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SECRETARY OF LABOR, Complainant, v. SPANCRETE NORTHEAST, INC., Respondent.	OSHRC Docket No. 90-1726

DECISION

BEFORE: FOULKE, Chairman, and MONTOYA, Commissioner.

BY THE COMMISSION:

The Occupational Safety and Health Administration ("OSHA") inspected the construction site of a 10-story addition to the Marriott Hotel in Uniondale, New York. A subcontractor, Spancrete Northeast, Inc. ("Spancrete"), was responsible for delivery and erection of the precast concrete planks used to build the addition. On May 31, 1990, OSHA issued a citation alleging a violation of 29 C.F.R. § 1926.105(a) for Spancrete's failure to provide safety nets to protect employees working at the perimeter of the seventh floor. One of the exposed employees directed the crane while two others positioned concrete planks weighing 5400 pounds each. Spancrete contested the citation and $700 proposed penalty, claiming that installing safety nets under these circumstances would pose a greater hazard than would allowing the employees to work at the perimeter without fall protection.

Judge's Decision

After finding that the Secretary had proved a prima facie violation of 29 C.F.R. § 1926.105(a),[1] the judge considered Spancrete's affirmative defense, that installing safety nets -- the compliance required by the standard -- would subject employees to a greater hazard than would performing erection work at the edge without any fall protection. He found that Spancrete established the greater hazard defense. Specifically, he reasoned that "[a]lthough the installation of . . . the proposed safety net systems would be accomplished behind perimeter guarding on the completed floors, the guarding consisted of only wire rope equivalents to a top rail and a [midrail] and wooden guard rails consisting of a top rail and a [midrail]," and that "there was no guarding at floor level where holes were drilled, bolts inserted, anchor plates installed, anchor plates and bolts removed, and holes filled and patched. Also, workers would have to lower poles, snap on nets and maneuver around the rails with drills, torches and saws." The judge found that the 1.5 crew-hours per floor that the unprotected erection crew spent at the perimeter edge directing the crane and positioning the concrete planks was "minimal," whereas the 84 to 112 crew-hours a crew would have to spend near the edge installing nets would be substantially longer.[2] From this

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[1] The cited standard provides in pertinent part:

> **§ 1926.105 Safety nets.**
> (a) Safety nets shall be provided when workplaces are more than 25 feet above the ground . . . where the use of ladders, scaffolds, catch platforms, temporary floors, safety lines, or safety belts is impractical.

It was undisputed that the fall distance was greater than 25 feet, that no fall protection devices were in use, and that the enumerated devices were impractical.

[2]In addition to the greater hazard affirmative defense, Spancrete also raised the affirmative defense of infeasibility of compliance in its pleadings. The judge found that the evidence did not support a claim of economic or technological infeasibility. Spancrete did not file a cross-petition for review of that determination; nor was the issue directed for review, and for this reason, the Commission withholds any ruling on the issue. The judge found that "[w]hile Respondent did introduce evidence that compliance with the standard would increase its overall costs on this project," further evidence--total costs, profits, the inability of the employer to pass on the added expenses--would be required before he could properly assess Spancrete's claim that installing nets was infeasible. In considering a similar argument in *Dun-Par Engd. Form Co.*, 12 BNA OSHC 1962, 1966, 1986-87 CCH OSHD ¶ 27,651, p. 36,033-2 (No. 82-928, 1986), the Commission looked to whether the employer had "demonstrated that the costs were unreasonable in light of the protection afforded and [had] shown what effect, if any, th[o]se added costs would have on the contract or business as a whole." *See also*

(continued...)

he concluded that installing a safety net system would have substantially increased the hazard of a fall from the perimeter edge. Finding that Spancrete had proven its affirmative defense, he vacated the section 1926.105(a) citation.

The Evidence

Testifying at the hearing were four key witnesses: two Spancrete employees, a union official, and an OSHA safety specialist. Spancrete relies on the testimony of three witnesses to support its claim that requiring employees to install nets would pose a greater hazard to them than would permitting them to work unprotected. Ivan Millett had been an Erection Field Manager with Spancrete for the last 20 of his 28 years with Spancrete. Sam Fresina was not employed by Spancrete, but for 12 years had been the business manager of the union with which Spancrete had a collective bargaining agreement. He had worked on construction sites and had accrued 6 years' experience in safety training. Morgan Wildey had been a foreman for the last 15 years of his 24 years as a laborer with Spancrete. None of Spancrete's witnesses had used perimeter safety nets themselves nor had they seen them used by others in their industry. Based on their understanding of the systems proposed in the manufacturer's brochure and other diagrams, however, it was their opinion that installing such nets would present a greater hazard than working without them.

