FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

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June 5, 2014

REVELATION ENERGY, LLC, Contestant, v. SECRETARY OF LABOR MINE SAFETY AND HEALTH ADMINISTRATION (MSHA), Respondent,	CONTEST PROCEEDINGS Docket No. KENT 2011-357-R Order No. 8257014; 12/21/2010 Mine: S-4 Netley Branch Mine ID: 15-17799 Docket No. KENT 2011-211-R Order No. 8257006; 10/22/2010 Mine: S-1 Hunt's Branch Mine ID: 15-18280
SECRETARY OF LABOR MINE SAFETY AND HEALTH ADMINISTRATION (MSHA), Petitioner, v. REVELATION ENERGY, LLC, Respondent	CIVIL PENALTY PROCEEDINGS Docket No. KENT 2011-1106 A.C. No. 15-18280-254952 Mine: S-1 Hunt's Branch Docket No. KENT 2011-1054 A.C. No. 15-17799-251789 Mine: S-4 Netley Branch

DECISION

Appearances: Willow Eden Fort, Esq., U.S. Department of Labor, Office of the Solicitor, Nashville, TN, for Petitioner;

David J. Hardy, Esq. & Christopher D. Pence, Esq., Hardy Pence, LLC, Charleston, WV, for Respondent.

Before: Judge Andrews

This proceeding was held pursuant to the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 801 *et seq.* (the "Mine Act" or "Act"). Hearings were held in Prestonsburg, Kentucky on September 25th and 26th, 2012, at which the parties presented testimony and documentary evidence. This matter concerns Citation No. 8257006, Citation No. 8257014 and Citation No. 8257015 issued on December 21, 2010, December 22, 2010 and December 29, 2010, respectively. Citation No. 8257006 and Citation No. 8257015 were issued under Section 104(d)(1), and Citation No. 8257014 was issued under Section 103(k) of the Act. After the hearing, Post Hearing Briefs and Reply Briefs were submitted.

Common Facts and Law

The parties agreed to the following stipulations:

1. During all times relevant to this matter, Revelation was the owner of the S-1 Hunts Branch Mine, Mine ID No. 15-18280.
2. The S-1 Hunts Branch Mine, Mine ID No. 15-18280, is a "mine" as that term is defined in Section 3(h) of the Federal Mine Safety and Health Act ("Mine Act"), 30 U.S.C. § 802(h).
3. At all material times involved in this case, the products of the subject mine entered commerce, or the operations or products thereof affected commerce, within the meaning and scope of Section 4 of the Mine Act, 30 U.S.C. § 803.
4. This Proceeding is subject to the jurisdiction of the Mine Safety and Health Review Commission and its designated Administrative Law Judges pursuant to Sections 105 and 113 of the Mine Act.
5. MSHA Inspector Todd Belcher, whose signature appears in Block Number 22 of Citation Numbers 8257006, 8257014 and 8257015, was citing in the official capacity and as an authorized representative of the Secretary of Labor when Citation Numbers 8257006, 8257014 and 8257015 were issued.
6. True copies of Citation Numbers 8257006, 8257014 and 8257015 were served on Revelation as required by the Mine Act.
7. The total proposed penalties assessed for Citation Numbers 8257006, 8257014 and 8257015 will not affect Revelation's ability to stay in business.
8. The alleged violation was abated in good faith.

JX-1.[1]

[1] Hereinafter, the joint exhibits will be referred to as "JX" followed by the number. Similarly, the

FINDINGS OF FACT AND CONCLUSIONS OF LAW

The findings of fact are based on the record as a whole and my careful observation of the witnesses during their testimony. In resolving any conflicts in the testimony, I have taken into consideration the interests of the witnesses, or lack thereof, and consistencies, or inconsistencies, in each witness's testimony and between the testimonies of the witnesses. In evaluating the testimony of each witness, I have also relied on his demeanor. Any failure to provide detail as to each witness's testimony is not to be deemed a failure on my part to have fully considered it. The fact that some evidence is not discussed does not indicate that it was not considered. *See Craig v. Apfel,* 212 F.3d 433, 436 (8th Cir. 2000)(administrative law judge is not required to discuss all evidence and failure to cite specific evidence does not mean it was not considered).

KENT 2011-1054 & KENT 2011-357-R

Todd Belcher[2] issued Citation No. 8257015 on December 29. 2010 after he investigated a report that a blast at the S-4 Netley Branch Mine on December 21, 2010 caused a flyrock event.[3] Tr. I, 41, 139, 141-142; SX-13.

Secretary's exhibits will be referred to as "SX" and Respondent's exhibits will be referred to as "RX."

[2] At the time of hearing, Todd Belcher had been working for five years as a surface and ground control specialist for MSHA at the District 6 office in Pikeville. Tr. I, 26-27. Prior to working for MSHA, Belcher worked in the engineering department at Central Appalachian Mining (CAM) tracking the permitting and application process for one year from 2006-2007. Tr. I, 32-33. Prior to that, Belcher worked for 21 years as an inspector and then supervisor for the Commonwealth of Kentucky at the Department for Surface Mine Reclamation Enforcement. Tr. I, 33. He has an Associate's degree in Mining Technology from Pikeville College. Tr. I, 38.

As a ground control specialist with MSHA, Belcher's primary responsibilities are to ensure that adequate plans for ground control plans are submitted and acknowledged throughout the District, and to perform accident and regular investigations as needed. Tr. I, 27. Belcher had attended a two-week training on accident investigation at Beckley, and had performed approximately 10-12 accident investigations since coming to MSHA. Tr. I, 27-28. Most of the accident investigations took place at surface mines. Tr. I, 28. Approximately half of these investigations were flyrock accidents, and the remainder were primarily equipment accidents. Tr. I, 28.

[3] Austin Powder was also served with citations and violations for the fly-rock incident. Tr. I, 273.

The S-4 Netley Branch Mine was a multiple seam mining operation, which was approximately 300-500 acres in size. Tr. I, 39. The mine had two spreads of equipment that removed spoil from the coal pits. Tr. I, 40. Belcher explained the process by which an operator extracts coal from this sort of surface mine: first they develop a work area by removing trees and creating a drill bench to allow the drilling process to proceed. Tr. I, 29-30. Then the holes are drilled and loaded, and the material is blasted or shot so it can be fragmented and removed with loading equipment.[4] Tr. I, 30. Once the overburden or spoil is removed, then the coal can be picked up.[5] Tr. I, 30.

Revelation began operating the S-4 Mine in April 2010. Tr. I, 193. Prior to that, Appalachian Fuel operated the mine. Tr. I, 193. The blasting at the S-4 Mine was contracted out to Austin Powder in December 2010. Tr. I, 192-193.

December 21, 2010 was a cold and snowy day, with visible snow cover on the ground. Tr. I, 197. Day shift foreman Robert Stanley followed his general routine of arriving at the mine at approximately 4:45 a.m., and proceeded to do a pre-shift examination.[6] Tr. I, 197. According to this routine, he would check the road conditions and the highwall, with the whole process usually taking him an hour. Tr. I, 197. Stanley performed a full examination before letting any of the day shift men enter the work area at 6:00 am. Tr. I, 198-199.

Stanley testified that nothing stood out on the December 21 inspection. He testified that "the walls and stuff were intact, everything was safe, the roads were graded from the night before, the area was safe to go into and proceed on." Tr. I, 199. Stanley then took an hourly employee and Wendell Schwartz, a loader man, into the area. Tr. I, 199-200. Schwartz was working with three rock truck drivers that rotated through the pit area. Tr. I, 200. These workers

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[4] A "shot" is synonymous with the term "blast." The detonation that occurs after a hole is drilled and loaded with explosives is a "shot." Tr. I, 40. Each blast or shot is assigned a number. Tr. I, 61. Shots are numbered sequentially, and are reset at the beginning of each calendar year. Tr. I, 229.

[5] The overburden or spoil is the rock that overlies the coal. It can consist of sandstone, shale, and similar rock. Tr. I, 30.

[6] Robert Stanley was the day shift foreman at the S-4 Mine on 12/21/2010. Tr. I, 191. This shift lasted roughly from 5 am-5 pm. Tr. I, 191. Stanley began his mining career in 1994, and has worked in surface mining since. Tr. I, 191-192. He was a Kentucky and West Virginia certified coal miner and foreman, as well as a Kentucky certified EMT and an MSHA limited instructor. Tr. I, 192. Stanley had worked at the S-4 Mine since April 2010. Tr. I, 193. He reported to Roland Davis, the general manager of the mine. At that time, Davis was also managing the Hunts Branch S-1 mine. Tr. I, 194.

would have removed the overburden or the shot from the day before that was still in place. Tr. I, 201.

Stanley looked at all the holes and saw that they were not loaded. Tr. I, 204-205. The holes were usually loaded at daylight, around 7:30 or 8:00 am. Tr. I, 207. Stanley left the area around 6:20 or 6:30 a.m.[7] Tr. I, 208. Wallen called Stanley prior to the shot and stated that he was ready to detonate and that Stanley's men needed to be removed from the area. Tr. I, 212. Stanley was at the "prell bin" where the powder was located when the shot was detonated. Tr. I, 212. At this position he was about a quarter of a mile away and did not have a clear view of the shot because it was blocked from the spoil bank. Tr. I, 213.

