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SECRETARY OF LABOR,  
Complainant,

v.

ROCKWELL INTERNATIONAL CORP.,  
Respondent.

OSHRC Docket No. 93-54

SECRETARY OF LABOR,  
Complainant,

v.

U.S.B.I. COMPANY,  
Respondent.

OSHRC Docket No. 93-228

SECRETARY OF LABOR,  
Complainant,

v.

MARTIN MARIETTA MANNED SPACE  
SYSTEMS,  
Respondent.

OSHRC Docket No. 93-233

SECRETARY OF LABOR,  
Complainant,

v.

THIOKOL CORP.,  
Respondent.

OSHRC Docket No. 93-234

**DECISION**

BEFORE: WEISBERG, Chairman; MONTOYA and GUTTMAN, Commissioners.

BY THE COMMISSION:

Two compliance officers of the Occupational Safety and Health Administration ("OSHA") began an inspection in August 1992 at the Kennedy Space Center on Cape Canaveral, in Florida, in response to a complaint against contractors not involved in these cases. Because the complaint involved activities that took place both prior to and following a launch of the space shuttle, OSHA continued its inspection of the site during the next launch on September 12, 1992 in order to observe these activities. As a result of that inspection, OSHA issued citations alleging violations of OSHA standards to the four companies involved in these cases as well as to a number of other contractors working at the site. The citations before us were contested, and these cases were consolidated for hearing before Administrative Law Judge Nancy J. Spies, whose decision has been directed for review pursuant to 29 U.S.C. § 661(j), section 12(j) of the Occupational Safety and Health Act of 1970, 29 U.S.C. §§ 651-678 ("the Act").

These consolidated cases involve a number of issues, including whether OSHA's jurisdiction over the cited working conditions is precluded under section 4(b)(1) of the Act, 29 U.S.C. § 653(b)(1); whether the companies cited are the "employers" of the individuals cited within the meaning of section 3(5) of the Act, 29 U.S.C. § 652(5); and whether the citation items alleging that employees were exposed to the hazard of falling into unguarded open pits and falling from an unguarded runway should be affirmed.

**I. Background.**

Rockwell International Corp. ("Rockwell"), U.S.B.I. Co. ("USBI"), Martin Marietta Manned Space Systems ("Martin Marietta"), and Thiokol Corp. ("Thiokol") were all contractors working on the national space shuttle program under contracts with the National Aeronautics and Space Administration ("NASA"). The prime contractor was Lockheed

Space Operations Corp. ("Lockheed"), and a number of other contractors performed different functions. Rockwell built the space shuttle; USBI was responsible for attaching the solid rocket boosters to the shuttle; Martin Marietta built the external fuel tanks; and Thiokol was responsible for the solid rocket motors.

NASA has three structures called mobile launch platforms ("MLPs"), which are utilized on a rotating basis. The platforms, which were originally designed and built for the Apollo space program and then modified for the space shuttle, are four-sided structures approximately 150 feet on each side designed to support the space shuttle during the launch. The top level of an MLP, called the "zero level deck," on which the space shuttle rests for launching, is approximately 45 feet above ground level. To prepare for the launch, the space shuttle is placed on one of the MLPs and the platform is moved into place where the launch will occur, next to a tower called "the fixed service structure," from which workmen gain access to the zero level deck of the MLP by crossing a ramp. There are three large rectangular openings in the zero level deck, known as "blast holes," two for the solid rocket booster engines and one for the shuttle's main engine. When the space shuttle is mounted on the MLP, its three engines, the main engine and the two solid rocket boosters, are directly over the blast holes. These holes extend 45 feet to the ground and another 50 feet into holes dug in the ground called "flame trenches." Thus, the distance from the zero level deck to the bottom of the flame trenches is approximately 95 feet.

