable likelihood that miners would sustain serious injury. Moreover, Stephan's testimony concerning the propagation effects of widespread accumulations clearly satisfies the second and fourth elements of the *Mathies* test regarding a discrete safety hazard and the potential for serious injury.

The remaining criterion, a reasonable likelihood that the combustion hazard caused by the violation will result in serious injury, requires examining whether there was a "confluence of factors" present based on the particular facts surrounding the violation that would make a fire, ignition or explosion reasonably likely. *Texasgulf, Inc.*, 10 FMSHRC 498, 501 (April 1988). Some of these factors include the extent of the accumulations, possible ignition sources, the presence of methane, and the type of equipment in the area. *Enlow Fork Mining Co.*, 19 FMSHRC 5, 9 (January 1997) *citing Utah Power & Light Co.*, 12 FMSHRC 965, 970-71 (May 1990); *Texasgulf Inc.*, 10 FMSHRC at 500-03.

Stephan's testimony, as well as common sense, supports the conclusion that there is a positive correlation between the likelihood of injury resulting from the presence of combustible accumulations in an underground mine and the extensiveness of the accumulations. In this regard, Stephan's professional opinion that the "relatively extensive" cited accumulations "would make explosion propagation so much easier because the fuel is readily available and can easily be suspended and ignited" is compelling. (Tr. 189). Likewise, Stephan's calculations that the top half-inch of the accumulations cited by Patterson provided a potential for 350 cubic feet of coal dust that could be put in suspension, while only ten cubic feet of coal dust was necessary to engulf the entire New Eagle section inby the last open crosscut in the flame of an explosion, illustrates the magnitude of the danger posed by the cited extensive accumulations. (Tr. 181-184). Although there was no evidence of significant levels of methane in the New Eagle section, the extensive accumulations provided the fuel for fire, or, for propagation of an explosion that had originated in another area of the mine.

Ignition sources in the form of malfunctioning electrical mobile equipment, defective electrical cables, misaligned belts and defective rollers, and heat generated by the continuous miner bits during mining, are ever present hazards in an underground mine. While these sources of ignition are frequently unforeseen, safety dictates that reasonable efforts must be made to minimize sources of fuel. Disregarding, for the moment, the accumulations around the hot belt structure, Maple Creek's failure to minimize fuel sources by leaving accumulations in six entries and several crosscuts exponentially added to the likelihood of injury in this case.

With regard to the tailpiece area in the No. 3 entry, I credit Patterson's testimony, supported by his contemporaneous notes, that the belt structure at the tailpiece was hot, and that this structure and its rollers were in close proximity to combustible accumulations. Moreover, as previously noted, Maple Creek has stipulated to the cited accumulations in the vicinity of the tailpiece. Patterson's inability at trial to recall whether there was a feeder in front of the

tailpiece has no material impact on his credibility, or, on the considerable weight that should be accorded to his testimony.

In sum, when viewed in the context of continuing mining operations, especially in view of Maple Creek's demonstrated lack of commitment to promptly remove accumulations, the evidence amply reflects that there was a reasonable likelihood that the fire and propagation hazard contributed to by the extensive accumulations in this case will result in an event (a fire and/or explosion) causing serious or fatal injury. *AMAX Coal Company*, 19 FMSHRC 846, 449 (May 1997) (a belt running in coal is a "dangerous condition that poses the threat of fire). Consequently, the S&S nature of the subject section 75.400 violation shall be affirmed.

B. Unwarrantable Failure

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 (Dec. 1987), the Commission determined that unwarrantable failure is aggravated conduct constituting more than ordinary negligence. *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, 194 (Feb. 1991); *see also Buck Creek Coal, Inc. v. FMSHRC*, 52 F.3d 133, 136 (7th Cir. 1995) (approving the Commission's unwarrantable failure test).

The Commission has identified various factors in determining whether a violation is unwarrantable, including the extent of the violative condition, the length of time that it has existed, whether the violation is obvious, whether the operator has been placed on notice that greater efforts are necessary for compliance, and the operator's efforts in abating the violative condition. *Windsor Coal Company*, 21 FMSHRC at 1000; *Mullins & Sons Coal Co.*, 16 FMSHRC 192, 195 (February 1994); *Peabody Coal Co.*, 14 FMSHRC 1258, 1261 (August 1992); *Quinland Coals, Inc.*, 10 FMSHRC 705, 709 (June 1988); *Kitt Energy Corp.*, 6 FMSHRC 1596 1603 (July 1984). The Commission also considers whether "the violative condition is obvious, or poses a high degree of danger." *Windsor Coal Company*, 21 FMSHRC at 1000; *BethEnergy Mines, Inc.*, 14 FMSHRC 1232, 1243-44 (August 1992).

Repeated similar violations may be relevant to an unwarrantable failure determination to the extent that they serve to put an operator on notice that greater efforts are necessary for compliance with a standard. *Peabody*, 14 FMSHRC at 1263-64. Finally, warnings and directives given at prior meetings between MSHA and mine management also place the operator on notice that greater efforts at compliance are necessary. *Amax Coal Co.*, 19 FMSHRC at 851; *Jim Walter Resources*, 19 FMSHRC 480, 485-486 March 1997); *Mid-Continent Resources, Inc.*, 16 FMSHRC 1218, 1232 (June 1994); *Enlow Fork Mining*, 19 FMSHRC 9, 16, (January 1997); *Doss Fork Coal Co.*, 18 FMSHRC 122, 125 (February 1996).

