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SECRETARY OF LABOR, Complainant, v. PETERSON BROTHERS STEEL ERECTION COMPANY, Respondent.	OSHRC Docket No. 90-2304

DECISION

BEFORE: FOULKE, Chairman, WISEMAN and MONTOYA, Commissioners.

BY THE COMMISSION:

Peterson Brothers Steel Erection Co. ("Peterson Brothers") was putting up the structural steel skeleton for an office building in Austin, Texas when one of its employees was killed when he was struck by a steel beam suspended from a crane and knocked 70 feet to the ground. A compliance officer of the Occupational Safety and Health Administration ("OSHA") conducted an investigation. As a result, the Secretary of Labor issued a citation alleging, among other things, that Peterson Brothers had violated 29 C.F.R. § 1926.105(a)[1] by failing to provide safety nets or other protection from the hazard of falling to the outside of the building for protect its employees.

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[1] That standard provides:

§ 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.

Peterson Brothers contested the citation, and a hearing was held before a Review Commission administrative law judge. At the hearing, the Secretary moved to amend the citation to allege that the violation was willful; that motion was granted. The judge issued a decision finding that Peterson Brothers had committed a serious violation of section 1926.105(a), but he found that the violation was not willful. Peterson Brothers petitioned the Commission to review the judge's decision, and review was directed pursuant to section 12(j) of the Occupational Safety and Health Act of 1970 ("the Act"), 29 U.S.C. § 661(j). The Secretary has not sought review of the judge's finding that the violation was not willful.

I. BACKGROUND

Peterson Brothers was erecting the structural steel skeleton for the first building in a 7-building complex when the accident occurred. The work was performed in "tiers" of two stories at a time. Employees called "connectors" would first install the upright columns. They then put in the horizontal beams, temporarily holding each beam with two bolts. Employees called "bolters" followed and installed the remainder of the bolts, making certain that they were tight.

Every two floors, Peterson Brothers installed temporary flooring or decking to protect its employees from the hazard of interior falls, as required by 29 C.F.R. § 1926.750(b)(2)(i).[2] Once the temporary floors were completed, a cable was installed around the edge of the floor to protect the employees working there from perimeter falls. In addition, the bolters used safety belts and lanyards to "tie off," or secure themselves to a beam, as protection from exterior falls. Peterson Brothers did not require connectors to tie off; frequently there

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[2] That standard provides:

> **§ 1926.750 Flooring requirements.**
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> (b) *Temporary flooring—skeleton steel construction in tiered buildings.*
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> . . . .
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> (2)(i) Where skeleton steel erection is being done, a tightly planked and substantial floor shall be maintained within two stories or 30 feet, whichever is less, below and directly under that portion of each tier of beams on which any work is being performed, except when gathering and stacking temporary floor planks on a lower floor, in preparation for transferring such planks for use on an upper floor. Where such a floor is not practicable, paragraph (b)(1)(ii) of this section applies.

was nothing to which they could attach a lanyard and they had to be mobile to avoid swinging beams suspended from the crane.

The employee who fell was a connector involved in erecting the I-beams that form the structural steel skeleton of a building. He was working at the perimeter of the building, sitting astraddle a spandrel beam (a horizontal perimeter beam) that had just been attached and was untying the beam from the crane that had raised it. A number of other spandrel beams were also tied to the line, forming a "Christmas tree." When the load unexpectedly dropped a short distance, it knocked the connector off his perch.

The compliance officer testified, and the Secretary agrees, that all employees except the connectors were properly protected from falls within the requirements of the various applicable standards. Peterson Brothers, on the other hand, concedes that safety nets were not being used and that the company had no plans to use them on this project. The Secretary contends that, under section 1926.105(a), if no other means of protection is available, nets must be utilized. We agree with the Secretary's interpretation of the standard; if the connectors were not protected by one of the other methods of protection, Peterson Brothers was required to use perimeter nets. The questions to be resolved are whether the facts establish that there was a violation, and, if so, whether Peterson Brothers has presented any basis for finding that it should not be held liable for that violation.

II. THE ELEMENTS OF A VIOLATION

In order to establish that an employer violated an OSHA standard, the Secretary must prove that (1) the standard applies to the working conditions cited, (2) the terms of the standard were not met, (3) employees had access to the violative conditions, and (4) the employer knew of the violative conditions or could have known with the exercise of reasonable diligence. *Kulka Constr. Mgt. Corp.*, 15 BNA OSHC 1870, 1992 CCH OSHD ¶ 29,829 (No. 88-1167, 1992); *Astra Pharmaceutical Prods., Inc.*, 9 BNA OSHC 2126, 1981 CCH OSHD ¶ 25,578 (No. 78-6247. 1981), *aff'd*, 681 F.2d 69 (1st Cir. 1982).

A. APPLICABILITY OF THE STANDARD

Peterson Brothers argues that the Secretary failed to prove that the standard applies to the cited working conditions, pointing to the unreviewed decision by an administrative law judge in *Peterson Bros. Steel Erection Co.*, 88 OSAHRC 24/A3 (No. 87-805, 1988) (ALJ) - ("*Peterson I*"), which held that the standards in Subpart R of Part 1926, 29 C.F.R. § 1926.750-752 ("Subpart R"), are the exclusive fall protection requirements for employees engaged in steel erection. Because section 1926.105(a) is not in Subpart R, Peterson Brothers argues, it does not apply to the work being performed.

In 1984, the Commission overruled earlier precedent and held that, because the fall protection requirements of 29 C.F.R. § 1926.750(b) were more specifically applicable to the hazard of falling during steel erection work than 29 C.F.R. § 1926.105(a), the latter standard could not be applied to require additional protection beyond that required in Subpart R. *See Adams Steel Erection Inc.*, 11 BNA OSHC 2073, 1984-85 CCH OSHD ¶ 26,976 (No. 77-4238, 1984). That decision was reversed on appeal, however, *Donovan v. Adams Steel Erection*, 766 F.2d 804 (3d Cir. 1985), as were other Commission decisions to the same effect. *See Brock v. Williams Enterp.*, 832 F.2d 567 (11th Cir. 1987); *Brock v. L.R. Willson & Sons., Inc.*, 773 F.2d 1377 (D.C. Cir. 1985); *Donovan v. Daniel Marr & Sons*, 763 F.2d 477 (1st Cir. 1985). The Commission's position was rejected by the courts of appeals for four different circuits. In the face of this disapproval of its *Adams Steel Erection* decision, the Commission reconsidered its position and overruled that decision. *Bratton Corp.*, 14 BNA OSHC 1893, 1987-90 CCH OSHD ¶ 29,152 (No. 83-132, 1990).

In their decisions, the four courts of appeals reasoned that, while Subpart R provides adequate protection against falls within the interior of the building, it does not speak to falls from the exterior of the building. The Commission adopted that view in *Bratton*, and we now reaffirm our position that Subpart R does not provide exclusive fall protection requirements for employees engaged in steel erection. Rather, the general fall protection standards for the construction industry do apply to conditions not addressed by Subpart R. Accordingly, we hold that section 1926.105(a) applies to the conditions cited in this case, the hazard of a fall from the perimeter to the outside of the building.

B. NONCOMPLIANCE WITH THE STANDARD

"A prima facie violation of section 1926.105(a) is established if the Secretary can show that employees were subject to falls of twenty-five feet or more and none of the safety devices listed in the standard were utilized." *Cleveland Consol., Inc. v. OSHRC*, 649 F.2d 1160, 1165 (5th Cir. Unit B 1981).

Peterson Brothers argues that nets are required only if safety belts and temporary floors are impractical, and that it was in compliance with the standard because it installed temporary flooring every two stories and its employees were using safety belts and lanyards. This argument misconstrues section 1926.105(a). While the standard could have been drafted more clearly, its import is that the other forms of protection are preferred over nets if they are practical. If employees can effectively be protected by using one of the enumerated forms of protection, that course should be followed. The temporary floor decking protected employees from interior falls greater than two stories but afforded no protection against exterior falls. We therefore conclude, as did the judge, that the use of temporary flooring did not constitute compliance with the fall protection requirements of section 1926.105(a) with respect to the connectors. *See Williams Enterprises*, 832 F.2d at 572-73; *L.R. Willson*, 773 F.2d at 1384-85; *Diamond Roofing Co.*, 8 BNA OSHC 1080, 1084, 1980 CCH OSHD ¶ 24,274, p. 29,564 (No. 76-3653, 1980) ("[i]f the unguarded perimeter of a temporary floor itself gives rise to a fall hazard, it would be anomalous to conclude that the temporary floor constitutes an adequate method of fall protection"); *cf. Morgan & Culpepper, Inc. v. OSHRC*, 676 F.2d 1065, 1069 (5th Cir. 1982) (use of scaffolds that did not protect against hazard does not constitute compliance).