Wallen was in charge of Shot 255, and had two additional men working with him on it.[8] Tr. I, 228, 235-236. Prior to detonating the shot, Stanley told Wallen what area they were going to shoot. Tr. I, 236. Wallen and his men went to the magazines, got the product, placed everything in place, and had a pre-shift meeting. Tr. I, 236. They then proceeded to go out to the area and look around to make sure there was nobody working. Tr. I, 236. They then placed a blasting sign to make anyone around aware of the upcoming blasting. Tr. I, 237. Wallen used his GPS to determine how far they were from houses. Tr. I, 237. He then checked the area on the face and the burden of the holes to determine if anything else needed to be done before the blast. Tr. I, 237.

The shot was detonated at 9:01 am. Tr. I, 250. Wallen did not see anything that caused him concern, and he did not see any flyrock depart from the shot. Tr. I, 251. Wallen was aware of the location of the homes, and he testified that he designed the shot away from the homes. Tr. I, 243-244. Wallen testified that the shot appeared to detonate the way he designed it to detonate. Tr. I, 251.

Danny Mullins pulled the trigger on the shot, while Wallen videotaped. Tr. I, 274. At the time of the shot, Wallen was trying to videotape it, but he fell because it was slick where he

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[7] He communicated with the certified blaster, Shawn Wallen, at Austin Powder from time to time. Tr. I, 194-195. Stanley would usually tell Wallen in the early mornings what areas needed to be blasted. Tr. I, 195. Revelation relied on Austin Powder, and did not have someone responsible for laying out Wallen's shot or supervising Wallen. Tr. I, 195.

[8] On December 21, 2010, Wallen was employed by Austin Powder Company as a certified blaster at the Revelation S-4 Mine. Tr. I, 226. Wallen had been working at that mine since April 2010, and his shift was from 10 pm until approximately 6 am. Tr. I, 227-229. His supervisor was Dana Hamilton, and his contact at the mine was Superintendent Robbie Stanley. Tr. I, 227. Part of Wallen's job required him to communicate first thing in the morning with Stanley about the drill bench, road conditions, the areas where shooting was going to occur, as well as the plan for the day. Tr. I, 227.

was standing. Tr. I, 251. As a result, the camera fell from his hand and turned off.[9] Tr. I, 251, 258-259. Wallen testified that when he fell, the shot was 95-100% completed. Tr. I, 262. Reviewing the video, Wallen was not able to see the flyrock. Tr. I, 252-256. Wallen testified that the vehicle visible in the video was a D-9 bulldozer, and that it was empty. Tr. I, 259-260. It would have been dangerous for an individual to be inside the vehicle during a blast, but Wallen stated that it was left there because he "felt it was safe for it to sit there." [10] Tr. I, 260.

After the shot was detonated, Stanley went to do another on-shift examination. Tr. I, 213. Stanley radioed Wallen to ask if everything was clear and it was alright to go into the area, and Wallen said things were all clear..Tr. I, 214.

Between 9:45 and 10:00 am, Stanley received a phone call from the engineering department asking if there had been a flyrock. Tr. I, 214-215. Stanley responded that he did not know of any flyrocks, and the engineering department told him that residents below called to complain of flyrocks in their yards. Tr. I, 215. Stanley called Wallen immediately and they contacted Dana Hamilton, who was a certified blaster with Austin Powder.[11] Tr. I, 215. While Wallen and Hamilton made arrangements to go down to the area where the flyrocks landed, Stanley contacted MSHA and officials at the Commonwealth of Kentucky to report the flyrock. Tr. I, 215.

After Belcher received the report at around 9 a.m., he went to the location of the alleged flyrock event in order to see if any homes had been damaged or any injury had occurred. Tr. I, 41-42. First, Belcher issued the 103(k) Order, which ceased all blasting on the mine property. Tr. I, 42. The next day, MSHA conducted interviews at the mine office, which led to the conclusion that flyrock events had occurred that should have been included in the ground control plan. Tr. I, 42-43.

Belcher testified that the 15 year history of the mine showed that the area was subject to flyrock events. Tr. I, 43. Flyrock is not in itself a violation, however failing to follow a ground control plan is a violation of 30 C.F.R. 77.1000. Tr. I, 59-60. Section 77.1000 requires each operator to establish and follow a ground control plan in order to provide safe working

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[9] The video submitted into evidence appears to be shut off before any motion that would indicate that the person operating the camera was falling. SX-18.

[10] In the video it appears that the vehicle has its headlights on and is moving, indicating that someone was operating it. SX-18. It would have been illegal to have someone sitting in the vehicle during the blast. Tr. I, 259-260.

[11] Dana Hamilton had worked as a certified blaster with Austin Powder S-1 Mine since October 13, 2009. Tr. II, 135-136, 139. Hamilton began blasting work in 1982 and became a certified blaster in 1984. Tr. II, 136. As part of the certification process, Hamilton worked two years on a powder crew and took two Kentucky examinations. Tr. II, 136-137.

conditions at the mine site. Tr. I, 60. The ground control plan for the S-4 Netley Branch Mine that was in effect at the time of the citation was dated April 26, 2010. Tr. I, 60; SX-16.

A ground control plan must address the type of mining being conducted, whether single seam mining, multiple seam mining, or area mining. Tr. I, 28. The ground control plan must also address how the configuration of the highwall will be left such that it provides safe working conditions for the miners. Tr. I, 28. If the mine is engaging in multiple-seam mining, then safety benches must be strategically placed to ensure safe highwall conditions.[12] Tr. I, 28. Additionally, the plan must include safety precautions for various activities, such as blasting. Tr. I, 28-29. If there had been a history of flyrock events, the plan must include greater blasting details. Tr. I, 29.

In this case, due to the dangers associated with blasting, rocks were projected between 1,100-1,200 feet through the air and landed near people's homes. Tr. I, 46. One of the rocks fragmented and struck the window of a nearby home. Tr. I, 46. When there is a flyrock event, there is an automatic suspension of blasting until an analysis and investigation can be performed. Tr. I, 47.

A drill log is used to inform blasters about any abnormalities, such as cracked holes, so that the blaster is informed prior to loading the holes. Tr. I, 55. Belcher noticed in the drill log that there were four holes marked with the letter "V," indicating that these holes were voided.[13] Tr. I, 56. During the course of the investigation, Belcher found that at least three of these four holes were not loaded because the material was loaded out. Tr. I, 56, 144. According to the report, these holes were loaded with backfill material, however Belcher believed that these holes were removed prior to the blast. Tr. I, 148. Belcher did not notice any holes marked with the letter "C," which stands for crack. Tr. I, 56-57.

One home that was affected by the flyrock event at issue in this case was previously affected by a flyrock event five years earlier. Tr. I, 43. Due to this history, and the proximity of the homes, Belcher believed that there should have been a "heightened awareness of the sensitivity of the area." Tr. I, 43. The Netley Branch Mine had a blast remediation plan prior to the flyrock event cited here. Such plans are put in place once a flyrock event occurs. Tr. I, 62-64. In the plan, it identifies what went wrong, what led to the occurrence of the flyrock event, and what measures will be put in place to prevent a similar occurrence. Tr. I, 62.

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[12] The "highwall" is a vertical rock wall that remains after the vertical holes are drilled and blasted. Tr. I, 31. To "pre-line" or "pre-split" a highwall means to drill a separate line of holes separate from the production holes in as straight a line as possible to crack the wall in a straight line. Tr. I, 32.

[13] Stanley testified that the holes with a "V" on them were unloaded holes. Tr. I, 210. Wallen testified that the four holes marked with a "V" were voided, meaning that there were no explosives loaded. Tr. I, 239.

Belcher had been to the S-4 Netley Branch Mine 20-30 times over 15 years, though he was not at the mine on the morning prior to the shot. Tr. I, 47. As part of his investigation, Belcher conducted interviews on December 22, 2010 with homeowners who lived near the mine site. Tr. I, 47-48, 57-58. Belcher also took contemporaneous notes on the violations. Tr. I, 57-58. Belcher examined the distances between where the rocks landed and the homes nearby. Tr. I, 48. He found that there were four to five different rocks ranging in sizes from four-by-four inches to 12 by 12 inches. Tr. I, 48. These rocks were scattered on nearby property and Belcher saw the marks on the sides of homes from the rocks. Tr. I, 48-49. Furthermore, there was snow on the ground, so one could see the paths of the rocks. Tr. I, 49. Belcher stated, there were five people in one home and three people in another and said, "fortunately no one was injured or killed, but there was people home at the time." Tr. I, 49.

Belcher also interviewed individuals who were present at the mine during the flyrock event, including several state officials and several officials with the Office of Surface Mining. Tr. I, 49-50.

Shawn Wallen was the certified blaster in charge of Blast 255 and filled out the report.[14] Tr. I, 139, 141-142. Belcher interviewed Wallen on December 22, 2010. Tr. I, 140-141. Belcher interviewed Austin Powder foreman Robert Stanley on December 21 and 22, 2010. Tr. I, 149. Belcher's investigation did not reveal that any agent of the company was present at the blast site or in the pit beside the blast site between 6:00 am and 9:00 am on the morning of the flyrock event. Tr. I, 150.

Belcher also reviewed the ground control plan, the drill log, and the blast report.[15] Tr. I, 50-51. The blast report contains a formula that includes the weight of the explosives and distance to the nearest dwelling in order to determine a delay. Tr. I, 51. Belcher received the blasting report in this case from either Revelation or Austin Powder, and the delay used was eight milliseconds. Tr. I, 51, 53.

