

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

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SECRETARY OF LABOR
MINE SAFETY AND HEALTH
ADMINISTRATION (MSHA),
Petitioner

CIVIL PENALTY PROCEEDING

Docket No. VA 2013-511
A.C. No. 44-07172-329197

v.

EXTRA ENERGY, INC.,
Respondent

Mine: Virginia Point No. 1 Surface Mine

DECISION AND ORDER

Appearances: Anthony M. Berry, Esq., Office of the Solicitor, U.S. Dept. of Labor,
Nashville, Tennessee for Petitioner

Nicholas Preservati, Esq. and Sarah Korwan, Esq., Preservati Law Offices,
PLLC, Charleston, West Virginia for Respondent

Before: Judge McCarthy

I. Statement of the Case

This case is before me upon a petition for assessment of a civil penalty under Section 105(d) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 815(d). The Petitioner charges Respondent, Extra Energy, Inc. (Extra Energy), with moderate negligence while committing a significant and substantial (S&S) violation of 30 C.F.R. § 77.404(a), affecting one miner.

The issues before me are whether Respondent violated the standard by failing to maintain the steering linkage components on a large haul truck in safe operating condition, whether the violation was significant and substantial because it was reasonably likely to result in a fatal injury to one miner, whether Respondent's negligence was moderate, and whether the proposed penalty of \$3,689 is appropriate.

Hearings were held on March 12 and April 18, 2014 in Bluefield, Virginia and Beckley, West Virginia, respectively. During the hearings, the parties introduced testimony and documentary evidence. Witnesses were sequestered.

For the reasons set forth below, I find that Citation No. 8203250 was properly issued, as written, and I assess a civil penalty of \$3689.

Based on a careful review of the entire record, including the parties' post-hearing briefs and my observation of the demeanor of the witnesses,¹ I make the following:

II. Findings of Fact

A. Stipulations of Fact and Law

At hearing, the parties agreed to the following stipulations:

1. The Administrative Law Judge and the Federal Mine Safety and Health Review Commission have jurisdiction to hear and decide these civil penalty proceedings pursuant to Section 105 of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 815.
2. Extra Energy, Inc., is the operator of Virginia Point No. 1 Surface Mine, Mine I.D. 44-07172. Operations of Extra Energy, Inc., are subject to the jurisdiction of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 801 et seq., as amended.
3. MSHA Citation No. 8203250 and all appropriate modification and continuation forms, may be admitted into evidence for the purpose of establishing the accuracy of any statements asserted therein.
4. Respondent produced 711,304 tons of coal in 2012 at the mine (Mine Identification No. 44-07172).
5. Payment by Respondent of the proposed penalty of \$3,689 will not affect the Respondent's ability to remain in business.
6. Inspector Mark Tuggle was an authorized representative of the Secretary. Tr. 12- 13.

Tr. 11-13.

B. Background Information

The cited standard provides that “[m]obile and stationary machinery and equipment shall be maintained in safe operating condition and machinery or equipment in unsafe condition shall be removed from service immediately.” 30 C.F.R § 77.404(a). The cited truck, a Caterpillar

¹ In resolving conflicts in testimony, I have taken into consideration the demeanor of the witnesses, their interests in this matter, the inherent probability of their testimony in light of other events, corroboration or lack of corroboration for testimony given, experience and credentials, and consistency, or lack thereof, within the testimony of witnesses and between the testimony of witnesses.

777B model, is a large dump truck, often used for rock hauling in the pit mining process. The truck measures 32 feet in length, 17 feet in width, and 16.1 feet in height. It is capable of hauling a 320,000 pound load. Tr. 60, 66.

The steering system of the truck is controlled by a hydraulically-operated steering linkage assembly, consisting of several rods and arms located on the underside of the truck. Tr. 75; Jt. Ex. 2. The steering wheel controls steering cylinders on the left and right side of the steering linkage located next to the front wheels. Tr. 75, 292. As the steering wheel is turned, a proportioning valve sends hydraulic fluid into one cylinder, which forces that cylinder to push on the linkage system and the opposing cylinder to pull, thereby supplying the force necessary to turn the wheels of the truck. Tr. 78. If the steering wheel is turned in the opposite direction, the fluid valve reverses direction and the hydraulic fluid flows accordingly. Tr. 76.

Two tie rods installed on each side of the bottom of the truck are an integral part of the steering linkage assembly. Tr. 76; Jt. Ex. 2. The tie rods connect the left and right wheels so that they turn simultaneously in alignment. Tr. 78. The tie rods have no hydraulic components and do not push or pull the truck's wheels. Tr. 76.

A pitman arm extends down from the steering box and connects to one end of each tie rod. The opposite end of each tie rod is connected to either the left or right wheel via a steering arm. Tr. 77. The tie rods are connected to the pitman and steering arms by ball joints. Tr. 80-81; Jt. Ex. 2. Like a hip joint, a ball joint connects two ends, but allows a range of angular motion. The ball joint connects the vertical components for the assembly with the horizontally located tie rods. Tr. 79; Jt. Ex. 2.