Peterson Brothers further asserts that it was in compliance because its employees were tying off with safety belts and lanyards. The record makes it clear, however, that the connectors did *not* use safety belts and lanyards. Connectors are, in effect, the advance party, creating their work area as they progress; consequently, there is nothing to which they can tie off. Safety equipment not used affords no protection and does not comply with the requirements of section 1926.105(a). *Marshall v. Southwestern Indus. Contrac. & Riggers, Inc.*,

576 F.2d 42 (5th Cir. 1978). The second portion of Peterson Brothers' argument that it was in compliance must, therefore, also be rejected.

The record makes it clear that the connectors were not protected from the hazard of exterior falls. We therefore reject Peterson Brothers' claim that it complied by using temporary floors and safety belts, because neither the temporary floors nor the safety belts protected the connectors from the cited hazard, falls from the perimeter to the exterior of the building. Accordingly, we find that Peterson Brothers did not comply with the requirements of section 1926.105(a).

C. EMPLOYEE ACCESS TO THE CONDITION

The record clearly shows that the Secretary has met his burden to demonstrate that connectors were exposed to the hazard of exterior falls, and Peterson Brothers does not contend otherwise. Employee access to the violative condition has therefore been established.

D. EMPLOYER KNOWLEDGE OF THE CONDITION

Peterson Brothers asserts that it did not know that nets were required. That argument does not speak to the question here, however.[3] The knowledge element of a violation does not require a showing that the employer was actually aware that it was in violation of an OSHA standard; rather it is established if the record shows that the employer knew or should have known of the conditions constituting a violation. *Conagra Flour Milling Co.*, 15 BNA OSHC 1817, 1823, 1992 CCH OSHD ¶ 29,808, p. 40,593 (No. 88-2572, 1992). On this record, it is clear that Peterson Brothers was aware that it was not using any fall protection to prevent its connectors from suffering an exterior fall. A prima facie violation has therefore been established, and we must affirm the citation unless Peterson Brothers has established some reason why it should not be held liable for its noncompliance.

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[3] That argument is relevant to the fair notice issue discussed below.

III. DEFENSES

Peterson Brothers asserts three grounds for finding that it should not be held liable for its failure to comply with the requirements of section 1926.105(a). First, it claims that it was deprived of due process of law, in violation of the Fifth Amendment to the Constitution, because it lacked fair notice that it was required to use perimeter safety nets to protect its employees from exterior falls. Second, Peterson Brothers argues that it has shown the use of perimeter safety nets to be infeasible. Third, it argues that erecting nets would have been more dangerous than allowing the connectors to work without them. For the reasons set forth below, we find that these assertions were not proved by a preponderance of the evidence in this record.

A. DID PETERSON BROTHERS HAVE FAIR NOTICE THAT FALL PROTECTION WAS REQUIRED?

1. THE EVIDENCE

Peterson Brothers' president testified that neither he nor anybody else in the company knew that fall protection for the connectors was required. The company argues that its belief that section 1926.105(a) did not apply was justified because of an administrative law judge's decision in *Peterson I*, which became a final order on August 16, 1988. In that case, Peterson Brothers had been cited for violating 29 C.F.R. § 1926.750(b)(1)(i) and had argued that it had been cited under the wrong standard, that either section 1926.28(a) or section 1926.105(a) was the correct standard. The judge rejected that argument, citing the Commission's controlling precedent at that time, which held that the general standards cited by the company were preempted because Subpart R contained the exclusive fall protection standards for steel erection employers.

Peterson Brothers' president also testified that, prior to the cited incident, no connector employed by his company had ever fallen and that the connectors' working procedures and technique made falls unlikely. In his opinion, Peterson Brothers was in compliance with all OSHA requirements because it was using temporary floors, perimeter cables, and safety belts. He stated that none of his competitors used perimeter safety nets

in erecting tiered buildings and that, although Peterson Brothers had been inspected several times when it was not using nets, it had never been cited for that violation. He agreed that interior safety nets are required by the steel erection standards under certain conditions, but stated that the company's use of temporary floors and safety belts made them unnecessary here.

Peterson Brothers' superintendent at this project, its field superintendent, a welder for the company, and the former president of a large Texas steel erection company who testified as an expert witness all testified that they had never seen perimeter safety nets used during steel erection in Texas. Each of the witnesses had several years of experience in the steel erection industry, and some of them had worked for a number of steel erection companies besides Peterson Brothers.

2. THE LEGAL BACKGROUND

The United States Court of Appeals for the Fifth Circuit, the circuit in which this case arose, recently issued a decision in another case where an employer asserted that it did not have fair notice of the requirements of 29 C.F.R. § 1926.105(a). *Corbesco, Inc. v. Dole*, 926 F.2d 422 (5th Cir. 1991). The court said:

> The touchstone for sufficiency of notice under the due process clause is reasonableness. If, for example, an OSHA regulation instructs an employer to provide safety equipment for its workers if the work environment is dangerous, an employer cannot be cited for a hazard if a reasonable person in the employer's position would not have recognized that a hazard exists. Therefore, in this case, the citation against Corbesco violated the due process clause of the fifth amendment if a reasonable employer in Corbesco's position would not have known that section 1926.105(a) required it to install safety nets.
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> Put another way, the Secretary has the burden to prove that Corbesco had actual or constructive notice that section 1926.105(a) required it to install a safety net.

Id. at 426-27. (citations and footnote omitted). Each party argues that, under the reasonable person test set out in *Corbesco*, it should prevail. Peterson Brothers asserts that the record establishes that a reasonable person would not have known that perimeter safety nets were

required, while the Secretary argues that there were sufficient indications to give a reasonable person such actual notice.

3. ANALYSIS

Peterson Brothers asserts that, on the basis of the judge's decision in *Peterson I*, it reasonably believed that section 1926.105(a) did not apply to its activities. While we can understand how Peterson Brothers might feel that it reasonably relied on that decision, we cannot accept that argument because the judge's decision in *Peterson I* relied on two Commission decisions which, the judge noted, had both been reversed on appeal. As the Fifth Circuit noted in *Corbesco*, an employer has a duty to inquire into the requirements of the law. 926 F.2d at 428 (citing *McGowan v. Maryland*, 366 U.S. 420, 428 (1961)). Further inquiry by Peterson Brothers would have disclosed that the other two Commission decisions on this issue had also been reversed and that no court of appeals had upheld the Commission's position. Because Peterson Brothers should have known that all the Commission's decisions holding that Subpart R's provisions set out the exclusive fall protection requirements for steel erection had been reversed, it could not have reasonably relied on that precedent. *See Dole v. East Penn Mfg. Co.*, 894 F.2d 640, 644-46 (3d Cir. 1990).

Peterson Brothers points to other factors to support its assertion that a reasonable employer in its position would not have known that fall protection was required. One factor that Peterson Brothers claims lent credence to its belief that nets were not required was that, although the company had never used nets, it had been inspected by OSHA numerous times without being cited for this failure. This argument cannot prevail, however, because it is well established that an employer cannot rely on the Secretary's failure to issue a citation. *Daniel Marr*, 763 F.2d at 484; *Cedar Constr. Co. v. OSHRC*, 587 F.2d 1303, 1306 (D.C. Cir. 1978); *Seibel Modern Mfg. & Welding, Inc.*, 15 BNA OSHC 1218, 1223-24, 1991 CCH OSHD ¶ 29,442, pp. 39,679-81 (No. 88-821, 1991) and cases cited there.

Peterson Brothers points to evidence that none of its competitors use nets as another reason it was reasonable to believe that fall protection was not required for connectors. A number of witnesses, each of whom had several years' experience in the steel erection

industry, testified that they had never seen exterior safety nets utilized in steel erection. Some of them said that they had seen interior nets used but that the temporary floors and safety belts that were being used here made interior nets unnecessary. However, none of these witnesses addressed the possibility that the reason nets were not used was that some other means of fall protection was being used. Even if the witnesses had eliminated this possibility, it would not excuse Peterson Brothers' noncompliance; an employer cannot rely on the failure of its industry to comply with the requirements of section 1926.105(a) as grounds for an argument that it did not have notice. *L.R. Willson*, 773 F.2d at 1386-88.

Other steel erection employers have combined these two factors into one argument, asserting that they were deprived of fair notice because the Secretary failed to issue citations in the face of widespread industry failure to use nets. The courts have been unreceptive to this argument. *Williams Enterprises*, 832 F.2d at 570-71; *L.R. Willson*, 773 F.2d at 1387-88.

B. WERE SAFETY NETS INFEASIBLE?

Peterson Brothers argues that it was infeasible to use safety nets. The company asserts that this is so for two reasons: (1) because it was not possible to comply with the requirement in 29 C.F.R. § 1926.105(c)(1)[4] that safety nets be within 25 feet of where the connectors work, and (2) because the time and expense involved in erecting the nets and moving them as the work moves upward makes it economically infeasible to use them. On the evidence in this record, we find that infeasibility has not been proved by a preponderance of the evidence.

