United States Court of Appeals

For the Eighth Circuit

No. 19-1517

Jacobs Field Services North America, Inc.

Petitioner

v.

Eugene Scalia, Secretary of Labor

Respondent

Petition for Review of an Order of the Occupational Safety & Health Review Commission

Submitted: January 15, 2020 Filed: June 2, 2020

Before SMITH, Chief Judge, LOKEN and GRUENDER, Circuit Judges.

LOKEN, Circuit Judge.

Apprentice electrician Timothy Sky was seriously burned by an arc flash while connecting wires from a new electrical panel at the Archer Daniels Midland ("ADM") corn processing plant in Columbus, Nebraska, to a disconnect switch outside a building. Sky's employer, Jacobs Field Services North America, Inc. ("Jacobs"), promptly reported the accident to the Occupational Safety and Health Administration ("OSHA"). After investigating, the Secretary of Labor cited Jacobs for a single,

serious violation of 29 C.F.R. § 1910.335(a)(1)(i) for failing to ensure that Sky was wearing appropriate personal protective equipment ("PPE"). After a two-day evidentiary hearing, the Occupational Safety and Health Review Commission's administrative law judge ("ALJ") upheld the citation. The Commission denied Jacobs' administrative appeal, and Jacobs petitions for review of the ALJ's now-final order. Concluding that substantial evidence on the record as a whole supports the ALJ's decision, we deny the petition for review. See 29 U.S.C. § 660(a); Wal-Mart Stores E., LP v. Acosta, 919 F.3d 1073, 1076 (8th Cir. 2019) (standard of review).

I. Background.

Jacobs is a national electrical contractor providing electrical maintenance service to the ADM plant. Electric power flowing to the plant is distributed for various ADM uses, some through 480-volt disconnect boxes. Power enters the top of a 480-volt disconnect's "line side" through three feeder cables -- known as the A, B, and C phases -- which are connected to lugs in the disconnect switch about a quarter of the way down. The bottom half of the disconnect, known as the "load side," contains A, B, and C cables and a neutral wire that connect the disconnect switch to the ADM use. Turning a lever on the outside of the disconnect to "OFF" removes a set of line-side cable connector blades from their cradles inside the box, which stops power flowing to the load-side wires.

The February 2017 accident occurred while Sky was working on a disconnect box that was not feeding power to any ADM installation. The three line-side cables were connected and energized. The task of Sky and his partner, apprentice electrician Clayton Hoadley, was described in a mandatory Job Safety Analysis ("JSA") prepared by the two electricians and their foreman, Brent Brabec. The two electricians would cut wire off a spool, pull it through flexible metal conduit, and Hoadley would "terminate" (connect) the load-side wires to ADM's electrical panel inside the

building. Sky would "run conduit, pull wire, [and] terminate" the load-side wires to three lugs and a ground bar in the bottom half of the disconnect.

The JSA listed "potential hazards" including "[e]lectricity shock, fire, arc flash, blast or stored electrical energy." Sky began the task by confirming that the load side of the disconnect was deenergized, using a "test/test/test" procedure and wearing PPE that included a Class E hardhat, safety glasses, voltage-rated gloves, an arc-rated face shield, and a 40-calorie arc-rated "hot suit" covering his entire body. It is undisputed that this PPE was appropriate to the entire task. However, Jacobs and ADM policies permitted Sky to take off his gloves and face shield to complete the load-side wiring after confirming the load side was deenergized, and he did so. Brabec left to attend to other duties after confirming the load side was deenergized.

Working inside the disconnect, Sky terminated the load-side A, B, and C phases, "taped off" the neutral wire, and reported to Brabec he was finished. Brabec told him he must also attach the neutral wire to the ground bar, which was located behind the three phases on the load side of the box. With access to the ground bar now obstructed by the connected load-side cables, Sky decided to remove the ground bar. Moving the ground bar loosened an uninsulated line-side ground wire which entered the top of the box, ran along the back-left corner and down the left side of the box, and connected to the ground bar. The loosened ground wire made contact with the line-side A phase, triggering the arc flash. Sky suffered severe burns to his hands and face and was hospitalized for several weeks before returning to work.