Following the September 12 launch, OSHA compliance officers observed at different times a number of individuals on the zero level deck of the MLP used during the launch, including employees of the contractors cited here. Because there were no guardrails around the three blast holes, the compliance officers concluded that the employees on the MLP were exposed to fall hazards. Because there were gaps in the guardrails on the ramp from the

fixed service structure to the MLP, the compliance officers concluded that the ramp also posed a fall hazard.<sup>1</sup>

The individuals observed on the zero level deck by the compliance officers included a group known as the “debris team.” Pursuant to an invitation from NASA to participate, each of the four contractors had one employee assigned to the debris team, which also included representatives from Lockheed and NASA. The debris team goes out to the MLP shortly after each launch to search for indications that the space shuttle may have suffered damage during the launch. In particular, it looks for debris that may have come off the shuttle during the launch, including tiles from the heat shield that protects the shuttle during reentry. Before the launch, the space shuttle’s external fuel tanks are filled with liquid hydrogen and liquid oxygen, which are 423 degrees below zero and 297 degrees below zero respectively. Because the tiles in the shuttle’s heat shield are very fragile, “like eggshells,” there is concern that the cold will cause the tiles to crack, especially if ice forms on them between the time the tanks are filled and the launch. Although the shuttle can have a safe mission with a few tiles missing, the loss of too many tiles could cause a catastrophe. Consequently, inspections are performed both before the launch and as soon as possible after the launch to check for tiles. Each tile is numbered, so that tiles found on the launching pad can be checked on a computer to determine what part of the shuttle they came from. With that information, it is possible to calculate whether the shuttle will have trouble when reentering the earth’s atmosphere. The debris team also looks for damage to the MLP and for other indicators that there will be a danger to the shuttle during its flight or upon reentry that might require corrective action.

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<sup>1</sup>Although the citations issued to these contractors alleged that certain pre-launch activities violated the Act, the Secretary stated at the hearing that his evidence was limited to circumstances that arose after the launch, and the judge found that the pre-launch allegations had been abandoned.

Because the safety of the shuttle and its crew may be affected, NASA considers time to be of the essence in the performance of the debris team's duties. During the launch, however, the combustion creates gases that can be hazardous, and NASA does not allow anyone onto the MLP pad until tests of the atmosphere indicate that these gases have dissipated and the area has been declared safe. Because the presence of other workers might disturb or destroy what the debris team is looking for, employees of the prime contractor wait to install temporary guardrails around the blast hole openings in the deck of the MLP until after the debris team has finished its inspection.

## **II. Does OSHA have jurisdiction over the cited working conditions?**

The contractors argue that the citations issued to them should be vacated because OSHA does not have jurisdiction over the cited working conditions. They argue that, under section 4(b)(1) of the Act,<sup>2</sup> 29 U.S.C. § 653(b)(1), OSHA's jurisdiction is precluded because NASA has taken measures to govern occupational safety and health at the worksite. We do not agree.

To prove the affirmative defense that OSHA's jurisdiction has been preempted under section 4(b)(1), the employer must show that (1) the other federal agency has the statutory authority to regulate the cited working conditions, and (2) that agency has exercised that authority by issuing regulations having the force and effect of law. *American Airlines, Inc.*, 17 BNA OSHC 1552, 1553-54, 1996 CCH OSHD ¶ 30,992, p. 43,191 (No. 93-1817, 1996) (consolidated); *Alaska Trawl Fisheries, Inc.*, 15 BNA OSHC 1699, 1703-04, 1991-93 CCH

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<sup>2</sup>Section 4(b)(1) provides:

Nothing in this Act shall apply to working conditions of employees with respect to which other Federal agencies, and State agencies acting under section 274 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2021), exercise statutory authority to prescribe or enforce standards or regulations affecting occupational safety or health.

OSHD ¶ 29,758, p. 40,449 (No. 89-1017, 1992) (consolidated); *Puget Sound Tug & Barge*, 9 BNA OSHC 1764, 1774, 1981 CCH OSHD ¶ 25,373, p. 31,594 (No. 76-4905, 1981) (consolidated). Therefore, when an employer claims an exemption under section 4(b)(1), the Commission's inquiry usually begins with the relevant statutory and regulatory provisions of the other federal agency, in this case NASA, that are alleged to support the preemption of OSHA's jurisdiction over the cited working conditions. *Northwest Airlines, Inc.*, 8 BNA OSHC 1982, 1984, 1980 CCH OSHD ¶ 24,751, p. 30,482 (No. 13649, 1980).

Here, however, we need not address this first question, whether NASA has the statutory authority to regulate the working conditions cited here, for we find that it has not regulated them in such a manner as to preempt OSHA's jurisdiction.