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[4] That standard provides:

> **§ 1926.105 Safety nets.**
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> . . . .
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> (c)(1) Nets shall extend 8 feet beyond the edge of the work surface where employees are exposed and shall be installed as close under the work surface as practical but in no case more than 25 feet below such work surface. Nets shall be hung with sufficient clearance to prevent user's contact with the surfaces or structures below. Such clearances shall be determined by impact load testing.

1. THE EVIDENCE

Peterson Brothers called an expert witness, the former president of a large Dallas, Texas steel erection company, who testified that his company followed the same practices as Peterson Brothers: erecting temporary flooring and perimeter cables and having all employees except connectors tie off. Neither his company nor any other steel erection company with which he was familiar in the area used exterior safety nets (although his company does use interior nets to comply with the fall protection requirements for steel erection in Subpart R). The connectors work without any protection from falls to the outside of the building; they do not tie off even when it is possible because they must be mobile in order to avoid swinging beams suspended from a crane. The witness said that a study by the National Erectors Association ("NEA"), a trade association for the steel erection industry, had concluded that connectors should not be tied off because they had to be mobile to avoid swinging beams. The witness also testified that it is impossible to erect perimeter safety nets that comply with 29 C.F.R. § 1926.105(c)(i), the OSHA standard that requires nets to be within two stories of where the employees are working. He stated that the nets must have supports that are attached two stories above them and that, since there is no way to attach this support above the temporary floor, the nets will necessarily be two stories below the temporary floor, which is one or two stories below where the employees are working. Consequently, the nets cannot be erected closer than three or four stories below where the connectors are working, and this does not comply with the OSHA requirements.

In addition, Peterson Brothers' president testified that using perimeter nets would have greatly increased the cost of performing the steel erection. As a member of the safety committee of the NEA, he had prepared comments on proposed changes to the fall protection standards. These comments, which were prepared approximately ten months before the inspection, included an estimate of the increased time and expense that would have been incurred if the company had used perimeter safety nets at a hospital it had built. In those comments, which were introduced into evidence as an exhibit, Mr. Peterson stated that "because they often expose the installers to greater risk than if they were not used[,] nets are not always a satisfactory approach." Attached to the comments was an estimate of the

increase in the cost of the hospital project as a result of using nets. Although the sum was substantial, Mr. Peterson testified that his company had the resources to absorb the cost of perimeter nets on this project if it had to. His main concern was that the company would lose future business because its bids would be higher than those of its competitors if those competitors did not also use nets. He also stated that his company had never applied for a variance from the safety net requirement because it did not believe that it was required to use perimeter safety nets and, therefore did not know that it was required to seek a variance.

Peterson Brothers' superintendent of field operations also testified, stating that he had once installed perimeter safety nets during the construction of a concrete building. He opined that erecting nets was more dangerous than working without them because it required employees to walk on outrigger beams without fall protection and because employees could get tangled in the nets or pulled off the edge by the nets if there were sufficient wind. He testified that a perimeter cable is erected as soon as the temporary floor decking is installed and that the employees erecting the cable are tied off.

Another compliance officer, who had not conducted the inspection but who had been a steelworker for six years, testified that personnel safety nets would not need to be as big or as heavy as the material nets used to catch debris, and that the difficulties would not be as severe. Because the nets are lighter, he said, it would be possible to use lighter support, which could be welded to the temporary floor and extend straight out from that level without support from above. He had seen instances where perimeter safety nets had been used, including one in Houston.

2. THE LEGAL BACKGROUND

An employer who has failed to comply with a standard that states a specific method of compliance, may defend its noncompliance by demonstrating that the action required by the standard was infeasible under the circumstances cited. *Ace Sheeting & Repair Co. v. OSHRC*, 555 F.2d 439, 441 (5th Cir. 1977). In order to carry this burden, an employer who raises the affirmative defense of infeasibility must prove that (1) literal compliance with the requirements of the standard was infeasible under the circumstances and (2) *either* an

alternative method of protection was used *or* no alternative means of protection was feasible. *Mosser Constr. Co.*, 15 BNA OSHC 1408, 1416, 1992 CCH OSHD ¶ 29,546, p. 39,907 (No. 89-1027, 1991). The Commission has addressed claims of infeasibility on a number of occasions. *See, e.g.*, *Mosser Constr. Co.*; *Seibel Modern Mfg. & Welding Corp.*; *Dun-Par Engd. Form Co.*, 12 BNA OSHC 1949, 1986-87 CCH OSHD ¶ 27,650 (No. 79-2553, 1986), *rev'd*, 843 F.2d 1135 (8th Cir. 1988). Courts that have considered the infeasibility defense have held that it encompasses both technological and economic factors. *Faultless Div., Bliss & Laughlin Indus. v. Secretary*, 674 F.2d 1177, 1189 (7th Cir. 1982); *Southern Colo. Prestress Co. v. OSHRC*, 586 F.2d 1342, 1351 (10th Cir. 1978); *Atlantic & Gulf Stevedores, Inc. v. OSHRC*, 534 F.2d 541 (3rd Cir. 1976). The Commission also has recognized the affirmative defense of infeasibility can be established with both technological and economic evidence. E.g., *Mosser Constr Co.* (no showing that employer could not perform operation if it complied with standard); *Dun-Par Engd. Form Co.*, 12 BNA OSHC 1962, 1986-87 CCH OSHD ¶ 27,651 (No. 82-928, 1986) (no showing that cost of compliance was unreasonable in light of protection afforded or what effect added costs would have on business as a whole).

3. ANALYSIS

Peterson Brothers' challenge to the feasibility of using perimeter safety nets is based on three factors: (1) the asserted impossibility of complying with the requirements of 29 C.F.R. 1926.105(c)(1) that the nets be no more than 25 feet below the work area; (2) the cost of erecting the nets and continually moving them in order to keep the nets as near the working level as possible; and (3) the assertion that the hazards encountered during installation of the nets outweigh those encountered by the connectors working without nets.[5] For the reasons set out below, we reject Peterson Brothers' claims.

Peterson Brothers asserts that it is impossible to comply with the requirement that the nets be within 25 feet or two stories of where the connectors are working. The factual basis underlying that assertion is open to question, because one compliance officer testified

[5] The greater hazard affirmative defense is addressed in Section C. below. We therefore address in this section only the first two elements of Peterson Brothers' arguments that it proved the infeasibility defense.

that it would be possible to erect personnel nets, which are lighter than the material nets that one witness had used, from the temporary floor without having to support them from above. We need not resolve this factual conflict, however, because Peterson Brothers must comply to the extent it can even if complete compliance is not possible. *Walker Towing*, 14 BNA OSHC at 2075, 1991 CCH OSHD at p. 39,159; *see also Cleveland Consolidated*, 649 F.2d at 1167 and cases cited there. If, as the Secretary's witness suggested, nets can be extended out from the temporary floor without bracing from above, that course should be followed. If not, steel erectors must erect nets as close to where the connectors are working as is possible. Peterson Brothers' expert testified that nets could have been erected four floors below the connectors. By using no nets at all, Peterson Brothers' connectors did not have even the protection that would have been afforded by nets four stories below.

Peterson Brothers also asserts that the expense of using nets makes compliance infeasible. Mr. Peterson presented a study of the increased expense of using nets at another project. The judge discounted this study because the projects were substantially different and the figures in the study were not tied closely enough to the cited project to have much weight. The remarks in that document suggest that sometimes nets are appropriate and sometimes they are not. This illustrates the difficulty with Peterson Brothers' evidence: it raises questions about the feasibility of nets generally or their use on some projects, but there is little specific evidence to prove that nets were not technologically or economically feasible on this particular building. We agree with the judge in giving the study little weight.

We accept Mr. Peterson's statement that his company had sufficient overall resources that it *could* absorb the added cost of erecting perimeter nets on this project if it had to. This is the only evidence in the record of the effect that compliance would have on the company's financial position as a whole. On this evidence, we cannot find that Peterson Brothers' existence would be adversely affected by having to use exterior nets on this project.

We are also unable to accept Peterson Brothers' argument that it will be forced out of business or placed at a serious competitive disadvantage because it will be the only member of its industry using nets. An employer cannot be excused from noncompliance on the assumption that everyone else will ignore the law. *A.E. Burgess Leather Co.*, 5 BNA

OSHC 1096, 1097 n.2, 1977-78 CCH OSHD ¶ 21,573, p. 25,887 n.2 (No. 12501, 1977), *aff'd*, 576 F.2d 948 (1st Cir. 1978). Peterson Brothers may be able to argue plausibly that the Secretary could be more vigorous in informing the steel erection industry about the requirements of section 1926.105(a) and in enforcing those requirements, but we cannot accept "everybody else was ignoring the law, too," as an excuse for an employer's failure to obey the law's requirements. A primary goal of the Act was to eliminate any competitive disadvantage that a safety-conscious employer might suffer by requiring that every employer comply with the applicable OSHA standards. *American Textile Mfrs. Inst.*, 452 U.S. 490, 521 n.38 (1981).

