FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

OFFICE OF ADMINISTRATIVE LAW JUDGES
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SECRETARY OF LABOR, MINE SAFETY AND HEALTH ADMINISTRATION (MSHA),		: Civil Penalty Proceeding :
	Petitioner	: Docket No. DENV 79-539-PM : A.C. No. 13-01368-05003 F
v.		: Lisbon Quarry
B. L. ANDERSON, INC.,	Respondent	:

DECISION

Appearances: Eliehue Brunson, Esq., Office of the Solicitor, U.S. Department of Labor, for Petitioner; Robert D. Houghton, Esq., and Thomas M. Collins, Jr., Esq., for Respondent.

Before: Judge William Fauver

This case was brought by the Secretary of Labor under section 110(a) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 801 et seq., for assessment of civil penalties for alleged violations of mandatory safety standards at Respondent's No. 2 Plant, Lisbon Quarry, Linn County, Iowa. The case was heard at Cedar Rapids, Iowa. Both parties were represented by counsel, who have submitted their proposed findings, conclusions, and briefs 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, B. L. Anderson, Inc., operated a limestone quarry known as the Lisbon Quarry in Linn County, Iowa.

2. Respondent has four portable crushing plants, one sand plant, and two washing plants. The equipment at the plants includes crushing equipment, trucks, loaders, drills, and trailers. Respondent also has a drilling crew, a stripping crew, and an asphalt crew that operate the plants. Respondent's limestone product is used in the highway construction and maintenance industry. Respondent normally locates a quarry and sets up a crushing plant near its customers' projects.

3. At all relevant times, the mining process at a rock quarry generally involved drilling holes in the floor of the quarry to blast the rock, scooping the blasted rock with a front-end loader, and dumping the material into the crusher. The rock was passed through crushing and sizing equipment and dumped on a conveyor belt that transported it to trucks that stockpiled the material nearby. The loader's cycle of scooping blasted rock at the face, dumping a load in the hopper and returning to the face for another load would take about 2 minutes.

4. When a new plant was assembled and ready to begin production, Respondent's safety director, Mr. Dennis Goettel, would inspect the equipment to see that the plant was in compliance with state and federal safety and health standards and that all employees were provided with the required personal protective equipment. His inspection included noise surveys of the crushing equipment and mobile equipment, checking the condition of the equipment, and seeing that the backup alarms on the mobile equipment functioned properly.

5. On September 15, 1978, Mr. Goettel and Mr. Craig Thompson, a control representative from United States Fidelity and Guarantee Company, checked decibel readings on the equipment of the No. 5 Plant at the Lisbon Quarry, including a Michigan 275 B loader that was equipped with a Model 861 "Warn-A-Larm" backup alarm on the right rear wheel and an electronic alarm on the rear of the vehicle. Mr. Thompson used a sound level meter approved by the National Institute for Occupational Safety and Health (NIOSH). He calibrated it with a battery-operated tone signal instrument to 93.6 dba, and used a wind screen to offset the effect of wind on the meter readings.

6. To determine the "surrounding noise" of the crushing and dumping operations, sound-checks were made at six locations, with peak readings from 90 to 98 decibels. Ramps were located on either side of the primary crusher. Readings were taken from both directions as the loader went up the ramp, dumped blasted rock in the hopper and backed down the ramp. Mr. Thompson, who held the noise level meter, stood about 10 feet from the right side of the loader while taking readings of its noises. Generally, decibel readings drop about 6 decibels for every 10 feet. The loudest reading near the loader was taken when the primary crusher was between the loader and Mr. Thompson. Noise level readings varied with the amount of material that was dumped into the crusher. Differences in terrain, equipment, and type of muffler could also cause noise level readings to vary.

7. On September 26, 1978, Mr. Goettel and Mr. Thompson ran similar tests at Respondent's No. 4 Plant at the Ballheim Quarry; No. 3 Plant at the Garrison Quarry; and No. 1 Plant, a sand plant, at the Spaight Sand Pit. They did not check the No. 2 Plant because, after checking the other three plants, the results were all found to be within acceptable limits. All readings were below 100.

Conditions and Events at the No. 2 Plant on October 13 - 15, 1978

8. On October 13, 1978, Mr. Goettel inspected the No. 2 Plant, which had just begun the first day of operations at the Lisbon Quarry. It was in full

production when he arrived at the plant, about 3 p.m. He remained until the equipment shut down at 5 p.m. Mr. Goettel's inspection included checking the employees' personal protective equipment and the condition of the equipment, including the backup alarms on the trucks and loaders, the windshields on the trucks, and the guards on the crushing equipment. Normally, if a piece of equipment was not working properly, he would notify the plant foreman and the maintenance shop in Cedar Rapids.

