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Wednesday  
March 31, 1999

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**Part II**

**Department of Labor**

Occupation Safety and Health  
Administration

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29 CFR Parts 1910, 1915, et al.  
Employer Payment for Personal  
Protective Equipment; Proposed Rule

**DEPARTMENT OF LABOR****Occupational Safety and Health Administration****29 CFR Parts 1910, 1915, 1917, 1918, and 1926**

[Docket S-042]

[RIN No. 1218-AB77]

**Employer Payment For Personal Protective Equipment****AGENCY:** Occupational Safety and Health Administration (OSHA), U.S. Department of Labor.**ACTION:** Proposed rule; scheduling of informal public hearing.

**SUMMARY:** Many Occupational Safety and Health Administration (OSHA) health, safety, maritime, and construction standards require employers to provide their employees with protective equipment, including personal protective equipment (PPE), when such equipment is necessary to protect employees from job-related injuries, illnesses, and fatalities.

These requirements are codified in Part 1910 (General Industry standards), Part 1915 (Shipyard standards), Part 1926 (Construction standards), Part 1917 (Marine Terminal standards), and Part 1918 (Longshoring standards) of Title 29 of the Code of Federal Regulations. These requirements address PPE of many kinds: hard hats, gloves, goggles, safety shoes, safety glasses, welding helmets and goggles, facemasks, chemical protective equipment and clothing, fall protection equipment, and so forth. The provisions in OSHA standards that require PPE generally state that the employer is to provide such PPE; however, some of these provisions do not specify that the employer is to provide such PPE at no cost to the employee.

In this rulemaking, OSHA is proposing regulatory language to clarify that, with only a few exceptions for specific types of PPE, the employer must pay for the PPE provided. OSHA is proposing to except in certain circumstances three specific kinds of PPE from this requirement: safety-toe protective footwear, prescription safety eyewear, and the logging boots required by 29 CFR 1910.266(d)(1)(v).

OSHA believes that the proposed rule will better implement the intent of the Occupational Safety and Health Act, make clear who is to pay for what kind of PPE, and improve protection to employees who must wear PPE.

The proposed rule would not require employers to provide PPE where none

has been required before. Instead, the proposed rule merely stipulates that the employer must pay for all required PPE, except in the limited cases specified above. Since employers already pay for most of the required PPE, the proposed rule would shift to employers only the cost of that portion of PPE currently being paid for by their employees. Based on information from a number of surveys, studies, and a panel of PPE experts, OSHA believes that, even making worst case assumptions, this shift in costs from employees to employers will impose annualized costs of no more than \$61.9 million across all affected industries. To the extent that the proposed rule enhances the use of PPE, employers will obtain about a three-fold return on their investment in PPE, i.e., will save an estimated three dollars in injury and illness costs for every dollar they invest in PPE.

OSHA is also scheduling an informal public hearing to provide interested parties the opportunity to orally present information and data related to the proposed rule.

**DATES:** Comments. Written comments on the proposed standard must be postmarked by June 14, 1999. Comments that are transmitted electronically through OSHA's internet site must be transmitted by June 14, 1999. The hearing is scheduled to begin at 9:30 a.m. on June 22, 1999.

*Informal public hearing.* Notices of intention to appear at the informal public hearing must be postmarked by June 1, 1999. Hearing participants requesting more than 10 minutes for their presentations, and participants who will submit documentary evidence at the hearing, must submit the full text of their testimony and all documentary evidence to the Docket Office, postmarked no later than June 14, 1999.

**ADDRESSES:** *Comments.* Submit four copies of written comments, notices of intention to appear at the informal public hearing, testimony, and documentary evidence to the OSHA Docket Office, Docket S-042, Room N-2625, U.S. Department of Labor, 200 Constitution Ave., NW, Washington, DC 20210. (Telephone: (202)693-2350) Please identify the document at the top of the first page as either a comment, notice of intention to appear, testimony, or documentary evidence. Comments of 10 pages or less may be faxed to the Docket Office, if followed by hard copy postmarked within two days. The OSHA Docket Office fax number is (202)693-1648.

Comments may also be submitted electronically through OSHA's Internet site at URL, <http://www.osha-slc.gov/e->

[comments/e-comments-ppe.html](http://www.osha-slc.gov/e-comments/e-comments-ppe.html). Please be aware that information such as studies, journal articles, and so forth cannot be attached to the electronic response and must be submitted in quadruplicate to the above address. Such attachments must clearly identify the respondent's electronic submission by name, date, and subject, so that they can be attached to the correct response.

*Informal public hearing.* The hearing will be held in the auditorium of the U.S. Department of Labor (Frances Perkins Building), 200 Constitution Avenue N.W., Washington, D.C.

**FOR FURTHER INFORMATION CONTACT:** Ms. Bonnie Friedman, OSHA Office of Information and Consumer Affairs, Room N-3647, U.S. Department of Labor, 200 Constitution Avenue, NW, Washington, DC 20210. Telephone: (202) 693-1999.

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**II. Background**

Employees often need to wear protective equipment, including personal protective equipment (PPE), to be protected from injury, illness, and death caused by exposure to workplace hazards. Throughout this document OSHA uses the abbreviation PPE to cover all types of protective equipment, including personal protective equipment, because the abbreviation is widely used and understood to include all such equipment. The abbreviation PPE includes protective equipment that an employee uses or wears, such as fall arrest systems, safety shoes, and protective gloves. There are many

situations in which PPE is necessary to protect employees from hazards. For example, protective gloves can protect hands from lacerations, burns, absorption of toxic chemicals, and abrasion. Safety shoes protect an employee's feet from being crushed by falling objects. Respirators can protect employees from being over-exposed to toxic substances. There are many other examples.

Many OSHA standards require employers to provide PPE to their employees. Some indicate in general terms when PPE is to be worn, and what is to be worn (see, for example, § 1910.132). Other provisions are very specific, such as 29 CFR 1910.266(d)(1)(iv), which requires chain saw operators to wear protective leggings during specific operations, and 29 CFR 1910.1027(g), which requires respiratory protection for workers exposed to cadmium above a certain PEL, and explicitly states that the employer must pay for the respirator.