Finally, although the company's expert witness testified that the steel erection industry considers the use of perimeter safety nets to protect connectors infeasible, his testimony does not include the factual basis and reasoning behind that opinion, and he did not have enough knowledge of the cited project to give specific testimony regarding the use of nets there. We do not question that many members of the steel erection industry sincerely believe that exterior safety nets are infeasible; the record clearly establishes that using nets is inconvenient, time-consuming, and costly. We cannot, however, accept the unsubstantiated assertion that exterior safety nets are infeasible and set aside the requirements of a standard without having a sufficient factual basis for doing so.[6]

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[6] We note that Peterson Brothers is not the first employer to argue to the Commission that the use of perimeter safety nets during steel erection was infeasible. Several other steel erection companies have presented evidence and arguments in support of this assertion. Although the cumulative evidence in all these cases gives us reservations about the effect on the steel erection industry of the requirement to use perimeter safety nets, we cannot find on the evidence in this record that Peterson Brothers has established by a preponderance of the evidence that it will be so adversely affected by complying with the standard that compliance is infeasible.

Recognizing that the steel erection industry, among other construction trades, had difficulty with OSHA's fall protection requirements, OSHA began a revision of the fall protection standards for the construction industry. 15 BNA OSHR 920-21 (1986). After seven years, OSHA decided to undertake a negotiated rulemaking under the Negotiated Rulemaking Act of 1990, 5 U.S.C. §§ 581-90. 22 BNA OSHR 222, 271 (1992), 1992 CCH ESHG ¶ 11,411 (1992). That negotiated rulemaking was subsequently announced. 57 Fed. Reg. 61,860 (Dec. 29, 1992). We can only hope that this rulemaking proceeds quickly and results in standards that will afford protection to employees without placing impractical or unreasonable requirements on their employers.

C. DID USING NETS CAUSE A GREATER HAZARD?

Peterson Brothers asserts that there is a greater degree of danger involved in using exterior nets than in leaving the connectors unprotected from falling.

1. THE EVIDENCE

Peterson Brothers' expert witness testified that, on two occasions, he had used material nets to catch debris. The material nets were very heavy, and erecting them required employees to work at the perimeter for considerable periods of time, during which they could tie off only about half the time. In his opinion, the use of perimeter safety nets would increase both the number of employees exposed to the hazard of exterior falls and the amount of time employees were exposed to that hazard.

The Secretary called as a rebuttal witness a compliance officer who testified that it was possible to assemble the nets on outriggers in the middle of the temporary floor, then take them to the perimeter, where the outriggers could be attached to the edge of the floor by employees who were protected from exterior falls.

2. LEGAL BACKGROUND

In addition to evidence that may be used to support an affirmative defense of infeasibility, when the Secretary has shown that an employer failed to comply with the requirements of a standard, the employer may seek to excuse its failure by raising as a separate defense the affirmative defense that compliance with the standard would have exposed its employees to a greater hazard than noncompliance. To establish the greater hazard affirmative defense, the employer must prove that: (1) the hazards caused by complying with the standard are greater than those encountered by not complying, (2) alternative means of protecting employees were either used or were not available, and (3) application for a variance under section 6(d) of the Act would be inappropriate. *See Russ Kaller, Inc.*, 4 BNA OSHC 1758, 1976-77 CCH OSHD ¶ 21,152 (No. 11171, 1976). The elements of the greater hazard defense are significant legal requirements that must be pleaded. *Secretary v. Williams Enterp.*, 876 F.2d 186 (D.C. Cir. 1989).

3. ANALYSIS

The Commission has long permitted an employer to defend against a violation on the grounds that compliance exposed employees to a greater hazard than not complying. While Peterson Brothers' witnesses opined that the use of perimeter nets was more dangerous, there is little factual basis in this record to support those opinions. We do not question that the witnesses were sincere in their beliefs, but we cannot accept unsubstantiated conclusions as proof. The courts have recognized that an employer may have a good faith belief that is incorrect. *Id.* at 190 n.7 (citing *General Elec. Co. v. Secretary of Labor*, 576 F.2d 558, 561 (3rd Cir. 1978)). There is credible testimony by an OSHA compliance officer that personnel nets could be erected on outriggers extended from the temporary floor and that they could be moved safely. In addition, Peterson Brothers'-superintendent of field operations testified that employees would be protected by a perimeter cable while they worked on the temporary floor on which they would have to erect the nets. There is also evidence that the employees working on the temporary floor could tie off. While we respect the knowledge of the steel erection industry shown by Peterson Brothers' witnesses, we are unable to find that their conclusory opinions, given without stating the underlying facts on which they are based, outweigh the testimony that the installation of perimeter nets could be done safely.

We recognize that one of the witnesses who expressed the opinion that the use of nets was more dangerous than working without them was qualified as an expert and permitted to give such opinions. A generalized opinion that is unsubstantiated by underlying factual information and not specifically tied to a particular worksite is not entitled to much weight, however. As the Court of Appeals for the Third Circuit stated in a case involving perimeter nets:

> Expert testimony need not be accepted even if uncontradicted. Given the interest of [the employer's] witnesses in justifying the company's decision not to erect nets, we are further persuaded that the [ALJ's] decision on this point must be upheld.
>
> . . .
>
> [For the employer's greater hazard] argument to have logical validity, a critical factual predicate had to be established, to-wit, that there was no safe and practical method of erecting the nets without undue danger to the net crews. The government presented testimony that the nets could have been erected without undue danger.... [O]ur reading of the ALJ's opinion persuades us that

> he concluded the dire risks claimed by [the employer] would not, in fact, attend the installation of safety nets.

United States Steel Corp. v. OSHRC, 537 F.2d 780, 783 (3rd Cir. 1976). *See also Cleveland Consolidated*, 649 F.2d at 1167.

Accordingly, we find that Peterson Brothers has failed to carry its burden of establishing an affirmative defense to excuse it noncompliance with section 1926.105(a).

IV. CHARACTERIZATION OF THE VIOLATION

The judge found that the violation was serious.[7] Under section 17(k) of the Act, 29 U.S.C. § 666(k), a violation is serious if there is a substantial probability that death or serious physical harm could result. This statement does not mean that the occurrence of an accident must be a substantially probable result of the violative condition but, rather, that a serious injury is the likely result should an accident occur. *Super Excavators, Inc.*, 15 BNA OSHC 1313, 1315, 1991 CCH OSHD ¶ 29,498, p. 39,804 (No. 89-2253, 1991); *Natkin & Co.*, 1 BNA OSHC 1204, 1205, 1971-73 CCH OSHD ¶ 15,679, pp. 20,967-68 (No. 401, 1973). It is clear that the consequences of Peterson Brothers' failure to use safety nets could--and did--result in serious harm. We therefore find that the violation was serious.

V. PENALTY

Section 17(j) of the Act provides that the Commission shall assess an appropriate penalty for each violation, giving due consideration to the size of the employer, the gravity of the violation, the good faith of the employer, and the employer's history of previous violations. 29 U.S.C. § 666(j). The Secretary proposed a penalty of $810 for this item, and the administrative law judge assessed a penalty of $810. Having considered the information in the record regarding these four factors, we assess a penalty of $400. We consider this amount appropriate because Peterson Brothers has established that it had a good faith belief that the standard did not apply and because the time and expense of complying with the standard would have been particularly burdensome. The most significant factor to be

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[7] Because the Secretary has not sought review of the judge's finding that the violation was not willful, as alleged in the amendment made at the hearing, we will not address that question.

considered in assessing an appropriate penalty, however, is gravity. *Natkin*, 1 BNA OSHC at 1205, 1971-73 CCH OSHD at p. 20,968. We do not reduce the amount further because of the high gravity of the violation. *See Kus-Tum Builders, Inc.*, 10 BNA OSHC 1128, 1981 CCH OSHD ¶ 25,738 (No. 76-2644, 1981).

VI. CONCLUSION

Accordingly, we find that the administrative law judge did not err in finding that Peterson Brothers committed a serious violation of 29 C.F.R. § 1926.105(a). We assess a penalty of $400 for the violation. Because the installation of perimeter nets involves significant potential for falls, we have misgivings about the requirement that perimeter safety nets be used to protect connectors. Nevertheless, we affirm the Secretary's citation. The standard requires the use of some form of fall protection for all employees, and it makes no exception for connectors.

Edwin G. Foulke, Jr.
Chairman

Velma Montoya
Commissioner

Dated: April 27, 1993

WISEMAN, Commissioner, concurring:

I concur with my colleagues' conclusion that Peterson Brothers violated 29 C.F.R. § 1926.105(a) based on the applicable law and the record compiled by the parties in this case; however, I have serious reservations about the requirement to use safety nets to protect connectors and the effect it will have on the steel erection industry as a whole. In my opinion, the burden of using safety nets to protect connectors may be unreasonable and may even create a greater hazard for them. See *Atlantic & Gulf Stevedores Inc. v. OSHRC, 534 F.2nd 541, 547-48* (3rd Cir. 1976) (Should not construe OSH Act to impose completely unreasonable burdens on employers; an economically impossible standard is likely unenforceable, and the burden of policing a standard ignored by the majority of industry members would be overwhelming).