9. The crushing equipment was located on the east side of the quarry, the quarry face on the south, and the drill on the west. Crushing equipment included a primary crusher, a surge bin, and secondary crushing equipment. There was a dirt ramp leading to the primary crusher. A conveyor transported material from the primary crusher to the rest of the equipment and finally to a bin where it was dumped into stockpile trucks. The bin could be filled in about 15 minutes.

10. Respondent used Michigan Clark 275 B front-end loaders at the No. 2 Plant. This model was about 13 feet 3 inches high, 22 feet long, 11 feet 3 inches wide, and was equipped with an accoustical-lined ROPS cab. From the ground to the top of the hood in the rear was about 9 feet; in addition, a large muffler was horizontally attached to the rear hood, above the radiator, and the radiator extended a substantial distance rearward beyond the rear wheels. From the operator's position, there was a substantial blind spot behind the radiator at the back end. The loader came with an electronic backup alarm, which was connected to the transmission and operated off the engine. Respondent disconnected the electronic alarm and replaced it with a mechanically-operated,backup alarm, known as a Model 861 "Warn-A-Larm." Mr. Howard Peckham, Respondent's maintenance superintendent, decided to replace the electronic alarm because he believed it was not as dependable as the mechanical alarm and was more difficult to maintain.

11. The Warn-A-Larm is designed to be attached to a wheel and to sound a bell when the wheel turns counterclockwise. As the wheel so rotates, four steel ball bearings fall against the inside of a bell and produce a bell alarm. The device is thus designed to be used only on the right rear wheel. The faster the vehicle backs up, the faster the bell sounds. The Warn-A-Larm has a decibel output range of 100 to 110. The electronic alarm produces a repeating beeping noise and the Warn-A-Larm produces a bell sound; however, their decibel outputs are similar.

12. On October 13, 1978, when Mr. Goettel inspected the loader and its backup alarm, he stood in the general working area of the loader and near the primary feeder as the loader dumped its load and backed down the ramp. He could hear the backup alarm from the right side while the loader was backing down the ramp and as it returned from the quarry face in a reverse direction. Mr. Goettel heard the alarm over the surrounding noise from many areas in the plant. However, he was always toward the right of the loader when he checked the sound.

13. On October 14, at about 2 p.m., Mr. Kevin Bonney, who was operating a stockpile truck, placed his empty truck under the surge bin to receive a load. Mr. Bonney loaded his truck with material that had already accumulated

in the surge bin and shut it off after the bin had emptied. He then drove the partially loaded truck to the fuel trailer while the bin was refilling.

14. He returned to the bin and continued to fill the truck. Mr. Martin Haker, the drill operator, observed Mr. Bonney get out of his truck, walk around to the front of the truck and start to cross a vacant ground area that was bordered on the south by the quarry face, on the west by the drill operation, and on the east by the crushing operation. The loader used a good part of this area in its cycle of scooping at the face, backing away in a northerly direction, then going forward to drive up the crushing site ramp on the east, backing down the ramp and into the vacant area and then going forward to the face, on the south. Mr. Haker observed that Mr. Bonney was headed toward his drill; this seemed normal, as Mr. Bonney had often crossed the area to visit Mr. Haker. After seeing Mr. Bonney head toward him, Mr. Haker turned his attention to the drill because it became stuck in rock. When he freed the drill and looked up, Mr. Bonney had changed direction and now was walking south, toward the loader. Both the loader and Mr. Bonney were traveling toward the face; Mr. Bonney was 30 to 40 feet behind the loader; and the loader was about 50 yards from the face. Mr. Haker's drill became stuck again, and he returned his attention to the drill. About 30 to 60 seconds later, he freed the drill and looked up, and this time he saw Mr. Bonney lying on his back. The loader was backing away from the face and moving toward Mr. Bonney. Mr. Haker ran to the scene and waved his arms to stop the loader operator. Mr. Flagel, the loader operator, saw his signal and immediately stopped the loader, about 18 feet from Mr. Bonney. As the loader was backing up, Mr. Haker, who was far to the right rear of the loader, could hear the sound of the backup alarm.

15. An ambulance was summoned. The ambulance personnel determined that Mr. Bonney was dead. For reasons not satisfactorily explained in this record, but not relevant to the backup alarm issue, the ambulance personnel decided they had no authority to remove the body until a coroner inspected the body and scene undisturbed. They left the body on the ground, in place, for a considerable time while awaiting the cororner.