The Commission invited NASA to give its position on the issue before us, and NASA has responded that it has not taken action to preempt OSHA's jurisdiction over the activities at issue here. NASA's response states that "although NASA believes it has sufficient legal authority in the Space Act [42 U.S.C. § 2451 *et seq.*] and other NASA statutes to preempt OSHA jurisdiction in certain circumstances, NASA has not attempted to exercise such preemptive authority with regard to the specific activities involved in the referenced cases." We give that articulation considerable weight, and limit our review to whether NASA's representation is reasonably supported by the evidence. *Cf. Northwest Airlines, Inc.*, 8 BNA OSHC at 1988, 1980 CCH OSHD at p. 30,487 (agency's representation as to its statutory authority); *Alaska Trawl Fisheries, Inc.*, 15 BNA OSHC at 1703, 1991-93 CCH OSHD at p. 40,448-49 (same).

Having reviewed the documents entered into evidence by the parties and the NASA procedures they rely on, we conclude that nothing therein regulates the cited working conditions. Indeed, the evidence of record clearly supports NASA's stated position that it has not acted here to preempt OSHA. Chapter 3 of NASA's Basic Safety Manual, which is in evidence, addresses safety and health requirements for NASA contracts and contractor

operations. Paragraph 3.3.1 states explicitly that NASA contractors are not relieved of their responsibility to comply with all applicable federal or state OSHA requirements. Paragraph 3.3.2 also specifically provides that OSHA compliance officers will be allowed on NASA installations; and paragraph 3.3.3 provides that the employer is responsible for providing safe working conditions and resolving all OSHA citations. Exhibits entered into evidence show that NASA has many safety rules that are enforceable against the contractors under the terms of their contracts, but they do not establish that NASA has regulated the working conditions cited here in such a manner as to preempt OSHA's jurisdiction.<sup>3</sup>

The contractors have therefore failed to establish that NASA has acted to govern the cited working conditions in a manner that would preempt OSHA's jurisdiction.

### **III. Were the cited contractors the "employers" of the individuals exposed to the cited working conditions?**

The contractors emphasize that they are not required by contract to participate in the debris team and argue that, because NASA organized the debris team and NASA employees lead the team, the individuals on the team are controlled by NASA and that the contractors should not be considered the employers of their representatives to the debris team. We disagree. The contractors remained the employers of the individuals who represented them on the debris team.

The terms "employer" and "employee" are defined in section 3 of the Act, 29 U.S.C. § 652. Section 3(5) states: "The term 'employer' means a person engaged in a business

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<sup>3</sup>To exercise its statutory authority in a manner that preempts OSHA's jurisdiction, a federal agency must issue standards or regulations that have the force and effect of law. *Northwest Airlines, Inc.*, 8 BNA OSHC at 1988, 1980 CCH OSHD at p. 30,487. Normally, we are confronted with a federal regulatory agency and a cited employer that falls within its regulatory power. We need not reach here the question of whether NASA's rules had the force and effect of law, however, because it is clear that NASA had not regulated the conditions cited.

affecting commerce who has employees, but does not include the United States or any State or political subdivision of a State.” Section 3(6) provides: “The term ‘employee’ means an employee of an employer who is employed in a business of his employer, which affects commerce.” The Supreme Court has held that the term “employee” in a federal statute should be interpreted under common law principles, unless the particular statute specifically indicates otherwise. *Nationwide Mutual Insurance Co. v. Darden*, 503 U.S. 318 (1992). The Court noted that all aspects of the relationship are relevant, but that the central inquiry is:

In determining whether a hired party is an employee under the general common law of agency, we consider the hiring party’s right to control the manner and means by which the product is accomplished. Among the other factors relevant to this inquiry are the skill required; the source of the instrumentalities and tools; the location of the work; the duration of the relationship between the parties; whether the hiring party has the right to assign additional projects to the hired party; the extent of the hired party’s discretion over when and how long to work; the method of payment; the hired party’s role in hiring and paying assistants; whether the work is part of the regular business of the hiring party; whether the hiring party is in business; the provision of employee benefits; and the tax treatment of the hired party.