Because our review is limited to the evidence in this record, we cannot find that Peterson Brothers has proved that the use of safety nets is infeasible or that they would create a greater hazard for connectors than leaving them unprotected. Peterson Brothers' witnesses made statements to the effect that both Peterson Brothers, as well as the steel erection industry, believe that it is more dangerous to use nets. Without providing some underlying factual basis to support these conclusions, such statements are too speculative for the Commission to find that the standard at issue imposes an unreasonable burden on Peterson Brothers.

Notwithstanding the fact that we cannot refuse to enforce the specific requirements of a standard without a stronger factual basis, I find the witnesses' testimony to be credible. I have worked in and with the construction industry for forty-five years, and from my experience, I believe that the statements made by Peterson Brothers' witnesses to the effect

that it is more dangerous to install nets and to keep moving them around to keep the net(s) as close to the connectors as possible, reflects the opinions of most workers involved with steel erection.

The concern in the steel erection industry as to just what protection is needed and how to go about implementing it has been an ongoing concern during the entire time that I have been involved with construction. Safety protection for connectors is a difficult area, and finding effective solutions has been a perplexing process. I am pleased to hear that these problems are currently being addressed by the Department of Labor. The Secretary initiated in July of 1992 a negotiated rule making on steel erection fall protection standards to settle this very issue, among others.

If it is decided that the best means of protecting connectors is safety nets, then the steel erection fall protection committee, in addition to researching where and when the use of nets is feasible and safe, needs to insure that adequate notice of the details is given to the industry. Also, I stress that such a requirement must be uniformly enforced. I am not certain that the standard, as it currently stands, is uniformly enforced, and selective enforcement deprives employers of due process and equal protection under the law.

April 27, 1993
DATED

DONALD G. WISEMAN
COMMISSIONER

UNITED STATES OF AMERICA
OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION
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WASHINGTON, DC 20006-1246

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SECRETARY OF LABOR, Complainant, v. PETERSON BROTHERS STEEL ERECTION COMPANY, Respondent.	Docket No. 90-2304

NOTICE OF COMMISSION DECISION

The attached decision by the Occupational Safety and Health Review Commission was issued on April 27, 1993. **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.

Ray H. Darling, Jr.
Executive Secretary

April 27, 1993
Date

Docket No. 90-2304

NOTICE IS GIVEN TO THE FOLLOWING:

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Secretary of Labor, Complainant, v. Peterson Brothers Steel Erection Company, Respondent.	Docket No. 90-2304

NOTICE OF DOCKETING

The Administrative Law Judge's Report in the above referenced case was docketed with the Commission on November 14, 1991. The decision of the Judge will become a final order of the Commission on December 16, 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 December 4, 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:

Executive Secretary
Occupational Safety and Health
Review Commission
1825 K St., N.W., Room 401
Washington, D. C. 20006-1246

Petitioning parties shall also mail a copy to:

Daniel J. Mick, Esq.
Counsel for Regional Trial Litigation
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Room S4004
200 Constitution Avenue, N.W.
Washington, D.C. 20210

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

Ray H. Darling, Jr.

Ray H. Darling, Jr.
Executive Secretary

November 14, 1991
Date

Docket No. 90-2304

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UNITED STATES OF AMERICA

OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION

SECRETARY OF LABOR, Complainant, v. PETERSON BROTHERS STEEL ERECTION COMPANY, Respondent.	:	OSHRC DOCKET NO. 90-2304

APPEARANCES:

Brian L. Pudenz, Esquire
Dallas, Texas
For the Complainant.

Homer R. Peterson, II
Houston, Texas
For the Respondent, pro se.

DECISION AND ORDER

LAVECCHIA, Judge:

This is a proceeding brought before the Occupational Safety and Health Review Commission ("the Commission") pursuant to § 10 of the Occupational Safety and Health Act of 1970, 29 U.S.C. § 651 et seq. ("the Act").

The Occupational Safety and Health Administration ("OSHA") conducted an inspection of a construction site in Austin, Texas, after a tragic accident. The accident occurred on July 2, 1990, when one of Respondent's employees fell from a steel beam and sustained fatal injuries. As a result of the inspection, one

citation alleging five serious violations was issued.[1] Respondent timely contested all of the citation items. A hearing was held on April 2-3, 1991, and both parties submitted post-trial briefs.[2] The alleged violations are discussed below.[3]

29 C.F.R. § 1926.105(a)

The basic facts are undisputed. On July 2, 1990, Respondent was erecting the first of seven tiered buildings, which are erected in two-story increments, that were to be constructed at the site; the buildings ranged from three to nine stories. Respondent had about 25 employees on the job, and Kevin Dean and James Morrison were employed as connectors. Dean and Morrison were on the building's perimeter receiving steel beams that were hoisted up by crane and fastening them to columns with bolts; they performed their work straddling or standing on beams already in place. At the time of the accident, the crane had raised four beams up to Dean and Morrison. They connected the first beam, but the second dropped on Dean, resulting in his falling 70 feet from the beam on which he was working to the ground below. No safety nets were used on the exterior of the building. (Tr. 12-14; 22; 25; 28-32; 55-65; 100-01; 107; 114-17; 156; 183; 200-02; C-3-10; R-1-2; R-24).

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[1]The Secretary's motion at the hearing to amend item 2 of the citation to allege a willful violation in the alternative was granted. (Tr. 79-80).

[2]Respondent's post-trial brief was prepared by David M. Ward, Esquire, of Austin, Texas.

[3]For purposes of expediency, the items are discussed in the following order: item 2 (29 C.F.R. § 1926.105(a)); item 5 (29 C.F.R. § 1926.751(a)); item 1 (29 C.F.R. § 1926.21(b)(2)); item 3 (29 C.F.R. § 1926.550(a)(12)); item 4 (29 C.F.R. § 1926.550(b)(2).

Respondent's policy was to install temporary flooring and safety cables inside the buildings it erected to protect against interior falls, and it did so in the subject building. Once flooring was installed safety cables were also placed around the perimeter of the building at that level; however, there was no protection against exterior falls from the perimeter beams on which the connectors worked. Respondent's policy required employees to wear safety belts and tie off when performing stationary work near the perimeter, such as the bolters who inserted additional bolts in the beams hung by the connectors.[4] Connectors were not required to tie off due to their need to be mobile and to get out of the way of steel as it was hoisted up to them. (Tr. 28; 41-43; 53-58; 65-70; 86-87; 155-57; 166-67; 182-87; 200-08; 226-27; 232-33; C-9-10; R-2-4; R-7; R-23-24; R-26).

Robert Hazen is Respondent's project superintendent; he was superintendent of the subject site. He has worked for the company since 1971, and his experience includes connecting iron and working on many tiered buildings. Hazen testified nets were not used at the site because flooring and safety cables were provided, and that he had never seen nets on high-rise buildings or used them on a worksite. He noted connectors would not want to tie off because it would be more hazardous, since it would prevent them from getting away from the steel if something went wrong. (Tr. 51-58; 85-87).

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[4]A bolter walked or straddled an interior beam to reach the perimeter beam requiring bolting, and tied off onto the interior beam before performing the bolting on the perimeter beam. (Tr. 195-97; 200-05; 232).

James Morrison has eight to nine years of experience as a connector in the Austin area. He testified that he had worked on other tiered buildings, and that none of them had used perimeter nets. He agreed with Hazen's testimony about not tying off when performing connecting work. (Tr. 64-66; 71-72).

Conrad Hernandez is Respondent's superintendent of field operations, a position in which he oversees all projects. He has worked for the company since 1977. He has also worked for other steel erectors in Houston and in other states. His experience includes connecting work, and the projects he has worked on include tiered buildings, warehouses and bridges. (Tr. 151-53).

Hernandez testified he had installed nets while working for another company that had constructed a 50-story concrete building in Houston. He said installing the nets was very difficult and hazardous because it required walking out on outrigger beams on the building's exterior without any fall protection, and because of the danger of getting tangled in the nets when moving them in the wind. While his opinion was that installing nets was more hazardous than working without them, he noted he had never installed nets on the exterior of structural steel buildings. (Tr. 187-99).

Homer Peterson, II, is Respondent's president; he has worked for the company since 1973. He has a B.S. in civil engineering and is a registered professional engineer. He served on the National Erectors Association ("NEA") safety and health committee 1980-1987, and now serves on an American National Standards Institute ("ANSI") subcommittee dealing with steel erection. (Tr. 6-8; 215-19).