The balls joints are comprised, in part, by a ball with a threaded rod at the bottom. The ball rests within a socket connected to an arm. Tr. 79.² The tie rod is connected to the steering linkage assembly by a nut, which is tightened over the threaded rod at the bottom of the ball joint. Tr. 79. According to Caterpillar's 777B service manual, the nut must be torqued to 1,000 foot pounds. Jt. Ex. 2. After the nut is torqued, a cotter pin, or metal fastener with two prongs, is inserted in a hole drilled horizontally through the threaded rod at the end of the ball joint, and then through a notch on the castellated nut. Tr. 50-51.³ The cotter pin ensures that the nut remains tightened according to specifications. Tr. 50,51.

² Inside the socket there may be grease or rubber bushing to ensure that the ball can move, as required, within the socket. Tr. 79. The parties' testimony differs as to whether the ball joints rest within a rubber bushing, or whether the socket is greased. Tr. 79, 302; Jt. Ex. 2. Since that issue is not dispositive of whether the ball joint was working properly and the truck was maintained in a safe operating condition, I need not resolve the conflict.

³ If the hole in the bolt and the notch on a nut do not allow a cotter pin to pass through, the nut is furthered tightened until the hole and the notch line up. Once the cotter pin is inserted through both the nut and bolt, the prongs are extended or flared backwards along the nut to ensure that the nut does not loosen and the cotter pin does not slip out of the nut. Tr. 51, 140.

C. The Inspection at Issue

1. Background

On June 24, 2013, MSHA inspectors Mark Tuggle⁴ and Stephen Crouse⁵ arrived at the Virginia Point No. 1 Mine site to conduct a ground plan inspection of an independent contractor's high wall mining operation. Tr. 33-34. Between noon and 12:30 p.m., while sitting in his vehicle near the site, Tuggle noticed oil on the ground. Tr. 88. After observing a Caterpillar 777B haulage truck make "several passes," Tuggle identified the truck as the source of the oil. Tr. 89.

Tuggle observed the truck from about 100 feet away and saw "differential wheel movement" from the rear tires as the truck moved backward. Tr. 41, 88-89. Tuggle then signaled for the driver, Franklin Hunt, to stop the vehicle. Tr. 90.⁶ Hunt pulled over to a nearby berm and called maintenance foreman, Robbie Ray, via radio. Tr. 94, 248-49.⁷

2. Visual Inspection

After the truck was parked and the tires were chocked, Tuggle stooped down under the vehicle to inspect the steering mechanism. Tr. 46. Tuggle instructed Hunt to turn the steering wheel various ways so that Tuggle could observe the movement of the ball joints. Tr. 46-47. During one turn, Tuggle measured an inch of vertical play between the ball and socket joint on

⁴ Tuggle worked in mines intermittently between 1985 and 1990 and consistently between 1991 and 2006. Tr. 30. Tuggle began work with MSHA in 2006. Tr. 30. Tuggle received his Authorized Representative card in September 2007. Tr. 31. Tuggle also attended the Mine Academy and earned a Bachelor's Degree in Mining Engineering from Bluefield State College. Tr. 31. Tuggle earned certifications in diesel mechanics and auto mechanics from Southwest Virginia Community College. *Id.* Tuggle owned two trucking companies prior to the inspection. Tr. 151. Tuggle routinely conducted inspections on trucks when he owned these companies. Tr. 152.

⁵ Crouse is a surface coal mine safety and health inspector for MSHA. Tr. 161. Crouse received his Authorized Representative card in January 2012 and attended the Mine Academy. Tr. 161. Crouse has experience with heavy equipment and coal-truck maintenance. Tr. 161.

⁶ Hunt has occasionally driven the rock truck for Respondent during the past ten years. Tr. 231-33. Hunt completed hazard training in connection with his truck operating duties. Tr. 232. Hunt testified that he can detect a loss of control from steering when it occurs. Tr. 233.

⁷ Ray is a certified mining foreman in Virginia and has been employed by Respondent for five and one-half years as a maintenance foreman. Tr. 288. Ray routinely works on steering systems on Caterpillar trucks. Tr. 290. Previously, Ray worked at Carter Machinery for seven years as a field service technician. Tr. 288-89. While there, Ray maintained, inspected, repaired and serviced hydraulic steering systems on Caterpillar 777 model trucks. See Tr. 287-89.

the left front side, using a standard-rule tape measure. Tr. 47. Tuggle's contemporaneous notes confirm this measurement. P. Ex. 2. Tuggle's notes also confirm that "the nut is loose on the bottom of the ball joint and the nut has sheared the cotter pin keeper and allowed the nut to back off." *Id.*