503 U. S. at 323-24 (quoting *Community for Creative Non-Violence v. Reid*, 490 U.S. 730, 751-752 (1989) (footnotes omitted)). The question of whether the entity cited was the employer of the individuals performing the cited activity has also been addressed by the Commission, which has considered a number of factors when making that determination, including:

- 1) Whom do the workers consider to be their employer?
- 2) Who pays their wages?
- 3) Who has the responsibility to control the activities of the workers?
- 4) Does the alleged employer have the power to control the workers?
- 5) Does the alleged employer have the power to hire, fire, or modify the employment conditions of the workers?
- 6) Does the workers’ ability to increase their income depend on efficiency rather than initiative, judgment, and foresight?
- 7) How are the workers’ wages established?



*Van Buren - Madawaska Corp.*, 13 BNA OSHC 2157, 2158, 1987-90 CCH OSHD ¶ 28,504, p. 37,780 (No. 87-214, 1989) (consolidated). Comparing the Commission's analysis and that of the Supreme Court, the Commission has noted that a number of the factors to be considered appear in both articulations and has found the two analyses to be consistent. *Loomis Cabinet Co.*, 15 BNA OSHC 1635, 1627-38, 1991-93 CCH OSHD ¶ 29,689, pp. 40,255-56 (No. 88-2012, 1992), *aff'd*, 20 F.3d 938 (9th Cir. 1994).

The most important question under both the Commission's test and that articulated by the Supreme Court is whether the alleged employer has the right to control the work involved. The contractors assert that NASA's control of activities on the MLP is so pervasive that they have no control of the employee they supply to the debris team. Although NASA exercises tight control over the sequence and timing of the post-launch activities, the NASA employee who was the head of the debris team on September 12 testified that he does not direct the specific activities out on the platform because the members of the team are all experts who know their jobs. He stated that the members of the debris team "know where to go" and "exactly what to do."

The record does establish that NASA controls who is permitted on the MLP and when. The record also establishes, however, that NASA does not require any of these employers to provide a participant in the debris team at all. The employers are free to decline the invitation to participate.

The contractor selects which of its employees will serve on the debris team and gives those individuals the necessary training, another consideration in determining responsibility under the Act. *Del-Mont Constr. Co.*, 9 BNA OSHC 1703, 1706, 1981 CCH OSHD ¶ 25,324, p. 31,390 (No. 76-4899, 1981). Each member of the debris team is a full-time employee of his regular employer. Some of them live and work in other parts of the country and fly to Florida specially to participate in the activities surrounding the launch of the space shuttle, so serving on the debris team constitutes only a small portion of their duties on behalf of their

employers. Significantly, while serving on the debris team, the employees continue to be paid by their regular employers, and there is no indication in the record that the contractors are reimbursed by NASA for this particular expense over and above their compensation under their contracts.

In sum, although NASA exercised a high level of control over all activities on the MLP, that fact does not alter the employment relationship between the contractors and the members of the debris team. NASA did not direct the specific activities of each member of the debris team. NASA's control was more in the nature of restrictions, limiting who could go onto the MLP, when they could go, and what they could take with them, than it was in supervising their actions while they were on the platform. NASA merely laid down a framework or requirements within which each contractor's designated representative was required to operate; and each member of the debris team was free, indeed expected, to perform his duties and use his expertise within those limitations.

In determining whether each contractor remained the employer of its representative to the debris team, we also give significance to the facts that each contractor paid the team members, retained the power to hire and fire the individuals from whom its debris team member is selected, and could freely substitute one of these individuals for another or

withdraw its member altogether.<sup>4</sup> Such facts, make it clear that the contractors remain the employers of their representatives to the debris team.<sup>5</sup>

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<sup>4</sup>We note in addition that NASA relies on the contractors to supply competent individuals for the debris team. When one party to a supplied-employee arrangement relies on the expertise of the other party's employees, the supplying employer remains responsible for the actions of the employees within the field of their expertise even though the second party may specify what work will be done and generally how it will be done. *Sam Hall & Sons, Inc.*, 8 BNA OSHC 2176, 2179, 1980 CCH OSHD ¶ 24,927, p. 30,744 (No. 76-4988, 1980) (lessor of equipment responsible for conduct of operator who accompanied equipment), citing *Frohlick Crane Service, Inc. v. OSHRC*, 521 F.2d 628, 631 (10th Cir. 1975). Here, each member of the debris team was performing a job requiring a high degree of expertise; and, although NASA gives the debris team a briefing before each launch, it relies on the contractors to provide experts who have been adequately trained.

