

United States of America  
**OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION**  
1924 Building - Room 2R90, 100 Alabama Street, SW  
Atlanta, Georgia 30303-3104

Secretary of Labor,

Complainant,

v.

J. E. Dunn Construction Company,

Respondent.

OSHRC Docket No. **04-0251**

Appearances:

Susan Willer, Esquire & Oscar Hampton, Esquire, Office of the Solicitor,  
U. S. Department of Labor, Kansas City, Missouri  
For Complainant

Lance Witcher, Esquire, Blackwell, Sanders, Peper & Martin, St. Louis, Missouri  
For Respondent

Before: Administrative Law Judge Nancy J. Spies

**DECISION AND ORDER**

J. E. Dunn Construction Company (Dunn) was the general contractor on an expansion project for the Nelson-Atkins Museum in Kansas City, Missouri. An ironworker foreman for Dunn was injured in an accident at the project site on July 28, 2003. Occupational Safety and Health Administration (OSHA) compliance officer William Alpert investigated the accident later that same day.

As a result of Alpert's investigation, on December 22, 2003, the Secretary issued a citation alleging serious violations of four construction standards of the Occupational Safety and Health Act of 1970 (Act). The Secretary subsequently withdrew item 1 (alleging a violation of § 1926.251(a)(6)) and item 4 (alleging a violation of § 1926.701(b)). Left for consideration are item 2, which alleges a violation of § 1926.501(b)(7)(ii) for failing to protect employees at the edge of a shaft from falling, and item 3, which alleges a violation of § 1926.550(a)(19), for failing to keep employees clear of suspended loads.

The case went to hearing on October 12 and 13, 2004, in Kansas City, Missouri. The parties have filed post-hearing briefs. Dunn argues that it was in compliance with § 1926.501(b)(7)(ii), and that compliance with § 1926.550(a)(19) was infeasible and created a greater hazard.

For the reasons more fully discussed below, items 2 and 3 are vacated.

### **Background**

On July 28, 2003, a crew of Dunn ironworkers was setting rebar mats for an elevator shaft at an expansion of the Nelson-Atkins Museum. The elevator was being constructed in an excavation approximately 20 feet deep on the north side of the project. The shaft was 20 feet long and 17 feet wide (Exh. C-2; Tr. 47). Dunn's crew consisted of foreman Roger Howard and ironworker journeymen Nate Hurley and Wayne Wells. The crew arrived an hour early that day, at 6:00 a.m., to set the remaining rebar mats (Tr. 23).

To set a rebar mat, the crew worked with an 180 foot tall tower crane that would raise, move, and lower the mat into the excavation. The mats used by Dunn were 36 feet long by 20 feet wide, and weighed 3,000 to 3,500 pounds. After a mat was lowered into the excavation, the crew would tie it to the wall forms that were already installed in the shaft. After the crew completed setting the rebar mats, the carpenters would set the wall forms for the outside elevator walls. The concrete would then be poured between the wall forms. The rebar mats would provide support once the concrete set. On the morning of July 28, two rebar mats had been set in the excavation, with six remaining mats to be set by Dunn's crew (Tr. 19-20, 193).

Howard, Hurley, and Wells rigged the crane to the mat designated for the east elevator wall. The crane operator, Terry Pierce, raised the mat so that it was hanging vertically. Foreman Howard then sent Wells down to the lower portion of the excavation so that he could climb inside the wall forms to guide the mat into place once it was moved over the excavation. Pierce operated the crane to move the mat southeast toward the northern corner of the excavation. Howard and Hurley walked with the mat 5 to 15 feet, using their hands to steady and maneuver it around various obstacles, including a set of concrete deadmen and pipe braces at the northern corner of the shaft (Tr. 23, 330-333).

Dunn had placed yellow caution tape around the excavation, approximately 6 feet from the edge. Howard was at the leading edge (the east side) of the rebar mat. When he reached the caution

tape, he turned to see if Wells had climbed up inside the wall forms in the shaft. At this point, the suspended load failed, causing the mat to swing around and strike Howard, pushing him through the caution tape and into the 20-foot deep excavation (Tr. 230, 314).

Compliance officer Alpert arrived later that day and investigated the accident. He videotaped, measured, and sketched the area where the accident occurred, and took statements from the employees. Alpert subsequently recommended to the Secretary that Dunn be cited for violating the standards at issue. The Secretary issued the citation on December 22, 2003.

## **DISCUSSION**

### **The Secretary's Burden of Proof**

To prove a violation of an OSHA standard, the Secretary must show by a preponderance of the evidence that (1) the cited standard applies, (2) there was noncompliance with its terms, (3) employees had access to the violative conditions, and (4) the cited employer had actual or constructive knowledge of those conditions.