Millett had read the literature the Secretary submitted and was under the impression that employees would be required to work "at the very edge" of the open-sided floor, "overhanging" the perimeter edge, to install the net system. When asked how, *assuming* that employees would be working behind a midrail and top rail, they could be exposed to any kind of a fall hazard, Millett responded: "If the perimeter protection was totally to the outside, except to fall between the protections because they are working on the extent of the

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[2](...continued)
State Sheet Metal Co., 16 BNA OSHC 1155, 1161, 1993 CCH OSHD ¶ 30,042, p. 41,227 (No. 90-1620, 1993) (consolidated cases) (evidence of increased costs alone is insufficient to establish "severe adverse economic impact"); *Peterson Bros. Steel Erec. Co.*, 16 BNA OSHC 1196, 1203, 1993 CCH OSHD ¶ 30,052, p. 41,303 (No. 90-2304, 1993), *appeal filed*, No. 93-4913 (5th Cir. June 14, 1993) (Commission must look at the effect that compliance would have on the company's "financial position as a whole" to determine whether company would be "adversely affected"). Commissioner Montoya notes that these recent, cited Commission cases all involved standards that were not promulgated by notice-and-comment rulemaking pursuant to section 6(b) of the Act and were therefore adopted by OSHA without the opportunity for interested parties to challenge the feasibility of the standards.

building, it would be a safer condition." When Millett again asserted on cross-examination that the anchor plates would have to be installed "on the very, very perimeter of the plank" and the Secretary's attorney suggested that it was "a couple of feet in," Millett replied, "I was just going with the documentation that they sent us."

Fresina, the union official, testified that based on his review of the Secretary's materials, he did not "see how you can install safety nets without exposing the . . . employees . . . to a greater risk" and that Spancrete's current practice generated the "least exposure." Fresina focused on the hazard to which employees working on ladders[3] would be exposed, since they would not be protected by 42-inch-high perimeter guardrails. Fresina was concerned that if the ladder were to tip, "the guys on the ladder above the guide wire, the safe[t]y wire . . . [,] would fall off the building." On cross examination, he admitted that the employee on the ladder could wear a safety belt and tie off to a secure structure, although he still had reservations about the potential tripping hazard.

Wildey, the Spancrete foreman directing the crane on the day of the inspection, testified that he believed he and his crew were never in any danger while erecting the concrete plank. It was his opinion that installing nets would expose employees to a greater hazard because they would "spend more time towards the edge." He mentioned no more specific hazard.

Tom Marrinan, an OSHA safety specialist for 19 years, had also never installed exterior, *i.e.,* perimeter, safety nets, nor had he seen them used in precast concrete construction sites. Contrary to Spancrete's witnesses, however, he testified that "there would be no exposure to a fall hazard under [a] net system as the installers would be working behind the perimeter guardrail. . . . At no time do they have to lean over the periphery of the floor. That's one of the big selling points with all the manufacturers . . . because they were aware of the employees' exposure."

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[3]According to Millett, ladders would be required to anchor the plates in the floor because one employee would drill the holes and insert the bolts completely through the precast concrete floor while another employee, standing on a ladder on the floor below, would put nuts on the ends of the bolts as they emerged from the ceiling. Similarly, ladders would be required to patch the bolt-holes once the nets were removed.

Marrinan testified that, except for the possibility of needing to remove a midrail temporarily, he saw nothing to prevent the installation of a net system while wooden guardrails were in place. Marrinan made clear that "a system like this would have to be planned prior to the commencement of the work," so it is not certain what kind of perimeter guarding an employer could install, and would want to install, if it knew in advance that nets were to be used on a project. Marrinan also testified that employees would not have to drill all the way through the concrete planks to install the anchor plates. According to the design engineer and the net company representative he consulted, four 4-inch expansion bolts would safely secure the plates in 8-inch hollow core precast concrete planks such as those Spancrete used in this case.

Discussion

To establish the greater hazard defense, an employer must prove 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, 1991 CCH OSHD ¶ 29,239, p. 39,161 (No. 87-1359, 1991).