<sup>5</sup>Commissioner Guttman notes that a claim that contract employees have been loaned to, or somehow became the employees of, a federal agency should also address the particulars of federal law governing employee status and the relationship between U.S. government independent contractor and federal employee status.

In a federal setting, there is a presumption against volunteers to federal service, which has been summarized by the Office of Legal Counsel of the Department of Justice:

As a general matter, federal agencies do not have the authority to accept voluntary services. In fact, Congress has expressly provided in the Anti-Deficiency Act [31 U.S.C. §§ 1341, 1350] that “[n]o officer or employee of the United States shall accept voluntary service for the United States . . . except in cases of emergency involving the safety of human life or the protection of property.”

<sup>6</sup>Op. Off. Legal Counsel 160, 161 (1982). Thus, in the federal setting, a claim that services have been volunteered to a government agency should be supported by reference to the legal authority under which the services may be accepted, and the official documentation in which acceptance is memorialized.

The contractors argue that employment or loan is evidenced by direct supervision of the team members by NASA. As the Commission explains in its discussion above, although NASA has general control over the MLP and its vicinity, it did not directly control the work of the  
(continued...)

#### IV. Citation No. 1, item 1, Unguarded Blast Holes.

Item 1 of the citations alleged that these four contractors violated the OSHA standard at 29 C.F.R. § 1910.22(c)<sup>6</sup> because their employees were exposed to the hazard of falling through the two solid rocket booster blast holes to the bottoms of the flame trenches 95 feet below. The citations alleged that these violations occurred not only during the launch observed by the compliance officers but also during the two preceding launches, which took place on June 25 and July 31, 1992. The administrative law judge affirmed the citations against three of the employers, Martin Marietta, Thiokol, and USBI; she vacated the citation

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<sup>5</sup>(...continued)

individual team members. In any case, while, as noted above, we generally draw on common law principles to determine the existence of “employee” status, these principles are subject to qualification by particular statutes. In the context of federal employment, and NASA employment in particular, official supervision of contractor employees has been said to be a strong indicator that an independent contracting arrangement constitutes the procurement of personal services proscribed by civil service personnel laws. *See Lodge 1858, AFGE v. Webb*, 580 F.2d 496 (D.C. Cir.), *cert. denied*, 439 U.S. 927 (1978). Thus, if NASA exercised such supervision, that might be evidence that a contract may have been entered into as an impermissible circumvention of the civil service law, rather than that a lawful volunteer or employment arrangement has been entered into. Therefore, a claim that contractor employees have been lawfully volunteered to NASA should address, on the one hand, law and policy regarding the volunteering of service to the federal government, and, on the other, the potential for conflict between the underlying independent contractor arrangement and civil service laws.

<sup>6</sup>Section 1910.22(c) provides:

##### **§ 1910.22 General requirements.**

This section applies to all permanent places of employment, except where domestic, mining, or agricultural work only is performed. Measures for the control of toxic materials are considered to be outside the scope of this section.

....

(c) *Covers and guardrails.* Covers and/or guardrails shall be provided to protect personnel from the hazards of open pits, tanks, vats, ditches, etc.

against Rockwell because she found that its employee was not exposed to the hazard.<sup>7</sup> The three employers who were found in violation sought review of the judge's decision, asserting several arguments as to why the judge erred.<sup>8</sup> They sought review of only some of the judge's findings, however, and the briefing notice in these cases specified only those issues specifically raised in the petition for review. Having considered their arguments, we affirm the judge.

The evidence shows that removable guardrails are present most of the time around the three blast holes cited here. These guardrails are removed before the space shuttle is mounted on the MLP in order to accommodate the shuttle's main engine and the two solid rocket boosters, and could not survive the heat and force of the launch. These railings are replaced following the launch, shortly after the debris team has completed its activities on the MLP. There are large pipes around the two solid rocket booster holes, that afford fall protection on three of the four sides of each hole. The side of each solid rocket booster blast hole closest to the main engine blast hole, however, does not have any pipes. Employees on that side of the two holes are therefore not protected from the 95-foot fall. The deck between the two solid rocket booster blast holes and the main engine blast hole is 7 feet 8 inches wide. The judge found a violation based on employee exposure at this point.