OSHA derived its PPE standards from many sources. In its first two years, OSHA, pursuant to section 6(a) of the OSH Act, adopted many Federal and national consensus standards dealing with PPE that had been written by many different standards development committees. OSHA itself has been issuing both health and safety standards requiring appropriate PPE for 28 years. Because of the many sources for these standards, the language requiring the use of PPE has varied.

The language used in OSHA's PPE standards has generally been clear that the employer must provide the PPE and ensure that employees wear it. However, the regulatory language regarding the employer's obligation to pay for the PPE has varied.

OSHA's health standards issued after 1977 have made it clear both in the regulatory text and in the preamble that the employer is responsible for providing necessary PPE at no cost to the employee. See, for example, OSHA's inorganic arsenic standard issued in 1978 at 29 CFR 1910.1018(h)(2) (i) and (j), and the recent respirator standard, issued January 8, 1998 (63 FR 1152).

The regulatory text and preamble discussion for some safety standards have also been absolutely clear that the employer must both provide and pay for PPE. See, for example, the logging standard at 29 CFR 1910.266(d)(1)(iii) and (iv). The logging standard does, however, make an exception for certain types of logging boots (see 29 CFR 1910.266(d)(1)(v)). In the case of foot protection, such as logging boots, paragraph (d)(1)(v) of that standard leaves the issue of who pays for some

kinds of logging boots open for negotiation and agreement between the employer and employee.

On the other hand, the regulatory text of some safety standards has been less clear. For example, 29 CFR 1910.132(a) is the general provision requiring employers to provide PPE when necessary to protect employees. This provision states that the PPE must be provided, used, and maintained in a sanitary and reliable condition. It does not specifically state that the employer must pay for it. In some cases, employers have interpreted this requirement to mean that they must pay for as well as provide the PPE, while in other cases, employers have understood this requirement to mean only that they must provide the PPE.

OSHA attempted to establish a policy and clarify the issue of payment for required PPE in a memorandum to its field staff dated October 18, 1994, "Employer Obligation to Pay for Personal Protective Equipment." OSHA stated that for all PPE standards the employer must both provide, and pay for, the required PPE, except in limited situations. The memorandum indicated that where PPE is very personal in nature and usable by the worker off the job, such as is often the case with steel-toe safety shoes (but not metatarsal foot protection), the issue of payment may be left to labor-management negotiations. This memorandum was intended to clarify the Agency's policy with regard to payment for required PPE.

Very recently, the Occupational Safety and Health Review Commission declined to accept as Agency policy the interpretation embodied in the 1994 memorandum as it applied to § 1910.132(a), OSHA's general PPE standard for general industry, in *Secretary of Labor v. Union Tank Car*, OSHRC Docket No. 96-0563. In that case, an employer was issued a citation for failing to pay for metatarsal foot protection and welding gloves. The Commission vacated the citation, finding that the Secretary had failed to adequately explain the policy outlined in the 1994 memorandum in light of several earlier letters of interpretation from OSHA that were inconsistent with that policy.

OSHA believes that it is important that the employer both provide and pay for PPE and ensure that employees wear it when necessary. OSHA believes that this view reflects the direction of the OSH Act and is consistent with the legislative history. Employers must maintain a safe place of work in all its aspects, and may not receive a competitive advantage by failing to pay for necessary safety equipment,

including personal protective equipment. OSHA has considered the requirement for employer payment in many specific rulemakings and has concluded, based on the record in each case, that this requirement will increase employee protection.

The present proposal will also lead to greater consistency among OSHA standards. Accordingly, OSHA is proposing to require that the employer pay for all PPE required by OSHA standards, except for safety-toe protective footwear and prescription safety eyewear that meet all three of the following conditions: (1) the employer permits such footwear or eyewear to be worn off the job-site; (2) the footwear or eyewear is not used at work in a manner that renders it unsafe for use off the job-site; and (3) such footwear or eyewear is not designed for special use on the job. Employers are not required to pay for the logging boots specified in 29 CFR 1910.266(d)(1)(v), as discussed above.

OSHA believes that the proposed requirement will better protect employees from work-related illness, injury, and death. Employers are in a better position to identify and select the correct equipment and to maintain it properly. They have the financial resources to purchase PPE of necessary quality and to pay for replacements as necessary. The statutory reasons for requiring the employer to pay for PPE are discussed at greater length in the Legal Considerations section of this preamble, and the health and safety reasons are discussed below, in the Summary and Explanation section of this preamble.

OSHA preliminarily concludes, for the reasons stated, that the Agency's standards should clearly require the employer to provide and pay for PPE. Accordingly, OSHA is proposing such a requirement. Rulemaking under section 6(b) of the Act will provide for full public input on all issues. The standard will, once promulgated, provide clear direction to employers and employees.

OSHA is proposing this requirement for general industry, construction, shipyards, longshoring, and marine terminals. OSHA has consulted the Advisory Committee for Construction Safety and Health on this proposal, as required by the Construction Safety Act.

OSHA requests comments on all relevant issues, including the specific issues listed in the Issues section of this preamble.

### III. Legal Considerations

#### A. General Authority Under the OSH Act

The Occupational Safety and Health Act and the statute's legislative history demonstrate that employers are expected to pay the costs of complying with OSHA's safety and health standards. At section 2(a) of the OSH Act, Congress announced its determination that occupational injury and illness should be eliminated as much as possible: "The Congress finds that occupational injury and illness arising out of work situations impose a substantial burden upon, and are a hindrance to, interstate commerce in terms of lost production, wage loss, medical expenses, and disability compensation payments." 29 U.S.C. 651(a). Congress therefore declared "it to be its purpose and policy . . . to assure so far as possible every working man and woman in the Nation safe and healthful working conditions." 29 U.S.C. 651(b).

To achieve this end, the Act directs that "employers shall comply with occupational safety and health standards . . . issued pursuant to this Act," 29 U.S.C. 654(a) (2), and limits OSHA's enforcement authority to employers. 29 U.S.C. 658, 659(a). See *United Steelworkers of America v. Marshall*, 647 F.2d 1189, 1230-1231 (D.C. Cir. 1980). This statutory scheme allocates to employers sole legal responsibility for achieving compliance with safety and health standards. *Atlantic & Gulf Stevedores v. OSHRC*, 534 F.2d 541, 533 (3d Cir. 1976). Because employers are charged with the responsibility for achieving safe and healthful workplaces, they must bear the concomitant financial obligation. *Id.* The Act's terms, including the definition in section 3(8) of an occupational safety and health standard as one which "requires . . . the adoption or use of one or more practices, means, methods, operations, or processes, reasonably necessary or appropriate to provide safe or healthful places of employment," 29 U.S.C. 652(8), give OSHA broad discretion to devise means to achieve safe and healthful workplaces and to charge employers for the costs of reasonably necessary requirements. *United Steelworkers*, 647 F.2d at 1230-1231.