Since nets are installed one or two floors below the levels at which erection is taking place, the time Spancrete claims its employees would be exposed to a greater hazard is spent installing nets near the edge of a finished floor. This takes place either behind perimeter guarding, as the judge found, or, presumably, protected by means of a tied-off safety belt. The time employees spend at the edge directing a crane or positioning concrete planks at the erection level, on the other hand, is totally unprotected. Although the judge found that the installation of the net system would be performed *behind* perimeter guarding, he seemed to doubt that this eliminated the fall hazard associated with installing nets. Rather, he found it determinative that there would be no guarding "at floor level." We disagree. Marrinan, the OSHA safety specialist called as a rebuttal witness to explain the mechanics of the net systems OSHA was proposing, testified that the work on the 18 x 18-inch anchor plate would be set back 6 to 12 inches away from the edge. At least one witness testified that employees are trained never to put their back to the perimeter edge. None of the witnesses testified that the absence of floor-level guarding figured into his opinion of the relative merits of

installing a net system. Spancrete did not argue that this factor contributed to its greater hazard defense. Moreover, as the Secretary points out, such "floor-level" guarding, or the use of toeboards, is usually intended to protect employees *below* from falling tools or debris, not to protect an employee from falling under the midrail. *See, e.g., Western Waterproofing Co.*, 7 BNA OSHC 1625, 1979 CCH OSHD ¶ 23,785 (No. 1087, 1979); *Somogyi Constr. Co.*, 5 BNA OSHC 2065, 1977 CCH OSHD ¶ 22,319 (No. 76-3020, 1977). The midrail of a standard wooden guardrail would provide fall protection at a height of 18 inches above the floor, the lower strand of a double wire-rope guardrail at a height of 21 inches. Whatever the likelihood of a fall through such an opening may be, we are not persuaded by this record to question the effectiveness of the guardrail standards.

To the extent that the judge believed that having employees "maneuver around the rails" posed a safety hazard, the only evidence on point was Marrinan's contrary testimony: "At no time do they have to lean over the periphery of the floor. That's one of the big selling points with all the manufacturers . . . because they were aware of the employees' exposure." Although the judge concluded that "the credible evidence" supported Spancrete's greater hazard defense, he made no explicit credibility findings and failed to explain why he discounted Marrinan's testimony that the installation of nets would not expose employees to a fall hazard.

The testimony of Spancrete's witnesses also fails to establish that installing the nets posed a greater hazard. Although Millett was concerned that employees would be exposed to a fall at the "very edge," he conceded that "it would be a safer condition" if perimeter protection were "totally to the outside." Fresina's concern with possible falls from a ladder *over* the perimeter guarding was addressed by Marrinan's testimony that employees would not have to drill all the way through the concrete plank to the ceiling of the level below to install the anchor plates. This suggests that there would be no need for employees to climb up ladders to hold nuts or patch bolt-holes in the ceiling. The strongest evidence that, as a general proposition, the more time employees spend near the edge, the greater the hazard they are exposed to, is Wildey's testimony that "more time towards the edge" would create a greater hazard.

Nevertheless, we find that neither the conclusory opinions of Spancrete's employees and union representative nor the judge's unfounded theory can serve as the "critical factual predicate" underlying a greater hazard defense. *See United States Steel Corp v. OSHRC*, 537 F.2d 780, 783 (3d Cir. 1976). We therefore find that the preponderance of the evidence on this record does not support Spancrete's claim that requiring its employees to install nets would pose a greater hazard to them than would permitting them to work unprotected. In light of this determination, we do not reach the other two elements of the greater hazard defense.

The proposed penalty for this violation was $700. The compliance officer, who considered the violation a "high-gravity" violation, testified that he made no adjustment for size of the company, good faith or history. Spancrete does not argue that this penalty is unreasonable.

Order

Accordingly, we find that Spancrete did not establish the affirmative defense of greater hazard and that the judge erred in vacating the citation on that basis. We thus affirm the citation as issued and the $700 penalty as proposed.

Edwin G. Foulke, Jr.
Chairman

Velma Montoya
Commissioner

Dated: February 16, 1994

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SECRETARY OF LABOR, Complainant, v. SPANCRETE NORTHWEST, INC., Respondent.	:	Docket No. 90-1726

NOTICE OF COMMISSION DECISION

The attached decision by the Occupational Safety and Health Review Commission was issued on February 16, 1994. **ANY PERSON ADVERSELY AFFECTED OR AGGRIEVED WHO WISHES TO OBTAIN REVIEW OF THIS DECISION MUST FILE A NOTICE OF APPEAL WITH THE APPROPRIATE FEDERAL COURT OF APPEALS WITHIN 60 DAYS OF THE DATE OF THIS DECISION.** See Section 11 of the Occupational Safety and Health Act of 1970, 29 U.S.C. § 660.