*Southwestern Bell Telephone Co.*, 19 BNA OSHC 1097, 1098 (No. 98-1748, 2000).

### **Item 2: Alleged Serious Violation of § 1926.501(b)(7)(ii)**

The Secretary alleges that Dunn committed a serious violation of § 1926.501(b)(7)(ii), which provides:

Each employee at the edge of a well, pit, shaft, and similar excavation 6 feet (1.8 m) or more in depth shall be protected from falling by guardrail systems, fences, barricades, or covers.

Dunn does not dispute the standard's applicability to the cited condition. The excavation into which Howard fell was 20 feet deep (Exh. C-5; Tr. 46). Dunn disputes, however, the Secretary's claim that the terms of § 1926.501(b)(7)(ii) were violated. The company argues that the caution tape it placed around the elevator pit is a barricade within the meaning of the standard.

Guardrail systems, fences, and covers all protect employees from falling by providing a physical barrier between the employee and the excavation. The inclusion of the word "barricades" is problematic. The word "barricade" is sufficiently broad to encompass more than one meaning.

“Barricade” is not defined in Subpart M (Fall Protection), where § 1926.501(b)(7)(ii) is found.<sup>1</sup> While the other three fall protection methods furnish a physical barrier between the employee and the excavation, various Subparts of the OSHA standards indicate that “barricade” can be a visual warning, not necessarily an actual impediment to falling.

Subpart G (Signs, Signals, and Barricades) defines “barricade” in § 1926.203(a) as “an obstruction to deter the passage of persons or vehicles.” In Subpart V (Power Transmission and Distribution) at § 1926.960(d) “barricade” is defined as “a physical obstruction such as tapes, screens, or cones intended to warn and limit access to a hazardous area.” Section 1910.269(x) of Subpart R (Special Industries), which applies to electric power generation, transmission, and distribution, defines “barricade” as:

A physical obstruction such as tapes, cones, or “A” frame type wood and/or metal structures intended to warn and limit access to a work area.

Section 1926.550(a)(9) of Subpart N (Cranes, Derricks, Hoists, Elevators, and Conveyors) uses “barricaded” as a verb:

Accessible areas within the swing radius of the rear of the rotating superstructure of the crane, either permanently or temporarily mounted, shall be barricaded in such a manner as to prevent an employee from being struck or crushed by the crane.

In an interpretation letter issued on March 10, 2004, available on OSHA’s website ([www.osha.gov](http://www.osha.gov)), OSHA responded to a letter inquiring whether caution tape could be used to comply with the requirement to barricade a crane’s swing radius. OSHA answered by listing the various definitions of “barricade” found in the Act (mentioned above), and concluding, “Although the definitions vary, they typically describe a device that delineates or warns of a boundary that is not to be crossed” (Exh. R). This interpretation supports Dunn’s position.

Dunn’s position that a visual marker is sufficient is further bolstered by § 1926.501(b)(7)(i), which states:

(7) *Excavations.* (i) Each employee at the edge of an excavation 6 feet (1.8m) or more in depth shall be protected from falling by guardrail systems, fences,

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<sup>1</sup>Subpart M does contain § 1926.502(f)(1)(iv), which refers to “[a] rope, wire, chain, or other barricade,” implying that a barricade can be considerably less substantial than a guardrail system, fence, or cover.

or barricades when the excavations *are not readily seen* because of plant growth or other visual barrier.

The language correlates with the sense of the definitions found in other Subparts that “barricade” may delineate a boundary, rather than always constituting a physical impediment against falling.

The Secretary disputes Dunn’s argument that caution tape is an acceptable barricade. She claims that definitions under OSHA are not universal in meaning and that employers may not pick and choose which definition they will apply to their circumstances. She also points to the fact that OSHA’s original proposal for the standard included “the option to use signs as an alternate means of protection” (59 Fed. Reg. 40,687 (1984)). Since this alternative was removed from the final rule, she argues, the standard intended more than to merely alert employees to the existence of a hazard.

The argument is not persuasive. If the intent of the standard were as the Secretary claims, then “guardrail systems, fences, . . . or covers” would appear to exhaust the appropriate alternatives. “Barricades” must differ in some significant manner from the other devices, or its inclusion in the standard would be redundant. While definitions of words may differ according to their usage, where “barricade” is defined in the standards, its purpose as a visual warning is emphasized. Nowhere is “barricade” defined as a device that blockades an employee’s physical access to a hazardous condition. The Secretary has failed to account for the inclusion of the word in her own standard.