In order to prove 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 either knew of the violative conditions or could have known with the exercise of reasonable diligence.

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<sup>7</sup>The judge found that violations occurred on September 12 and during the two prior launches. We note that the existence of violations during the inspection is sufficient to sustain the citations without reaching the earlier launches.

<sup>8</sup>As used in this section, the terms "employers" and "contractors" refer to the three companies found by the judge to be in violation.

*Armstrong Steel Erec., Inc.*, 17 BNA OSHC 1385, 1386, 1995 CCH OSHD ¶ 30,909, p. 43,028 (No. 92-262, 1995); *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 in pertinent part*, 681 F.2d 69 (1st Cir. 1982).

#### A. Applicability of the standard.

The employers first argue that the cited standard does not apply because the blast holes and flame trenches are not “pits.” The question, however, is not whether the flame trenches are “pits,” but whether the flame trenches fall within the class of cavity governed by the standard, which applies to “open pits, tanks, vats, ditches, etc.” Given the wording of the standard, it is clear that it was intended to apply to a variety of holes in the ground as well as to open containers such as tanks and vats. We conclude that the solid rocket booster blast holes can be considered “pits” within the common understanding of that word. Furthermore, the flame trenches below the blast holes are akin to ditches, which are also specified in the standard. In light of the broad range of openings to which it applies, we conclude that the cavities here fall within the category governed by the standard, and that section 1910.22(c) applies.<sup>9</sup>

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<sup>9</sup>The employers also argue that they were cited under the wrong standard because the Secretary cited them for not having guardrails, but he really wants them to use safety belts and lanyards, which are required by another standard. This argument is based on a misapprehension of the situation. Guardrails and covers are the abatement methods required by the standard. The only reason safety belts and lanyards enter the case is because they constitute an alternate method of protection within the requirements of the affirmative defenses raised by the contractors.

When an employer seeks to avoid liability for its noncompliance with a standard on the ground that compliance is infeasible, it must show that it explored all possible alternative means of protecting its employees and that none of them was available. *State Sheet Metal Co.*, 16 BNA OSHC 1155, 1161, 1993-95 CCH OSHD ¶ 30,042, p. 41,227 (No. 90-1620, (continued...))

### B. Infeasibility Defense.

The employers argue that compliance with section 1910.22(c) was infeasible.

In order to establish the affirmative defense of infeasibility, an employer must prove that (1) the means of compliance prescribed by the applicable standard would have been infeasible under the circumstances in that (a) its implementation would have been technologically or economically infeasible, or (b) necessary work operations would have been technologically or economically infeasible after its implementation, and (2) either (a) an alternative method of protection was used, or (b) there was no feasible alternative means of protection.

*E.g., Armstrong Steel Erec., Inc.*, 17 BNA OSHC at 1387, 1995 CCH OSHD at p. 43,029; *Gregory & Cook, Inc.*, 17 BNA 1189, 1190, 1995 CCH OSHD ¶ 30,757, p. 42,734 (No. 92-1891, 1995); *Mosser Constr. Co.*, 15 BNA OSHC 1408, 1416, 1992 CCH OSHD ¶ 29,546, p. 39,907 (No. 89-1027, 1991). The contractors argue that it is not feasible to have guardrails around the blast holes when the debris team performs its duties because permanent guardrails cannot be erected, and because time is of the essence. In addition, the team's work would be impaired by the presence of workers on the platform erecting the railings who could disturb or damage the evidence sought by the debris team.

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<sup>9</sup>(...continued)

1993) (consolidated). It is in this context that the use of safety belts or safety harnesses and lanyards becomes relevant. The merits of the affirmative defense will be discussed below. The significant aspect of the defense here is that it recognizes that there will be times when literal compliance with a standard will not be possible and permits an employer to avoid liability for noncompliance provided the employer has done everything it can to protect its employees by alternative means of protection. Since the hazard contemplated by the standard here was falling, safety belts and lanyards are one of the alternative means of protection that the employers were required to use if possible. Had the employers not raised the affirmative defenses they have, we would not have occasion to address the use of alternate methods of protecting their employees. We therefore cannot accept their argument that the standard does not apply because the Secretary is seeking a form of abatement not required by the standard.