Tuggle then called Crouse over to observe the ball joint movement. Tr. 48. Crouse went under the truck, while Tuggle stood to the side and gave Hunt directions for turning the steering wheel. Tr. 48. Crouse testified that he observed the nut on the ball and socket joint hanging down about an inch, about to fall off, and in bad condition. Tr. 163, 171. Although Crouse did not conduct a "full inspection" of the truck, Crouse testified that he would have issued a citation for a section 77.404(a) violation because of the vertical movement in the ball joint and the loose nut on the tie rod ball joint. Tr. 170-73. Crouse testified that the violative condition contributed to the hazard of loss of control of the haul truck, particularly given the changing surface and grade over which the truck was driven. Tr. 164-65, 168. Crouse testified that he would have written the citation as highly likely, rather than reasonably likely, to result in a fatal injury. Tr. 166.

While waiting for maintenance foreman Ray to arrive, Crouse spoke with assistant superintendent, Ritchie Bowman. Bowman told Crouse that Ray was coming with a dial indicator to measure the play in the ball joint. Crouse told Bowman that a dial indicator was not needed; it's a no-brainer because the nut is about ready to fall off and the truck is not being kept in safe operating condition. Tr. 173.

Ray arrived after Tuggle and Crouse examined the ball joint and steering assembly. Tr. 104-05. Ray brought a dial indicator to measure horizontal movement of the steering linkage. Tr. 105-06. Crouse and Ray then went under the truck to check for play while Hunt turned the steering wheel in various directions. Tr. 106. Tuggle credibly testified that while Ray was making his own examination, Ray stated, "There's no need to even measure this." Tr. 105. Crouse testified that Ray removed the nut with his hands after a couple turns. Tr. 173-74. According to Tuggle, when Ray attempted to re-torque the nut onto the ball joint, he was unable to do so because of excessive wear. Ray subsequently installed an entirely new joint assembly to replace the old one. Tr. 149.

3. The Controverted Cotter Pin

Tuggle testified that the cotter pin on the ball joint at issue was sheared. Tuggle testified that he was unable to see the ends of the cotter pin protruding from the joint assembly, and the nut had slid down the threading on the rod at the end of the ball joint. Tr. 50. As noted, the ends of a cotter pin should be frayed backward to prevent the cotter pin from falling out of the nut and rod. Tr. 140. Based on his observations, Tuggle concluded that the ends were sheared off and that the rest of the cotter pin remained within the hole that had been drilled into the rod and the slot in the nut. Tr. 141. Tuggle testified that shearing can occur when the nut is subject to excessive torque or downward force. Tr. 109.

Tuggle further testified that when Ray came to investigate the problem, Ray removed the nut with his bare fingers, at which time Tuggle was able to see the sheared cotter pin. Tr. 100. Tuggle testified that Ray then pulled the remaining pieces of the cotter pin out with needle-nosed pliers, and threw the remnants on the ground. Tr. 100, 109, 120.

Crouse corroborated Tuggle. Crouse testified that when he investigated the tie rod and ball joint, the cotter pin appeared to have been sheared. Tr. 163.

Ray testified that he could take and rock the nut back and forth and it was covered in oil or grease and mud. He testified that the top of the nut was flush with the bottom of the steering link. Tr. 334. Ray further testified that there could be no vertical movement on the ball stud because the nut prevents it from coming up out of the center link. Tr. 334-35. Ray testified that he and Respondent's mechanic, Arvil Phipps, cleaned the grease and mud off the nut with rags, and the cotter pin was still in the stud. Ray testified that he could see the round head of the cotter pin sticking out between the cutouts of the nut where it was driven back in the groove. Tr. 335-36. The following leading exchange then occurred on direct examination of Ray.

Q. So the end was not sheared off?

A. No.

Q. And it was sticking out from the ball stud itself under the nut?

A. It was recessed in the nut. That's -- we drive it in and bend the opposite sides of it down.

Q. But it wasn't completely in the ball stud?

A. No. No. It was sticking out.

Q. All right. And the other -- what was the other -- the condition of the other end of the cotter pin?

A. It was bent down the backside of the ball stud.

....

Q. So there is two legs on the end of this pin?

A. It's a split pin.

Q. One was bent up and one was bent down?

A. Yes.

Tr. 336.

Respondent's mechanic Phipps, who had been in Respondent's employ for one and one-half years, testified that when he arrived to fix the ball joint, he removed the cotter pin with a pliers and a hammer. Tr. 269. Phipps testified that the cotter pin was not sheared and was in one piece. Tr. 269-70. Phipps further testified that after he removed the cotter pin, he tightened up the nut, but inspector Tuggle was still not satisfied, so a whole new assembly was installed. Tr. 269-70.

4. Issuance of Citation No. 8203250

At 3:36 p.m., Tuggle issued Citation No. 8203250 for a § 74.404(a) violation. Tr. 35. The violation was designated S&S because the gravity was reasonably likely to result in a fatal injury affecting one miner. Negligence was designated as moderate. P. Ex. 1. Tuggle testified that Respondent should have been aware of the hazardous condition of the ball joint during the pre-operational inspection of the truck, and that there were no mitigating circumstances. Tr. 64, Tr. 67-68. The proposed penalty is \$3,689.