Regardless of whether the undersigned considers use of caution tape as a “barricade” to be ill-advised, the standard appears to permit it. This conclusion could not be reached, however, unless other circumstances supported the efficacy of tape in the specific case. Use of caution tape was not ubiquitous on the jobsite. Dunn kept the caution tape taut and in good repair. Deborah Smith was Dunn’s safety representative on the museum project (Tr. 405). She testified that Dunn inspected the caution tape daily and immediately replaced it if it became slack or was torn. Dunn trained its employees not to cross the caution tape without first tying off with a harness and lanyard (Tr. 173-174, 313-314). Dunn’s policy was to place the caution tape in a perimeter 6 feet from an excavation (Tr. 410-413). If Dunn’s employees or the employees of another subcontractor needed to work directly at the edge of the excavation, Dunn took down the caution tape and installed guardrails at the edge (Tr. 179). It is determined that the use of caution tape here constituted a barricade as intended by the standard. Dunn complied with the terms of the cited standard. Item 2 is vacated.

### **Item 3: Alleged Serious Violation of § 1926.550(a)(19)**

Section 1926.550(a)(19) provides:

All employees shall be kept clear of loads about to be lifted and of suspended loads.

Dunn does not deny that the Secretary presented a *prima facie* case establishing that it violated § 1926.550(a)(19). The standard applies to the suspended rebar mat at issue. Two employees guided the mat by hand, and thus were not “kept clear” of the load. These employees were exposed to the hazard of being struck or crushed by the load if it failed. Dunn knew of the violative condition. Foreman Howard was one of the employees guiding the load by hand and he was the employee injured. Dunn had moved all of the rebar mats using employees to guide them by hand. It was an ongoing process done in plain view of anyone at the site.

While conceding the Secretary established the elements of a violation, Dunn asserts the affirmative defenses that the use of tag lines or fireman’s pikes (abatement methods the Secretary suggests) was infeasible or would create a greater hazard. Dunn’s greater hazard defense is rejected, but it is determined that the company has established its infeasibility defense.

#### **Greater Hazard Defense**

In order to establish the greater hazard defense, an employer must prove each of the following three elements, namely that: (1) the hazards created by complying with the standard are greater than those of noncompliance; (2) other methods of protecting its employees from the hazards are not available; and (3) a variance is not available or that application for a variance is inappropriate.

*Walker Towing Corp.*, 14 BNA OSHC 2072, 2078 (No. 87-1359. 1991).

The third element of the greater hazard defense requires an employer to prove that a variance was not available or that application for one was inappropriate. James Miller, Dunn’s corporate director of safety, conceded that Dunn did not apply for a variance. His reasoning was that, “[W]hen you apply for a variance, you have to give [OSHA] at least as an effective or safe way of doing it, or they will refuse to do that, and I didn’t believe I could do that” (Tr. 428). Failing to apply for a variance because the company knows it cannot offer a safe alternative method for performing a task fails to meet the requirement establishing that “application for a variance is inappropriate.” An employer cannot evade the variance requirement by stating that it knows it could not get one anyway.

Miller also gave vague testimony suggesting that a variance was unavailable because the approval process took too long (Tr. 429-430):

Miller: The only [variance] I do remember was I did an inspection on a company called Russ Engineering and I do remember they did have a variance on a certain process. I don't remember what that process was. I just remember seeing it.

Q. Do you recall how long the variance approval process took?

Miller: No, I don't know how long that was, but I know what the policy is today.

Q. How long did that take?

Miller. I think OSHA's goal is to have at least 120 days or a maximum of 120 days.

Dunn took no steps towards obtaining a variance prior to beginning the Nelson-Atkins Museum expansion project. Miller's testimony is a *post hoc* attempt to fulfill the variance requirement so Dunn can proceed with its greater hazard defense. The variance element, however, is an integral part of the defense, and not a mere technicality.<sup>2</sup> The courts have repeatedly reaffirmed the centrality of the variance requirement:

*See Dole v. Williams Enterprises, Inc.*, 876 F.2d 186, 188 (D.C. Cir. 1989); *Brock v. L.R. Willson & Sons, Inc.*, 773 F.2d 1377, 1389 n.13 (D.C. Cir. 1985) (found affirmative defense not proved because no evidence of application for variance); *RSR Corp. v. Donovan*, 747 F.2d 294, 303 (5th Cir. 1984); *Donovan v. Williams Enterprises, Inc.*, 744 F.2d 170, 178 n.12 (D.C. Cir. 1984) (greater hazard defense not possible because company did not apply for variance); *True Drilling Co. v. Donovan*, 703 F.2d 1087, 1090 (9th Cir. 1983) (rejected attack on variance requirement); *Modern Drop Forge Co. v. Secretary*, 683 F.2d 1105, 1116 (7th Cir.