The employer's general financial responsibility is further evidenced in the Act's legislative history in the Cotton Dust decision (*American Textile Mfrs. Inst., Inc. v. Donovan*, 452 U.S. 490, 519-521 (1980)), the Supreme Court interpreted the legislative history as showing that Congress was aware of the

Act's potential to impose substantial costs on employers but believed such costs to be appropriate when necessary to create a safe and healthful working environment. Congress thus viewed the costs of health and safety as a cost of doing business. Senator Yarborough, a co-sponsor of the [Act], stated:

We know the costs would be put into consumer goods but that is the price we should pay for the 80 million workers in America . . .

Senator Eagleton commented that:

[the costs that will be incurred by employers in meeting the standards of health and safety to be established under this bill are, in my view, reasonable and necessary costs of doing business.

Other Members of Congress voiced similar views (*American Textile Mfrs. Inst., Inc. v. Donovan*, 452 U.S. 490, 519-521 (1980) (*ATMI*) (internal citations omitted, original emphasis)). See also *Forging Indus. Ass'n v. Secretary of Labor*, 773 F.2d 1436, 1451 (4th Cir. 1985) (en banc) (which stated that, in view of the Supreme Court's "clear statement" in *ATMI* about Congress' intent that employers bear the costs of safety and health, OSHA may logically require employers to pay for hearing protectors under the hearing conservation standard); S. Rep. No. 91-1282, 91st Cong. 2d Sess. 4 (1970), reprinted in, Senate Comm. On Labor and Public Welfare, 92nd Cong. 1st Sess., *Legislative History of the Occupational Safety and Health Act of 1970 (Legislative History)* 324, 510-511, 854, 1150, 1188, 1201.

Congress was also concerned that the costs imposed by OSHA rules be borne fairly by employers within and across all affected industries and believed that uniform enforcement was crucial to reduce or eliminate the disadvantage that a conscientious employer might experience where inter-industry or intra-industry competition is present. *Legislative History* at 854; *ATMI*, 452 U.S. at 521. It also recognized that many small firms might not be able to make the necessary investment in safety and health unless all firms were required to do so. *Legislative History* at 144. For these reasons, Congress did not intend to allow individual employers to decide who should pay the costs of complying with OSHA standards. See *United Steelworkers*, 647 F.2d at 1236; *Forging Indus. Ass'n*, 773 F.2d at 1451-1452.

#### B. Other Statutory Considerations

In *Industrial Union Department, AFL-CIO v. American Petroleum Institute*, 448 U.S. 607 (1980) (*Benzene*), the Supreme Court ruled that, before OSHA can issue a new standard, the Agency

must find that the hazard being regulated poses a significant risk to workers and that a new, more protective, standard is "reasonably necessary and appropriate" to reduce that risk. The requirement to find a significant risk does not mean, however, that OSHA must "wait for deaths to occur before taking any action," *id.* at 655, or "support its findings with anything approaching scientific certainty." *Id.* at 656. "[T]he requirement that a 'significant' risk be identified is not a mathematical straightjacket." *Id.* at 655.

The Act allows OSHA substantial latitude to devise means to reduce or eliminate significant workplace hazards. Clearly, OSHA need not make individual quantitative or qualitative risk findings for every regulatory requirement in a standard. Once OSHA has determined that a significant risk of material impairment of health or well being is present, and will be redressed by a standard, the Agency is free to develop specific requirements that are reasonably related to the Act's and standard's remedial purpose. OSHA standards are often designed to reduce risk through an integrated system of safety practices, engineering controls, employee training, and other ancillary requirements. Courts have upheld individual requirements based on evidence that they increase the standard's effectiveness in reducing the risk posed by significant workplace hazards. See *Forging Indus. Ass'n*, 773 F.2d at 1447-1452 (finding ancillary provisions of hearing conservation standard, including requirements for audiometric testing, monitoring, and employer payment for hearing protectors, reasonably related to the standard's purpose of achieving a safe work environment); *United Steelworkers*, 647 F.2d at 1237-1238 (finding lead standard's medical removal protection (MRP) provisions reasonable).

Similarly, the courts have held that the Agency must consider other ancillary provisions that could provide additional protection if the standard's exposure limits will not eliminate significant risk. *Building and Constr. Trades Dept. AFL-CIO v. Brock*, 838 F.2d 1258, 1271 (D.C. Cir. 1988). (Remand to consider including in asbestos standard additional provisions to reduce smoking-related asbestos risks); *National Grain & Feed Ass'n v. OSHA*, 866 F.2d 717, 734-735 (5th Cir. 1989) (directing OSHA to consider extending the action level for clean-up measures from certain priority areas to the entire facility where such an

extension might further reduce the risk of fire and explosions).

OSHA standards must also be technologically and economically feasible, and cost effective. A standard is technologically feasible if the protective measures it requires already exist, can be brought into existence with available technology, or can be created with technology that can reasonably be expected to be developed. *ATMI*, 452 U.S. at 513. A standard is economically feasible if industry can absorb or pass on the cost of compliance without threatening its long term profitability or competitive structure. *ATMI*, 452 U.S. at 530 n.55.

A standard is cost effective if the protective measures it requires are the least costly of the available alternatives that achieve the same level of protection. *ATMI*, 452 U.S. at 514 n.32; *International Union, UAW v. OSHA*, 37 F.3d 665, 668 (D.C. Cir. 1994). Finally, if OSHA promulgates a rule that differs substantially from an existing national consensus standard, the Agency must publish in the **Federal Register** a statement of reasons why the rule adopted will better effectuate the purposes of the Act than the national consensus standard. 29 U.S.C. 655(b)(8).