D. Conflicting Testimony about the Potential Effect of a Loose Nut on a Ball Joint with an Inch of Vertical Play

1. Petitioner's Testimony

Tuggle testified that the potential hazard resulting from a loose nut and inch of vertical play in the ball joint was comprised steering and loss of control of the truck should the ball joint slip. Tr. 53,59. Specifically Tuggle testified as follows:

Q. Okay. Now, as for the reasonable likely – reasonable likelihood, what was the hazard that you contemplated?

A. That the truck would actually lose the tie rod, the ball joint would actually come apart, the wheel stability would be lost. There would still be partial steering due to the hydraulic jacks, but the steering itself would be compromised. And the roads, even though they were wide in certain areas, they were passing cars, -- or not cars, pickup trucks and service trucks, water trucks. They were actually passing where the miners were on foot walking back and forth from the highwall miner to the Porta John, their cars and the bus. And if they lost any control in it, then there is a chance that it would run over or kill somebody, because one of these trucks -- there is multiple videos you can go on msha.gov, and you can actually look up on Google, where these trucks have run over similar pickup trucks, and they're flat as a pancake.

Q. And what do you believe made that reasonably likely?

A. Is because the nut was ready to fall off, and this truck was loaded coming down steeper grades. Fully loaded, and, you know, with a – it's three – excuse me, it's close to 324,000 pounds loaded.

Q. Okay.

A. So coming down the steep grade, if you lost it down a steep grade fully loaded, and you're trying to rely on just a single jack to steer your wheels, the chance is that that -- you're not going to be able to steer it.

Q. Now, did you witness this vehicle operating loaded?

A. Yes, I did.

The Court: Did you measure the grade?

The Witness: No, I did not measure the grade. It was steep on the right side as it come into the pit, but as an engineer, I would guess it between ten and twelve degrees.

Tr. 59-60. On rebuttal, Tuggle further testified that the haul truck was driven at speeds between 12 and 15 miles per hour (mph) while loaded, and greater than 20 mph when unloaded. Tr. 400-01.

Crouse's testimony about the hazard of losing control of the vehicle under continued normal mining conditions corroborated Tuggle's testimony that such a loss of control would result in injury or fatality to the driver or to other miners in the vicinity. Tr. 164-67.

Tuggle further testified that during training at the Mine Academy, MSHA instructs inspectors to consult a manual, which Tuggle referred to as the "Fleet Commercial" or the "Commercial Vehicle Program Manual," to aid in determining when a vehicle is in safe operating condition. Tr. 57-58, 84-85.⁸ According to Tuggle, the manual provides that a vehicle with any vertical play in a ball joint is to be removed from service. Tr. 84. Based on his

⁸ The manual was not submitted into evidence. Tr. 85. I take administrative notice of the North American Standard Out-of-Service Criteria, issued by the Commercial Vehicle Safety Alliance. The manual provides that a vehicle is to be taken out of service if any of its ball and socket joints exhibit "any motion, other than rotational, between any linkage member and its attachment point of more than 1/8 inch (3.2mm) measured with hand pressure only" or if any tie rod exhibits "any looseness in any threaded joint." *Commercial Vehicle Safety Alliance*, North American Standard Out-of-Service Criteria, at 44 (revised April 1, 2010). This manual is relied on and cited by the United States Department of Transportation. 49 C.F.R. Pt. 385.4(b)(1)(2013); 79 F.R. 27766, May 15, 2014).

experience in the trucking industry prior to working for MSHA and his training at the Mine Academy, Tuggle credibly testified that vertical play in a ball joint constitutes an unsafe operating condition requiring that the truck immediately be placed out of service. Tr. 154-55.

With regard to his negligence designation, Tuggle testified that an inadequate pre-operational inspection had been performed on the haul truck. Tuggle observed other vehicle inspections earlier that day that were conducted with poor lighting and there was only one person present to inspect the steering system. Tr. 64. Tuggle testified that a proper inspection of the steering system requires two persons, one to observe the ball joints for play, and another to turn the steering wheel from side to side to reveal any play. Tr. 129.

2. Respondent's Testimony

Ray testified that a ball stud could not be removed, even if the nut on the bushing was missing. Tr. 307. Rather, in order to remove the tie rod ball joint from its socket, the cotter pin must first be removed. Tr. 304. According to Ray, an impact wrench is required to remove the nut from the ball stud. He testified that manual removal is impossible. Tr. 301, 305. Ray also testified that a properly installed ball stud cannot be dislodged without the application of considerable force. Tr. 304. Ray testified that removing the ball stud from the socket in the wishbone assembly generally requires the use of a 20-ton hydraulic jack. *Id.* After such jack is applied to the joint, the ball is raised from the assembly and hit with a hammer to remove the ball joint from the socket. Tr. 304, 307.