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In its brief, Dunn cites *Caterpillar, Inc. v. Herman*, 131 F.3d 666 (7<sup>th</sup> Cir. 1997), for the proposition that an application for a variance is unavailable when, "by the time it received a ruling, it would long have been out of compliance with [the standard at issue]" (Dunn's brief, p. 23). Dunn's reliance on this case is misplaced. Caterpillar's employees were engaged in a bitter strike when the union asked the employer to turn over its injury and illness logs in compliance with § 1904.7(b). Caterpillar refused, on the grounds that employees who crossed the picket line could be identified by the records and would possibly be harassed or physically injured. Under these peculiar circumstances, the Seventh Circuit agreed with the employer, and disagreed with the administrative law judge, that application for a variance to the record-keeping standard was inappropriate because it was in noncompliance from the moment it declined to hand over the records. The Seventh Circuit emphasized that, in the usual case, "Doubtless an employer should seek a variance when it can, and an unjustified failure to do so defeats a greater-hazard defense." *Id.* at 669.

1982) (variance element "important"); *PBR, Inc. v. Secretary*, 643 F.2d 890, 895 (1st Cir. 1981) (variance requirement necessary to ensure that employees not exposed to hazards because employer incorrectly assumes its practice safer than complying); *H.S. Holtz Construction Co. v. Marshall*, 627 F.2d 149, 152 (8th Cir. 1980) (application for a variance found to be inappropriate; did not rule on appropriateness of elements of Commission's greater hazard defense); *Voegele Co. v. OSHRC*, 625 F.2d 1075, 1080-81 (3d Cir. 1980); *Noblecraft Indus. v. Secretary*, 614 F.2d 199, 205 (9th Cir. 1980) (upheld variance requirement); *General Electric Co. v. Secretary*, 576 F.2d 558, 560-61 (3d Cir. 1978) (upheld variance requirement); *Irwin Steel Erectors, Inc. v. OSHRC*, 574 F.2d 222, 223-24 (5th Cir. 1978). *Cf. Diebold, Inc. v. Marshall*, 585 F.2d 1327, 1339 (6th Cir. 1978) (courts look with jaundiced eye on claims of technological infeasibility raised without first seeking variance or amendment of standard).

*Spancrete Northeast, Inc.*, 15 BNA OSHC 1020, 1023, fn 3 (No. 86-521, 1991).

Dunn's failure to apply for a variance or offer evidence establishing that a variance was unavailable or that application for one was inappropriate derails its greater hazard defense. The defense is rejected.

### **Infeasibility Defense**

In response to Dunn's assertion that it was infeasible to move the rebar mats by other than hand-direction, the Secretary suggested two different methods which could be used to guide the suspended rebar mat while complying with the standard: tag lines and fireman's pikes.

To establish the affirmative defense of infeasibility, an employer must show that (1) the means of compliance prescribed by the applicable standard would have been infeasible, in that (a) its implementation would have been technologically or economically infeasible or (b) necessary work operations would have been technologically or economically infeasible after its implementation, and (2) there would have been no feasible alternative means of protection.

*V.I.P Structures, Inc.*, 16 BNA OSHC 1873 (No. 91-1167, 1994).

Dunn trains its employees to use tag lines when moving suspended loads. Nathan Hurley had been an ironworker for Dunn for 8 years at the time of the hearing (Tr. 285). He stated that, generally (he estimated 80 to 90 percent of the time), Dunn used tag lines to control suspended loads: "It's safer, it's smarter" (Tr. 324). But, Hurley testified, Dunn concluded that tag lines would not work when guiding the rebar mats to the elevator shaft (Tr. 324):



We position[ed] ourselves down in the hole, had our tools out, got set up, we're ready to pick. We looked around at the obstructions. As I said, there's different variables of obstructions. We determined a tag line would not work due to the fact of how you would have to manipulate it backwards and forwards in order to maintain control. Plus, when you got over to the east side, you would have to make a 90-degree turn. I don't see how that's possible with a tag line.

Wayne Wells had been an ironworker for 13 years at the time of the hearing (Tr. 330). He stated, "About 80 or 90 percent of the time we would use [tag lines] if we have an open area to where it's possible and they are not going to get hung up" (Tr. 384). It was Wells's opinion that the pick could not have been accomplished using tag lines (Tr. 396).