16. Mr. Dow E. Prouty, Respondent's Director of Technical Services, was notified of the accident at about 2:30 p.m, arrived at about 3 p.m., and took photographs of the accident scene. The ambulance had already arrived; however, the body had not been moved.

17. The lower right side of Mr. Bonney's body was severely injured, including injuries to his lower abdomen and upper part of his right leg. The nature of the wound and the direction of the flow of blood would indicate that a great pressure had moved down that side of his body from the lower torso to the leg in a line generally toward the quarry face.

18. Mr. Prouty observed a trail of blood spots left by the left rear tire of the loader. He measured the circumference and diameter of the wheel, the distance between the blood spots, and determined that the blood spots trailed inby the body toward the face, and not outby the body.

19. By the time Mr. Prouty finished taking photographs, the coroner arrived, examined the body and scene, and the body was removed.

20. On October 15, 1978, Inspectors Worsham and Paul investigated the accident. Also present were Mr. Goettel, Mr. Bill Dahms, quarry foreman, Mr. Dow Prouty, Mr. Tom Anderson, Treasurer, and Mr. Dave Lyon, Assistant Operations Manager of the Aggregate Division. The mine was not in operation.

21. The exact position of the loader at the time of the accident could not be determined because, when the accident was discovered, the loader was making its return from the quarry face.

22. The quarry foreman, Mr. Bill Dahms, operated the loader to test its brakes and the backup alarm. Mr. Dahms drove the loader a short distance forward and in reverse to test the brakes, and then drove forward about 75 feet before backing up that distance to test the backup alarm. When the loader was moved forward, Inspectors Worsham and Paul were standing about 5 feet from the machine on the right side. Mr. Prouty and Mr. Anderson were standing about 15 feet from the right side of the loader and Mr. Lyon was standing left of center and about 10 feet directly behind the loader. Mr. Goettel was standing near the toolhouse shed trailer, which was to the left of the loader and several hundred feet away. Inspector Worsham testified that, when this test was made, he was able to hear the alarm. He then moved about 5 feet to the left side of the machine and the machine was again moved forward and in reverse. From the left side of the machine, he was unable to hear the backup alarm when the loader's, engine was running.

23. After the sound tests, Mr. Worsham told the B.L. Anderson personnel that he was unable to hear the backup alarm from the left side of the loader; however, the B.L. Anderson personnel told him that they were able to hear the alarm from where they were standing.

24. On October 15, 1978, Inspector Worsham issued Citation/Order of Withdrawal No. 178846 for a violation of 30 C.F.R. § 56.9-2 (equipment defects affecting safety shall be corrected before the equipment is used). The citation reads in part:

> The front-end loader is equipped with a wheel-mounted, bell-type backup alarm. The alarm is not audible above the engine noise of the loader except on the side of the loader where a bell is mounted. Loader is to be operated only from quarry to shop for installing an audible alarm.

25. Inspector Worsham found that the operator knew or should have known of the defect by making a sound inspection on the left side of the loader. He believed that the cited condition was serious and a contributing factor to Mr. Bonney's death.

26. The condition was found to be abated on October 16, 1978, by reconnecting the electronic backup alarm on the front-end loader.

27. On December 10, 1979, the citation/order of withdrawal was modified to substitute a charge of a violation of 30 C.F.R. § 56.9-87 (failure to provide audible reverse signal alarm which is audible above the surrounding noise level).

28. B. L. Anderson's safety program includes the following:

(a) A copy of the company's safety policies are mailed annually to each employee and new employees receive a copy of these policies. Included in these policies are the mandatory MSHA regulations. The company requires the wearing of hardhats, safety shoes and safety glasses around crushing operations.

(b) At least two safety meetings for management personnel are held each year.

(c) "Toolhouse talks" are held for individual crews to discuss specific safety issues related to the particular crew.

(d) Mr. Goettel tries to spend at least 1 day each week in the field to visit the crews and plants and to make written safety checks to see that the crews are adhering to the company's and MSHA's safety policies.

(e) Seminars are held for all loader operators and truck drivers and they are shown films on safety and proper maintenance techniques.

(f) "Quarry Notes," a company newsletter, is mailed to all employees and customers tour times a year. It includes a column called "For Safe Keeping," which addresses safety issues.

(g) Mr. Goettel tries to instill a positive safety attitude in the employees so that they have pride in their work and exercise care. Four times each year, Mr. Goettel publishes the names of crews that have worked without a lost-time injury. Also, hardhat decals are given to each company employee to show how many years the employee has worked without a lost-time injury.