Respondent's safety and compliance director, Philip Hale, referred to the Caterpillar 777B's steering jacks as a "failsafe system." Tr. 199.⁹ In Hale's view, the steering jacks are responsible for moving the tires as the truck turns, and the loss of a tie rod would not result in a hazard since the tie rod only ensures that the wheels turn uniformly, not that they turn at all. Tr. 199.

Respondent's truck operator, Gregory Cole, testified that he alone performed a pre-operational check on the cited truck at 6:00 a.m. on the day of Tuggle's inspection. Tr. 206, 222-223.¹⁰ The pre-operational checklist in evidence does not mention any safety concerns. R. Ex. 1. Cole drove the truck from about 6:00 a.m. until 1:30 p.m. that day, and he did not notice any steering difficulties. Tr. 214, 225. Cole testified that if any steering difficulty had occurred, he

⁹ Since 2010, Hale has been a safety and compliance office for ArcelorMittal Mines, the owner of the property where Respondent operates. Prior to holding this position, Hale was an inspector for MSHA for five years. Tr. 191.

¹⁰ Cole had been employed by Respondent for about five years as a heavy equipment operator and received annual safety training refresher courses. *Id.* Cole was responsible for daily pre-operational examinations of the vehicles and machinery that he operated. *Id.* Cole also had been a truck driver for ten years prior to employment with Respondent. *Id.* Cole holds a commercial driver's license and has several years of experience operating the model truck at issue. Tr. 204-06.

would have pulled the truck over immediately and examined it, per company policy. Tr. 214. Cole testified that at the time of the inspection, the mine roads over which the truck was driven did not contain sharp turns or steep grades. Tr. 213-4.¹¹

Driver Hunt testified that there was a five to six percent grade along the route driven on June 24, 2013. Tr. 236. Hunt further testified that the turns of the steering wheel that Tuggle asked him to perform during the inspection were sharper than the turns usually encountered at the mine site. Tr. 245.

E. Respondent's Post-Inspection Video Evidence

Respondent introduced a flash drive containing two videos of the cited Caterpillar 777B haul truck, which was identified by the serial number 1747 on the outside of the driver's cab window. Tr. 360.

The first video is two minutes and thirty-six seconds long. It is identified on the flash drive as "195" and it was received in evidence as R. Ex. 2. This video shows the truck being driven off site, on flat terrain, with the right side tie rod disconnected. Tr. 360; R. Ex. 2. Ray estimated that the truck in the video was driven at about five to ten mph over terrain with rocks, similar to that at the mine site. Tr. 364, 369. Tuggle testified, on rebuttal, that the terrain in the video was less steep than the terrain present at the mine site. Tr. 400.

I find the video to be of little probative value to Respondent's defense. The video was taken off site. The truck in the video is not loaded. Mine roads and curves are not being navigated in the video. Moreover, the operator is aware of the filming and could compensate for a detached tie rod.

Throughout the video, the camera pans away as the haul truck makes a turn, or the turn is executed behind another large vehicle. During the truck's initial turn in the video, the front left tire starts to turn before the right front tire. Thereafter, the right front tire appears to turn more quickly to "catch up." Tr. 397; R. Ex. 2 at 00:55-00:58. For much of the video, one is unable to see the front tires of the truck. R. Ex. 2 at 01:05-01:24.

At one point in the video, the massive truck is driven behind a bus and another vehicle, and the front tires are not visible as the truck backs up to make a turn. R. Ex. 2 at 01:24-01:41. The camera pans away completely at one point while the truck is making this maneuver. R. Ex. 2 at 01:43. Thereafter, when the truck is straightened out, the left side is driven over wooden cribbing on the ground. R. Ex. 2 at 01:53-01:56. At this point, the video pans away and zooms in and out. R. Ex. 2 at 01:55.

¹¹ Hale testified that the average grade at the mine site was between seven and eight percent. Tr. 196. Hale also testified that a flyover photo of the mine site showed the steepest grade between seven and eight percent and the modal grade at about four percent. Tr. 197. Cole testified that although the mine has "some steep grades," they were not present when the citation was issued. Tr. 213-14.

Later in the video, the right front tire is driven over wooden cribbing and that tire distinctly wobbles. R. Ex. 2 at 02:11-02:16. Tuggle testified that this wobbling resulted from the detached tie rod on the right front tire. Tr. 399-400. Thereafter, the camera pans away and one is only able to see the back of the truck before the video camera is turned off. R. Ex. 2 at 02:30, 02:36.

The second video is labelled "1644." This video is three minutes and 55 seconds long. R. Ex. 3. This video shows the process of ball stud removal. Tr. 309; R. Ex. 3. A 20-ton Air Over hydraulic jack is placed on wooden cribs and lined up with the ball joint stud. Tr. 311; R. Ex. 3 at 00:01-01:38. The jack applies force against the ball stud and causes it to pop loose from the assembly. Tr. 311; R. Ex. 3 at 01:10-01:26.

