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Federal Mine Safety and Health Review Commission
Office of Administrative Law Judges

SECRETARY OF LABOR, MINE SAFETY AND HEALTH ADMINISTRATION (MSHA), PETITIONER	Civil Penalty Proceedings Docket No. NORT 78-387-P A.C. No. 44-04251-02008V
v.	
CLINCHFIELD COAL COMPANY, RESPONDENT	Docket No. NORT 78-388-P A.C. No. 44-04251-02009V McClure No. 1 Mine

DECISION

Appearances: Michael Bolden, Esq., Office of the Solicitor, U.S. Department of Labor, for Petitioner; Gary W. Callahan, Esq., for Respondent

Before: Judge William Fauver

These proceedings were brought by the Secretary of Labor under section 109(a) of the Federal Coal Mine Health and Safety Act of 1969, 30 U.S.C. 801 et seq., for assessment of civil penalties for alleged violations of mandatory safety standards in October and November, 1977. The case was heard at Falls Church, Virginia. Both parties were represented by counsel. The Secretary of Labor has submitted his proposed findings, conclusions, and brief for Docket No. NORT 78-387-P, following receipt of the transcript.

Having considered the contentions of the parties and the record as a whole, I find that the preponderance of the reliable, probative, and substantial evidence establishes the following:

FINDINGS OF FACT

1. At all pertinent times, Respondent, Clinchfield Coal Company, operated a coal mine, known as the McClure No. 1 Mine, in Dickenson County, Virginia, which produced coal for sales in or substantially affecting interstate commerce.

2. Thyssen Mining Construction, Inc. (Thyssen), was an independent contractor engaged by Respondent to sink a return shaft at the McClure No. 1 Mine. In forming the shaft, Thyssen used a three-stage, circular work deck, which was suspended from the surface by four wire ropes in two parts. The

work deck had a diameter of 18 feet, 4-1/2 inches and weighed about 17,500 pounds empty and about 20,000 pounds fully loaded with men and materials. Through the center of the work deck was a bucket well about 5 feet in diameter that permitted a bucket (man hoist) to pass through all three stages and descend to the bottom of the shaft. The shaft was 237 feet deep and had a diameter of 20 feet. The concrete formwork for the shaft was 5 inches thick. Attached to the outside of the work deck and extending about 7 feet above the top stage and about 7 feet below the bottom stage were several anti-tilt riggers, which were designed to wedge against the shaft wall to limit tilting of the deck. The height of the work deck with the tilt-control riggers was 22 feet, 3 inches.

3. Around the outside perimeters of the work deck and the bucket well were separate post-and-chain barricades to prevent persons from falling over the edge of the deck or through the bucket well. The two barricades were circular and each consisted of two chains attached to posts. The top chain was about waist-high and the other one was about knee-high. The outermost barricade was about 6 inches inside the edge of the platform. Also, around the outside and inside edges of the deck were 6-inch kickplates to prevent people from slipping over the edge. The men wore cleated rubber boots and the deck had an anti-skid surface.

4. The workers were not required to and generally did not wear safety belts while working on the deck; however, some of the men did wear safety belts while the deck was moving. If the deck tilted, there was nothing to prevent a man from falling to the deck floor and, besides the two chain barricades, there was nothing to prevent an employee from falling against the shaft wall, from becoming caught between the shaft wall and the deck, or from falling through the bucket well.

5. There has never been an accident involving an employee falling against the shaft wall or lodging an arm or hand between the platform and the wall or falling through the bucket well.

6. The work deck was powered by four Hoyle winches, which served as spools for the wire ropes. Each winch, which was controlled by the hoist operator from the hoist room, was a drum about 16 inches in diameter with two flanges and was powered by a 15-horsepower motor with a capacity of 10,000 pounds. The No. 1 and No. 4 winches were mounted over the shaft opening on the collar coverings and the No. 2 and No. 3 winches were mounted on a concrete pad directly in front of the hoist room.