¹A Jacobs document defines arc flash as "a rapid (as little as 1/1000 of a second), explosive discharge of electrical energy that usually results from a short circuit fault. Metal vaporized by the 5,000+ degree temperatures of an arc flash produces high temperature plasma. The main concerns with arc temperature and incident energy are the flash flame/ignition of clothing and the onset of a second-degree burn, which occurs at approximately 1.2 cal/cm²." Arc flashes are inadvertent incidents that can cause serious injuries or death.

Jacobs investigated the accident and notified OSHA. Compliance Safety and Health Officer Brian Elmore interviewed management, and the Secretary issued the citation for a single, serious violation of 29 C.F.R. § 1910.335(a)(1)(i):

Employees working in areas where there are potential electrical hazards shall be provided with, and shall use, electrical protective equipment that is appropriate for the specific parts of the body to be protected and for the work to be performed.

Jacobs contested the citation, arguing the properly deenergized load side of the disconnect was an "Electrically Safe Work Condition" under Articles 120 and 130 of the National Fire Protection Association 70E Standard for Electrical Safety in the Workplace (2015 ed.) ("NFPA 70E"), and both Jacobs policy and practice, and industry practice more generally, then permit qualified employees such as Sky to remove their PPE to complete the task. The ALJ held a two-day hearing at which seven witnesses testified -- Sky, Brabec, Elmore, Jacobs' electrical supervisor and its Director of Health and Safety, and two experts, H. Landis Floyd for OSHA and Michael Taubitz for Jacobs.

The Secretary alleged that Jacobs violated 29 C.F.R. § 1910.335(a)(1)(i) by permitting Sky to take off his PPE after deenergizing the load side. Brabec, the Secretary's first witness, testified there was a potential catastrophic hazard of stored electric energy before Sky began his work, which required him to wear PPE and follow other safety procedures. However, "he no longer needed that level of protection" the PPE provided once he performed the test/test/test procedure to verify that electricity was no longer present on the load side of the disconnect, and he noted that the line-side connector blades were disengaged and a four-by-eight-inch plastic

"arc shield" was in place above the line-side lugs.² "[A]t that point, [they] assessed it as an electrically safe work condition" and concluded it was not necessary to deenergize the line side, which would "dramatically affect the process and the production of ADM." Brabec explained this is a "Jacobs' standard" used at other job sites and is consistent with ADM's electrical safety program.

The second witness, Jacobs' electrical supervisor Gerald Keller, agreed that Sky was working in an electrically safe work condition "[b]ecause the bottom half of the disconnect was verified, the top half was guarded, and where he was working was . . . eight, ten inches below the guarded [live] pieces." Other witnesses testified that it is a "common practice" to work on the load side of a disconnect while the line side remains energized.

Sky testified that, after he terminated the load-side cables, Brabec told him to attach the load-side neutral wire to the ground bar behind the load-side cables. To gain access, he moved the ground bar, to which the line-side ground wire was attached. When moved, the ground wire contacted the line-side A phase above the load side of the box, resulting in an arc flash that burned Sky. He testified that "[t]erminating the neutral wire would have been a part of my assigned task," but removing the ground bar was "never part of the JSA" and "wasn't anything that was intended to happen."

The Secretary's last witness was expert Floyd, a retired consultant with over forty years experience in occupational electrical safety. His testimony was consistent with his preliminary report, which opined that "Mr. Sky was exposed to both electric shock and arc flash hazards . . . due to inadequate risk assessment . . . for the task

²An arc shield is needed on a 480-volt disconnect to extinguish arcs that can damage equipment or injure workers when an electrician pulls the lever outside of the box from the "ON" to "OFF" position. The arc shield also prevents incidental contact with live parts by employees working on the load side from the front side of the box.

being performed and failure to deenergize the line side terminals as required by OSHA [§] 1910.333." Jacobs "overestimated effectiveness of the Arc Shield as a control measure to reduce risk of worker contact with hazardous energy and underestimated the residual risk of allowing the line side portion of the switch to remain energized." A "contributing factor... was the wire that ran along the left side on the inside of the 480V disconnect switch.... Jacobs should have identified the wire running in close proximity to the line side terminal as a risk [to]... workers from unintentional movement of the wire." Thus, Jacobs failed to comply with 29 C.F.R. § 1910.335(a)(1)(i) requirements for the use of PPE "to safeguard Mr. Sky from electric shock and arc flash hazards from the energized line side terminals."