The contractors are correct that the evidence establishes that NASA restricts construction on the MLPs, because it does not want anything on them that could damage the shuttle. It therefore appears that the use of permanent guardrails and the installation of temporary guardrails after the launch but before the debris team performed its duties may be infeasible. However, an employer must utilize other available means of protecting its employees if they are feasible. One alternative means of protecting the employees on the debris team would have been to have them “tie off,” or use safety belts and lanyards. The evidence establishes that this means of protection would have been feasible and was, in fact, used during the inspection, although that was the first time it had been used by the debris team.<sup>10</sup>

The employers argue that the use of safety belts was not feasible at the time of the inspection, because NASA would not let them take the necessary safety belts out onto the MLP and would not allow lanyards long enough to permit the debris team members to do their jobs. The record supports the employers’ assertion that NASA restricts the individuals who have access to the MLP and the equipment that can be taken onto the platform. That fact is not dispositive, however, because NASA allowed the use of safety harnesses by two members of the debris team during the inspection on September 12. In October 1992, after the inspection, NASA granted a variance or “deviation” from its rule limiting safety lanyards to 6 feet in length. Indeed, since NASA agreed readily to permit safety harnesses with 11-foot lanyards after the fact that employees could not perform their jobs with the shorter lanyards was brought to its attention, there is no basis for assuming that it would have rejected the request if it had come sooner. There is no indication in this record that any effort was made to get permission to use alternative methods of fall protection before OSHA began

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<sup>10</sup>Although the USBI employee was wearing a safety belt and lanyard during the inspection, he was observed by both an OSHA compliance officer and the NASA debris team leader near the unguarded edge without having tied off his lanyard. The company has therefore not proved the element of the affirmative defense requiring that alternative protection be “used.”



its inspection. Accordingly, we find that the employers have not established that alternative means of fall protection were not available for use. Their infeasibility defense is therefore rejected.

### C. Multi-Employer Worksite Defense.

The contractors also raise the multi-employer worksite defense. To establish this defense, an employer must prove that:

- 1) it did not create the violative condition to which its employees were exposed;
- 2) it did not control the violative condition, so that it could not itself have performed the action necessary to abate the condition as required by the standard; and
- 3) it took all reasonable alternative measures to protect its employees from the violative condition.

*E.g., Capform, Inc.*, 16 BNA OSHC 2040, 2041, 1993-95 CCH OSHD ¶ 30,589, p. 42,356 (No. 91-1613, 1994).<sup>11</sup>

We need not discuss the first two elements of the defense, because the employers have failed to prove the last element. The third element of the multi-employer worksite defense is essentially the same as the second element of the infeasibility defense: that the employer did everything reasonable to protect its employees even though it could not achieve actual compliance with the requirements of the standard. Our discussion of the failure to use other available means of protection under that defense also applies here. Consequently, we find

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<sup>11</sup>This defense originally arose in the context of construction sites, where there are frequently a number of different employers working at the same time. *See Anning-Johnson Co.*, 4 BNA OSHC 1193, 1975-76 CCH OSHD ¶ 20,690 (No. 3694, 1976) (consolidated); *Grossman Steel & Aluminum Corp.*, 4 BNA OSHC 1185, 1975-76 CCH OSHD ¶ 20,691 (No. 12775, 1976). Subsequently, the Commission applied this defense to all multi-employer worksites. *Harvey Workover, Inc.*, 7 BNA OSHC 1687, 1689, 1979 CCH OSHD ¶ 23,830, pp. 28,908-09 (No. 76-1408, 1979).

that the defense has not been established by a preponderance of the evidence and must be rejected.

**D. Character of the violation and Penalty.**

The administrative law judge found that these violations were serious. A violation is serious under section 17(k) of the Act, 29 U.S.C. § 666(k), if it creates a substantial probability of death or serious physical harm. On review, the employers have not challenged the judge's finding that a fall of 95 feet could cause death or serious physical harm. We therefore do not disturb the judge's finding.

The judge assessed penalties of \$1,000 against Martin Marietta and Thiokol, and \$1,250 against USBI because its employee was nearer the unguarded edge. The employers have not contested the appropriateness of those penalties. Accordingly, we find that they are appropriate under section 17(j) of the Act, 29 U.S.C. § 666(j).