FOR THE COMMISSION

Ray H. Darling, Jr.

February 16, 1994
Date

Ray H. Darling, Jr.
Executive Secretary

Docket No. 90-1726

NOTICE IS GIVEN TO THE FOLLOWING:

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Secretary of Labor,
Complainant,

v.

Spancrete Northeast, Inc.,
Respondent.

Docket No. 90-1726

NOTICE OF DOCKETING

The Administrative Law Judge's Report in the above referenced case was docketed with the Commission on October 7, 1991. The decision of the Judge will become a final order of the Commission on November 6, 1991 unless a Commission member directs review of the decision on or before that date. **ANY PARTY DESIRING REVIEW OF THE JUDGE'S DECISION BY THE COMMISSION MUST FILE A PETITION FOR DISCRETIONARY REVIEW.** Any such petition should be received by the Executive Secretary **on or before October 28, 1991** in order to permit sufficient time for its review. See Commission Rule 91, 29 C.F.R. § 2200.91.

All further pleadings or communications regarding this case shall be addressed to:

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Petitioning parties shall also mail a copy to:

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If a Direction for Review is issued by the Commission, then the Counsel for Regional Trial Litigation will represent the Department of Labor. Any party having questions about review rights may contact the Commission's Executive Secretary or call (202) 634-7950.

FOR THE COMMISSION

October 7, 1991
Date

Ray H. Darling, Jr.
Executive Secretary

Docket No. 90-1726

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UNITED STATES OF AMERICA

OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION

SECRETARY OF LABOR,	)	
Complainant,	)	
v.	)	**OSHRC Docket No. 90-1726**
SPANCRETE NORTHEAST, INC.,	)	
Respondent.	)	

APPEARANCES:

Alan L. Kammerman, Esquire, Office of the Solicitor, U.S. Department of Labor, New York, New York, on behalf of Complainant.

Harry R. Hayes, III, Esquire, Law Offices of Hayes & Hayes, Albany, New York, on behalf of Respondent.

DECISION AND ORDER

GORDON, Judge:

This proceeding arises under § 10(c) of the Occupational Safety and Health Act of 1970, 29 U.S.C. § 651, et seq., ("Act") to review citations issued by the Secretary pursuant to § 9(a) and a proposed assessment of penalty thereon issued pursuant to § 10(a) of the Act.

On May 31, 1990, the Secretary issued two citations to Respondent, following an inspection of Respondent's work site at Marriott Hotel in Uniondale, New York during the period May 2 to 4, 1990. The citations contained three items, only one of which

Respondent contests. The contested item is an alleged violation of the standard at 29 C.F.R. § 1926.105(a) for failure to install safety nets around the perimeter of a ten floor addition to the Marriott Hotel as a means of fall protection, for which the Secretary proposed a penalty of $700.

By filing a timely notice of contest, Respondent brought this proceeding before the Occupational Safety and Health Review Commission (Commission). A hearing was held in New York, New York on February 27, 1991. The parties have submitted their briefs and this matter is now ready for decision.

ALLEGED VIOLATION

Serious citation 1, item 1 states:

29 CFR 1926.105(a): Safety nets were not provided when workplaces were more than 25 feet above the ground or water surface, or other surfaces where the use of ladders, scaffolds, catch platforms, temporary floors, safety lines, or safety belts was impractical:

> (a) Northwest side of building, 7th floor; Employees installing concrete planks were exposed to an approximate 70 foot fall hazard; on or about 5/4/90.

The cited standard in effect at the time of the alleged violation states:

§ 1926.105 Safety nets.

(a) Safety nets shall be provided when workplaces are more than 25 feet above the ground or water surface, or other surfaces where the use of ladders, scaffolds, catch platforms, temporary floors, safety lines, or safety belts is impractical.