### *C. Historical Overview: OSHA's Determinations in Prior Rulemakings That Employers Should Pay for Necessary Personal Protective Equipment*

Since 1978, OSHA has promulgated many occupational health and safety standards explicitly requiring employers to furnish personal protective equipment "at no cost to employees."<sup>1</sup>

In these rulemakings, OSHA has stated that language explicitly requiring that PPE be furnished without cost to employees is necessary to effectuate the purposes of the Act and to "clarify" OSHA's position which has long been implicit in health standards

proceedings." See, e.g., 42 FR 27387 (June 23, 1978) (cotton dust preamble); 43 FR 11523 (March 17, 1978) (dibromo-3-chloropropane preamble); 52 FR 46266 (Dec. 4, 1987) (formaldehyde preamble). OSHA has also concluded in its rulemaking on the Cancer Policy that personal protective equipment should be treated no differently from engineering controls for the purposes of cost-allocation (45 FR 5261, Jan. 22, 1980):

The requirement that employers pay for protective equipment is a logical corollary of the accepted proposition that the employer must pay for engineering and work practice controls. There is no rational basis for distinguishing the use of personal protective equipment [from other controls]. The goal in each case is employee protection; consequently the responsibility of paying for the protection should, in each case, rest on the employer.

OSHA has further determined that requiring employers to pay for personal protective equipment contributes to increased health and safety protection in several ways. The employer is most knowledgeable about hazards existing in the workplace and is therefore best able to select and maintain appropriate protective equipment. Requiring employers to purchase personal protective equipment ensures that they retain control over the selection, issuance, maintenance, and use of the devices. See 43 FR 19619 (May 5, 1978) (inorganic arsenic preamble); 46 FR 4153 (hearing conservation preamble). Shifting the financial burden to employees, on the other hand, "risks losing the necessary control over the organized and consistent selection, issuance, maintenance and use of such equipment." 46 FR 4153 (hearing conservation preamble).

OSHA has also concluded that charging employers with the cost of personal protective equipment, as well as other requirements imposed by standards, is necessary to ensure the employee's voluntary cooperation in the employer's safety program. In requiring employers to pay for hearing protectors as part of the hearing conservation standard, OSHA relied upon the testimony of the director of the Safety and Health Department of the International Brotherhood of Teamsters:

[an] employer's attempt to require its employees to purchase their own personal ear protective devices would cause resentment among the workers and clearly demonstrate to them the lack of commitment on the part of their employer in preventing hearing loss. Such a requirement *would discourage the use of ear protective devices and would create an adversarial atmosphere in regard to the hearing conservation program*. 46 FR 4153 (*emphasis added*).

OSHA has found that the need to ensure voluntary cooperation by employees was also an important reason to require employers to pay for other protections in standards, including medical examinations and medical removal protection (MRP). In promulgating the lead standard, OSHA relied upon extensive evidence that employees' fears of adverse economic consequences from participation in a medical surveillance program could seriously undermine efforts to improve employee health. 43 FR 54442-54449 (Nov. 21, 1978). OSHA cited data from numerous sources to show that employees' concerns about the possible loss of income would make them reluctant to participate meaningfully in any program that could lead to job transfer or removal. *Id.* OSHA promulgated the lead standard's M.R.P. provision "specifically to minimize the adverse impact of this factor on the level and quality of worker participation in the medical surveillance program." *Id.* at 54449.

Courts have upheld OSHA's statutory authority to charge employers with the costs of complying with standards and have affirmed the Agency's findings of benefits accruing from this requirement. In reviewing the lead standard, the D.C. Circuit found that "[the] scheme of the statute, manifested in both the express language and the legislative history . . . appears to permit OSHA to charge employers the cost of any new means it devises to protect workers." *United Steelworkers*, 647 F.2d at 1231. The court found reasonable OSHA's determination that wage retention and other M.R.P. benefits were necessary in view of employee resistance to programs that could result even in limited loss of earnings. *Id.* at 1237. Moreover, the court found that OSHA could legitimately consider benefits that were more indirect. It upheld the standard's requirement that employers pay for medical opinions from physicians who are selected by employees, in part because employees will be more likely to cooperate in, and improve the accuracy of, medical examinations performed by physicians they trust. *Id.* at 1239. See also *Forging Indus. Ass'n*, 773 F.2d at 1451-1452 (upholding the requirement in the hearing conservation standard that employers pay for hearing protectors).

Some have suggested that employee payment for PPE helps encourage employees to maintain their PPE properly. OSHA notes that employees, because their own safety is at stake, already have significant incentives to assure that PPE is maintained in a manner that assures that the PPE will

<sup>1</sup> See 29 CFR 1910.95(i)(1), (i)(3) (hearing conservation); 29 CFR 1910.1001(g)(1), (g)(2)(i), (h)(1) (asbestos); 29 CFR 1910.1018(h)(1), (h)(2)(i), (j)(1) (inorganic arsenic); 29 CFR 1910.1025(f)(1), (g)(1) (lead); 29 CFR 1910.1027(g)(1), (i)(1) (cadmium); 29 CFR 1910.1028(g)(1), (g)(2)(i), (h) (benzene); 29 CFR 1910.1030(d)(3)(i), (d)(3)(ii) (bloodborne pathogens); 29 CFR 1910.1043(f)(1), (f)(3) (cotton dust); 29 CFR 1910.1044(h)(1), (h)(2), (h)(3)(i), (j)(1) (1,2-dibromo-3-chloropropane); 29 CFR 1910.1045(h)(2)(i), (j)(1) (acrylonitrile); 29 CFR 1910.1047(g)(2)(i), (g)(4) (ethylene oxide); 29 CFR 1910.1048(g)(1), (h) (formaldehyde); 29 CFR 1910.1050(h)(2)(i), (i)(1) (4,4, methylenedianiline); 29 CFR 1910.1051(h)(1), (i) (1,3-butadiene); 29 CFR 1910.1052 (g)(1), (h)(1) (methylene chloride); 29 CFR 1910.146(d)(4)(iv) (confined spaces); 29 CFR 1910.156(e)(1)(i) (fire brigades); 29 CFR 1910.266(d)(1)(iii), (d)(1)(iv), (d)(1)(vi), (d)(1)(vii) (logging). See also OSHA's recently revised respiratory protection standard, promulgated January 8, 1998, 63 FR 1271.

function safely. Requiring employee payment for PPE could encourage employees to consider a trade-off between assuring the safety of the PPE and assuring its longevity, even though the PPE may be worn or damaged to the point that it no longer functions properly. Employee payment could also lead to perverse incentives for employers. Given a choice between engineering controls that the employer must pay for, and PPE that would be paid for by employees, employers would have a strong incentive to use PPE even though engineering controls would be more protective and might even be cheaper. OSHA views the theoretical loss of some employee incentive to maintain equipment as minor compared to the importance of assuring employers provide a safe and healthy workplace.