A driver then gets into the cab and maneuvers the truck around a relatively flat area. R. Ex. 3, 02:25-03:23. The viewer only sees the right side, or driver's side of the truck for a significant segment towards the end of the video. R. Ex. 3, 03:20-03:50. As the truck reverses and turns, the left front tire is somewhat out of alignment and the video stops. R. Ex. 3 at 03:48-03:52.

III. Analysis and Disposition

A. The Violation of Section 77.404(a)

Section 77.404(a) imposes two duties upon an operator: (1) to maintain machinery and equipment in safe operating condition, and (2) to remove unsafe equipment from service. Derogation from *either* duty violates the standard. *Peabody Coal Co.*, 1 FMSHRC 1494, 1495 (Oct. 1979).

The large haul truck cited by inspector Tuggle was mobile equipment. It is undisputed that such mobile equipment was in service when cited. The dispute is whether the truck was maintained in safe operating condition. I find that the truck was not maintained in safe operating condition and was not removed from service. Accordingly, Respondent derogated both duties. I find the violation.

Equipment is in unsafe operating condition under section 77.404(a) when a reasonably prudent person familiar with the factual circumstances surrounding the alleged hazardous condition, including any facts peculiar to the mining industry, would recognize a hazard warranting corrective action within the purview of the applicable regulation. *Ambrosia Coal & Construction Company*, 18 FMSHRC 1552, 1557 (Sept. 1996) (citing *Alabama By-Products Corp.*, 4 FMSHRC 2128, 2129 (Dec. 1982) (applying identical standard in underground coal mines). Applying this test, I find that a reasonably prudent person familiar with driving a large and often-loaded haul truck over uneven, curved and graded mine roads, would recognize that an inch of vertical play in a ball joint *and* a loose nut on the ball joint constitutes failure to maintain the truck in safe operating condition, free from hazards that require corrective action. Had a

pre-operational inspection been completed, with one person monitoring the steering linkage and another moving the steering wheel, the defects would have been noticed by a reasonably prudent person.

I credit Tuggle's testimony that there was an inch of vertical play between the ball and socket joint on the left front side when Hunt turned the wheel. Tuggle used a standard-rule tape measure. Tr. 47. Tuggle's contemporaneous notes confirm this measurement and confirm that the nut was loose on the bottom of the ball joint and had sheared the cotter pin keeper, allowing the nut to back off. P. Ex. 2. Crouse essentially corroborated Tuggle's testimony. Specifically, Crouse testified that he observed the nut on the ball and socket joint hanging down about an inch, about ready to fall off, and in bad condition. Tr. 163, 171. I credit Crouse's testimony that while waiting for maintenance foreman Ray to arrive, Crouse told assistant superintendent Bowman that a dial indicator was not needed; it's a no-brainer because the nut is about ready to fall off and the truck is not being kept in safe operating condition. Tr. 173. I further credit Tuggle that when Ray arrived with the requisite tools to measure the play and make his own examination, Ray chose not to and admitted, consistent with Crouse's no-brainer opinion, that "[t]here's no need to even measure this." Tr. 105. Ray did not deny this. Further, Crouse credibly testified that Ray removed the nut with his hands after a couple turns. Tr. 173-74. Accordingly, I find an inch of vertical play in the ball joint and a loose nut on the ball joint.

The Commission has recognized that movement in steering linkage ball joints alone can rise to the level of a hazardous defect. *See LaFarge North America*, 35 FMSHRC 3497, 3500 (applying section 56.14100(c), which concerns defects that make continued operation hazardous, and remanding to determine amount of movement in ball joints and whether such amount constitutes a hazardous defect). I find that an inch of vertical play in the ball joint is sufficient to constitute a hazardous defect. Tuggle convincingly testified that he was trained at the Mine Academy to use the "Commercial Vehicle Program" as source criteria for vertical play in the ball joint and that any vertical movement requires that the vehicle immediately be removed from service. Tr. 57. The North American Standard Out-of-Service Criteria manual, issued by the Commercial Vehicle Safety Alliance, provides that a vehicle is to be taken out of service if any of its ball and socket joints exhibit "any motion, other than rotational, between any linkage member and its attachment point of more than 1/8 inch (3.2mm) measured with hand pressure only" or if any tie rod exhibits "any looseness in any threaded joint." *Commercial Vehicle Safety Alliance*, North American Standard Out-of-Service Criteria, at 44 (revised April 1, 2010). Since this manual was relied on by Tuggle pursuant to his training at the mine Academy, I find it provides useful guidance for whether the inch of vertical play in the ball joint constituted a hazardous defect making continued operation of the haul truck unsafe. Further, I emphasize that Tuggle was an experienced MSHA inspector, with specific skill and training in the trucking industry, and therefore his opinion, based on his training, that an inch of vertical play in the ball joint was sufficient to constitute a hazardous defect requiring the haul truck's removal from service, is entitled to substantial weight. *Cf., Harlan Cumberland Coal Co.*, 20 FMSHRC 1275, 1278-79 (Dec. 1998); *Buck Creek Coal Co. v. FMSHRC*, 52 F.3d 133,135 (7th Cir. 1995). Accordingly, I conclude that the inch of vertical play in the ball joint constitutes a hazard making continued operation of the haul truck unsafe and requiring its removal from service.