SUMMARY AND EVALUATION OF THE EVIDENCE

OSHA Compliance Officer John Caldarelli conducted a scheduled inspection of the subject worksite, a 10 story extension to a Marriott Hotel in Uniondale, New York, during the period May 2 to 4, 1990. (Tr. 8, 10, 11). Spancrete was a

subcontractor on the project to Sea Crest Construction to supply and erect the floor and roof system with precast concrete planks, which were manufactured at its South Bethlehem, New York plant, cut to required lengths and delivered to the job site on flatbed trailers. (Tr. 65-66). Each precast concrete plank was 27 feet long, 3 feet 4 inches wide, 8 inches thick and weighed 5,400 pounds. (Tr. 71).

At the time of the inspection, Respondent's crew was installing plank on the seventh floor of the addition. (Tr. 13, 14). The plank was set on poured in-place cement bearing walls which were under the scope of another subcontractor, Hempstead Concrete. (Tr. 18). Respondent's erection crew consisted of three individuals, Mr. Morgan Wildey, Mr. Vespucci and Mr. Barber, all of whom were classified as foreman and had been Spancrete employees for, respectively, 24 years (Wildey), 12 to 14 years (Vespucci), and 6 to 8 years (Barber). (Tr. 67, 68, 131).

The erection process involved hoisting the plank by crane and then setting the plank on poured concrete walls. (Tr. 36). The crane used by Respondent to hoist the planks to the building was furnished by Sea Crest Construction and was already set up when Respondent started to work. (Tr. 143). Mr. Wildey would signal the crane operator from the floor below, and planks would be lifted starting in the center and working out towards the perimeter. (Tr. 139). Mr. Wildey would go up to the floor being set once they reached the second plank from the edge. (Tr. 40). It took Respondent's three man crew of Messrs. Wildey, Vespucci

and Barber fifteen hours to set the plank on one floor level. (Tr. 77, 138). After the planking was completed, Sea Crest, the general contractor, would put up perimeter guarding on the completed floors consisting of wire rope equivalent to a top rail and a mid rail. (tr. 54).

CO Caldarelli recommended a citation for an alleged violation of 29 C.F.R. § 1926.105(a) involving plank installation and direction on the 7th floor without any fall protection for the three man crew. He classified the alleged violation as serious due to the injury and death potential in a 70 foot fall, and proposed a penalty of $700.00. (Tr. 25).

The Secretary established a prima facie violation of 29 C.F.R § 1926.105(a). The Spancrete crew working on the 7th floor of the Marriott Hotel addition was clearly working at a height of more than 25 feet above the ground. While there is some dispute as to the exact fall distance potential to which the Spancrete crew was exposed, it was at least 60 feet, well in excess of the 25 feet specified in the standard. Respondent has asserted that its crew was experienced and that there had never been an injury or death of an employee from a fall on a Spancrete project. While the Secretary has labeled this argument as "ridiculous", the Commission while acknowledging that the occurrence of an injury is not a necessary predicate for establishing a violation, has held that the absence of any injuries may buttress a contention that employees were not exposed to potential injury. Rockwell International Corp., 80 OSAHRC 118/A2, 9 BNA OSHC 1092,

1980 CCH OSHD ¶ 24,979 (No. 12470, 1980). However, as the Secretary correctly points out, the Commission has long held that access to the danger zone is sufficient to establish exposure to a violative condition. Gilles and Cotting, Inc., 3 OSHC 2002 (R.C. 1976). A zone within 2-3 feet of the perimeter is a danger zone when no fall protection is present. The credible evidence places three employees in the fall hazard danger zone for at least 30 minutes each while within 2-3 feet of the 7th floor perimeter edge. Accordingly, a violation of 29 C.F.R § 1926.105(a) has been established.

Having determined that the Secretary made a prima facie case of violation, I now turn to whether Respondent established any affirmative defense. Respondent asserts that it has proved two affirmative defenses: the infeasibility defense which I will now address, and the greater hazard defense, which I will discuss later in this decision.

In order to establish the defense of infeasibility, Respondent needs to establish that compliance with the standard is infeasible and that alternative means of protection were unavailable. Dun-Par Engineered Form Co., 12 OSHC 1949 (R.C.1986), 843 F.2d 1135, 13 OSHC 1652 (8th Cir. 1988)(reversing only on Review Commission holding that it is the Secretary's burden of proposing alternative means of protection), Seibel Modern Manufacturing & Welding Corporation, OSHRC No. 88-821 (R.C. August 9, 1991)(overruling Dun-Par to the extent that it reallocated the burden of proof regarding the infeasibility of any alternative

measures). The infeasibility defense encompasses both economic and technological feasibility. Southern Colorado Prestress, 586 F.2d 1342, 1351 (10th Cir. 1978); Faultless Division, 647 F.2d 1177, 1189 (7th Cir. 1982). However, a successful economic infeasibility argument requires proof that it is extremely costly to comply, in the sense that the employer's existence as an entity is financially imperiled, and that the employer cannot pass on the added expense. Faultless Division, supra. p. 1190, cited in Walker Towing Corp., 14 OSHC 2072, 2077 (R.C. 1991).