#### *D. The Proposed PPE Revisions Comply With Statutory Criteria*

OSHA believes that the proposed PPE revisions readily comply with the statutory criteria outlined above. In the Agency's view, the proposed language that, with certain exceptions, employers must provide personal protective equipment under existing standards "at no cost to employees," does no more than clarify a requirement legally implicit under the Act. Congress itself intended to impose the costs of safety and health on employers and charged employers with sole responsibility for compliance with standards. *ATMI*, 452 U.S. at 520-5211; *United Steelworkers*, 647 F.2d at 1231. The requirement that employers pay for the means necessary to achieve compliance is implicit in the statute itself, and therefore, is properly an implied term of every occupational safety or health standard.

Based on the OSH Act's implicit cost-allocation scheme, OSHA has interpreted standards requiring employers to "provide" personal protective equipment to mean that this equipment must be furnished to employees at no charge. For example, OSHA has interpreted the coke oven emissions standard, 29 CFR 1910.1029(h)(1), which states that "the employer shall provide and assure the use of appropriate protective clothing and equipment," to require that personal protective equipment be furnished at no charge to coke oven workers. The Occupational Safety and Health Review Commission held that interpreting "provide" to mean "pay for" was consistent with the statutory intent and with the Agency's prior published interpretation. *Secretary of Labor v. Erie Coke Corp.*, 15 O.S.H. Cas.

(BNA) 1561, 1563-1565 (Review Comm. 1992).

OSHA has also interpreted its general personal protective equipment standards to require that equipment be furnished at no cost to employees. In 1994, OSHA issued a compliance memorandum entitled "Employer Obligation to Pay for Personal Protective Equipment." In this compliance memorandum, OSHA interpreted 29 CFR 1910.132, 29 CFR 1926.95, and other PPE standards to require employers to provide PPE at no cost to employees, except where the equipment is personal in nature and usable off the job.

OSHA recognizes that the Occupational Safety and Health Review Commission has subsequently rejected OSHA's policy interpretation of 29 CFR 1910.132 as requiring employer payment for PPE. See *Union Tank Car Co.*, OSHRC No. 96-0563 (assuming the 1994 memorandum represented a change in position, and finding that OSHA had not presented an adequate justification for the change).

Section IX of this preamble, *OSHA's Supplementary Statement of Reasons for its Interpretation of 29 CFR 1910.132(a)*, contains a detailed explanation of OSHA's interpretation of section 1910.132(a), which addresses in detail the Commission's concerns and demonstrates that the Agency's reading of its general personal protective equipment standard is consistent with the statutory scheme and is reasonable.

In OSHA's view, the proposed rule simply clarifies the employer's pre-existing obligations under the personal protective equipment standards. See *Edison Elec. Inst. v. OSHA*, 849 F.2d 611, 620 (D.C. Cir. 1988); *OSHA's Supplementary Statement of Reasons*. Assuming, however, that the language in existing § 1910.132 does not clearly convey a requirement for employer payment, the proposed rule is necessary and appropriate to conform the standard to the requirements of the statute and to the position the Agency has consistently adopted in rulemaking proceedings for more than twenty years.

The Agency believes, moreover, that implementation of the proposed revisions will contribute in a significant way to a safer work environment. The existing PPE standards reflect a determination that the use of PPE is necessary to reduce a significant risk of injury.<sup>2</sup> OSHA considers the proposed

revisions to be ancillary requirements of the existing PPE standards. They are reasonably related to the existing standards' purpose of preventing injury by requiring the provision and use of appropriate personal protective equipment.

Moreover, OSHA believes that the principle expressed in *National Grain and Feed*, discussed above, provides analogous support for this proposed rule. In amending 29 CFR 1910.132 in 1994 to include new requirements for, among other things, hazard assessments and employee training, the Agency examined PPE use in general industry. OSHA found that, although the standard had been in effect since 1971, the data demonstrated that a significant risk of injury attributable to the non-use or misuse of PPE remained. See 59 FR 16335 (April 6, 1994). OSHA determined that compliance with the final rule would result in more widespread acceptance and use of appropriate PPE, and would, therefore, significantly reduce the risk of injury. However, OSHA did not find that compliance with the rule would eliminate the significant risk due to the non-use or misuse of PPE. As discussed below, there is evidence that requiring employers to pay for PPE will result in a further substantial reduction in the risk of non-use or misuse of PPE by centralizing the control over PPE programs, and by eliminating economic disincentives to the voluntary use of PPE. Cf. *National Grain and Feed*, 866 F.2d at 735.

As OSHA found in promulgating the hearing conservation standard, requiring employers to pay for personal protective equipment ensures that employers retain control over the selection, issuance, maintenance, and use of such equipment. OSHA believes that ensuring centralized control over these critical functions promotes a more organized and consistent approach to personal protective equipment requirements. See 46 FR 4153 (Jan 16, 1981). See also 43 FR 19619 (Inorganic Arsenic) (May 5, 1978).

OSHA also believes that employees are more likely to cooperate in achieving full compliance with existing standards if protective equipment is provided at no charge. The evidence adduced during the rulemaking for the lead standard demonstrated that many employees would be reluctant to participate fully in a program that could result in a loss of income. OSHA

<sup>2</sup> For existing standards adopted as national consensus or established Federal standards pursuant to section 6(a) of the Act, the determination of significant risk is implied in Congress's direction that such standards should be promulgated as "occupational safety or health

standard[s]." 29 U.S.C. 655(a). The Court in *Benzene* interpreted the definition of "occupational safety and health standard" in section 3(8) of the Act to mean a standard that addresses a significant risk of harm. 448 U.S. at 639-642.

believes that this problem is not limited to MRP provisions. In *Secretary of Labor v. Phelps Dodge Corp.*, 11 O.S.H. Cas. (BNA) 1441, 1443 (Rev. Comm. 1983), the Review Commission held that the employer did not provide medical examinations under the Inorganic Arsenic standard "without cost to the employee" when it allowed employees to take examinations only during their free time and did not reimburse them for travel expenses or the time consumed in taking the examinations. The Commission noted the ALJ's finding that when employees were required to provide their own transportation to and from the hospital and to sacrifice their personal time to take examinations, 42% of them failed to participate.