The ALJ's twenty-eight-page Decision and Order upheld the citation of a serious violation and imposed a penalty of \$11,408. In concluding the standard in § 1910.335(a)(1)(i) applied and was violated, the ALJ noted that Jacobs applied its policy of permitting Sky to remove his PPE when the load side was deenergized "without considering any unique circumstances about the equipment being worked on." The ALJ also noted that, "[a]ccording to Floyd, . . . the arc shield was not everything that [Jacobs] claims it to be," quoting Floyd's testimony that it was "open on the sides and top in such a manner that I can actually put my fingers in and touch energized conductors." Not all disconnects are the same, and aspects of this disconnect -- the gaps on the sides and top and the line-side ground wire that was attached to the load-side ground bar, rather than being grounded in the top of the box -- "ended up being significant factors in the subsequent arc flash." As Brabec did not look inside the disconnect in approving the JSA and did not warn Sky of the potential hazard if the uninsulated line-side wire were moved while Sky was working on the load side, Brabec's permissive PPE instructions, premised on company policy, "were insufficient to eliminate the hazard of arc flash and incidental contact."

II. Discussion.

Like other OSHA standards, a violation of § 1910.335(a)(1)(i) requires the Secretary to prove (1) "the cited standard applies and that its requirements were not met"; (2) "employees were exposed to, or had access to, the violative condition"; and (3) "the employer knew or, through the exercise of reasonable diligence, could have known of this condition." Omaha Paper Stock Co. v. Sec'y of Labor, 304 F.3d 779, 784 (8th Cir. 2002). "Standards under the Act should be given a reasonable, commonsense interpretation." Donovan v. Anheuser-Busch, Inc., 666 F.2d 315, 326 (8th Cir. 1981) (quotation omitted); see Perez v. Loren Cook Co., 803 F.3d 935, 940-41 (8th Cir. 2015) (en banc). Where the dispute on appeal is primarily factual, our review under the governing substantial evidence standard is narrow. See 29 U.S.C. § 660(a); Astra Pharm. Prod., Inc. v. OSHRC, 681 F.2d 69, 72 (1st Cir. 1982).

The regulation governing use of electrical PPE, 29 C.F.R. § 1910.335(a)(1)(i), like the general PPE requirements in § 1910.132, is a broadly worded performance standard that applies to countless conditions and circumstances. For this type of standard, we require the Secretary to prove that the need for employees to be provided and use particular PPE was objectively foreseeable. See Arkansas-Best Freight Sys., Inc. v. OSHRC, 529 F.2d 649, 655 (8th Cir. 1976). The relevance of industry practice is a recurring issue in PPE disputes. In general, we agree with the First Circuit:

[M]ost often, . . . reference to industry custom and practice will establish the standard of conduct. There may, however, be instances where industry practice fails to take reasonable precautions against hazards generally known in the industry.

Cape & Vineyard Div. of New Bedford Gas v. OSHRC, 512 F.2d 1148, 1152 (1st Cir. 1975). Thus, while the compliance issue is not whether use of PPE is customary in

the industry, "it would be error totally to ignore or fail to consider prevailing industry standards." <u>Voegele Co., Inc. v. OSHRC</u>, 625 F.2d 1075, 1080 (3d Cir. 1980).

A. Applying these standards, we do not uphold important aspects of the ALJ's analysis of why § 1910.335(a)(1)(i) applied and was violated. The Secretary's position at the hearing, as reflected by Compliance Officer Elmore's testimony and the text of the citation, was that Jacobs' policy of not deenergizing the line side of a disconnect when employees will be working on the deenergized load side categorically violates OSHA electrical safety standards. That was the opinion expressed in expert Floyd's report and testimony -- that Jacobs violated 29 C.F.R. § 1910.333(a)(1) when it failed to deenergize the line-side terminals *and therefore* violated § 1910.335(a)(1)(i) by permitting Sky to remove his PPE, the "last line of defense" to the risk associated with the energized line-side cables. The ALJ's decision "placed substantial weight on the testimony of Floyd," and much of the ALJ's analysis was an endorsement of Floyd's interpretation of § 1910.333(a)(1) and NFPA 70E standards of industry conduct, versus what the ALJ called Jacobs' "relaxed" interpretation and electrical safety policy.