I further credit Tuggle's testimony that the nut at the bottom of the ball joint was loose and ready to fall off, had sheared the cotter pin keeper, and was removed by Ray with his bare hands. Tr. 50. Tuggle's contemporaneous notes confirm his testimony to this effect. P. Ex. 2. Crouse corroborated Tuggle. Tr. 163, 171, 173-74. Although Ray and Hale testified that a loose nut on the ball joint did not constitute an unsafe operating condition, they never addressed whether play in the ball joint constituted such a condition. Tr. 199, 295. Moreover, I discount their testimony and find Tuggle's testimony more persuasive. In describing the hazard, Tuggle testified "[t]hat the truck would actually lose the tie rod, the ball joint would actually come apart, the wheel stability would be lost. There would still be partial steering due to the hydraulic jacks, but the steering itself would be compromised" Tr. 59. Tuggle's testimony that he observed the haul truck's tires out of alignment before he issued the citation supports the inference that a loose ball joint can compromise steering. Tr. 88-89. The video evidence offered by Respondent further bolsters rather than refutes the contention that a loose or disconnected ball joint in a tie rod compromises steering control, which can be hazardous. Tr. 397; R. Ex. 2 at 00:55-00:58; *see also* R. Ex. 2 at 02:11-02:16 (right front tire is driven over wooden cribbing and tire distinctly wobbles). Tuggle credibly testified that the wobbling of the front right wheel in the video as the truck rode over the wooden crib resulted from the detached tie rod on the right front tire. Tr. 399-400.

In sum, based on my review of the entire record, I find that the Secretary has proven by a preponderance of the evidence that Respondent violated Section 77.404(a) by failing to maintain the haul truck in safe operating condition, and by failing to remove it from service.

B. The Violation of Section 77.404(a) was Significant and Substantial

The Mine Act describes an S&S violation as one "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). The Commission has held that a violation is S&S "if, based on the particular facts surrounding the violation, there exists a reasonable likelihood that the hazard contributed to will result in an injury or illness of a reasonably serious nature." *Cement Div., Nat'l Gypsum Co.*, 3 FMSHRC 822, 825 (Apr. 1981).

To establish an S&S violation under *National Gypsum*, the Secretary must prove the four elements of the Commission's subsequent *Mathies* test: (1) the underlying violation of a mandatory safety standard; (2) a discrete safety hazard – that is, a measure of danger to safety – contributed to by the violation; (3) a reasonable likelihood that the hazard contributed to will result in an injury; and (4) a reasonable likelihood that the injury in question will be of a reasonably serious nature. *See Mathies Coal Co.*, 6 FMSHRC 1, 3-4 (Jan. 1984) (footnote omitted); *accord Buck Creek Coal, supra*, 52 F.3d at 135 (7th Cir. 1995) (recognizing wide acceptance of *Mathies* criteria); *Austin Power, Inc. v. Sec'y of Labor*, 861 F.2d 99, 103 (5th Cir. 1988) (approving use of *Mathies* criteria). An evaluation of the reasonable likelihood of injury is made assuming continued normal mining operations. *U.S. Steel Mining Co. (U.S. Steel III)*, 7

FMSHRC 1125, 1130 (Aug. 1985) (*quoting U.S. Steel Mining Co. (U.S. Steel I)*), 6 FMSHRC 1573, 1574 (July 1984).

For the reasons explained above, I have found the underlying violation of mandatory safety standard 77.404(a).

With regard to the second *Mathies* factor, the violation created a discrete safety hazard or measure of danger to safety. My finding of a violation *a fortiori* requires a finding of a discrete measure of danger to safety as the standard violated requires a failure to maintain mobile equipment (the haul truck) in safe operating condition. Ergo, if the truck is not maintained in safe operating condition there is necessarily a discrete measure of danger to safety.