Peterson testified his company has built 17 tiered commercial buildings over 30 feet high, all but two of which are in Houston. He said that perimeter nets were not used on any of the buildings, and that while his company had had interior falls, no connector had ever fallen to the exterior before. Peterson was familiar with the steel erection standard and the subject standard. His opinion was that nets were not required because there was temporary flooring in compliance with the steel erection standard. He based his opinion on Commission decisions holding that fall protection for steel erectors was governed exclusively by the steel erection standard. Peterson said he was not aware of the Secretary's position before the accident, that OSHA had never advised him nets were required, and that he never thought a variance was needed. He was aware of the ANSI standard which requires safety nets or scaffolds when safety belts cannot be used. (Tr. 9; 220-32; 249-55; R-30).

Peterson further testified he had done a feasibility study of the use of perimeter nets; he prepared the study in connection with his NEA involvement regarding proposed changes to the steel erection standards. Peterson said the study pertained to Ben Taub Hospital in Houston, which had about half the square footage of the subject project, and that it included estimates of the costs that would result if the changes were adopted. He noted the $150,000 cost for nets and related equipment did not include the labor required to install and move the nets from floor to floor. His opinion was that the cost of providing nets on the subject site

would have been two to 2.5 times that on the study.[5] He said his company could have absorbed the additional $300,000 for net costs, but that he would never have been able to sell the job if he had included the cost of nets in the bid. He did not know if he could stay in business if he included such costs. He said it depended on whether his competitors did so; to his knowledge, they did not on tiered building projects. (Tr. 242-48; 258-62; R-34).

Bill Landfair is vice chairman of John F. Beasley Construction Company, the company he has worked for since 1964. He is also a professional engineer and a past president of the NEA. Landfair testified that Beasley does all types of steel erection and that it has built some 400 buildings, including all of the tiered buildings making up the Dallas skyline. He said Beasley uses safety cables and nets to protect against interior falls in tiered buildings, and that it uses perimeter cables, which are put up as soon as each working floor is installed, to protect against exterior falls. Landfair noted that erection goes on above the working floor, and that connectors working on the perimeter beams have no exterior fall protection; Beasley does not require connectors to tie off because it does not believe it is safe for them to do so. (Tr. 108-14; 117; 123-27; 137; 142; R-22).

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[5]Peterson noted that the Ben Taub project was built in thirds, and that on the subject project there were at times two structures being built at the same time. He said nets would be reused, but could not recall if his net expense figures were based on one third or on the entire perimeter of the Ben Taub project. (Tr. 257-62).

Landfair stated that although perimeter nets are used in some parts of the country, most buildings are constructed without them. His company does not use them because of the industry view that there is more perimeter exposure for the persons installing nets than there is for the connectors, who are on the perimeter for a short time.[6] He explained that the nets, which are heavy, are supported by posts leading out from and attached to the building, and that the posts are in turn supported by cables attached to the floor above; the nets are moved to the next floor either on the exterior or by dragging them back onto the working floor. Landfair said the process requires workers to be on the building's exterior, and that they would be able to tie off only about 50% of the time. He also said it would be impossible to install nets at the floor directly below the connectors because there would be no steel above at that point to support the nets. (Tr. 125-35; 145).

Landfair further testified that the percentage of accidents occurring at the level where connectors work is very small, and that most accidents happen on the interior. He said if perimeter nets were used more manhours would be required to install them, which would result in more exposure to falls, more expense for erectors and higher insurance costs. Although his opinion was that accidents were minimized by not installing nets, he noted he was

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[6]Landfair testified that while Beasley uses nets on all bridge construction, it had only used perimeter nets on two jobs in Ohio; the nets were part of the bid package and were basically debris nets to protect people from falling materials. Landfair further testified that Beasley had never been cited for failing to use perimeter nets, that it had never requested a variance and that he did not believe one was necessary. (Tr. 130; 139-40; 150-51).

not familiar with the conditions at the subject site and that he could not express an opinion on whether nets could have been used there. (Tr. 124; 129; 136; 138; 145-47).

Emile Petit has been a compliance officer ("CO") with OSHA for 20 years, and approximately half of his inspections have been in the construction industry. He has instructed OSHA trainees in regard to steel erection, and prior to working for OSHA, he was a connector in Texas for six years. (Tr. 263-65).

Petit testified that several years ago he had been asked to provide advice regarding the use of nets on a 60-story steel erection building in Kansas City, Missouri, after three ironworkers had fallen from the perimeter; the result of his inspection was a decision to use perimeter nets. After listening to the testimony presented, Petit's opinion was that perimeter nets could have been used at the site. He noted he had seen several instances of perimeter nets on smaller steel buildings that did not involve the labor and expense required for the large buildings described by Respondent's witnesses. What he saw involved securing nets to four-inch beams and sliding the beams out from the working floor decking, and then welding or bolting the beams to the decking. The nets could be pulled back in to the working floor to move them up to the next floor, and the process would not expose employees to the perimeter.[7] Petit said one of the buildings he saw was in

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[7]Petit observed that the required nets, which would need to be capable of supporting one or two persons, would be light. He noted that some of the nets discussed by Respondent's witnesses were material nets, which are intended to catch anything falling from above, including iron, and that they are much heavier and harder to

Houston, and that another was in Pasadena; the one in Houston had six to seven stories. (Tr. 265-68; 272-75).

Petit identified C-12, OSHA Instruction STD 3-3.1, as instructions on the use of 1926.28(a) and 1926.105(a). He said that C-12 addressed exterior falls for all types of construction, including steel erection, and that it provided for the use of 1926.105(a) when the potential falling distance was greater than 25 feet. He noted that C-12 was dated July 18, 1983, that the Secretary had not changed her position in regard to it, and that he had cited employers pursuant to it. (Tr. 269-71).

The subject standard provides as follows:

> 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.

Respondent contends the standard is inapplicable, pointing to Commission decisions holding that fall protection for employees engaged in steel erection is governed exclusively by the steel erection standards at Subpart R, 29 C.F.R. § 1926.750(b). However, the Commission reversed this position in Bratton Corp., 14 BNA OSHC 1893, 1990 CCH OSHD ¶ 29,152 (No. 83-132, 1990).

The issue in Bratton was whether 1926.750(b)(2)(i), a specific steel erection standard, preempted 1926.28(a), a general standard. The Commission said the decisive factor was the kind of fall hazard addressed by the specific standard, and noted that several circuit courts had held it contemplated only interior falls. As the hazard

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handle. (Tr. 268-69).

cited in Bratton concerned exterior falls, the Commission concluded 1926.28(a) was applicable and that general construction standards were not preempted when Subpart R provided no protection.[8] The Commission also concluded Bratton had fair notice it was required to comply with the standard, noting that although its own precedent may have been less than clear, by the time of the inspection at least two circuit courts had held that 1926.28(a) was not preempted where Subpart R provided no protection. Id. at 1895-97.

The cited hazard in this case was in regard to exterior falls. Based on the foregoing, it is clear that 1926.105(a), a general construction standard, applied to the hazard and that Respondent had fair notice it was required to comply with its requirements.

Respondent further contends it was not in violation of the standard because temporary floors and safety belts were used at the site, and that it did not have notice it was required to provide safety nets. In support of its contention, Respondent cites to Corbesco, Inc., 926 F.2d 422 (5th Cir. 1991).

In Corbesco, the employer was cited pursuant to 1926.105(a) for failing to use nets under the roof through which one of its ironworkers fell. Upon considering Corbesco's due process claim, the court said the test was whether a reasonable employer in Corbesco's position would have known the standard required it to install nets, and that factors to consider included the language of the standard, industry custom and practice, the injury rate for

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[8]In so concluding, the Commission observed that its previous position had been rejected by every circuit court that had addressed it. Id. at 1896.

that type of construction work, the obviousness of the hazard and Commission interpretations of the standard. In affirming the citation, the court found that the language of the standard and Commission decisions was sufficient to find that Corbesco had constructive notice it was required to provide nets.

Respondent's contention that it was not in violation is based in part on the court's statement at page 427 that:

> Corbesco was required to furnish its workers with a safety net only if none of the following safety devices were being used: "[L]adders, scaffolds, catch platforms, temporary floors, safety lines, or safety belts." (Citations omitted).

Respondent interprets this statement to mean that since it provided temporary floors and safety belts, it was not required to provide nets. However, the court also stated, at page 428, that:

> The purpose of the safety devices listed in the regulation is to provide fall protection, and a roof cannot provide fall protection if workers must operate along the perimeter.

The foregoing shows the court found the standard to require measures that in fact afforded protection for employees; indeed, any other conclusion would betray common sense. It is clear the temporary floors and safety belts used at the site did not provide exterior fall protection for the connectors. It is equally clear Respondent's interpretation of Corbesco is incorrect, particularly upon consideration of the factors set out in that decision.