DISCUSSION WITH FURTHER FINDINGS

Based on the citation/order of withdrawal issued on October 15, 1978, and amended on December 10, 1979, the Secretary has charged Respondent with a violation of 30 C.F.R. § 56.9-87, which provides:

> Heavy duty mobile equipment shall be provided with audible warning devices. When the operator of such equipment has an obstructed view to the rear, the equipment shall have either an automatic reverse signal alarm which is audible above the surrounding noise level or an observer to signal when it is safe to back up.

The Secretary contends that, because a backup alarm was installed only on the loader's right rear wheel, it was not audible to employees to the left

side of the machine and that this inaudibility contributed to the fatal accident on October 14, 1978.

The Secretary proposes a penalty of $3,000.

Respondent first argues that its operations do not affect "commerce" within the meaning of the Act because materials mined from the Lisbon Quarry and other quarries are sold only to local asphalt and cement-paving contractors, trucking vendors who resell the product, and local ready-mix businesses. Respondent contends that there is no evidence that its products enter interstate commerce or that the operations affect interstate commerce.

Respondent then argues that the Secretary failed to prove by a preponderance of the evidence that the view to the rear of the loader was obstructed so as to require a backup alarm. Finally, Respondent argues that the Secretary failed to prove by a preponderance of the evidence that the backup alarm was inaudible above the surrounding noise level.

Commerce Coverage

Section 4 of the Act provides: "Each coal or other mine, the products of which enter commerce, or the operations or products of which affect commerce, and each operator of a mine, and every miner in such mine shall be subject to the provisions of the Act."

Section 3(b) of the Act defines "commerce" as "trade, traffic, commerce, transportation, or communication among the several States, or between a place in a State and any place outside thereof, or * * * between points in the same State but through a point outside thereof." By enacting the 1969 Coal Mine Act, the predecessor to the 1977 Act, "Congress intended to regulate inter state commerce to 'the maximum extent feasible through legislation."' Secretary v. Shingara, 418 F. Supp. 693, 694 (1976), citing S. Rep. No. 1055, 89th Cong., 2nd Sess. 1, reprinted in (1966) U.S. Code Cong. & Ad. News, 2072.

In Fry v. United States, 421 U.S. 542, 547 (1975), the Supreme Court said:

> Even activity that is purely intra-state in character may be regulated by Congress, where the activity, combined with like conduct by others similar situated, affects commerce among the States or with foreign nations. See Heart of Atlanta Motel, Inc. v. United States, 379 U.S. 241, 255, 13 L.Ed. 258, 85 S. Ct. 348 (1964); Wickard v. Filburn, 317 U.S. 111, 127-128, 87 L.Ed. 122, 63 S. Ct. 82 (1942).

In Wickard v. Filburn, supra, the Supreme Court held that wheat grown by an individual farmer for his own consumption is subject to federal regulation if it exerts a substantial economic effect on interstate commerce. The Court said that, even though one farmer's contribution to the demand for wheat

may be trivial, that is "not enough to remove him from the scope of federal regulation where, as here, his contribution, when taken together with that of many others similarly situated, is far from trivial." 317 U.S. at 127-128.

Highway construction and maintenance have been held to be within interstate commerce coverage of federal statutes. See, e.g., N.L.R.B. v. Custom Excavating Inc., 575 F.2d 102 (7th Cir. 1978).

I conclude that Respondent's mine operations come within the Mine Act's commerce coverage. The material mined by Respondent is regularly used to build and repair primary and secondary state roads that abut or are near the state border and are used in the regular stream of regular interstate commerce. Also, there is evidence to support a finding that some of Respondent's equipment, including the Michigan Clarke 275 B front-end loader, was purchased out of state.

The Charge of a Safety Violation

From the loader operator's position, there was a substantial blind spot behind the radiator at the rear of the loader. I find that the height and structure of the loader created an obstructed rear view so as to require the use of an automatic backup alarm or the presence of a flagman under the subject safety standard.