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[14] Belcher was not sure if Wallen completed the shot report before or after the flyrock event. Tr. I, 155-156. Shawn David Wallen had been a certified blaster for four years at the time of hearing, which means that he had classroom training, worked two years on a surface mine with a powder crew and blaster, and passed two examinations. Tr. I, 224-225. Wallen had worked as a certified blaster since receiving his certification. Tr. I, 226.

[15] Belcher testified that he has reviewed thousands of blast reports during his years mining. Tr. I, 51. A blast report has several components, including the company name, the amount of holes that are drilled, the depth of the holes, the amount of explosives loaded, the amount of stemming, a date and time, and a house number and direction. Tr. I, 50-51. Blast reports are used to document the amount of explosives used to move certain amounts of rock. Tr. I, 51-52.

Photographs were admitted into evidence that showed a rock that broke through part of a window of the house closest to the blast site. Tr. I, 108-109; SX-15. This house was approximately 1,000 feet from the blast. Tr. I, 109. The photos also showed splattering on the ground where rocks had landed. Tr. I, 111. The owner of the house told Belcher that the window had been broken by the flyrock in the photo. Tr. I, 110-111. Belcher interviewed this homeowner, and the homeowner stated that the rock came from the mine on the morning of the blast. Tr. I, 113. Belcher and the homeowner walked around the entire yard, and the owner pointed out the rocks that landed in his yard. Tr. I, 111-112.

According to the photographs, flyrocks landed on a county road, and on other property further from the blast site. Tr. I, 112-113; SX-15. The rock was large enough to kill a person if it struck him or her in the head. Tr. I, 113-114. Other photos similarly showed rocks that had splattered on the side of homes, on trees, and on rooftops. Tr. I, 113-116.

On December 21, 2010, the public highway and access roads at the mine were accessible, and people were using them. Tr. I, 116. Furthermore, people were living in the two homes affected by the flyrock event. Tr. I, 116-117.

After conducting an investigation as a result of the December 21, 2010 flyrock incident, Belcher discovered that three elements of the plan were violated, which he grouped into one citation. Tr. I, 64-65. The first violation that Belcher discovered was that "sufficient burden was not maintained on the side of the shot toward the dwelling." Tr. I, 66; SX-13. The burden was the amount of spoil that was either left in place from the previous shot or solid material that had not yet been shot. Tr. I, 66-67. There was a calculation based on the diameter of the hole to determine how much burden is necessary to help prevent flyrock from traveling as far. Tr. I, 67-68. Here, the burden and spacing in the ground control plan ranged from 14-17 feet, with a 14-foot minimum. Tr. I, 68. The plan states that "any variance from this minimum requires identification." Tr. I, 68-69; SX-16. No variance was ever requested. Tr. I, 69.

Too much or too little burden can cause problems with flyrocks. Tr. I, 69-70. Belcher testified that he believed that the shot was being loaded too quickly, leading to the flyrock event. Tr. I, 71. There was not sufficient burden maintained on the side toward the homes, which was a violation of the ground control plan. Tr. I, 71-72. Specifically, in the section labeled, "Shot Design Parameters," it states, "[b]urden of spacing ranges will be a minimum of 14 feet on face burden will be maintained." Tr. I, 72. It also states, "[a]ll blasts will be directed away from homes." Tr. I, 72-73. SX-16. Based on his investigation, Belcher believed that there was less than 14 feet of burden maintained on the side facing houses. Tr. I, 73. Failing to leave sufficient burden is enough, and often highly likely, to create a flyrock incident. Tr. I, 96, 98. Belcher testified that this was the most serious violation listed in the citation. Tr. I, 97.

The second violation was in regard to the incomplete video of the shot. The ground control plan requires a shot to be captured and recorded on video.[16] Tr. I, 73; SX-16. The purpose of the video requirement is to provide the blaster, blasting coordinator, and company management the opportunity to review blasts. Tr. I, 76. In this instance, the video did not comply with the requirements because the video was interrupted during the shot when the camera fell. Tr. I, 73-74; SX-16. As a result, the video only captured approximately 30-40% of the shot. Tr. I, 77. After reviewing the video, Belcher testified that he noticed rocks projecting from the holes in the direction of the nearby houses. Tr. I, 77-78. Belcher testified that in his experience, the failure to review a problematic blast that created a flyrock incident would lead to subsequent flyrock incidents. Tr. I, 99-101. Belcher described how the shots occur quickly in real time—often within milliseconds of each other—and the ability to review the video at slower speeds can help evaluate and analyze shot performance. Tr. I, 101. Some sites use tripods to record video of shots, and Belcher testified that such use would be safer. Tr. I, 123-125.

The third violation involved the amount of explosives used. Tr. I, 81-82. The danger of using too much explosives is that one can over-break the rock and have less control of flyrock. Tr. I, 102. The ground control plan contained a scale distance formula that required an eight-millisecond delay. Tr. I, 83. However, Belcher found that the delays overlapped each other, with at least two holes designed not to fire within eight milliseconds.[17] Tr. I, 83-84, 88; SX-17. There was nothing in the ground control plan that would allow Revelation to exceed the normal amount of explosives based on their use of a seismograph.[18] Tr. I, 90.

The blast report listed 354.8 as "Max weight of explosives per eight millisecond interval," and 254.9 as the maximum per interval. Tr. I, 91-92; SX-17. Belcher testified that if the number on the blast report was 419.5, rather than 254.9 as the amended report stated, this confirmed for him that more explosive was used than allowed. Tr. I, 171-173. Wallen testified that the maximum weight of explosives per 8 millisecond interval figure of 254.9 figure on the shot report was the result of a computer malfunction. Tr. I, 231; SX-17. The mistake was discovered the day after the flyrock by Marty Bashir at the Kentucky Office of Mine Safety and License Explosive and Blasting. Tr. I, 231-232. Wallen testified that the amended report, which

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[16] The plan states, "A video camera will be used to monitor each shot and record the area prior to, during and after the blast." SX-16, 8.

[17] The two holes that Belcher found that discharged without an 8 millisecond delay were number 1752 and 1760. Tr. I, 134. Wallen disagreed with the Inspector's assessment concerning whether two holes had the required 8 millisecond delay. Tr. I, 245-246.

[18] The State of Kentucky has such a provision, but MSHA does not. Tr. I, 90.

stated that the maximum weight of explosives per 8 millisecond interval figure of 419.5 was correct.[19] Tr. I, 234; RX-A.

The blaster in charge makes the determination for this number based on one of three different formulas, based on the distance of the house from the shot. Tr. I, 92. In this case, the house was 1,036 feet away, so the correct formula would be D over 55 squared. Tr. I, 92. The scale distance factor was 64.89. Tr. I, 93-94. Belcher arrived at the conclusion that these two holes did not meet the eight millisecond delay by reviewing the blast record provided by the company. Tr. I, 135-136.

Belcher testified that in his experience, excess explosives alone have not resulted in flyrock. Tr. I, 103. Rather, it usually occurs from a combination of factors such as inadequate stemming,[20] loading cracked holes, insufficient burden, and neglecting to profile the highwall. Tr. I, 103. However, Belcher testified that if one exceeds the amount of explosives in the window of time allotted, it could lead to an opportunity to produce a flyrock. Tr. I, 104.

Belcher testified that the insufficient burden was the leading cause of the flyrock event. Tr. I, 178-179. The filming was a problem because if the operator is not getting an adequate picture of what is happening with the shots, then adjustments and corrections cannot be made. Tr. I, 179. Also, two holes going off at one time due to the lack of an eight millisecond delay or exceeding the maximum charge weight could lead to flyrock. Tr. I, 179.

The combination of the three violations listed in the citation created a situation where the gravity was highly likely and the injury or illness that could be expected was fatal. Tr. I, 104-105. Belcher testified that the combination of these three violations made the occurrence of a flyrock event more likely than if only one of these violations were present. Tr. I, 105. Even flyrock that does not leave the mine property presents a hazard to miners on the property. Tr. I, 106. Belcher testified that the injury to be expected from such an event would be fatal. Tr. I, 107-108.

Belcher testified that Revelation's negligence stemmed from their directing workers to remove the spoil in and around the blast. Tr. I, 117. Through interviews at the mine, Belcher discovered that Austin Powder could not keep ahead of Revelation, so their shots were being encroached upon.[21] Tr. I, 117-119. There was a 50-foot buffer distance that was required. Tr. I,

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[19] In his testimony, Wallen first stated that the correct figure was 254.9. Then, he stated that the correct figure was 419. The amended shot report lists 419.5. Tr. I, 232-234; RX-A.

[20] Stemming is process of placing material at the top of the hole, so as to prevent rock from shooting out of a cylindrical hole, like a bullet from a gun. Tr. I, 102-103. Stemming forces the energy of the blast to break the rock, rather than eject it from the hole. Tr. I, 103.

[21] Stanley denied that there were any problems with Revelation encroaching on the burden area.

117-120. Four of the holes that were drilled were not loaded properly. Tr. I, 118. They were voided, which means that the holes had been loaded out. Tr. I, 118, 121. It was Revelation that was in charge of loading these holes. Tr. I, 122. Belcher testified that he did not view the relationship between Austin Powder and Revelation as a mitigating factor because ultimately Revelation had a responsibility to ensure that Austin Powder did the work correctly. Tr. I, 122.