7. The motors that drove the winches produced a maximum line speed of about 45 feet per minute; however, with the wire rope in two parts, the speed was halved to about 22-1/2 feet per minute.

8. Each wire rope was five-eighths inch and had a breaking strength of 34,000 pounds. With the ropes in two parts, the load supported by each part was 2,500 pounds. Each rope contained

seven strands of wire, each of which consisted of 19 smaller wires. The ropes were anchored underneath the

collar of the shaft to one of the collar beams and extended down to the work deck under a sheave wheel and back to the winch drum. The sheave wheels were welded and bolted to the work deck.

9. Title 30 of the Code of Federal Regulations, Part 77, incorporates the minimum safety factors for hoisting ropes established by the American National Standards Institute (ANSI). The ANSI safety factor of a hoisting rope was the factor by which the breaking strength of the rope exceeded the suspended load, related to the depth of the shaft. The recommended safety factor of a shaft 500 feet or less was 8. Under the ANSI system of determining the safety factor of hoisting ropes, any three of the four ropes on the subject work deck would combine to produce a safety factor of 10.44. The four ropes had a safety factor of 13.92.

10. Each of the four winches was equipped with an electric shoe-type brake made from an asbestos fiber. Each brake was spring-activated. Before a brake would release, the motor would have to assume 40 percent of its normal load and the brake would not begin to apply until power decreased to 10 percent of the normal load. Thus, at all times, either the motor would be applying power or the brakes would be activated.

11. When power was applied to the winch motors, the brakes automatically released so that the platform could move; when power was turned off, the brakes applied automatically. If the power source to the winch motors failed, the brakes were designed to activate automatically by spring action.

12. Each winch drum had a slot to receive a safety pin, also known as a safety "dog." The purpose of this pin was to prevent the drum from freewheeling if the brake failed while the deck was in a stationary position. The safety pin was a strip of metal, about 12 inches long, 2 inches wide, that inserted into the frame of the winch drum. The pin would stop the drum when the pin came into contact with a metal lug attached to the outer part of the drum. The metal lugs were 1-inch square and spaced 90 degrees apart so that, when a safety pin was inserted, the winch would rotate a maximum of 90 degrees before stopping at the next lug.

13. An employee on the surface, known as the topman, manually inserted the four safety pins upon instruction from the hoist operator. The operator maintained telephone contact with the workers on the deck because he was unable to see the winches from the hoist room. A bell signal notified the topman that the pins were ready to be inserted. It took 3 to 4 minutes to insert all four pins. There has been no case of failure of a safety pin.

14. The hoist operator tried to operate the four winches simultaneously so that the deck would be level; however, the deck often tilted because the winch motors operated at slightly different speeds and the stretching characteristics of the ropes were not uniform. Before the work deck reached a new resting

position, the operator would make several adjustments to level the deck. When the deck was finally stopped the safety pins

would be inserted and power would be released so that the winches would roll back against the pins. One or two of the ropes might become slack when the winches rolled back. Before the deck was moved again, the pins would be removed and the hoist operator would try to level the deck by adjusting the winches one at a time. Three winches were capable of leveling the work deck.

15. If the air was damp, the shoes would absorb moisture and swell. During the 2 or 3 days prior to October 27, 1977, there were heavy rains that caused the brakes to drag and made lowering and raising the deck difficult. On October 27, the weather was drier and the brake shoes had shrunk back to their normal size.

The October Inspection

16. On October 27, 1977, federal mine inspector William H. Hulvey inspected the No. 2 shaft at Respondent's McClure No. 1 Mine. He arrived at the hoist room about 8:15 a.m. to inspect the three-stage work deck. He spoke briefly with the hoist operator and inspected the books.