At the outset, I note that Maple Creek had a frequent history of similar section 75.400 violations. Moreover, Maple Creek's meetings with MSHA personnel, attended by assistant mine foreman and belt foreman John Parker, mine foreman Tony Bertovich, safety director Richard Marcavitch, corporate safety director Jerry Taylor, and Robert Murry, Maple Creek's President, should have been a stark reminder that greater efforts were required to fulfill Maple Creek's obligation under section 75.400 to not permit combustible accumulations to accumulate in working sections.

Despite being on notice, Maple Creek's has proffered unconvincing and contradictory explanations for the conditions observed by Patterson on October 29, 1998. Although Maple Creek has attempted to attribute the conditions observed by Patterson in its New Eagle section to an unavailability of scoops, Marcavitch's testimony reflects that at all times prior to Patterson's inspection at least one scoop (the haulage scoop), and sometimes two scoops, were available for cleaning. Moreover, the Commission has held that the unavailability of a scoop does not relieve an operator of its obligation to shovel impermissible combustible accumulations. *Mullins & Sons*, 16 FMSHRC at 195. In this regard, Newhouse testified that he previously had informed Bertovich that Maple Creek was responsible for shoveling accumulations in the event of inoperable scoops. (Tr. 165).

In addition, Maple Creek initially asserted that the accumulations had not been cleaned because the mining cycle had not been completed. This explanation is equally unavailing. Generally speaking, a mining cycle is completed after an entry has been driven approximately 40 feet by the continuous miner and roof bolted, at which time the equipment is withdrawn from the entry so that the entry can be cleaned by scoop and rock dusted. (Tr. 109, 137, 140-141, 216, 259). See also *Jim Walter Resources*, 11 FMSHRC 21, 26 (January 1989). However, when it became clear that the accumulations, ranging up to 160 feet in length, located in the full length of the No. 2 through No. 7 entries inby the last open crosscut, had existed for more than one shift, Maple Creek's definition of a mining cycle changed. Maple Creek's latest version of its cleanup cycle is that it does not clean an entry that has been mined and roof-bolted until equipment returns to that entry to take an additional cut. (Tr. 257-260). However, this assertion does not explain accumulations varying from 70 to 160 feet in the No. 3, No. 4, No. 5 and No. 6 entries. (Tr. 140-141; Gov. Exs. 1, 6). Rather, in the final analysis, Maple Creek's cleanup policy appears to be as safety director Marcavitch described it at trial - - that entries are left uncleared until Maple Creek "can get to it," and that there is no time period "set in stone" for cleaning

accumulations. (Tr. 235, 257-258). Such a lack of discipline is indicative of an indifference that alone warrants a finding of an unwarrantable failure.

In short, Maple Creek's history of fifty section 75.400 violations in the year preceding the subject Order; Maple Creek management's awareness, through its meetings with MSHA officials, that greater compliance efforts were necessary; the extensive and obviousness nature of the accumulations; despite being on notice, the fact that the accumulations were not removed during the normal mining cycle but were allowed to exist for several shifts; and the danger posed by combustible accumulations in proximity to a hot belt structure; when viewed together, warrant the conclusion that Maple Creek's conduct evidenced an unwarrantable failure.

IV. Civil Penalty

Section 110(i) of the Mine Act provides the statutory criteria for determining the appropriate civil penalty to be assessed. Section 110(i) provides, in pertinent part, in assessing civil penalties:

the Commission shall consider the operator's history of previous violations, the appropriateness of such penalty to the size of the business of the operator charged, whether the operator was negligent, the effect on the operator's ability to continue in business, the gravity of the violation, and the demonstrated good faith of the person charged in attempting to achieve rapid compliance after notification of a violation.

The parties have stipulated that Maple Creek is a large operator with annual production in excess of two million tons of coal at the time of the proposed assessment. (Joint Stip. No. 8; Tr. 12). The parties have also agreed that payment of the \$6,000 civil penalty proposed by the Secretary will not affect Maple Creek's ability to continue in business. (Joint Stip. No. 7). Maple Creek has provided no evidence of significant mitigating circumstances that would warrant a reduction in penalty. As discussed above, the violation is serious in gravity given the reasonable likelihood of serious injury. Moreover, Maple Creek's conduct was unwarrantable when viewed in the context of its history of similar violations, and prior notice that greater efforts to achieve compliance with section 75.400 were required. Maple Creek's efforts to achieve abatement by assigning ten employees to remove the cited accumulations for five hours, only after mining operations were halted as a consequence of the 104(d) order, does not provide a basis for a reduction in penalty. Accordingly, consistent with the statutory penalty criteria, the \$6,000 civil penalty initially proposed by the Secretary shall be assessed for 104(d)(2) Order No. 3658016.

ORDER

In view of the above, **IT IS ORDERED** that 104(d)(2) Order No. 3658016 **IS AFFIRMED**, and Maple Creek Mining, Inc., shall pay a \$6,000 civil penalty in satisfaction of said order.

IT IS FURTHER ORDERED, consistent with the parties' settlement agreement, that 104(d)(2) Order Nos. 3657936 and 3657937 **ARE AFFIRMED**, and Maple Creek Mining, Inc., shall pay a \$6,000 civil penalty in satisfaction of 104(d)(2) Order No. 3657936, and a \$5,000 civil penalty in satisfaction of 104(d)(2) Order No. 3657937.

ACCORDINGLY, IT IS FURTHER ORDERED that Maple Creek Mining, Inc., shall pay a total civil penalty of \$17,000 in satisfaction of the three 104(d)(2) orders that are the subjects of this proceeding. Payment shall be made within 40 days of the date of this decision. Upon timely payment of the entire \$17,000 civil penalty, **IT IS ORDERED** that this matter **IS DISMISSED**.

Jerold Feldman
Administrative Law Judge

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