KENT 2011-1106 & KENT 2011-211-R

Belcher issued Citation No. 8257006 on October 22, 2010 at the S-1 Hunts Branch Mine. Tr. II, 18; SX-1. The citation was issued in relation to a flyrock incident that occurred on October 7, 2010. Tr. II, 18-19. The S-1 Hunts Branch Mine is a large surface coal mine. Tr. II, 14-15.

Dewey Reed was the blaster at the S-1 Mine on October 7, 2010, and Hamilton was on the property helping Reed.[22] Tr. II, 137. Reed was the lead blaster on the shot, Blast No. 651, but Hamilton was his boss. Tr. II, 138.

Roland Davis was the General Manager at the Hunts Branch S-1 Mines on October 7, 2010[23]. Tr. II, 87. On October 7, 2010, Davis arrived at the mine between 5:00-6:00 am and left between 5:00-5:30 pm. Tr. II, 92-93. Prior to leaving on that day, Davis went to the shot area periodically. Tr. II, 93.

Hamilton testified that the shot was shot at 6:51 pm, and a resident called approximately 10 minutes later to say that a rock came off of the out-slope and was at their residence. Tr. II, 146. Hamilton did not see the rock go down the hill from where he was standing, which was approximately 2,000 feet away. Tr. II, 146. Another Austin Powder employee, Charles Sexton, thought he saw the rock, so Hamilton immediately went to make a visual observation of the area. Tr. II, 147. He did not see any evidence that the rock had made any contact with either catch bench. Tr. II, 147-148. Hamilton sent a driller named Dwayne Endicott over the outslope, and he reported that he did not see anything. Tr. II, 148.

Tr. I, 209.

[22] Dewey Reed is also called "Bruce Reed." Tr. II, 138.

[23] Davis is a certified surface mine foreman in Kentucky, West Virginia, and Virginia. Tr. II, 89. He is a certified MSHA limited trainer. Tr. II, 89. Davis began his surface mining career in 1978. Tr. II, 89. He is not a certified blaster. Tr. II, 89-90. In his position as General Manager, Davis's duties were to manage the mine costs and mine production, as well as setting the mine plans. Tr. II, 87-88. At the time of the cited event, Revelation had been in control of the mine for approximately one year. Tr. II, 88. Prior to Revelation, CAM Mining was the operator of the mine. Tr. II, 88. Revelation prepares the areas for the blasting company to blast, however Davis had no involvement with drilling, loading, or detonating. Tr. II, 90.

Hamilton received another call from a mine clerk saying that her mother had another rock by her residence. Tr. II, 149. Hamilton went to the residence and observed a rock that was approximately three to four feet in diameter. Tr. II, 149. He made sure that no one was hurt, and at 7:00 pm called the State Mining Office and Roland Davis. Tr. II, 94, 149.

Hamilton told Davis that a rock had gone over the hill. Tr. II, 94. He further stated that no one was hurt, there was no damage to property, and that he had made the proper phone calls reporting the incident. Tr. II, 95. Davis went back to the mine, arriving at approximately 8:00-8:30 pm. Tr. II, 95. Davis drove up the hollow where the rock had come to rest, spoke with Hamilton, and then went home. Tr. II, 95.

Belcher received notification of the flyrock incident when he came into work on the morning of October 8, 2010. Tr. II, 19. He proceeded to conduct interviews with individuals who worked at the mine site and with residents of nearby homes, visited the mine site at least twice, and travelled to the area where the flyrock landed. Tr. II, 20-21. Belcher reviewed a copy of the ground control plan, the drill log, the video, and the mine's history. Tr. II, 21-22. Belcher took photographs and notes, dating from October 8-29, 2010, in order to document his findings. Tr. II, 22.

After performing his investigation, Belcher found that the mine site was above steep terrain, there were heavily populated areas below the mine site, and there were at least three or four different flyrock events in the past. Tr. II, 23-24. This was a "highly sensitive" area that required a detailed blast remediation plan.[24] Tr. II, 24. Such plans are jointly reviewed and agreed upon by the Commonwealth of Kentucky, the operator's blasters, and MSHA. Tr. II, 24. The plan in place at this mine required a catch bench of a specific size. Tr. II, 24.

A catch bench is utilized to catch spoil, rocks, and debris that may be removed from the top as material is extracted to get to the coal bed. Tr. II, 15-16. Catch benches must be constructed prior to blasting, and are commonly placed along perimeters, especially in areas where there is a possibility that the rocks could travel into public roads or residences. Tr. II, 16. The catch bench requirements must be included in the mine's ground control plan. Tr. II, 17-18. The size of the catch bench necessary is generally determined by an assessment of any past history, rock sizes, and other catch materials. Tr. II, 16-17. A common size for catch benches is 15 feet wide and 10 feet high. Tr. II, 17.

Belcher found that there were two catch benches that had been constructed in the area between where the shot was detonated and down to the Alma Seam they were mining down to. Tr. II, 24, 25. These were less than 10 feet high, with some portions approximately 5 feet high.

[24] The blast remediation plan is also sometimes called the "blasting plan." Tr. II, 24.

Tr. II, 25. The rock that Belcher saw was approximately four and a half by four and a half by six feet, and weighed approximately eight to nine tons. Tr. II, 25, 48.

The ground control plan was drafted by the company and approved by MSHA on October 16, 2009. Tr. II, 26, 33; SX-1, 1. It was in place at the mine on October 7, 2010. Tr. II, 26; SX-1, 1. The ground control plan contains a blast remediation plan because of prior flyrock events. Tr. II, 27-28. Item four of the ground control plan required a 15-foot wide catch bench, measured from the top of the berm to the highwall, with a 10-foot high berm, at all major seams, which included Williamson, Thacker, Cedar Grove, and Alma.[25] Tr. II, 29; SX-3, 11. Belcher testified that this item was violated. Tr. II, 29; SX-3, 11. Belcher testified that this requirement was a minimum size requirement, which the operator could exceed. Tr. II, 30.

Item four of the plan states that if a catch bench cannot be constructed as required, then items 18-23 of the blast remediation plan apply.[26] Tr. II, 31-32, 38; SX-3, 11. None of these

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[25] Item four of the Blast Remediation Plan states:

> 4) A 15 foot wide catch bench (measured from the top of the berm to the high wall) with a 10 foot high berm, will be installed on all major seams (e.g. Williamson, Thacker, Cedar Grove, & Alma) to be mined at all times when practical, prior to blasting in the area. The catch bench will be cleaned prior to the next shot. In the event that a catch bench can't be constructed, then items 18-23 [sic] of the Blast Remediation Plan for Areas where a Catch Bench is not constructed will apply.

SX-3, 11. After the flyrock event, Revelation removed the phrase "when practical" from item four. Tr. II, 118.

[26] The plan mistakenly references items 18-23, but it is clear from the document that the correct items are 19-24, under the heading, "Blast Remediation Plan for Areas where a Catch Bench is not Constructed." Tr. II, 32; SX-3, 12. Items 19-24 state:

> 19) In protection zone areas (see page 17), for the first breakdown shot which has a maximum depth of 25', the first row of holes will be pre-split or break line drilled and located a minimum of 20' from the crop. If company elects to, the pre-split can be drilled to the coal.
>
> 20) For the first breakdown shot of the protection zone, a complete free face (excess burden removed) will be maintained. The face and the direction of the blast are to be oriented away from the control structure and towards the open pit.
>
> 21) The outside 2 rows of holes in the protection zone will be decked as shown on the attached diagrams. It should be noted that the diagrams are typical and that the actual shot will be based on field conditions. A minimum of 10' true burden will be maintained from

items allow Revelation to build two catch benches of smaller height and width in lieu of the one required in item four. Tr. II, 32. Revelation did not comply with the alternate provisions set forth in items 19-24. Tr. II, 38.

Hamilton discussed the catch benches with general manager, Roland Davis, and foreman, Joey Branham, at Revelation. Tr. II, 140. Hamilton testified that Revelation had exceeded the requirements of the ground control plan because the two safety benches combined were greater than 15 by 10 feet. Tr. II, 142. Hamilton believed that two smaller benches were better than one larger bench. Tr. II, 143.

Davis testified that he and Hamilton read the ground control plan and interpreted item four as requiring a 15 by 10 foot catch bench if possible. Tr. II, 113. He testified that they then interpreted the following sentence requiring alternative procedures to only be applicable if no catch bench could be constructed.[27] Tr. II, 114. He therefore concluded that since they could build two 10 by 5 foot catch benches, these would be allowable.[28] Tr. II, 114. He further testified that after "intense discussions" on the matter, they determined that the two smaller catch benches would be safer than one larger catch bench. Tr. II, 114. Davis did not believe that a 15 by 10 foot catch bench would have made contact with the rock. Tr. II, 119. They built the first catch bench just below the Upper Alma seam and the other one approximately 25-30 feet

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the pre-split to the first row of production holes.

22) The protection zone is not considered a "No Spoil Area." A "No Spoil Area" is any location of a shot where material, rocks, and spoil cannot be cast, pushed, or ejected onto the down slope beyond the designated safety bench.

23) All shots within the protection zone will be designed to minimize the back pressure toward the no spoil side.