17. The hoist operator was in the process of moving the work deck to a new resting place in the shaft. The safety pins had been removed and the fiveman crew, including the foreman, were on the work deck. A whole crew was needed to move the work deck safely because there were three stages and there were utility lines and other objects that might interfere with the wire ropes. One of the workers below was communicating with the hoist operator by telephone, instructing him to move the winches one at a time. The operator told the inspector that he was moving the winches one at a time because they were having difficulty leveling the deck. A work deck might be difficult to keep level for a number of reasons, e.g., the brake was not holding properly, the ropes were not spooling on the drums properly, or the winches were not hoisting synchronously.

18. At about 9 a.m., the operator lowered the inspector to the work deck. When he arrived the foreman said that they were trying to move the deck but were unable to keep it level. While the inspector was on the deck, the operator applied power to all four winches and the deck rose about 1 foot. After the power was turned off, the brakes applied and the inspector noticed a slight displacement on one side of the deck and slackness in one of the ropes. The inspector determined that the No. 3 winch rope was not holding its designated load. He believed that if one of the brakes was not supporting any weight, an added strain was placed on the other brakes. The inspector told the foreman to withdraw the men until the problem was diagnosed.

19. The operator raised the work deck and then released power. The No. 3 brake should have applied; however, the brake did not immediately hold the winch and about 1 foot of rope spooled from the drum before holding. They returned to the surface to inspect the No. 3 winch.

20. A mechanic then inspected the brake and found that it was out of adjustment, that it was slipping, and that the shoes were not holding the brake wheel.

21. Inspector Hulvey issued Order of Withdrawal No. 1-WWH (7-62) to Respondent, reading in part:

> The electrically operated magnetic brake (shoe type) installed on the No. 3 electric work deck winch was not maintained in safe operating condition. The brake would not hold the winch drum when power was disconnected to the winch drive motor. This allowed the cable to become slack and not hold its designated load. The No. 4 electric winch brake was the only brake holding the side of the circular-3 level work deck. Workmen were attempting to have the work deck hoisted up the shaft.

The cited condition was abated by adjusting the brake. Three days earlier, there had been a similar problem with this brake.

22. The inspector considered the problem serious because he believed that, if the work deck tilted and wedged against the shaft, one of the men could fall to the floor and injure himself or fall through the bucket well. He also believed that if the No. 4 winch brake also malfunctioned, one side of the deck would tilt and the wires could become damaged by contact with the upper stage of the platform of the deck.

23. The inspector found that the condition should have been discovered before his arrival. The shaft was required to be preshifted before the start of each shift and the hoisting equipment was required to be checked daily. However, the brakes would not be inspected unless the platform was going to be moved. If the platform remained stationary for several days, the brakes would not be examined before men descended to the work deck because the safet pins would prevent the winches from freewheeling. On October 27, there had been a preshift examination and the hoisting equipment was checked.

24. At about 7:30 a.m. on the date of the inspection, Ray Hobson, the fire boss, had preshifted the shaft area, including the man hoist, the winches and the hoist room. His inspection of the winch brakes did not include removing the guards that surrounded the brakes. He descended the shaft in the bucket and found only that a line needed extending at the bottom of the shaft.

25. The hoisting equipment was also inspected that morning, at about 8 a.m., by the hoistman. The hoistman inspected the ropes to see that they were in good operating condition, that there were no broken strands, and that they were aligned in the sheaves and not overlayed on the drums.

26. Thyssen recorded inspections made on the man hoist in the hoist inspection book. The man hoist was used to hoist men in and out of the shaft. Examinations of the deck winches, concrete form winches and emergency hoist winches were also recorded. There was no record in the book of an inspection of the Hoyle winches and the brakes.

27. Respondent's approved shaft-sinking plan provided in part:

> The braking systems employed on the Hoyle Winches which are used to suspend the work deck, concrete forms, and the emergency escape conveyance shall be visually examined and tested on each shift by a qualified hoistman prior to allowing men to travel on the platforms or conveyances suspended; or prior to hoisting loads where men may be endangered by the hoisting operation. If such tests reveal that any part of a braking system is not functioning properly, repairs shall be made immediately. The results of such tests shall be recorded in a book maintained for this purpose and shall be signed each shift by the hoistman making such inspections.