While Respondent did introduce evidence that compliance with the standard would increase its overall costs on this project. The evidence fell far below the quantum of proof required by the regulations and case law. Spancrete did not introduce evidence of its profits on this project nor of its total costs. As the Secretary correctly points out, Spancrete introduced no evidence to establish that its existence would be threatened by the installation of safety nets, or that any added costs could not be passed onto this job or amortized over many jobs. Similarly, Respondent did not focus much evidence on any technological infeasibility arguments. The credible evidence demonstrated that both types of safety net systems proposed be the Secretary's experts were technologically feasible to use to protect employees near the perimeters during installation of planks. Accordingly, Respondents assertion of the infeasibility affirmative defense must fail.

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, 1991 CCH OSHD ¶ 29,239, p. 39,161 (No. 87-1359. 1991).

During precast plank erection at the project, a substantial majority of the time of erection per floor was spent away from the perimeter edge. As to that time period, the only fall exposure was eight feet, ten inches to the floor below the level where the plank was being erected. The testimony of Mr. Wildey at the hearing, which I find to be credible, was that it took approximately 15 hours for the three man crew to set plank for one floor level, which amounted to 45 man-hours. Out of that time, one-half hour per man[1], or 1 1/2 man-hours in total, was spent within three feet of the perimeter edge, which amounts to 3% of the total man-hours to set plank for the floor. A fair review of the credible evidence establishes that the amount of the time spent by Spancrete's crew at the perimeter edge was minimal, as most of the plank erection was away from the perimeter.

The Secretary's witness, Mr. Thomas Marrinan, who heard all of

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[1] Spancrete's crew spent two to three minutes at the perimeter edge to place the last plank in each bay at an exposed edge. There were 7 bays, running north-south, which translated to 14 perimeter sections where plank had to be set. Two to three minutes per man at 14 perimeter edges approximates the half-hour exposure in total testified to by Mr. Wildey.

the testimony at the hearing, opined that safety nets could have feasibly been installed to protect Spancrete employees on the seventh floor while working near the perimeter edge. Mr. Marrinan proposed two safety net systems: a "manufactured" system and a "fabricated" system using timbers, nets, reshores and boards.

The "manufactured" system involved the installation of 18 inch plates on floors 5 and 6 at 30 foot intervals, the plates being connected to the floor by 4 expansion bolts (3/4 inch by 4 inches). The plates would be placed 6-12 inches in from the perimeter edge and the bolts would be torqued or screwed down. The plates on the 6th floor would be directly above the plates on the 5th floor. The plates on the 6th floor would have a runner wire going through the eye on the plate and would be anchored through the plate. The plates on the 5th floor would hold a 15 foot cantilevered arm, a metal pole, which would be lowered from the 6th floor and placed in the sleeve recess on the swivel on the plate. Then the pole would be tied back vertically to the wire rope running through the plates on the 6th floor. After all the poles were in the vertical position, resting in the swivel below and tied back, the nets, weighing 27 pounds for a 10 by 30 foot panel would be snapped into the top of the pole with a snaphook with the other end hooked to the wire on the 6th floor. The net would also be tied in to the next panel to keep the strength laterally between the nets. The fully extended net would be 10 feet beyond the perimeter. Mr. Marrinan stated that it would take 3 men an 8 hour shift to install 100 linear feet of this safety net system. The bolts anchoring the

plates could be cut when the net system is taken out and some grout could be put over them.