24) The out slope in the protection zone will be videotaped prior to and directly after the shot to monitor the change in cracks or hill seams. After 2-3 shots, if the out slope visibly does not show that it is being stressed by the shots and also if decking is causing secondary blasting due to improper breakage (e.g. unmanageable rock sizes) or causing unsafe ragged walls, then the shot deck will be evaluated and changed with the approval of DMRE.

SX-3, 12.

[27] The alternate procedures listed in items 19-24 could have been done at the mine. Tr. II, 167.

[28] In other areas where it was not possible to construct a 15 by 10 foot catch bench, Revelation followed the blast remediation plan. Tr. II, 116.

below it. Tr. II, 115. Davis testified that he did not need to contact MSHA about the catch bench issue. Tr. II, 127.

Hamilton testified that he did not believe that a 15 by 10 foot bench would have made a difference. Tr. II, 156. He also testified that he understood item four of the plan to mean that they were permitted to construct two smaller catch benches "as long as we were within the 15-by-10 measurements." Tr. II, 161.

On October 7, 2010, the upper Alma coal seam was being mined, which is a major seam that required a 15 by 10 foot catch bench. Tr. II, 33; SX-3, 11. Belcher testified that the flyrock event that occurred at the mine showed why two small catch benches were not as effective as one larger catch bench. Tr. II, 38. The boulder travelled approximately 400-500 feet in elevation on a steep terrain, exhibiting a "tremendous amount of force," and the catch benches in place were not large enough to catch the rock. Tr. II, 39. Belcher testified that a 15-foot wide catch bench with a 10-foot high berm would have been capable of catching the boulder. Tr. II, 39. Similarly, he believed that if Revelation had complied with the alternate provisions outlined in items 19-24, the boulder would have been stopped. Tr. II, 39-40. Specifically, the alternate provisions required that Revelation stay 20 feet from the outcrop, take a cut down to the coal seam, and maintain the outer portions. Tr. II, 39; SX-3, 12. This would have served as a highwall that would prevent rocks and other spoil materials from traveling over the hill. Tr. II, 40.

The danger of not constructing an adequately-sized catch bench is that a large rock rolling down the hill would not be captured, and would roll into an area where there are homes and public roads, posing a risk of injury or death to individuals. Tr. II, 47. Belcher testified that with two smaller catch benches instead of one larger catch bench, it was highly likely that an injury would occur. Tr. II, 47. He reached this conclusion because the boulder would not be caught by the smaller catch benches, and there were multiple families residing in the area where the boulder ended up. Tr. II, 47-48. If an individual were impacted by the boulder at issue here, they would suffer a fatal injury. Tr. II, 49.

The elevation that the rock travelled was approximately 475 feet, and the overall distance that the rock travelled was between 800-1,000 feet. Tr. II, 58-59. The rock took a path down the hill, at times reaching within 50 feet of several homes, before hitting the asphalt road and coming to rest. Tr. II, 57. The impact of the rock hitting the county road created a significant divot.[29] Tr. II, 57-58; SX-4, 25-26.

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[29] Davis also participated in an investigation, which consisted of assisting or accompanying the Kentucky state inspectors. Tr. II, 96. Davis disagreed with Belcher's conclusion as to the path of the rock, stating that it went 130-140 feet to the right, and did not make contact with the benches. Tr. II, 98-111.

After the evidence had been reviewed, Davis was interviewed by MSHA and the Kentucky

Taking into account the prior history and the risks involved with mining in steep terrain above populated areas, Belcher determined that Revelation exhibited high negligence. Tr. II, 60-61. Further, the ground control plan provided specific provisions to prevent such an event from occurring, which Revelation chose not to follow. Tr. II, 61.

All three prior events at the mine took place prior to Revelation taking over control of the mine in October 2009. Tr. II, 79-80. The purchaser of a mine inherits the ground control plan because the history of the site's prior occurrences is highly relevant to the plan. Tr. II, 61-62. The blast control plan contains the history of previous events at the mine, so that a new operator would be aware of these events. Tr. II, 63-64. The blast control plan at issue in this case mentioned the previous incident on January 31, 2009. Tr. II, 64; SX-3, 11.

Belcher testified that the operator could have made an appointment to speak with him about amending their ground control plan. Tr. II, 65-66. Prior to October 7, 2010, no one at Revelation contacted Belcher about how to interpret item 4 of the plan or anything regarding catch benches. Tr. II, 66-67. However someone at Revelation had contacted MSHA in order to discuss amending a provision of the plan that dealt with drill bit diameters. Tr. II, 67.

Belcher marked the citation as an unwarrantable failure to comply with the ground control plan because the operator was aware of the conditions and there was a deliberate decision to build two smaller benches rather than the one larger one as required by the plan. Tr. II, 67-68.

ANALYSIS

1. Citation No. 8257015 was Properly Issued for a Violation of 30 C.F.R. §77.1000

Citation No. 8257015 was a 104(d)(1) citation issued on December 29, 2010. It was marked Highly Likely, Fatal to 1 person, High Negligence, and Unwarrantable Failure. The Citation states:

> The Operator has failed to follow their acknowledged ground control plan to prevent a flyrock event that occurred on December 21, 2010 during blasting operations. The blast was identified as shot #255 and was detonated at 9:01 am according to the shot report. A blast remediation plan outlining specific blasting safety pre-caution measures had been previously incorporated into the ground control plan and acknowledged on April 26, 2010. A previous flyrock event had occurred at this same mine on November 19,

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investigators. Tr. II, 111. MSHA raised the 15 by 10 foot catch bench issue, and Davis responded that Revelation tried to build such a catch bench in October 2009. The out-slope was too steep, and there was no dirt material, so building the 15 by 10 foot catch bench was not possible. Tr. II, 112.

2008. The purpose of the acknowledged ground control and blasting safety pre-cautions is to prevent a similar occurrence of flyrock. The blasting plan contained in the acknowledged ground control plan for this shot was not followed as follows:1) Sufficient burden was not maintained on the side of the shot toward the dwellings to insure the blast was directed away from the occupied dwellings that were impacted by the flyrocks.2) The shot detonated on 12-21-10 was not completely video recorded during and after the shot as outlined in the plan.3) The maximum amount of explosives allowed to be detonated within an 8 millisecond delay was exceeded. The blast was detonated in rock strata between the Thacker and Cedar Grove coal seams identified as Pit #19, causing 4 separate rocks measuring between 4 x 4 and 13 x 13 to be cast from the blast and land in the yards of two residences located on Big Blue Springs of Blackberry Creek. One of the smaller rocks, measuring approximately 4 by 4 struck the window of a residence occupied by Gary Hatfield. This type of practice presents a high degree of risk of serious injury or death to residents living below the mine. The mine Operator has engaged in aggravated conduct constituting more than ordinary negligence by not following their acknowledged ground control plan. This violation is an unwarrantable failure to comply with a mandatory standard.

SX-13.

The Citation references 30 C.F.R. §77.1000, which states:

Each operator shall establish and follow a ground control plan for the safe control of all highwalls, pits and spoil banks to be developed after June 30, 1971, which shall be consistent with prudent engineering design and will insure safe working conditions. The mining methods employed by the operator shall be selected to insure highwall and spoil bank stability.

The Secretary argues that Revelation violated the ground control plan by failing to keep at least 14 feet of burden in front of the shot; by failing to fully record the blast after the video stopped during the shot; and by exceeding the amount of explosives which could be detonated within eight milliseconds.

The Respondent asserts that a flyrock incident alone is not enough to sustain a citation, and that the Secretary must prove the specific grounds of the citation. The Respondent argues that it maintained the proper amount of burden, and the inspector's belief that insufficient burden was used was based on hearsay statements from an unnamed informant, making it unreliable. The Respondent further argues that the Secretary did not submit sufficient evidence that the amount of explosives used exceeded the amounts permitted in the plan.

Based upon the totality of the evidence presented at hearing, the Secretary has met its burden of proving that Revelation violated §77.1000 by failing to follow its ground control plan in three key respects.

First, Respondent failed to keep at least 14 feet of face burden as required by the ground control plan. This requirement was to ensure that "all blasts will be directed away from homes." Tr. I, 68; SX-16. Belcher conducted a thorough investigation, which involved numerous interviews, visits to the sites, and reviews of plans, and determined that the minimum burden was not being maintained. Tr. I, 50-53, 64-65, 108-112. I credit Belcher's informed testimony that his investigation revealed that the materials were being loaded out too quickly and the shots were being encroached upon. Tr. I, 71, 117-119. As evidence of this encroachment, Belcher pointed to four holes that were drilled but not loaded. Tr. I, 117-118. Failing to leave sufficient burden makes it highly likely that a flyrock event, like the one that occurred in this case, will happen. Tr. I, 96, 98.

Second, the Respondent failed to fully record the blast, as required by the ground control plan. The plan stated, "A video camera will be used to monitor each shot and record the area prior to, during and after the blast." SX-16, 8. Shots occur quickly, often over the course of only a few seconds, so recording the shot provides the operator the opportunity to review the shot. Tr. I, 76. The video evidence submitted at hearing, as well as the testimony, shows that during the recording of the shot, the camera switched off. Tr. I, 73-74; SX-16. Belcher estimated that the video only captured 30-40% of the shot. Tr. I, 77.