28. An electrical foreman periodically inspected the brake mechanisms by pulling off the covers and disconnecting the solenoid to see that they held with power on. Brake linings were also changed about every 2 to 3 weeks. There was no standard requiring the coverings to be removed when the hoist was inspected. On September 21, 1977, a brake was installed on the No. 3 winch.

29. There were two methods of checking the brakes. One involved the hoist operator applying power and moving the winches slightly and then shutting the power off to activate the brakes. If the brakes were out of alignment, a person on the deck would observe a slack cable when the brakes were applied. A slack cable on the No. 2 or No. 3 winch could be observed at the surface because they were mounted on the pad directly in front of the hoist room; however, a slack cable on the No. 1 or No. 4 winch could be observed only from the deck. Under normal circumstances, when the deck was being moved there would be various tensions in each of the four ropes due to differences in the spooling characteristics and the winding of the ropes on the four drums; however, each of the ropes would be taut.

30. The other method of checking the brakes, which was more complicated but more accurate, involved manipulating the solenoid system on each brake. The electrical engineer would isolate the power from the circuit, remove the covers to disconnect the wires serving the solenoid, insulate those wires safely, replace the covers on the solenoid box and on the brake box, and then reapply power to the circuit. The procedure then had to be reversed to put the system back in working order.

The November Inspection

31. On November 21, 1977, Inspector Hulvey, accompanied by another inspector and the mine foreman, inspected the shaft and the three-stage circular work deck at the McClure No. 1 Mine. The deck was in a stationary position. The workmen were on their lunch hour. Inspector Hulvey observed that the No. 1 winch cable was completely slack at the work deck level. He held the cable with his hand and was able to shake it. In the inspector's

opinion, the cable was not suspending its designated load. The only brake

holding that side of the deck was the No. 4 brake and the slippage of that brake would allow the drum to turn until the safety pin engaged or until the slack in the rope was taken up. The safety dogs were in the winches.

32. Inspector Hulvey also observed that an air hose was intertwined with the cable. The air hose was hooked to an air pump, which was located at the bottom of the shaft. The hose was lying on the work deck and was intertwined with the two parts of the cable. He believed that whoever placed the hose there should have observed the slack cable.

33. The hose was not interfering with the function of the wire ropes and there was no danger of the hose snapping unless the work deck was moved. If the hose broke, there would be a sudden whipping action of the live end of the hose. If it were only punctured, there would be a sudden air stream which might strike somebody but pose no real danger unless it generated air-born dust or particles.

34. The inspector believed, initially, that the brake was not holding the load. When they reached the outside and put tension on the rope, they found that the brake was working properly but that the rope had not been properly tensioned.

35. On November 21, 1977, Inspector Hulvey issued an order of withdrawal to Respondent, reading in part:

> One of two hoyle winches used to suspend the east side of the three stage work deck in the shaft was not suspending the designated load in that the winch cable of the No. 1 winch was completely slack at the work deck. Pump hoses to a diaphragm pump were intertwined with the cable.

36. He believed that the condition was serious because an unexpected displacement of the work deck would be hazardous to workers on the deck. At the very least, they might lose their balance and fall to the surface of the deck. He observed a tool box and a fire extinguisher on the top level. At times, miscellaneous hand tools, drills and hoses would be lying on the deck surface.

37. The cited condition was abated in about 30 minutes by applying tension to the cable.

38. At 6:30 a.m. on November 21, a preshift examination had been conducted. No defects or infractions were found. At 11:15 a.m., an onshift inspection disclosed that a whip check was missing from the airline shaft bottom and that the pump needed a safety cable.