I also find that a preponderance of the evidence shows that, from the left rear side of the loader, the mechanical backup alarm mounted on the loader's right rear wheel was not audible above the surrounding noise of the loader engine. Inspector Worsham testified that, while standing on the left side of the loader, he was unable to hear the sound of the backup alarm over the loader's engine. He was the only person to stand close to and on the left side of the loader during the tests. Mr. Prouty and Mr. Anderson, who testified that they could hear the backup alarm, were standing on the right side of the loader (the same side as the wheel-mounted alarm); and Mr. Lyon, who also testified that he could hear the alarm, was standing more behind the machine than on its left side. Mr. Goettel testified that he could hear the backup alarm about 100 yards from the left side of the loader; however, at such a distance, a bell sound might not be masked by the sound of the engine even though at a distance of 5 feet the engine could have such a masking effect. I find that Mr. Goettel's ability to hear the backup alarm from that distance is not necessarily relevant to the audibility of the alarm close to the loader, and does not rebut the inspector's testimony.

The sound level tests conducted by Mr. Goettel and Mr. Thompson on the crushing equipment at the No. 5 Plant at the Lisbon Quarry are not helpful in determining whether a person on the left rear side of the loader at the No. 2 Plant could hear the backup alarm. Their tests concluded that the combined noise from operation of the crushing equipment and the loader was below the decibel output of the Warn-A-Larm, and they both testified that they heard the sound of the backup alarm from the left side. However, Mr. Goettel testified that the front-end loader at the No. 5 Plant that day was also equipped

with an operating electronic backup alarm. The front-end loader they tested was not the one involved in the accident on October 14, and the differences in equipment and plant environment could affect sound level readings. Differences in equipment and environment also lessen the probative value of tests at Plants 1, 3, and 4.

Mr. Goettel also testified that, on the day before the accident, he inspected the No. 2 Plant at the Lisbon Quarry and heard the sound of the backup alarm. However, the path he followed during this inspection did not bring him as close to the loader's left side as Inspector Worsham was on the day after the accident and he was not specifically trying to determine if the backup alarm could be heard from the left side.

I credit Inspector Worsham's testimony, and find that, from the left rear side of the loader at the No. 2 Plant, the Model 861 Warn-A-Larm mounted on the right rear wheel was not audible above the surrounding noise. I therefore conclude that the alarm did not meet the requirements of the safety standard.

The Secretary has not proved by a preponderance of the evidence that Mr. Kevin Bonney was backed over by the loader or that the inaudibility of the backup alarm on the left side of the loader contributed to his fatal accident.

There were no eye witnesses to the accident. When the drill operator last saw Mr. Bonney, Mr. Bonney was walking behind the loader and both the loader and Mr. Bonney were traveling toward the face. Within about 1 minute, Mr. Bonney was run over.

Mr. Flagel, the loader operator, last saw Mr. Bonney when the loader was backing down the ramp of the primary crusher. At that point, Mr. Bonney was about 20 feet away and appeared to be walking toward the drill. Mr. Flagel then completed his reverse motion, shifted into forward gear, and drove to the face. When he was backing up from the face, he saw Mr. Haker motion him to stop. Mr. Flagel had no knowledge of the accident, and could not determine whether the loader backed over Mr. Bonney or struck him when it was going forward.

The Secretary contends that, when Mr. Flagel backed down the ramp of the crusher, he failed to see Mr. Bonney and backed over him with the left rear wheel. However, the evidence is not clear as to whether Mr. Bonney was struck by the front of the rear wheel or by the back of the rear wheel. The most specific evidence: the trail of blood spots left by the left rear tire, the nature of Mr. Bonney's injuries, and the blood from the body, would tend more to indicate that the loader was going forward when it struck Mr. Bonney. At the minimum, the evidence does not preponderate to a show that Mr. Bonney was backed over or that the condition of the backup alarm contributed to the accident.

Nonetheless, I conclude that the failure to provide an adequate backup alarm was a violation of the safety standard and that this created a high

degree of gravity. The blind spot obstructing the driver's rear view and the inaudible zone (left rear side), where the backup alarm on the right wheel was ineffective, combined to create a serious risk of death or serious bodily injury. This condition resulted from the operator's negligence, since the operator, by the exercise of reasonable care, should have known that an inaudible zone was not reached by the right-wheel backup alarm.

CONCLUSIONS OF LAW

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

2. Respondent violated 30 C.F.R. § 56.9-87 by failing to provide the front-end loader at its No. 2 Plant with an adequate backup alarm, as alleged in Citation/Order of Withdrawal No. 178846. Based upon the statutory criteria for assessing a civil penalty for a violation of a mandatory standard, Respondent is assessed a penalty of $2,500 for this violation.

ORDER

WHEREFORE IT IS ORDERED that Respondent shall pay the Secretary of Labor the above-assessed civil penalty, in the amount of $2,500, within 30 days from the date of this decision.

William Fauver

WILLIAM FAUVER, JUDGE

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