The Respondent argued that even though the camera accidentally shut off, it still complied with the requirements in the ground control plan. It argues that the ground control plan requires taping before, during, and after the shot, but does not provide specific time frames for taping before and after the shot. Shot 255 consisted of 30 blasts, spaced eight milliseconds apart, so that the shot took less than one quarter of a second. Therefore, Respondent argued that even though the video shut off after a few seconds, there was no violation of the plan. *Resp. Post-Hearing Brief*, at 13-15.

Respondent's hypertechnical understanding of the taping provision in the ground control plan is unreasonable. The purpose of the taping requirement is to allow blasters and other mine personnel the opportunity to review the shot. This includes reviewing the conditions before, during, and after the shot. The speed at which a shot occurs further emphasizes the need for a full video of the shot, which includes the period before and after. According to Respondent's interpretation of the plan, a half-second video would comply. However, such a video would provide little informative value in reviewing the shot. The ground control plan requires a reasonable taping of the area before and after the shot, such that the video may be used for the purposes it was intended. In this instance, the video shut off prior to a reasonable taping of the period after the shot. Therefore, I find that the Respondent violated this provision of the plan.

Third, the Respondent violated the ground control plan by exceeding the amount of explosives that could be detonated within each eight millisecond interval. The ground control plan contained a scale distance formula that required an eight-millisecond delay. Tr. I, 83. After reviewing the blast record provided by the company, Belcher determined that two of the holes

overlapped each other, thereby not complying with the eight-millisecond delay requirement. Tr. I, 83-84, 88, 135-136; SX-17. At hearing, the issue of the correct maximum weight of explosives per eight millisecond interval was in dispute. Various witnesses and documents represented that the number was 254.9, 419, and 419.5. Tr. I, 91-92, 171-173, 231-234; SX-17. The discrepancies between the original and corrected blast reports appeared to be largely irrelevant, as both blast reports provided that "Max. Allow. Chg. Wt. per 8 ms w/o Seismograph" was 354.8 pounds. SX-17; RX-A. No seismograph was permitted under the plan, making the 354.8 figure the appropriate one. This figure corroborates Belcher's analysis and conclusion.

Any one of these violations of the ground control plan would constitute a violation of §77.1000. The Secretary has more than met its burden in proving that the combination of the three was a violation of the regulation.

The Respondent's repeated admonitions that the hearsay evidence of an anonymous miner is inherently unreliable are misplaced. *See e.g. Resp.'s Post-Hearing Brief*, at 11. The Commission rules explicitly allow for the maintenance of anonymity for miner informants. 29 C.F.R. §2700.61. "The purpose of the privilege is to protect the public interest by maintaining a free flow of information to the government concerning possible violations of the law and to protect persons supplying such information from retaliation." *Bright Coal Co., Inc.*, 6 FMSHRC 2520, 2522-2523 (Nov. 1984). Furthermore, the Commission's rules explicitly allow for the admission of hearsay evidence, when such evidence is "material and relevant." *Mid-Continent Resources, Inc.*, 6 FMSHRC 1132, 1135 (May 1984); *see also REB Enterprises, Inc.*, 20 FMSHRC 203, 206 (March 1998); 29 C.F.R. §2700.63. Moreover, the Commission has stated that:

> [P]roperly admitted hearsay testimony, and reasonable inferences drawn from it, may constitute substantial evidence upholding a judge's decision if the hearsay testimony is surrounded by adequate indicia of probativeness and trustworthiness. Hearsay testimony "may be treated as substantial evidence, even without corroboration, if, to a reasonable mind, the circumstances are such as to lend it credence."

Id. at 1135-1136 (citations omitted). I find that the miner informant's hearsay information told to Belcher was both probative and trustworthy. To exclude it for the reasons provided by Respondent would eviscerate the miner informant rule.

2. The Violation was Significant & Substantial

I further find that the conditions were Significant and Substantial in nature. S&S is described in section 104(d)(1) of the Act as a violation "of such nature as could significantly and substantially contribute to the cause and effect of a coal or other mine safety or health hazard." 30 U.S.C. § 814(d)(1). A violation is properly designated S&S "if, based upon the particular facts surrounding that violation, there exists a reasonable likelihood that the hazard contributed to will result in an injury or illness of a reasonably serious nature." *Cement Div., Nat'l Gypsum Co.*, 3

FMSHRC 822, 825 (Apr. 1981).

As is well recognized, in order to establish the S&S nature of a violation, the Secretary must prove: "(1) the underlying violation of a mandatory safety standard; (2) a discrete safety hazard - that is, a measure of danger to safety - contributed to by the violation; (3) a reasonable likelihood that the hazard contributed to will result in an injury; and (4) a reasonable likelihood that the injury will be of a reasonably serious nature." *Mathies Coal Co.*, 6 FMSHRC 1, 3-4 (Jan. 1984); *accord Buck Creek Coal Co., Inc.*, 52 F. 3rd. 133, 135 (7th Cir. 1995); *Austin Power Co., Inc. v, Sec'y of Labor*, 861 F. 2d 99, 103 (5th Cir. 1988) (approving *Mathies* criteria).

It is the third element of the S&S criteria that is the source of most controversies regarding S&S findings. The element is established only if the Secretary proves "a reasonable likelihood the hazard contributed to will result in an event in which there is an injury." *U.S. Steel Mining Co., Inc.*, 7 FMSHRC 1125, 1129 (Aug. 1985). An S&S determination must be based on the particular facts surrounding the violation and must be made in the context of continued normal mining operations. *Texasgulf, Inc.*, 10 FMSHRC 498, 500 (Apr. 1988) (quoting *U.S. Steel Mining Co., Inc.*, 6 FMSHRC 1573, 1574 (July 1984)). The Commission has provided additional guidance: "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 Co., Inc.*, 6 FMSHRC 1866, 1868 (August 1984); *U.S. Steel Mining Co., Inc.*, 6 FMSHRC 1573, 1574-75 (July 1984).

Further, "The Secretary need not prove a reasonable likelihood that the violation itself will cause injury." and "the absence of an injury-producing event when a cited practice has occurred does not preclude a determination of S&S" *Cumberland Coal Resources, LP*, 33 FMSHRC 2357, 2365 (Oct. 2011) (citing *Musser Engineering, Inc. and PBS Coals, Inc.*, 32 FMSHRC 1257, 1280-81 (Oct. 2010); *Elk Run Coal Co.*, 27 FMSHRC 899, 906 (Dec. 2005); and *Blue Bayou Sand & Gravel, Inc.*, 18 FMSHRC 853, 857 (June 1996)). The Commission and Courts have observed that the opinion of an experienced MSHA inspector that a violation is S&S is entitled to substantial weight. *Harlan Cumberland Coal Co.*, 20 FMSHRC 1275, 1278-79 (Dec. 1998); *Buck Creek Coal, Inc., v. MSHA*, 52 F.3d 133, 135-36 (7th Cir. 1995).

The first element of *Mathies*—the underlying violation of a mandatory safety standard—has been clearly established. As to the second element of *Mathies*—a discrete safety hazard, that is, a measure of danger to safety, contributed to by the violation—has also been clearly established by the record. As discussed *supra*, the cited condition contributed to the danger of a flyrock incident.

I find that the third element of the *Mathies* test—a reasonable likelihood that the hazard contributed to will result in an injury—has been satisfied here. The hazard of large rocks flying into a populated area and a public road was likely to lead to an injury. Under *Mathies*, the fourth and final element that the Secretary must establish is that there is a reasonably likelihood that the injury in question will be of a reasonably serious nature. The type of injury caused by a flyrock

making contact with an individual is death.

Respondent argues that a violation can only be found to be S&S if it affected the health and safety of miners. In the instant case, Respondent argues that no miners were in danger, and the Secretary presented no evidence that flyrock came anywhere near where a miner or other employee of the mine could have been injured. Respondent argues that the Secretary failed to present evidence showing how the inadequate taping would reasonably result in a serious injury.

Respondent's argument that a violation may only be S&S if it can lead to a serious injury of a miner, is both bizarre and incorrect. While it is true that Congress passed the Mine Act to ensure the health and safety of miners, the Commission has never interpreted S&S in such a narrow fashion so as to limit it to the health and safety of miners. Both §104(d) and the seminal Commission cases that developed the criteria for S&S spoke only of the type of injury, not the status of the individual who suffered such injury. *See Mathies*, 6 FMSHRC 1 (Jan. 1984), *Cumberland Coal Resources, LP*, 33 FMSHRC 2357 (Oct. 2011); *Musser Engineering, Inc. and PBS Coals, Inc.*, 32 FMSHRC 1257 (Oct. 2010). One need not come up with an example that illustrates the absurdity of this position, because this case does so in spades. To say that a violation that placed persons who resided in the path of flyrocks at grave risk was not significant and substantial because they may not meet the statutory definition of miners is absurd. The Mine Act makes no such distinction when persons lives are at risk.

3. The Violation was the Result of High Negligence and Unwarrantable Failure

In the citation at issue, Belcher found that the violations were the result of high negligence and an unwarrantable failure to comply with the standard. High negligence is described as when "[t]he operator knew or should have known of the violative condition or practice and there are no mitigating circumstances." 30 C.F.R. §100.3(d), Table X. Conversely, moderate negligence is shown when "[t]he operator knew or should have known of the violative condition or practice, but there are some mitigating circumstances." *Id.* Low negligence is served for situations where there are "considerable" mitigating circumstances. *Id.*

In the instant case, Revelation was on notice that there had been previous flyrock events at the mine. The S-4 Netley Branch Mine had a Blast Remediation Plan as part of the Ground Control Plan, which indicated that there had been a previous flyrock accident. SX-16; Tr. I, 126-127. Furthermore, Revelation was on notice that strict compliance with the blast remediation plan was necessary in order to prevent future flyrock accidents. Tr. I, 127, 180.