DISCUSSION WITH FURTHER FINDINGS

At the hearing, counsel for the Respondent orally moved to dismiss the Secretary's petition for assessment of civil penalty

in Docket No. NORT 78-387, on the ground that the Secretary failed to introduce in

evidence the underlying notice of violation. Respondent argues that the existence of the underlying notice of violation must be established before the validity of the subject section 104(c)(1) order of withdrawal can be established. Respondent argues that without a "chain" established between the notice and order, the Commission lacks jusisdiction to consider the validity of the order.

The Secretary introduced in evidence the order of withdrawal that was issued on October 27, 1977. The order of withdrawal reads in part: "The violation was found during a subsequent inspection made within 90 days after Notice No. 1 J.A.B. was issued on September 7, 1977, and is also caused by an unwarrantable failure to comply with such standard." The Secretary did not introduce in evidence Notice No. 1 J.A.B. However, I conclude that this omission was not fatal to the Secretary's case. I find that the existence of the underlying notice of violation was established when the subject order of withdrawal was received in evidence without objection from Respondent. The existence of the underlying notice of violation is indicated on the face of the order of withdrawal. I find that in the absence of evidence that the underlying notice of violation was contested by Respondent in a review proceeding, the validity of the notice is established for purposes of this proceeding.

Based on the order of withdrawal issued on October 27, 1977, the Secretary has charged Respondent with a violation of 30 C.F.R. 77.404, which provides: "Mobile 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." The basic issue as to this charge is whether the brake on the No. 3 Hoyle winch malfunctioned and whether the malfunction of the brake rendered the three-stage circular work deck unsafe.

The Secretary argues that a preponderance of the evidence establishes that the brake on the No. 3 Hoyle winch malfunctioned, causing an added strain on the other brakes and rendering the work deck operation unsafe.

The Secretary proposes a penalty of $4,000.

Respondent contends that the malfunction of one brake would not render the work deck unsafe because the remaining brakes could handle the load. Geoffrey Weston, Thyssen's Director of Mining Services, testified that the tilt resulting from the failure of one of the brakes would be so slight that no one on the deck would be in danger of falling to the deck or falling through the bucket well.

Using a scale model of the work deck and the shaft and his mathematical calculations based on the weight and size of the deck, Weston testified that the maximum tilt of the deck would be 2.07 degrees and the maximum vertical deflection would be 8 inches or a 4-percent gradient. Weston testified that if the

work deck descended below the concrete formwork while the shaft bottom was being excavated, which was unusual, the degree of tilt would be greater.

Weston testified that a four-winch-operated work deck was designed to operate safely with three ropes and that slackness in one of the ropes after the deck was stopped and the winches were rolled back against the safety pins was common. When the winches were backed off, slackness would be produced in one of the ropes depending on the relative positions of the safety pins when the winches were halted.

At the time of the inspection, the shift had already begun and the crew was on the work deck. The safety pins had been removed and the hoist operator was trying to level the work deck before moving it up or down. It was normal for the deck to become slightly unlevel with a four-winch hoisting system and the operator's action in applying power to the four winches one at a time was an acceptable method of leveling the deck. However, a preponderance of the evidence establishes that the crew was having an unusually difficult time leveling the deck. The inspector testified that the hoist operator told him that they were having trouble keeping the deck level and when the inspector arrived at the deck, the foreman also told him that they were unable to keep the deck level.

I find that, with the safety pins removed, the inability to level the deck created a potential hazard to the crew and imposed a duty upon Respondent to inspect the brakes. A preshift examination and hoisting inspection were conducted before the shift began and no brake defects were found. However, the most common method of testing the brakes, which involved activating the hoist motor and then applying the brakes to see if the brakes held, was done only after the five-man crew had descended to the deck. A proper inspection before the men arrived at the work deck would have revealed a problem with the brakes, requiring a more thorough inspection of the braking system.