The hazard of exterior falls in steel erection is obvious and recognized by Respondent and the industry. (Tr. 129; 208). While Peterson and Landfair indicated there was a low incidence of such falls, Petit's testimony demonstrates three such falls occurred on

one building alone. Moreover, in spite of Respondent's assertion that it is not the industry practice to use nets, the testimony of Landfair and Petit shows that nets are, in fact, used by some steel erectors. Based on the record, it is concluded that Respondent had constructive notice that it was required to use safety nets. This conclusion is supported by Bratton, discussed supra, and by C-12, which shows the Secretary's enforcement policy since 1983 in regard to the standard.[9] The Secretary has accordingly shown a violation of the standard, unless Respondent is able to establish one of the affirmative defenses recognized by the Commission.

Respondent asserts the affirmative defense of infeasibility of compliance in regard to the use of nets. The Commission discussed this defense in Seibel, supra, in which it noted that employers may not rely on industry custom and practice alone, but must rather show that the abatement method was unreasonable and unusable under the circumstances. Seibel at 1227. The evidence presented by Respondent in this regard was the testimony of Hernandez and Landfair. However, Hernandez admitted he had never installed nets on steel erection buildings, and Landfair acknowledged that he was not familiar with the conditions at the site and that he could not express an opinion on whether nets could have been used there. Petit, on the other hand, testified he had seen nets used on steel

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[9]The fact that neither Respondent nor Beasley had ever been cited for failure to use perimeter nets is of no moment; the Commission has held that a previous failure to cite does not give an employer immunity from enforcement of applicable standards. See Seibel Modern Mfg. & Welding Corp., 15 BNA OSHC 1218, 1223-24, 1991 CCH OSHD ¶ 29,442 (No. 88-821, 1991), and cases cited therein.

erection buildings similar to the one at the site, and his testimony was not rebutted by Respondent. Accordingly, Respondent has failed to show that the use of nets was infeasible at the site.

Respondent also asserts that the use of nets was economically infeasible. To establish this defense, an employer must show the costs were unreasonable in view of the protection afforded, and what effect the additional costs would have had on the employer's business. See Walker Towing Corp., 14 BNA OSHC 2072, 2077, 1991 CCH OSHD ¶ 29,239 (No. 87-1359, 1991), and cases cited therein. While Peterson indicated the cost of using nets would have been $300,000 or more, his estimate was not based on a study of the subject project but on R-34, a study of another project. Moreover, while he testified that nets would be reused and that the project in R-34 was built in thirds, he could not recall if he based the cost of nets on a third or on the total perimeter of that project. Peterson's testimony in regard to the effect of the cost on his business was likewise equivocal. He said he could never have sold the job if it had included net costs, but then indicated he was not certain whether competitors included such costs in bids on tiered building projects. Also significant is the fact that Respondent never sought a variance, an alternative available to employers who believe that the costs of compliance outweigh the benefits of enhanced safety. It is concluded that Respondent has not shown that the use of nets at the site was economically infeasible.[10]

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[10]The same conclusion is reached upon considering the Seventh Circuit's test for economic infeasibility set out in Corbesco at page 429 n.5, which Respondent cites in support of its position.

Since Respondent has failed to demonstrate an affirmative defense, a serious violation has been established. As noted supra, the Secretary amended the citation to allege a willful violation in the alternative. To prove a willful violation, the Secretary must show that the violation was "committed voluntarily with either an intentional disregard for the requirements of the Act or with plain indifference to employee safety." Atlas Indus. Painters, 15 BNA OSHC 1215, 1216, 1991 CCH OSHD ¶ 29,439 (No. 87-619, 1991) (citation omitted). Peterson was aware of the subject standard, but did not believe his company was required to comply with it because of Commission decisions holding that fall protection for steel erectors was governed exclusively by the steel erection standard. While his belief was mistaken, such is not evidence of intentional disregard or plain indifference, particularly since this was Respondent's first citation for failure to use perimeter nets and there was nothing in the record to show that the company had actual knowledge of the Secretary's enforcement policy. This citation item is accordingly affirmed as a serious violation, and the Secretary's proposed penalty of $810.00 is assessed.

29 C.F.R. §§ 1926.751(a) and 1926.21(b)(2)[11]

Edward Solter is the CO who inspected the worksite. He testified that the steel beams hung at the building's perimeter had one bolt in each connection. He said C-6 showed the condition,

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[11]These items are set out together because they involve the same condition.

and that Larry Peterson, the company representative who accompanied him, seemed surprised when he saw it. Solter spoke to the foreman, John Spriggs, who said he knew that only one bolt was being used. Spriggs also said he knew there was a requirement to put two bolts at the end of each beam, but that he didn't think it was necessary for all the beams. Solter's opinion was that one bolt sheared more easily than two. He noted Dean and Morrison had been working on the beam in C-6, and that the crane's ball and hook pulling up against it or a load of iron landing on it could have caused the bolt to shear. (Tr. 17-22; 40; R-1).

Solter further testified that employees on the site had not been instructed to put at least two bolts in each beam connection. He based this determination on interviews with employees and on his observation of the connections at the perimeter of the building. (Tr. 18-20; C-6).

Robert Hazen testified R-20 was an accurate representation of the two types of connections at the site. He said the double shear condition showed the knife connection that connected the header beams to the columns on the perimeter of the building, and that the single shear condition showed a beam-to-beam connection found mostly on floor or filler beams. Hazen did not believe the knife connection beams at the site would have fallen if a bolt had sheared because of how they were constructed and fit into the columns. (Tr. 94-105; R-21).

Hazen further testified that the two-bolt requirement had been the company policy for several years, that it was not his practice

to use only one bolt, and that he was not aware of the condition until the inspection. He said Spriggs supervised the employees erecting the steel, and that he believed Spriggs knew his job. He noted he told Spriggs to use two bolts after the inspection, but not before. He also noted that he himself had been instructed to use two bolts by supervisors on different jobs and through "safety lines" received with his checks. (Tr. 54-57; 99-100; 105-06).

James Morrison testified that one bolt was used on knife connections throughout the project, and that two bolts were used on flange connections. He said the connections at the perimeter of the building were knife connections. He did not consider the one-bolt usage unsafe, but said it was possible a defective bolt could shear and cause a beam to fall. Morrison noted that Spriggs was his supervisor and that he was aware of the one-bolt usage, which was changed after the accident. Morrison was not disciplined because of the practice, and left the job voluntarily four weeks after the accident. (Tr. 63-64; 66-68; 72).

Morrison further testified he had worked for Respondent for four weeks at the time of the accident. He said there were safety meetings every Monday morning, but that the topics, such as tying off, mostly pertained to other positions. He identified R-8-16 as sheets from the safety meetings he had attended. He said none of the meetings he could recall prior to the accident had to do with the two-bolt requirement, and that he had received no training in that regard. (Tr. 65; 68; 74-78).

Conrad Hernandez testified that the two-bolt connection in R-24 he indicated with a "B" was a framing connection, and that the one-bolt connection in R-25 was one of the knife connections along the perimeter of the building. He said the knife connection bolts would not have failed because they were at least A-325 bolts with a diameter greater than the thickness of the web; a load dropping on a beam would probably have bent the beam, which was lightweight, before shearing the bolt. He noted that even if the bolt did shear, the beam would not have fallen because of how it fit into the column. (Tr. 157-59; 162-65).

Homer Peterson testified the evidence showed that one bolt was used in the knife connection beams, while two bolts were used in the other connections at the site. He said R-20 depicted both the knife connection used at the perimeter, which was a double shear condition, and the framed connection used on the rest of the job, which was a single shear condition. He noted the red lines in R-20 indicated shear planes where a bolt might fail, and that the knife connection had two shear planes while the other had a single shear plane. He also noted that R-20 showed the knife connections used three-quarter-inch diameter A-325N bolts. (Tr. 234-37).

Peterson further testified that the American Institute of Steel Construction manual dealt with allowable loads for bolts. He noted the manual showed at page 4-5 that the three-quarter-inch diameter A-325N bolt in a double shear condition was good for 18.6 kips, or 18,600 pounds, while the same bolt in a single shear condition was good for 9.3 kips, or 9,300 pounds. Peterson said

that while the company policy did not condone one-bolt connections, his opinion was that the single bolt in the knife connections in this case was safe and the equivalent of the two bolts in the framed connections. (Tr. 233-38; 255-57; R-31).

Peterson noted employees were instructed that structural members were to be secured with two bolts. He pointed out that flyers called "safety lines" were attached to paychecks whenever there was a safety item employees needed to be aware of. He identified R-32 and 33 as flyers which had been issued with paychecks in April, 1983 and May, 1985 in regard to the two-bolt requirement. Peterson said Spriggs worked for the company at those times and that he had no reason to believe Spriggs had not received the flyers. He also said it was the foreman's job to tell his crew what was required. (Tr. 11; 238-42).

1926.751(a) provides as follows:

> During the final placing of solid web structural members, the load shall not be released from the hoisting line until the members are secured with not less than two bolts, or the equivalent at each connection and drawn up wrench tight.

It is clear from the record that only one bolt was used to connect the beams to the columns at the building's perimeter. It is also clear Respondent should have known about the condition, since a foreman's knowledge is imputed to the employer. See, e.g., A.P. O'Horo Co., 14 BNA OSHC 2004, 2007, 1991 CCH OSHD ¶ 29,223 (No. 85-369, 1991). Respondent contends, however, based on Peterson's opinion, that the single bolts in the knife connections were the equivalent of two bolts.