Mr. Marrinan also testified that a "fabricated" system could be utilized where the bays would be divided into three equal parts, with a little more than 8 feet intervals. Sixteen feet 4 by 4 boards, called thrust outs, would be projected from the edges of the floor. Nets would be fastened onto these boards by an employee working behind the guardrail system on the floors below the 7th. Snap hooks would be used to interlock the nets. The thrust outs would be secured with two upright boards on top of it and in contact with the ceiling, with these upright or vertical boards being shimmed, in a method similar to concrete form work. Mr. Marrinan testified that the construction and implementation of the fabricated system would require 4 men 8 hours to install so that it covered 100 linear feet. Moreover, after erecting the fabricated system, an employer would have to test its capability, which Mr. Marrinan recommended be done by dropping a 350 pound sandbag into the net from a height of 25 feet.

It was Mr. Marrinan's testimony that there would be no exposure to a fall hazard under either net system as the installers would be working behind the perimeter guardrail system.

Respondent argues that the compliance officer was not competent to testify about either precast concrete construction and the use of safety nets, because he had never inspected a construction project, prior to the Marriott Hotel, where precast concrete was being installed and had never observed safety nets

being used by a precast concrete erector as a means of a fall protection. I reject this argument. The record reveals that Mr. Caldarelli is a well qualified compliance officer. His lack of experience in precast concrete construction would only go to the weight I would give to Mr. Caldarelli's testimony. This, in turn, would be dependent on whether I find that fall hazards are different in precast concrete construction than in other types of construction.

Spancrete's three man crew worked within 3 feet of the perimeter edge a total of 1 1/2 crew hours per floor. The proposed "manufactured" safety net system would require 84 crew hours per floor (3 men 3 1/2 days - or 28 hours - to cover 360 feet) and, the "fabricated" system would require 112 crew hours per floor (4 men, 3 1/2 days - 28 hours - to cover 360 feet). Although the installation of both of the proposed safety net systems would be accomplished behind perimeter guarding on the completed floors, the guarding consisted of only wire rope equivalents to a top rail and a mid rail and wooden guard rails consisting of a top rail and a mid rail[2]. The Spancrete construction operation resulted in exposure to the perimeter edge a total of 1 1/2 crew hours per floor as opposed to 84 crew hours per floor at the perimeter edge for the "manufactured" system and 112 crew hours per floor at the perimeter edge for the "fabricated" system. While the installation of the "manufactured" and "fabricated" systems was performed behind

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[2] Mr. Marrinan testified that portions of the wooden guard rails would have to be removed to install the "manufactured" system.

perimeter guarding, there was no guarding at floor level where holes were drilled, bolts inserted, anchor plates installed, anchor plates and bolts removed, and holes filled and patched. Also, workers would have to lower poles, snap on nets and maneuver around the rails with drills, torches and saws. The credible evidence supports a conclusion that installing either of the safety net systems proposed by the Secretary would have substantially increased the hazard of a fall from the perimeter edge by Respondent's erection crew.

After a careful review of all of the evidence now of record, the undersigned has concluded, and so finds, that although the Secretary has established a prima facie violation of 29 C.F.R. § 1926.105(a), Respondent has established the affirmative defense of greater hazard[3]. Accordingly, the citation for violating the standard at 29 C.F.R. § 1926.105(a) must be vacated.

FINDINGS OF FACT

Findings of fact relevant and necessary to a determination of all issues have been made above.Fed. R. Civ. P. 52(a). All proposed findings of fact inconsistent with this decision are hereby denied.

CONCLUSIONS OF LAW

1. Respondent, Spancrete Northeast, Inc., is engaged in a

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[3] At the hearing and in the pleadings, the Secretary admitted that none of the alternative measures listed in 29 C.F.R. § 1926.105(a) were practical at the project. Moreover, Respondent introduced evidence at the hearing, which was not disputed by the Secretary, that a variance application would have been inappropriate.

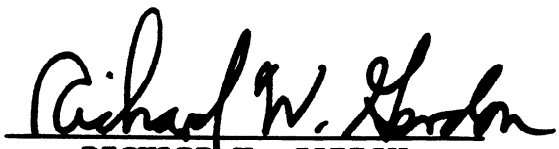
business affecting commerce and has employees within the meaning of section 3(5) of the Act.

2. Respondent, at all times material to this proceeding, was subject to the requirements of the Act and the standards promulgated thereunder.The Commission has jurisdiction of the parties and of the subject matter of this proceeding.

3. Respondent was not in serious violation of 29 C.F.R § 1926.105(a).

ORDER

1. Serious citation 1, item 1 alleging a violation of 29 C.F.R § 1926.105(a) is VACATED.



RICHARD W. GORDON
Judge, OSHRC

Dated: October 2, 1991
Boston, Massachusetts