Foreman Howard stated that the pick would have been impossible to accomplish using tag lines (Tr. 184-185). Compliance officer Alpert himself stated that moving the rebar mat to the elevator shaft was a "narrow and tricky task" and concluded that using tag lines to control the load "certainly would have been difficult and maybe impossible" (Tr. 86-88).

Alpert's suggestion was to use fireman's pikes to control the suspended load. He testified that he went to the nearest fire station and took photographs of a fireman's pike, a pole equipped with a hook at each end (Exhs. C-4a through C-4d; Tr. 38-39). Alpert contended that an employee could both push and, using the hooks at the ends, pull a suspended load with the pike, while keeping clear of the load (Tr. 39). Alpert stated that fireman's pikes are readily available in many industries, including the timber and fishing industries (Tr. 40). The pikes come in lengths ranging from 5 feet to 30 feet or more (Tr. 41).

Alpert had conducted approximately 250 construction site inspections at the time of the Dunn inspection, but he had never seen an employer use a fireman's pike to control a suspended load (Tr. 76). None of the witnesses had ever used or seen a fireman's pike at a construction site (Tr. 169-170, 237-238, 310-311). Howard, Hurley, Wells, and Michael Bright (ironworker and business agent for Ironworkers Local 10, the local representing Dunn's ironworkers (Tr. 234-235)), all testified that it would be impossible to control the suspended load using fireman's pikes. As with tag lines, employees can only pull the suspended load toward them. For the task at hand, Dunn's crew needed to guide the rebar mat around obstacles, turn it at a 90 degree angle, and lower it into an excavation.

Having the ability to pull the load in one direction would not provide the necessary control (Tr. 170-171, 312)

Hurley previously had worked as a volunteer fireman and had used a fireman's pike in a rescue operation (Tr. 310). As the only witness who had actually used a pike under any circumstances, Hurley explained why pikes are inappropriate tools for controlling suspended loads (Tr. 311-312):

There's supposed to be a keeper [to maintain contact between the hook and the load] of some sort. Without that keeper, you've got the potential of it coming back on you. Then, you lose your grip. Now, what happens if it gets away from you by the time you're able to grab it again? And, also, you can push it, but if you will notice there is a curvature on it. So, you've got the potential of sliding off of it.

And, one other factor would be, what if it gets hung up and pulled from your hand? Now, you have a dangling object; no control whatsoever.

The specific testimony of the ironworkers pinpointing the problems with using tag lines and fireman's pikes is given more weight than the theoretical testimony of Alpert, who had no construction experience and had never observed a pick. Alpert told safety director Miller that he was frustrated at being assigned the Dunn inspection because he lacked the knowledge and experience to conduct it (Tr. 76-77). The ironworkers' testimony is also weighted more than that of Donald Kallstrom, a safety and occupational health manager for OSHA, who testified that tag lines could have been used to control the rebar mats. Kallstrom had not been to the worksite and had only looked at the redacted file provided by the Secretary (Tr. 188-189). Kallstrom had never worked in construction (Tr. 222). Neither Alpert nor Kallstrom had firsthand experience in guiding suspended loads. The ironworkers, on the other hand, presented specific explanations why alternative methods proposed by the Secretary were not feasible. It is the employer's burden to prove the elements of this defense, but given the logistics of the maneuver, it is difficult to envision possibilities other than the two suggested by the Secretary.

It is determined that Dunn established that, under these circumstances, it was infeasible for employees to perform the maneuver while being "kept clear of loads about to be lifted and of

suspended loads.” If the employees stayed clear of the load, they could not have guided the rebar mat around the obstacles and into the excavation where it was needed. Necessary work operations could not be performed if Dunn’s employees complied with the terms of the standard. Dunn has established the defense of infeasibility. Item 3 is vacated.

### **FINDINGS OF FACT AND CONCLUSIONS OF LAW**

The foregoing decision constitutes the findings of fact and conclusions of law in accordance with Rule 52(a) of the Federal Rules of Civil Procedure.

### **ORDER**

Based upon the foregoing decision, it is ORDERED that:

1. Items 1 and 4 of the citation, which were withdrawn by the Secretary, are vacated, and no penalties are assessed;
2. Item 2 of the citation, alleging a violation of § 1926.501(b)(7), is vacated and no penalty is assessed; and
3. Item 3 of the citation, alleging a violation of § 1926.550(a)(19), is vacated and no penalty is assessed.

/s/ Nancy J. Spies

NANCY J. SPIES

Judge

Date: June 27, 2005