Such evidence, showing that employees often make decisions that risk their health and safety to avoid suffering economic loss, is relevant to the proposed revision. It is certainly reasonable to believe that employees who are furnished personal protective equipment at no charge are more strongly motivated to wear it, and to replace it promptly when worn or damaged, than are employees who must purchase such equipment. Indeed, OSHA is aware of evidence presented in enforcement litigation that employees have continued to use worn-out or defective items of personal protective equipment because of the cost of replacing this equipment. In the *Union Tank* case, the employee representative presented an affidavit that some employees taped or wrapped wire around their damaged metatarsal safety boots in order to avoid having to pay up to \$130 per pair to replace them. Similarly, in *Ormet Primary Aluminum Corp.*, OSHRC Docket No. 96-0470, an employee testified that he continued to wear safety boots, even though the protective steel toes were exposed and posed an electrocution hazard, because he could not afford a new pair. The employee also testified that some workers put a cement-like substance over the steel toes of their boots when the leather covering wore away, but that this practice was hazardous because the substance was flammable.

Based on the available evidence, OSHA preliminarily concludes that the proposed revisions will significantly enhance compliance with existing standards. OSHA estimates that the proposed rule will prevent over 47,000 injuries that occur annually as a result of the non-use or misuse of personal protective equipment, including seven fatal injuries. See Section VI., *Preliminary Economic Analysis*.

OSHA has also preliminarily concluded that excepting safety-toe footwear and prescription safety eyewear from the payment requirement is appropriate and does not conflict with the legislative intent. OSHA has long taken the position that employers should not be required to pay for safety-toe footwear because it is personal in nature and frequently worn off the job. See *The Budd Co.*, 1 O.S.H. Cas. (BNA) 1548 (Rev. Comm. 1974). OSHA believes that prescription safety eyewear shares these characteristics. Because of the special nature of safety-toe footwear and prescription safety eyewear, the statutory and policy reasons for requiring employers to pay for other types of PPE do not carry the same weight for these types of PPE<sup>3</sup>. OSHA believes that there is little statutory justification for requiring employers to pay for such personal equipment if it is used away from the workplace and if all three of the proposed conditions are met: (1) The employer permits the footwear or eyewear to be worn off the job-site; (2) the footwear or eyewear is not used at work in a manner that renders it unsafe for use off the job-site; and (3) such footwear is not designed for special use on the job.

The Commission and one court of appeals have agreed with the Secretary's interpretation that 29 CFR 1910.132(a) does not require employees to pay for safety shoes. *The Budd Co.* O.S.H. Cas. (BNA) 1548 (Rev. Comm. 1974); 513 F.2d 201, 205 (3d Cir. 1975). See also *United Steelworkers*, 647 F.2d at 1231 n.66 (noting special character of safety-toe protective footwear which the employee would wear off-the-job as well as on-the-job). Moreover, OSHA's logging standard (see 29 CFR 1910.266 (d)(1)(v)) provides analogous support for the proposed exceptions for safety shoes and prescription safety eyewear. OSHA excepted logging boots from among the types of equipment that employers must provide at no cost under the logging standard, based in part on evidence that logging boots are personal in nature and used away from work. See 59 FR 51684 (Oct. 12, 1994). See also section IX., *OSHA's Supplementary Statement of*

<sup>3</sup> In her brief to the Commission in *Budd* filed in 1973, the Secretary stated her interpretation that 29 CFR 1910.132(a) does not require employers to pay for safety shoes. The Secretary noted that "safety shoes are purchased by size, are available in a variety of styles, and are frequently worn off the job, both for formal and casual wear. Furthermore, it is neither feasible for a different employee to wear the shoes each day nor feasible that upon resigning from the position an employee will leave the shoes behind to be worn by another individual." See Section IX., *OSHA's Supplementary Statement of Reasons For Its Interpretation of 29 CFR 1910.132(a)*.

*Reasons for its Interpretation of 29 CFR 1910.132(a)*. The three conditions OSHA is proposing to apply to the exception for safety-toe footwear and prescription safety eyewear all relate to off-site use. For example, if the employer prohibits off-site use of the footwear or eyewear, employees would clearly not be able to wear it off the job, and the exception would not apply. Similarly, if the footwear or eyewear is used at work in a way that makes it unsafe for use off the job, e.g., safety-toe footwear is worn in a lead chromate pigment plant, it would be unsafe for the employee to wear it at home, and the exception would not apply. Finally, if the footwear or eyewear is designed for special use on the job, e.g., the eyewear is built into a welding mask, or the footwear has built-in metatarsal guards as well as safety-toes, it could not be worn off-site, and the exception would not apply.

If one or more of these conditions is not met for safety-toe footwear or prescription eyewear, the exception for these types of PPE does not apply, and the employer would be required to pay for the PPE.

For these reasons, OSHA has preliminarily concluded that employers should not be required to pay for safety-toe protective footwear and prescription safety eyewear, provided that all three of the excepted conditions are met. However, as discussed in other sections of this document, OSHA seeks comment on whether these exceptions, and the conditions restricting their applicability, are appropriate and whether other types of personal protective equipment should be excepted or other limiting conditions should be considered.

OSHA believes that compliance with the proposed standard is technologically feasible because the PPE affected by this rulemaking has already been shown to be technologically feasible in numerous other rulemakings, e.g., OSHA's 1994 PPE rulemaking and the individual rulemakings requiring particular types of PPE (e.g., fall protection in construction, and various shipyard employment standards). The affected PPE, as shown by the record evidence in these rulemakings, is widely manufactured, distributed, and used in workplaces in all industries. OSHA believes that the proposed standard is also economically feasible because the PPE of concern has been shown to be economically feasible in the earlier rulemakings referred to above and, additionally, for this proposed rule, as detailed in Section VI., *Preliminary Economic Analysis*. The proposed rule merely shifts some costs previously borne by employees to their employers.