We have a serious problem with this analysis. OSHA expert Floyd opined that failure to deenergize the line side before attaching the load-side cables violated 29 C.F.R. § 1910.333(a)(1), regardless of industry practice, and thus § 1910.335(a)(1)(i) required Jacobs to ensure that Sky never took off his gloves and face shield while working on the load side. But Jacobs was not cited for a violation of § 1910.333(a)(1) and thus was not given fair opportunity to defend its position with evidence of industry custom and practice going beyond this one incident. In this respect, the decision ignored and failed to consider prevailing industry standards. See Voegele Co., 625 F.2d at 1080. Thus, the Secretary failed to prove a violation of § 1910.335(a)(1)(i) when Sky was initially permitted to take off his PPE gloves and face shield once the load side was deenergized. This part of the ALJ's opinion should be given no precedential value.

B. However, the ALJ also decided the case on a narrower ground, one that was within the scope of the Secretary's citation, identified by the parties in discovery, and thoroughly defended by Jacobs at the evidentiary hearing — in the words of the ALJ, that Jacobs "attempted to apply a policy/practice in a one-size-fits-all manner without considering any unique circumstances about the equipment being worked on" by electrician Sky. Jacobs recognized that safety measures adequate to deal with potentially catastrophic electrical hazards like arc flash were needed before Sky and Hoadley could safely work on the 480-volt disconnect. Thus, Jacobs required Sky to wear adequate PPE while entering the box and confirming the load side was deenergized. Jacobs then permitted Sky to remove the protective gloves and face shield to finish the task, consistent with Jacobs and ADM policy. The issue is whether a violation occurred when Sky was not required to put this PPE back on when he decided to remove the ground bar from behind the terminated load-side cables to gain access to attach the load-side neutral wire. Not surprisingly, NFPA 70E expressly addresses this issue in Article 130.6(A)(3):

Employees shall be instructed to be alert for changes in the job or task that may lead the person outside of the electrically safe work condition or expose the person to additional hazards that were not part of the original plan.

Although Sky was completing work on a deenergized load side that was unlikely to result in incidental contact with the energized line side, this disconnect box had an uninsulated ground wire coming down from the line side and attached to a load-side ground bar, *and* a two-inch gap between that side of the box and its operative parts, including the line-side arc shield. Brabec acknowledged at the hearing that removing the ground bar created a risk that moving the line-side ground wire could result in a line-side arc flash, as in fact happened. He also testified that Sky was trained that "if [he had] any issues or something changes, stop, call and ask for help, get somebody else involved."

- Q. [H]ad [Sky] in fact prior to this accident stopped work when he had a question about the scope of the task?
- A. Yes, he has.
- Q. Did he do that on multiple occasions?
- A. Quite frequent.
- Q. But he didn't do it on this occasion?
- A. No.
- Q. Should he have?
- A. Yes.
- Q. Why?
- A. The scope of the job, it tremendously changed once he made a decision to remove or wanted to remove the ground wire.
- Q. Why did the scope of the task change tremendously once he made that decision?
- A. A ground wire is associated with the line side of that disconnect, which means it comes from the same area as line voltage. So when he removes the ground wire, he's essentially messing with the line side, voltage components.

This testimony was strong evidence that Brabec and Sky were not made aware that changes in completing the job could necessitate additional PPE given the unique nature of the equipment on which Sky was working. Sky did not recognize the dangers when he decided to remove the ground bar, and Brabec did not alert Sky to potential dangers in finishing a job Sky thought was completed. Instead, Brabec

followed a "one-size-fits-all" policy in determining that this disconnect, which he had not examined beforehand, was still in an electrically safe work condition.

On appeal, Jacobs argues the Secretary nonetheless failed to prove a PPE violation of 29 C.F.R. § 1910.335(a)(1)(i) for a number of reasons. First, Jacobs argues the Secretary failed to prove that Sky was not provided PPE "appropriate . . . for the work to be performed" because Sky went outside the "scope of his assigned task" when he removed the ground bar. Instead, he should have stopped work and sought help from his supervisor, or removed the three newly installed load-side phases to regain access to attach the neutral wire to the ground bar. Because the arc shield provided Sky sufficient protection from the potential electrical hazard addressed in the JSA, he would not have been exposed to the arc flash hazard if he had stayed within the scope of that assigned task. The ALJ explicitly found that Sky stayed within the scope of his task, which was to connect the load-side cables and neutral wire to the lugs and ground bar on the deenergized side of the disconnect.