Peterson's opinion was based on R-20, which shows that the same bolt was used for both types of connections, and R-31, which, according to Peterson, shows that the same bolt can support twice the load in a double shear condition as it can in a single shear condition. As noted supra, Peterson is a registered professional engineer with many years of steel erection experience, and his testimony was not rebutted by the Secretary. However, Respondent's work rule casts doubt on Peterson's testimony, particularly in view of the fact that single bolts were used in contravention of the rule and without anyone knowing whether the practice was safe. Moreover, while there was no evidence single bolts were used in other connections, that Morrison was not trained in the rule and that Spriggs did not believe it always had to be followed indicates this may well have occurred. Regardless, the Commission has held that expert testimony need not be accepted, even if uncontradicted. Connecticut Natural Gas Corp., 6 OSHC 1796, 1800, 1978 CCH OSHD ¶ 22,874 (No. 13964, 1978). It is concluded that a serious violation has been shown.[12] This citation item is affirmed, and the proposed penalty of $450.00 is assessed.

1926.21(b)(2) provides as follows:

> The employer shall instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his work environment to control or eliminate any hazards or other exposure to illness or injury.

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[12]Although Hazen and Hernandez testified about why the condition was not a hazard even if a bolt were to shear, neither is an engineer or otherwise qualified to give a credible opinion in this regard.

The record clearly demonstrates that employees were not instructed in the two-bolt requirement. Morrison so testified, and his testimony is supported by R-8-16, which show that the rule was not a safety meeting topic until after the accident. Moreover, Respondent cannot seriously contend that a flyer attached to Spriggs' check five years before the subject project constitutes an instruction to each employee within the meaning of the standard, particularly since Spriggs told the CO he did not believe two bolts were necessary in every beam.

Respondent asserts the violation cannot be classified as serious because there was no hazard under the circumstances. However, as noted supra, the testimony of Hazen and Hernandez in this regard was not credited. Moreover, the standard is a general training requirement, and it is obvious that the failure to instruct employees about the rule represented, in general, a substantial probability of death or serious harm. This citation item is accordingly affirmed as a serious violation, and the proposed penalty of $180.00 is assessed.

29 C.F.R. § 1926.550(a)(12)

Edward Solter testified that the crane used to lift steel up to the connectors had a cracked windshield, as shown in C-1 and 2. He said the operator had to look through the windshield to keep the connectors in sight, and that it could distort vision and result in a load being dropped on a connector. He talked to Eddie Laney, the operator at the time of the inspection, who told him he always slid the windshield up over the roof so he could see and hear better.

Solter said the windshield did not appear to be a problem with Laney at the controls, but that the company was changing operators, one of whom might elect to leave the windshield down, particularly in inclement weather. (Tr. 22-27; 35; 44-46; 49-50; R-6).

Conrad Hernandez testified that R-28 showed the operator's view of the beam on which Dean had been sitting, and that R-27 showed Laney at the controls and the windshield rolled back as it always was when the crane was operated. He noted he had told the CO the windshield was used to protect the controls from weather and was not used to look through. He also noted he had painted the windshield white after the CO told him it would be cited to ensure the operator would roll it back. Hernandez indicated that most crane operators in Texas raise the windshields for ventilation due to exhaust from the motor and heat. (Tr. 170-78).

The subject standard provides as follows:

> All windows in cabs shall be of safety glass, or equivalent, that introduces no visible distortion that will interfere with the safe operation of the machine.

Respondent does not dispute the cracked condition of the windshield. It contends, rather, there was no violation because Laney was the only operator and he always raised the windshield when using the crane. However, the CO unequivocally testified the company was changing operators at the site. (Tr. 27; 50). The 1926.500(b)(2) discussion, <u>infra</u>, supports the CO's statement; it shows Respondent had another crane and at least one other operator on the job. Moreover, Hernandez did not testify that Laney was the only operator, and Laney apparently made no such statement. Based

on the record, it is found Laney was not the only operator and that the condition violated the standard. Although Hernandez believed the crane was always operated with the windshield raised, there was no evidence his involvement at the site afforded him any knowledge of how the crane was used on the job. (Tr. 151-52). Hazen, on the other hand, was at the site daily and yet he did not testify about the windshield. (Tr. 51-52). This citation item is affirmed as a serious violation, and the proposed penalty of $180.00 is assessed.

29 C.F.R. § 1926.550(b)(2)

Edward Solter testified that when he asked the company for the inspection records of the crane operated by Laney, they could not be produced. He indicated Larry Peterson looked for the records but could not find them, and that he did not receive them until approximately ten days after the inspection. Solter said the records should have been available so the crane's condition could be determined. He noted the OSHA standard required a certification to be kept rather than the inspection records set out in the ANSI standard, but that neither was produced when he was there. He also noted the certification was required to be on site, but that it did not have to be in the crane itself. (Tr. 25-27; 35-37; C-11).

Robert Hazen testified that R-17 showed the daily checks done of the cited crane from June 24 through July 13, 1990; the sheets were filled out by the operator of the crane or by Bill Cravens, the timekeeper, who was also an operator. Hazen identified R-18 as the monthly checklist and inspection card for the cited crane dated June 7, 1990, which Cravens filled out when the job started. He

said the original of R-18 was kept in the crane, and that he did not know what had happened to it. He noted he told Cravens to keep copies of all the records, and that R-18 was not produced during the inspection because he did not ask Cravens for it; Cravens told him he had R-18 after the inspection, and it was then sent to OSHA. (Tr. 87-90).

Hazen further testified that Lone Star Wire Rope inspected both cranes used at the site on June 26, 1990. He identified R-19 as the cited crane's inspection sheet. He said it did not occur to him to provide R-19 to the CO because it was not a total inspection of the crane. (Tr. 90-91).

Conrad Hernandez testified there were two cranes on the site, and that he checked them before the job started and found that monthly inspection cards had been filled out for both cranes. He identified R-29 as the record of everything that had been done to the subject crane since its purchase. He said R-29 was kept in the company's warehouse office in Houston, and that he and Truman Dalsey, the warehouse manager, had access to it. He noted that the last entry on R-29 was on May 21, 1990, when E. L. Lester, the American crane dealer they hired, checked the crane and replaced the converter. (Tr. 153-54; 178-82).

The subject standard provides as follows:

> All crawler, truck, or locomotive cranes in use shall meet the applicable requirements for design, inspection, construction, testing, maintenance and operation as prescribed in the ANSI B30.5-1968, Safety Code for Crawler, Locomotive and Truck Cranes. However, the written, dated, and signed inspection reports and records of the monthly inspection of critical items prescribed in section 5-2.1.5 of the ANSI B30.5-1968 standard are not

> required. Instead, the employer shall prepare a certification record which includes the date the crane items were inspected; the signature of the person who inspected the crane items; and a serial number, or other identifier, for the crane inspected. The most recent certification record shall be maintained on file until a new one is prepared.

This citation item was recommended because Respondent did not produce either a certification record or inspection records at the time of the inspection. It is undisputed that the certification record, R-18, was provided after the inspection, and that it was not required to be in the crane itself. The issue to determine, therefore, was whether the certification was maintained at the site. The testimony of Hazen was credible and convinces the undersigned that the certification was, in fact, maintained at the site but was not located until after the inspection due to Hazen's failure to ask Cravens about it. The testimony of Hernandez was equally credible, and establishes that the original certification had been in the crane but was lost or misplaced. I note also that the record contains abundant evidence that the crane was inspected on a regular basis and that it was in good condition except for the cracked windshield, discussed supra. (Tr. 44-46; 87-91; 154; 178-82; C-1-2; R-5; R-17-19; R-29). This citation item is vacated.

Penalty Determination

Penalties have been assessed for four of the five items set out supra. In assessing the penalties, due consideration has been given to the employer's size, history and good faith, and to the gravity of the violations.

Conclusions of Law

1. Respondent, Peterson Brothers Steel Erection Company, is engaged in a business affecting commerce and has employees within the meaning of § 3(5) of the Act. The Commission has jurisdiction of the parties and of the subject matter of the proceeding.

2. Respondent was in serious violation of 29 C.F.R. §§ 1926.21(b)(2), 1926.105(a), 1926.550(a)(12) and 1926.751(a).

3. Respondent was not in violation of 29 C.F.R. § 1926.550(b)(2).

Order

On the basis of the foregoing Findings of Fact and Conclusions of Law, it is ORDERED that:

1. Items 1, 2, 3 and 5 of serious citation number 1 are AFFIRMED, and penalties of $180.00, $810.00, $180.00 and $450.00, respectively, are assessed.

2. Item 4 of serious citation number 1 is VACATED.

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Louis G. LaVecchia
Administrative Law Judge

DATE: November 5, 1991