Indeed, in its economic analyses of other rules requiring PPE, OSHA has always assumed that PPE would be paid for by the employer. The *Preliminary Economic Analysis* also indicates that to the extent that, the proposal enhances PPE use, employers will save money because their employees will avoid the injuries and illnesses that would otherwise continue to occur from the improper use of PPE. Finally, this preamble explains why the proposed regulatory text will enhance safety protection for workers and will better effectuate Congress' intent that employers pay for the costs of compliance with OSHA standards. 29 U.S.C. 655(b)(8). Accordingly, the proposed standard complies with all applicable statutory criteria.

#### IV. Summary and Explanation of the Proposed Rule

##### A. Introduction

OSHA is proposing to revise its standards requiring employers to provide PPE to clarify that the employer must pay for the PPE, except for safety-toe footwear and prescription safety eyewear that meets all three conditions—the employer permits off-site use, the footwear or eyewear is safe for off-site use, and the footwear or eyewear is not designed specially for on-site use. The logging boots required by 29 CFR 1910.266(d)(1)(v) are also excepted from the employer payment requirement. This proposal applies to standards in the following industry sectors: general industry, construction, and maritime (including shipyards, marine terminals, and longshoring operations). It does not apply to agriculture.

The Agency believes that requiring employers to pay for PPE is central to the effective implementation of the Act. As noted earlier in this preamble, OSHA is using the abbreviation PPE to cover all protective equipment, including personal protective equipment, that is provided to employees to protect them from workplace hazard. However, some inconsistent statements and interpretations by OSHA over the years regarding the Agency's PPE payment policy, and the recent *Union Tank* decision by the Review Commission, have now made it difficult for the Agency to uniformly enforce this policy.

Therefore, OSHA is proposing to resolve this issue by clearly identifying, through regulation, who is required to pay for PPE. OSHA intends this rulemaking to lead to the consistent application of the Agency's protective equipment requirements throughout the regulated community and by Agency

compliance personnel. The rulemaking process will also give interested parties an opportunity to participate in the Agency's decisions through written comments and informal public hearings.

The following discussion presents the Agency's reasons and preliminary conclusions regarding the proposed revisions to its PPE standards, and explains the proposed requirements.

##### B. Reasons Why the Agency Believes That Employers Must Pay for PPE

1. *The OSHA Act.* The Occupational Safety and Health Act of 1970 requires employers to provide a safe and healthful workplace for their employees. This mandate includes the financial obligation of employers to provide controls to address hazards that could cause injury or physical harm to their employees. (See the Legal Considerations section of this preamble for a more detailed discussion of the employer's obligation to pay for workplace protections.)

2. *PPE is also a hazard control measure.* Most standards require employers to implement engineering controls, such as ventilation or barriers, and administrative controls, such as regulated areas or danger zones, because these are typically thought to be the primary ways to reduce hazardous exposures to employees. There has never been any doubt that employers pay for these controls.

PPE is another type of control measure that is often necessary to reduce exposures to health and safety hazards. In many cases, PPE use supplements engineering, work practice, and administrative controls where such controls do not provide adequate protection. In some circumstances, such as in some maintenance work, PPE is used as the sole or primary means to protect employees. Consequently, it is appropriate for OSHA standards to require employers both to implement and to pay for PPE as a hazard control measure, just as they must do for engineering and administrative controls.

OSHA standards require many different types of PPE to protect employees from the variety of hazards in the workplace. Table I indicates the kinds of PPE required by OSHA standards.

TABLE I.—LIST OF PERSONAL PROTECTIVE EQUIPMENT

Personal fall arrest system

- Safety belts.
- Body belts.
- Lifelines.
- Lanyards.
- Harnesses.

TABLE I.—LIST OF PERSONAL PROTECTIVE EQUIPMENT—Continued

- Pole climbing systems.
- Climbing spikes.
- Ladder safety device belts.
- Window cleaners' safety straps.
- Face & eye protection
- Side shields.
- Goggles.
- Face shields/masks.
- Safety glasses.
- Welding goggles.
- Hand protection and arm protection
- Gloves (disposable, fabric, leather mesh, aluminized, chemical resistant).
- Rubber sleeves.
- Hand shields.
- Hearing protection
- Ear plugs.
- Ear muffs.
- Head protection
- Headgear.
- Helmets.
- Hard hats.
- Welding helmets.
- Foot protection
- Safety shoes.
- Safety boots.
- Logging boots.
- Shin covers.
- Shoe covers.
- Logging chaps & kevlar pants/leg protection.
- Metatarsal protection.
- Respiratory protection
- Air-purifying respirators.
- Atmosphere-supplying respirators, including supplied-air respirators and self-contained breathing apparatus.
- Escape-only respirators.
- Filtering face pieces (dust masks).
- Protective clothing
- Aprons.
- Encapsulating chemical protective suits.
- Flame resistant jackets and pants.
- Fire fighting PPE
- Head protection.
- Face & eye protection.
- Protective coats and trousers.
- Foot protection.
- Hand protection.
- Proximity suits.
- Protective equipment
- Insulating blankets.
- Matting.
- Barriers.
- Mouthpieces.
- Finger Cots.
- Lifesaving equipment
- Life preservers.
- Life jackets.
- Reflective work vests.
- Ring life buoys.
- Retrieval systems.
- Protective clothing for health-related substances
- Coveralls.
- Full body work clothing.
- Laboratory coats.
- Gowns.

TABLE I.—LIST OF PERSONAL PROTECTIVE EQUIPMENT—Continued

—Disposable paper clothing.  
—Shoe covers.

3. *Employers are in the best position to provide the correct type of protective equipment and keep it in repair.* OSHA believes that requiring employers to pay for PPE will directly improve safety and health because the employer is in the best position to select, order, and obtain the proper type and design of PPE, ensure that it is of the necessary quality, and maintain it.

Employers are required to perform a hazard assessment of the workplace and select the correct type of PPE to protect employees from the hazards identified in that hazard assessment (§ 1910.132(d)). Employees often do not have the expertise to select the correct type of PPE, especially where the selection of appropriate PPE, such as fall protection equipment and respirators, may be complicated.