**V. Citation No. 1, item 3, Unguarded Ramp.**

Item 3 of the citations alleged that all four contractors violated the OSHA standard at 29 C.F.R. § 1910.23(c)(2)<sup>12</sup> by allowing their employees to cross the unguarded ramp to the MLP. After the launch, a fold-out ramp is lowered from the fixed service structure to the zero level of the MLP to provide access to the platform. It was 45 feet above the ground.

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<sup>12</sup>Section 1910.23(c)(2) provides:

**§ 1910.23 Guarding floor and wall openings and holes.**

....

(c) *Protection of open-sided floors, platforms, and runways.*

....

(2) Every runway shall be guarded by a standard railing (or the equivalent as specified in paragraph (e)(3) of this section) on all open sides 4 feet or more above floor or ground level. Wherever tools, machine parts, or materials are likely to be used on the runway, a toeboard shall also be provided on each exposed side. . . .

The ramp has permanent guardrails on each side, but they do not extend all the way to the end of the ramp. The fixed guardrails stop approximately 3 feet short of the edge of the mobile launch platform, leaving a gap on each side through which an employee easily could fall.

Because temporary railings had been clamped to the permanent railings to cover these openings at the time of the September 12 launch, it is clear that no violation occurred on that date. The evidence at the hearing established, however, that this was the first time these temporary railings had been used. The judge found that the partially-guarded ramp had been used by the debris team following the two prior launches, which had taken place on June 25 and July 31, and that violations had occurred with respect to each employer, as the Secretary had alleged. The only issues directed for review with respect to this item are whether the employers proved either the infeasibility defense or the multi-employer worksite defense. For the reasons below, we find that they did not.

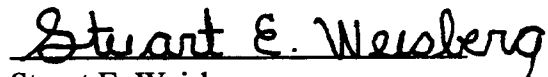
As with the previous item, to establish these two affirmative defenses the employers must show by a preponderance of the evidence that they took available alternative measures to protect their employees from the condition cited. They have failed to do so. Between the time the OSHA compliance officers pointed out the hazard on September 11 and the launch on September 12, additional guardrails were attached to the permanent guardrails, extending to cover the 3-foot openings. It is clear from this fact that compliance was not infeasible and could be accomplished quickly and easily. We therefore reject the infeasibility defense with regard to this item.


As for the multi-employer worksite defense, the record does not contain any evidence that any of these four employers had made any attempt to have the violation corrected by NASA or Lockheed, who were in a position to take the necessary measures. The contractors have therefore failed to prove that affirmative defense.


The judge found that these violations were serious and assessed penalties of \$1,000 against each of the four employers for the violations. On review, neither party contests the judge's characterization of the violations as serious or the penalties assessed. Accordingly, we find a penalty of \$1,000 for each contractor appropriate, based on the factors set out in section 17(j) of the Act.

**Conclusion.**

For the reasons above, we find that Rockwell committed a serious violation of 29 C.F.R. § 1910.23(c)(2) and assess a penalty of \$1,000. We find that Martin Marietta and Thiokol both committed serious violations of 29 C.F.R. §§ 1910.22(c) and 1910.23(c)(2) and assess penalties of \$1,000 for each violation. We also find that USBI committed serious violations of 29 C.F.R. §§ 1910.22(c) and 1910.23(c)(2) and assess penalties of \$1,250 and \$1,000, respectively.

  
Stuart E. Weisberg  
Chairman

  
Velma Montoya  
Commissioner

  
Daniel Guttman  
Commissioner

Dated: September 30, 1996



United States of America  
**OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION**  
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SECRETARY OF LABOR,	:	
	:	
Complainant,	:	
	:	
v.	:	OSHRC Docket Nos.
	:	
ROCKWELL INTERNATIONAL CORP.;	:	93-054
	:	
U.S.B.I. COMPANY;	:	93-228
	:	
MARTIN MARIETTA MANNED SPACE	:	93-233
SYSTEMS; and	:	
	:	
THIOKOL CORP.;	:	93-234
	:	
Respondents.	:	

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**NOTICE OF COMMISSION DECISION**

The attached decision by the Occupational Safety and Health Review Commission was issued on September 30, 1996. **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

Date: September 30, 1996

Docket Nos. 93-54, 93-228, 93-233 & 93-234

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