The plan was explicit in its requirements that sufficient burden be left in front of the shot, that the shot be videotaped, and that specific amounts of explosive be used. Tr. I, 66, 73, 81-82; SX-13. Despite being on notice of these requirements, Revelation violated the plan in each respect. The Respondent presented some evidence that Wallen fell while trying to videotape the shot because it was slick where he was standing. Tr. I, 251. However, the Respondent took no precautions to avoid this possibility, such as using a tripod, despite the

adverse weather conditions that made a fall likely. Even laypersons know that attempting to hold a video camera by hand can produce images flawed by motion. Wallen's lack of concern for producing a stable, clearly focused video of sufficient length to be usable for post-shot analysis directly resulted in a violation. Furthermore, Revelation presented no mitigating circumstances regarding the other two violations that make up this citation. Revelation's choice to hire a blasting contractor does not mitigate its negligence, as the mine operator bears ultimate responsibility to ensure that the ground control plan is followed at all times. *See Speed Mining*, 528 F.3d 310 (4th Cir. 2008); *Buffalo Mining Co.*, 1 FMSHRC 1740 (Oct. 1979) (ALJ).

Having found the requisite knowledge, the next issue is whether there were any mitigating circumstances. I find that none existed. Therefore, I find the Secretary's designation of "high" negligence appropriate.

The Commission has recognized the close relationship between a finding of unwarrantable failure and a finding of high negligence. *San Juan Coal Co.*, 29 FMSHRC 125, 139 (Mar. 2007) *see also Consolidation Coal Company*, 22 FMSHRC 340, 353 (2000) (holding that if there is mitigation, an unwarrantable failure finding is inappropriate). *Emery Mining Corp.*, defines an unwarrantable failure, as "aggravated conduct constituting more than ordinary negligence." *Emery Mining Corp.*, 9 FMSHRC 1997, 2002 (Dec. 1987). Such conduct may be characterized as reckless disregard, intentional misconduct, indifference, or serious lack of reasonable care. *Id.* at 2004; *see also Buck Creek Coal*, 52 F.3d 133, 135-136 (7th Cir. 1995).

> Whether conduct is "aggravated" in the context of unwarrantable failure is determined by looking at all the facts and circumstances of each case to see if any aggravating factors exist, including (1) the extent of the violative condition, (2) the length of time that the violative condition existed, (3) whether the violation posed a high degree of danger, (4) whether the violation was obvious, (5) the operator's knowledge of the existence of the violation, (6) the operator's efforts in abating the violative condition, and (7) whether the operator had been placed on notice that greater efforts were necessary for compliance.

Manalapan Mining Co., 2013 WL 754106, *4 (Feb. 2013), citing *IO Coal*, 31 FMSHRC 1346 (Dec. 2009). While each factor does not need to be present in order to find unwarrantable failure, all factors must be considered. *Id.*

The cited condition involved three violations of the plan, each of which was in place to prevent a flyrock incident. Though they occurred quickly, these three violations in a single shot was somewhat extensive. The factor of the length of time of the violation is inapplicable here, as shots occur quickly, and any violations would occur just as quickly.

The violation at issue here posed a high degree of danger. The inspector testified that each of these three violations increased the likelihood of a flyrock accident, which occurred in this instance. Tr. I, 103-104, 178-179. The flyrocks from this site were large in size and travelled to areas where people live and travel. Tr. I, 46. Additionally, the operator had been

placed on notice that greater efforts were necessary for compliance. As noted *supra*, there were previous flyrock events at this site, and the mine was on a Blast Remediation Plan to prevent future flyrock accidents. Furthermore, this mine site was previously cited for flyrock events, and past citations are relevant to the issue of whether Respondent had notice. *IO Coal*, 31 FMSHRC at 1353-1355. Respondent argued that these citations were issued prior to its taking over the mine, however such arguments do not negate the notice that these citations provided. Flyrocks can cause fatal injuries, yet Respondent failed to strictly follow their Ground Control Plan as required. The operator took no efforts in abating the violative condition prior to the flyrock incident and citation. I find the unwarrantable failure determination to be correct.

4. The §103(k) Order No. 8257014 was Properly Issued

Issuance of the 103(k) Order was necessary and proper in this instance. Section 103(k) of the Act provides, in relevant part, that "[i]n the event of any accident occurring in a coal or other mine, an authorized representative of the Secretary, when present, may issue such orders as he deems appropriate to insure the safety of any person in the coal or other mine." 30 U.S.C. §813(k).

In a companion case to the instant case, the Commission confirmed that a large rock leaving a mine and landing in a residential area, with no injuries, constituted an "accident" for purposes of issuing a 103(k) Order. *Revelation Energy*, 2013 WL 6792685 (Nov., 2013). The Commission rejected the operator's arguments that the definition of "accident" in §103(k) was limited to the more narrow definition of "accident" in the definitions provided in 30 C.F.R. §50.2(h), stating that the latter definition only applied for reporting purposes. *Id.* at *4.

> Section 50.2 plainly limits its application to terms "used in this part," that is, Part 50 of MSHA's regulations (the reporting regulations). 30 C.F.R. § 50.2. In contrast, the definition of ""accident" in section 3(k) applies to the entire Mine Act, as section 3 of the Mine Act specifically states that the definition of the term "accident" set forth in paragraph (k) applies "[f]or the purpose of this Chapter ...." 30 U.S.C. § 802. Thus, section 3(k) is the applicable provision for purposes of determining what constitutes an "accident" under section 103(k).

Id. The Commission "easily" concluded that such a flyrock event was an "accident" for purposes of §103(k). The Commission's decision is directly on point and controlling for this case.

5. Citation No. 8257006 was Properly Issued for a Violation of 30 C.F.R. §77.1000

Citation No. 8257006 was a 104(d)(1) citation issued on October 22, 2010. It was marked Highly Likely, Fatal to 1 person, High Negligence, and Unwarrantable Failure. The Citation states:

The Operator failed to follow their acknowledged ground control plan to prevent a flyrock event that occurred on October 7, 2010, during blasting operations. A blast remediation plan outlining specific blasting safety pre-caution measures was incorporated into the ground control plan and acknowledged on March 17, 2009 in response to a flyrock event that occurred on January 31, 2009. The purpose of that acknowledged plan was to prevent a similar occurrence of flyrock. Two smaller than designed safety catch benches (5 high x 10 wide) were constructed, instead of the designed size of 10 high x 15 wide safety catch bench, prior to the October 7th blast. The ground control plan states that when the catch bench cannot be constructed, then a solid 20 foot wide berm will be left at the outcrop edge of the pit. Rolland Davis, General Mine Manager stated that he was familiar with the acknowledged ground control plan and knew what size the safety catch bench should have been before blasting operations occurred. The blast was detonated in an area above the Upper Alma coal seam, causing a large rock measuring 4.5 x 4.5 x 6, to leave the blast site, and roll down the hillside, jump the safety catch benches, leave the mine property and continue rolling down the hillside until crossing a county road (Old Shoe Branch of Barrenshee Creek) and landing in the creek. The large rock narrowly missed striking two residences by approximately 40 to 50 feet. This type of practice presents a high degree of risk of serious injury or death to residents living below the mine. The mine Operator has engaged in aggravated conduct constituting more than ordinary negligence by not following their acknowledged ground control plan. This violation is an unwarrantable failure to comply with a mandatory standard.

SX-1.

The Citation references 30 C.F.R. §77.1000, which as discussed *supra*, requires an operator to follow the ground control plan.

The Secretary contends that item four of ground the control plan required Revelation to build a 15-foot by 10-foot catch bench, when practical. And in the instant case, it was practical. As such, Revelation's construction of two 10-foot by 5-foot catch benches in lieu of one 15-foot by 10-foot catch bench was a violation of the plan. If the larger bench was not practical, then the Secretary contends that the plan required Revelation to follow the alternate provisions laid out.

The Secretary argues that the Respondent's failure to comply with the ground control plan was highly likely to result in fatal injury to at least one person. This is due to the fact that the terrain below the S-1 Hunt's Branch Mine is quite steep and slopes sharply towards the homes below, where many residents live. Further, the Secretary argues that the violation was S&S because an eight-ton flyrock is highly likely to result in fatal injury to persons in proximity to it.

The Secretary argues that Revelation was highly negligent in failing to comply with their blast remediation plan because Revelation knew the mine had a propensity to produce large flyrock, knew that the mine sat above homes and a public road, and still did not comply with the catch bench requirements of the plan. The Secretary argues for the same reasons that the violation was an unwarrantable failure, adding that Revelation had not been in compliance for almost a year.

With regard to Citation No. 8257006, the Respondent argues that the ground control plan only required it to build a 10 by 15 foot catch bench if practical. Relying on the indefinite article in the sentence, Respondent further argues that the alternative procedures were only necessary if no catch bench could be constructed. The Respondent also argues that even if a 10 by 15 foot catch bench had been constructed, there is no guarantee that such a catch bench would have been able to stop the flyrock at issue.