I find that the tilt observed by the inspector indicated a defect in the braking system and that this defect presented a safety hazard. A sudden displacement of the deck when the brakes were applied could cause an employee to fall and injure himself either on an object lying on the deck's surface or by wedging a leg or arm between the deck and the shaft wall. I find that the tilt was not caused by the winches winding non-synchronously or by the ropes spooling unevenly on the drums. A tilt while the deck was in motion might result from one of these factors; however, I find that the displacement of the deck when the brakes were applied was caused by a defect in the brakes, as Inspector Hulvey believed. It was a violation to keep men on the deck and to try to operate it without first checking the brakes and correcting any brake defect found.

However, the gravity of the violation was minimal because the antitilt riggers attached to the outside of the work deck would limit the tilting of the deck by wedging against the shaft wall. I find significant the inspector's own experience on the deck when the No. 3 brake's failure to hold properly did not cause anyone on the deck to lose his balance.

The negligence of the operator was also slight because a preshift inspection and hoisting inspection were conducted before the shift began; the crew had been trying to level the deck for only a few minutes before the inspector

arrived at the operator's compartment; and the safety features of the three-stage work deck were more than adequate to prevent serious injury if one of the brakes malfunctioned.

Based on the order of withdrawal issued on November 21, 1977, the Secretary has charged Respondent with a violation of 30 C.FR. 77.404, which provides: "Mobile 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." The basic issue as to this charge is whether the three-stage work deck was in safe operating condition. The Secretary and the Respondent have not filed briefs as to this charge.

I find that the Secretary failed to prove a violation as to this order. As noted above, a slack cable while the deck was stationary was a common occurrence and three cables were capable of supporting the deck in a safe condition. Inspector Hulvey testified that all of the brakes were working properly. The evidence supports a reasonable inference that the slackness in the No. 1 rope was caused by the winch being backed off against the safety pin and that this did not pose a safety hazard. The Secretary did not prove by a preponderance of the evidence that the slack cable constituted an unsafe condition.

Nor did the Secretary show by a preponderance of the evidence that the presence of an air hose intertwined with one of the wire ropes posed a safety hazard under the cited standard. Inspector Hulvey testified that the air hose was not interfering with the function of the wire ropes because the deck was stationary. He said that the only danger was that if the deck was moved, the hose might snap. However, as noted above, the deck often remained stationary for several days and there was no evidence that the deck was about to be moved or that Respondent's crew would not have untangled the hose from the air pump at the bottom of the shaft before moving the deck. The inspector testified that the crew was taking a lunch break at the time of the inspection. I find that the Secretary failed to prove by a preponderance of the evidence that the air hose interfered with the safe operation of the work deck or that the air hose was in danger of snapping or being punctured at the time of the inspection, or that Respondent planned to operate the deck later without disentangling the air hose and wire rope. In addition, the inspector testified that the hazard to the safe operation of the deck posed by the air hose was minimal compared to the hazard of slackness in one of the cables. The gravamen of the Secretary's charge having failed of proof (the slack cable), the air hose condition does not warrant sustaining the November 27 charge of an unsafe condition.

CONCLUSIONS OF LAW

1. The undersigned judge has jurisdiction over the parties and subject matter of the above proceedings.

2. Respondent violated 30 C.F.R. 77.404 by allowing men

to travel on an unsafe work deck as alleged in Order of Withdrawal No. 1 W.W.H. (7-62.)

Based upon the statutory criteria for assessing a civil penalty for a violation of a mandatory safety standard, Respondent is assessed a penalty of $100 for this violation.

3. Petitioner did not meet his burden of proving a violation as alleged in Order of Withdrawal No. 1 W.W.H. (7-67).

ORDER

WHEREFORE IT IS ORDERED that (1) the charge based on Order of Withdrawal No. 1 W.W.H. (7-62) is DISMISSED, and (2) Clinchfield Coal Company shall pay the Secretary of Labor the above-assessed civil penalty, in the amount of $100, with 30 days from the date of this decision.

WILLIAM FAUVER JUDGE