We find this an unfocused argument, supported only by Jacobs urging us to adopt a "reasonable, commonsense interpretation" of the "work to be performed" term in the regulation and citing a readily distinguishable ALJ decision, Pike Electric, 21 BNA OSHC 2153 (No. 06-0166, 2007). One issue was whether Jacobs "knew or, through the exercise of reasonable diligence, could have known" that Sky was being exposed to a violative condition. Omaha Paper, 304 F.3d at 784. Accidents resulting from a "reckless act" of an employee can violate the Act, absent evidence that the employer established the affirmative defense of unpreventable employee misconduct. Valdak Corp. v. OSHRC, 73 F.3d 1466, 1469 (8th Cir. 1996); see Danco Const. Co. v. OSHRC, 586 F.2d 1243, 1247 (8th Cir. 1978). "A supervisor's knowledge of a violative condition can be imputed to the employer." Calpine Corp. v. OSHRC, 774 F. App'x 879, 883 (5th Cir. 2019).

Here, Sky consulted with Brabec after Sky terminated the three load-side phases. Brabec did not caution against moving the ground bar, and he testified that an electrician could complete the JSA task by terminating the three phases before the neutral wire, or vice versa. If Brabec did not have actual knowledge of the increased risk moving the ground bar would create, it was only because he never looked inside and evaluated the configuration of this disconnect. Of course, Sky could have, and perhaps should have, realized that his unplanned action created increased risk. But Sky was an apprentice electrician given no reason to believe that Jacobs' "one-size-fits-all" approach to disconnects might be an inappropriate answer to the PPE issue in this situation. Although the issue is not free from doubt, our standard of review is deferential. Accordingly, we conclude that substantial evidence supports the ALJ's finding that Jacobs knew or should have known of the need to reevaluate its permissive PPE policy when Sky was told he had not finished the work.

Second, Jacobs argues the ALJ erred in concluding Jacobs failed to establish the affirmative defense of "unpreventable employee misconduct." This defense "stems from the scope of the Act's prohibitions, which reach only those harms that are preventable." S. Hens, Inc. v. OSHRC, 930 F.3d 667, 678 (5th Cir. 2019). To establish this defense, the employer must prove "that it had a work rule in place which implemented the standard, and that it communicated and enforced the rule." Valdak Corp., 73 F.3d at 1469. "[T]he relevant inquiry is whether the employee caused the violation -- not whether the employee could have avoided injury despite the employer's violation." Packers Sanitation Servs., Inc. v. OSHRC, 795 F. App'x 814, 821 (11th Cir. 2020).

Jacobs argues Sky violated its work rule requiring employees to stay within the scope of their assigned work and, if they had a question about the scope, to stop and reassess the situation with a supervisor. This is a general admonition, not a specific work rule. Based on Brabec's testimony, Sky doubtless would have prevented the violation had he sought Brabec's guidance before removing the ground bar. But Sky

did not cause the violation, so Jacobs did not prove this affirmative defense. This is not a case where an employee "disregarded clear and adequate safety instructions." Ames Crane & Rental Serv., Inc. v. Dunlop, 532 F.2d 123, 125 (8th Cir. 1976).

Jacobs next argues that 29 C.F.R. § 1910.335(a)(1)(i) does not impose a legal duty on employers to ensure that employees wear appropriate PPE because the regulation provides that "[e]mployees working in areas where there are potential electrical hazards shall be provided with, and shall use" appropriate PPE. Jacobs cites no authority supporting this assertion. We conclude it is without merit. The PPE "general requirements" in § 1910.132(a) include that "personal protective equipment . . . shall be provided, used, and maintained in a sanitary and reliable condition." In <u>Arkansas-Best</u>, 529 F.2d at 655, we held that employers are responsible for violating this objective standard. That ruling also applies to a specific implementation of those general requirements in § 1910.335(a)(1)(i).

Finally, Jacobs argues we should vacate the citation because it mistakenly stated that Sky was terminating the ground wire when the arc flash occurred, when in fact he was terminating the load-side neutral wire. This fact error tends to confirm that the citation reflected a broader theory of PPE liability than was ultimately proved. But the citation plainly gave Jacobs full and fair opportunity to contest the narrower § 1910.335(a)(1)(i) violation that was thoroughly explored at the hearing. Thus, this minor factual mistake does not warrant vacating the ALJ's final decision. Compare, e.g., Brock v. Dow Chem. U.S.A., 801 F.2d 926, 932 (7th Cir. 1986).

The petition	for review is	denied.	