Respondent argues that the violation was not S&S because the 10 by 15 foot catch bench would not have caught the flyrock, meaning that the two smaller catch benches did not make it likely that a serious injury would occur. Respondent argues that the violation was not high negligence or unwarrantable failure because it was either due to a reasonable interpretation of the plan, or an honest mistake. For these reasons, Respondent argues that if the violations are upheld the penalties should be reduced and modified to 104(a) citations, with low negligence and no S&S designation.

Based upon the totality of the evidence presented at hearing, the Secretary has met its burden of proving that Revelation violated §77.1000 by failing to follow its ground control plan in constructing its catch bench.

Paragraph four of the Blast Remediation Plan, which is quoted in full *supra*, states in relevant part that a "15 foot catch bench...with a 10 foot high berm, will be installed on all major seams...to be mined at all times when practical, prior to blasting in the area." SX-3. The provision further states that "[i]n the event that a catch bench cannot be constructed, then items [19-24] of the Blast Remediation Plan for Areas where a Catch Bench is not constructed will apply." SX-3. The plain language of the plan, combined with the inspector's testimony, makes it clear that the Respondent was required to build a 10 by 15 foot catch bench if it was practical to do so. If the conditions made the construction of such a catch bench impractical, then the Respondent was required to follow the alternate procedures detailed in the plan. Rather than building a 15 by 10 foot catch bench at the Upper Alma seam, which is one of the "major seams" specified in the plan, Respondent constructed two catch benches that measured between five and 10 feet high and five feet wide. Tr. II, 25, 114.

Respondent's interpretation of the plan is unreasonable as it essentially makes much of the plan meaningless. The Respondent argued that it was impractical to construct a 10 by 15 foot catch bench below the Upper Alma Seam. Tr. II, 119, 124-128, 144. Therefore, instead of following the alternate procedures, or consulting MSHA about its alternate interpretation, it

chose to build two five by ten foot catch benches. The Respondent argued that because the plan specified that the alternative procedures should be followed "in the event that *a* catch bench can't be constructed," rather than stating "in the event that *the* catch bench can't be constructed," the alternate procedures were only required when no catch bench could be constructed.[30] (emphasis added.) Relying entirely on the use of the indefinite article ("a"), rather than the definite article ("the"), Respondent argued that it took this course of action because it interpreted the alternate procedures in the plan as only being required in no catch bench could be constructed.

Based on this interpretation, Respondent was free to determine the practicality of building the required catch bench, and if it determined that it was impractical, it could build whatever size catch bench it so desired. The Respondent's argument transforms the size requirement in the plan to a mere suggestion that can easily be ignored so long as some sort of catch bench was constructed.[31] The Respondent cites the general principal of contract law that the interpretation "which gives meaning to all words and provisions of a contract is favored." *Eastern Gas and Fuel Associates v. Mid-west Raleigh, Inc.*, 374 F.2d 451, 454 (4th Cir. 1967). However, the Respondent's contorted attempts to give meaning to a single indefinite article essentially negates the meaning of the entire provision.[32] I do not credit Respondent's witnesses as to their contemporaneous interpretation of the provision. If anything, this interpretation appeared to be a *post hoc* rationalization for the open flouting of a plan provision.

I find that the provisions of the ground control plan gave Respondent two options. The first option was that it was required to construct a 15 by 10 foot catch bench, if conditions made such a catch bench practical to construct. If it was impractical to construct a 15 by 10 foot catch bench, then Respondent was required to follow the alternate procedures in the plan. It could not simply construct one or several smaller catch benches to suit its convenience.

Respondent's second argument concerning the path of the flyrock is similarly unavailing. At hearing, Respondent presented testimony of how the flyrock followed a different path than that presumed by the inspector and that a 10 by 15 foot catch bench would not have been any more successful at stopping the flyrock that was projected on October 7, 2010. Tr. II, 102, 105. Section 77.1000 does not require that a flyrock occur for the regulation to be actionable. The regulation simply requires that an operator follow the ground control plan, and any failure to do

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[30] Respondent similarly suggested that the provision should have read "*such* catch bench."

[31] Respondent focused much of its evidence and argument at hearing in trying to prove that construction of a 15 by 10 foot catch bench was impractical. However, after the citation, a 15 by 10 foot catch bench was constructed. Tr. II, 82-83.

[32] Respondent's argument that every letter and word of the plan must be accepted in only its strict literal meaning, without consideration of the purpose of each provision or the possibility of mistake, is further weakened by the fact that the section outlining the alternative procedures had an enumerating error.

so is a violation of the regulation. I find the inspector's testimony that his investigation concluded that the flyrock followed such a path as would have been stopped by the 10 by 15 foot catch bench to be plausible. However even if this were not the case, and Respondent proved that the flyrock would not have been stopped by the required catch bench, it's failure to construct the catch bench would still have been a violation of the regulation.

6. The Violation was Significant & Substantial

I further find that the conditions were Significant and Substantial in nature. The first element of *Mathies*—the underlying violation of a mandatory safety standard—has been clearly established. As to the second element of *Mathies*—a discrete safety hazard, that is, a measure of danger to safety, contributed to by the violation—has also been clearly established by the record. The 15 by 10 foot catch bench required in the plan, as well as the alternate procedures, were intended to prevent flyrock from reaching public areas. Failure to construct such obstacles to flyrock contribute to the hazard of a large flyrock entering public areas and making contact with individuals.

I find that the third element of the *Mathies* test—a reasonable likelihood that the hazard contributed to will result in an injury—has been satisfied here. The hazard of a rock several feet in diameter and weighing several tons flying into a populated area and a public road was likely to lead to an injury. Under *Mathies*, the fourth and final element that the Secretary must establish is that there is a reasonably likelihood that the injury in question will be of a reasonably serious nature. The type of injury caused by a flyrock making contact with an individual is death.

7. The Violation was the Result of High Negligence and Unwarrantable Failure

In the citation at issue, Belcher found that the violations were the result of high negligence and an unwarrantable failure to comply with the standard. The preamble to the Blast Remediation Plan stated that a flyrock accident had occurred at the mine in 2009 causing a large boulder and another rock to project off the mine property. SX-3, 9; Tr. II, 27-28, 62-64. The inspector testified that the mine site had at least three or four different flyrock events in the past. Tr. 23-24. Therefore, Revelation was aware that the mine had a propensity to produce large flyrocks. Furthermore, Revelation knew that the mine was located above residences and a county road, and that the terrain between the mine and these areas was very steep. Tr. II, 23-24, 28, 57-59. It was precisely because of these conditions and the mine's history that the Blast Remediation Plan specified that Revelation was required to construct a 15 by 10 foot bench or take alternate procedures. SX-3, 16; Tr. II, 24, 37. In spite of this information, Revelation constructed two smaller catch benches, at the minimum size that their equipment could construct them. Tr. II, 61, 68, 130-132.

Revelation argued that it employed a reasonable interpretation of its ground control plan. However, as I have found that interpretation to be unreasonable, I do not find that it constituted a mitigating circumstance. If Revelation believed at the time that its interpretation of the plan

was reasonable, then it should have called MSHA and asked for advice. Tr. II, 66-69. Alternately, if it believed that its method of building two smaller catch benches was safer, then it should have sought to modify that portion of the plan. Tr. II, 67. Revelation availed itself of neither of these options. Therefore, I find that violation was the result of high negligence.

The violation was also an unwarrantable failure to comply with the standard. As discussed *supra*, the operator had knowledge of the violation, it knew the history of previous flyrock events, and the violation at issue posed a high degree of danger. Furthermore, the non-compliant catch benches were approximately half the size of those required and had been in place for a significant period of time prior to the citation. Revelation constructed these catch benches in open defiance of the plan. Prior to issuance of the citation, Revelation took no efforts in abating this condition. For the foregoing reasons, I find that the violation was an unwarrantable failure.

8. Penalty

Having affirmed the Secretary's determinations in all respects no deviation in the civil penalty is necessary. I have considered each of the six statutory criteria set forth in Section 110(i) of the Act, and find that the Secretary's proposed penalties are appropriate. 30 U.S.C. §820(i). As discussed *supra*, the mines had a history of previous violations, Respondent had high negligence in each citation, and these citations were found to be S&S. The parties have stipulated that the proposed penalties will not affect Revelation's ability to remain in business and that Revelation abated the violations in good faith. JX-1; Tr. I, 19-20. Within the calendar year prior to the issuance of Citation 8257006, Revelation produced 304,734 tons of coal, with the S-1 Hunt's Branch Mine producing 177,984 tons. SX-10. Within the calendar year prior to the issuance of Citation 8257015, Revelation produced 604,734 tons of coal, with the S-4 Netley Branch Mine producing 425,000 tons. SX-10.

ORDER

For the reasons set forth above, the citations are **AFFIRMED** as indicated. Revelation Energy, LLC, is **ORDERED** to pay $23,800.00 for the violation set forth in Citation No. 8257006 and $52,500.00 for the violation set forth in Citation No. 8257015. Revelation shall pay the Secretary of Labor the total sum of $76,300.00 within 30 days of the date of this decision.[33]

Kenneth R. Andrews
Administrative Law Judge

[33] Payment should be sent to: MINE SAFETY AND HEALTH ADMINISTRATION, U.S. DEPARTMENT OF LABOR, PAYMENT OFFICE, P. O. BOX 790390, ST. LOUIS, MO 63179-0390.

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