Furthermore, the Secretary need only identify a safety hazard associated with the putative S&S violation. *Highland Mining Co.*, 34 FMSHRC 3434, n. 5 (Dec. 2012). Although the parties focused much attention on the discrete hazard of loss of control caused by a detached tie rod, the record evidence establishes that one inch of vertical play in the ball joint and the loose nut at the bottom of the ball joint contributed to the discrete hazard of compromised steering and loss of control of the haul truck. Tr. 59; Tr. 85. As noted, I have found that there was one inch of vertical play in the ball joint, which required the truck's removal from service according to MSHA's experienced inspectors, MSHA Academy training, and guidance from the *Commercial Vehicle Safety Alliance*, North American Standard Out-of-Service Criteria. In addition, I have found that the nut at the bottom of the ball joint was loose, ready to fall off, and had sheared the cotter pin keeper. Further, I have credited Tuggle's testimony over testimony from Respondent's witnesses that these hazards would compromise wheel stability and steering. Tuggle's pre-citation observation that the tires were out of alignment bolsters my findings that the loose ball joint compromised wheel stability and steering. The video evidence offered by Respondent does more to bolster than refute my finding of the danger of a loose or disconnected ball joint that could result in a detached tie rod and compromise wheel stability, alignment and steering control. Tr. 397, 399-400; R. Ex. 2 at 00:55-00:58; *see also* R. Ex. 2 at 02:11-02:16. There is clearly different and unaligned wheel movement in the video, and the tire with the detached tie rod exhibits wobbly motion. Tr. 397, R. Ex. 3; 0:55-:58, 1:53-1:56; Tr. 399-400. Accordingly, I find that the second *Mathies* factor is satisfied.

Regarding the third *Mathies* factor, the Secretary demonstrated a reasonable likelihood that the hazard contributed to by the violation, i.e., loss of control of the large haul truck on the mine roads, was reasonably likely to result in an injury during continued mining operations. During continued mining operations, a large haul truck driven at speeds between 12-15 mph over uneven, curved and graded mine roads, with an inch of vertical play in a ball joint *and* a loose nut on the ball joint was reasonably likely to result in loss of control of the truck and injury to the driver, injury to another driver during collision with another vehicle, or injury to another miner travelling on foot in the vicinity of haul truck operations. The driver of the truck or a passing vehicle was clearly exposed to injury from collision or loss of control of the truck due to failure to maintain the truck in safe operating condition. Further, the credited testimony from inspectors Tuggle and Crouse establishes that other miners travelling in passing

vehicles or on foot were exposed to post-collision injury from loss of control of the truck. Tr. 59, 62-63, 164, 167. In these circumstances, an injury was reasonably likely to occur during continued operation of the large haul truck over mine property with defective components on the steering linkage assembly.

Concerning the fourth *Mathies* factor, I find a reasonable likelihood that any such injury would be of a reasonably serious nature. The loss of control hazard contributed to by the failure to maintain the large haul truck in safe operating condition was reasonably likely to result in a collision and concomitant serious or fatal injury to the truck driver, miners in a colliding vehicle, or miners struck on foot. The Caterpillar 777B is a very large rock haul truck, measuring over 16 feet high and capable of carrying a load of over 320,000 pounds. A collision with another vehicle or miner likely would be serious or fatal. Accordingly, the Secretary has shown a reasonable likelihood that an injury resulting from the hazard contributed to by the violation was reasonably likely to be serious or fatal.

C. Respondent's Negligence was Appropriately Designated as Moderate

The Respondent challenges Tuggle's moderate negligence designation. The level of negligence is properly designated as moderate when "[t]he operator knew or should have known of the violative condition or practice, but there are mitigating circumstances." 30 C.F.R. § 100.3, Table X. The level of negligence is properly designated as low when there are *considerable* mitigating circumstances surrounding the violation. 30 C.F.R. § 100.3, Table X (emphasis added).

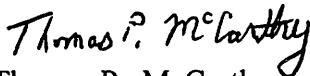
Based on the testimony and briefs, I do not find considerable mitigating circumstances that would justify reducing the negligence designation from moderate to low. Respondent highlights none. Further, the lack of adequate procedures for investigating defects in steering linkage assembly components during Respondent's pre-operational inspection supports a moderate negligence designation. In this regard, the pre-operational inspection should have included two individuals. The record establishes that that there is no way to measure or observe play in the ball joint without one miner manipulating the steering wheel and another checking the tie rod and ball joints for movement and play. In these circumstances, I find that the Secretary properly designated the level of negligence as moderate.

D. Civil Penalty

I have evaluated the Secretary's proposed penalty in light of the principles announced in my recent *Big Ridge* decision. *Big Ridge Inc.*, 36 FMSHRC__slip op. at 4-6 (July 19, 2014) (ALJ). I find that the penalty proposed by the Secretary is consistent with the statutory criteria in section 110(i) of the Mine Act. 30 U.S.C. 820(i). Accordingly, I assess a \$3,689 civil penalty against Respondent.

IV. ORDER

For the reasons set forth above, I **AFFIRM** Citation No. 8203250, as written. It is **ORDERED** that the operator pay a civil penalty of \$3,689 within 30 days of this decision.¹²


Thomas P. McCarthy
Administrative Law Judge

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¹² Payment should be sent to: Mine Safety & Health Administration, U.S. Department of Labor, Payment Office, P.O. Box 790390, St. Louis, MO 63179-0390.