OSHA also believes that employers are in the best position to keep the PPE in repair. Employers are required to maintain PPE in a sanitary and reliable condition (§ 1910.132(a)). Because of this responsibility, OSHA believes that employers can maintain better control over the inventory of PPE by periodically inspecting the PPE and, when necessary, repairing or replacing it due to damage or normal wear and tear.

OSHA gave these reasons for requiring employers to pay for PPE in the final standard for logging operations (59 FR 51683, October 12, 1994). A number of commenters supported this reasoning.

OSHA first used this reasoning in rulemakings conducted in the 1970's. For example, the Inorganic Arsenic standard explicitly requires employers to pay for respirators, protective clothing, and protective equipment, including gloves, shoes, and face shields or goggles. 29 CFR 1910.1018(j)(1). The preamble to the rule states that it is the employer's obligation to provide protective equipment at no cost to the employee and that doing so puts the employer in the best position to provide the correct type of equipment and keep it in repair. 43 FR 19619 (May 5, 1978). OSHA applied the same reasoning in requiring employers to pay for respirators when necessary to protect employees from exposure to cotton dust. 43 FR 27387 (June 23, 1978). These standards were subsequently upheld on appeal.

In the recent respiratory protection standard, OSHA stated clearly that the

employer must pay for any respirator required to be worn by employees. Although respirators are one of the more expensive types of PPE, there was no opposition to this requirement. 63 FR 1152, 1195, (January 8, 1998.)

4. *Requiring employees to pay for PPE may discourage their use of PPE.* Another reason for requiring the employer to pay for PPE is that employees may be discouraged from using necessary PPE if they are responsible for paying for it and must select and buy it.

In the preamble to the Hearing Conservation amendment, OSHA determined that employers should pay for hearing protectors based in part on the reasoning that permitting an employer to charge employees for hearing protectors could discourage the use of such devices and thereby undermine the effectiveness of the employer's hearing conservation program. 46 FR 4153 (January 16, 1981). The Fourth Circuit Court of Appeals upheld the standard's allocation of hearing protector costs to employers. *Forging Indus. Ass'n v. Secretary of Labor*, 773 F.2d 1436, 1451 (4th Cir. 1985)(en banc). The Court noted in that case that the Supreme Court's finding in *ATMI* left no doubt that Congress intended to impose compliance costs on employers and that "it is only logical that OSHA may require employers to absorb such costs." *Forging Indus. Ass'n*, 773 F.2d at 1451.

One of the reasons OSHA has given for medical removal protection (MRP) benefits in its lead and cadmium standards is to encourage employee participation in the medical surveillance programs mandated by those standards. MRP protects the wages and other benefits of employees removed from exposure to a toxic substance because of an exposure—related condition revealed by medical surveillance. In the preamble to the cadmium standard, OSHA stated "(MRP) . . . increase(s) employee participation and confidence in the standard's medical surveillance program." 57 FR 42101, 42367 (September 14, 1992). Analogous reasoning supports the proposed requirement that employers pay for PPE. OSHA believes that requiring employers to pay for PPE will increase the likelihood that the employees will use the PPE and have confidence in the employer's PPE program. The requirement for MRP and OSHA's rationale were both specifically upheld in the lead decision, *United Steelworkers v. Marshall*, 647 F.2d 1189, 1231 (D.C. Cir. 1980).

As discussed in the Background and Legal Considerations sections, OSHA has explicitly required employer payment for PPE in all health standards issued since 1977. This issue has been less clearly and directly addressed, however, in OSHA's safety standards. As discussed in the Background section, OSHA attempted to clear up any ambiguity in its 1994 memo to the field which stated that employer payment for PPE was generally required (with an exception for steel-toe safety footwear and prescription eyewear).

5. *Some State-Plan States already interpret their standards to require employers to pay for PPE.* Several States with OSHA-approved State-plans already require employers to pay for PPE. These requirements have provided protection to employees without posing feasibility problems for employers. For example, the State of North Carolina requires employers to provide, at no cost to the employee, all personal protective equipment that the employee does not wear off the job-site for use off the job. However, this State requirement applies only to general industry workplaces.

California standards are somewhat more extensive than those of North Carolina. Whenever California standards use the word "provide," California State Courts have uniformly interpreted the standards to mean that the employer pays for all PPE (including any replacement PPE) in all industry sectors. The only exceptions are for PPE that reflect "special preferences" by employees, such as prescription safety eyewear or shoes of higher quality than required, or that reflect the individual's style preference. Many other State-plan states, including Alaska, Arizona, Indiana, Kentucky, New York, and Minnesota, either require the employer to pay for all PPE or follow the practice outlined in Federal OSHA's 1994 memo to the field.

### C. Scope of Proposed Rulemaking

The proposal applies to the following industry sectors: general industry, construction, and maritime (shipyard employment, marine terminals, and longshoring). It does not apply to agriculture because OSHA does not have general standards for PPE use in agriculture. However, some employees in agriculture are covered by two general industry standards, the logging standard (29 CFR 1910.266) and the cadmium standard (29 CFR 1910.1027), which specifically require employers to pay for required PPE (except in the case of the logging boots specified in 1910.266(d)(l)(v), which are specifically exempted from the requirements of the

proposed standard). The PPE requirements in these two standards will continue to apply in agriculture.

Even though the types of PPE may vary across and within industry sectors, the same OSHA policy considerations

on payment apply to all of them. In addition, many OSHA safety and health standards already contain provisions requiring the employer to pay for protective equipment and PPE.

Table II lists many OSHA provisions requiring the use of protective equipment and PPE. The table identifies the provision, and the type of PPE required by that provision.

TABLE II.—PPE PROVISIONS IN OSHA STANDARDS

| 29 CFR OSHA references  | Type of PPE  |
|---|--|
| <b>Part 1910—General Industry 6(a) Standards <sup>1</sup></b> |  |
| § 1910.28(g)(9) .....   | Safetybelt and lifeline.   |
| § 1910.28(j)(4) .....   | Safetybelt and lifeline.   |
| § 1910.94(c)(6)(iii)(a) .....                                 | Air-supplied respirator.   |
| § 1910.94(d)(9)(ii) .....                                     | Rubber and impervious boots.   |
| § 1910.94(d)(9)(iii) .....                                    | Shoes.   |
| § 1910.94(d)(9)(iv) .....                                     | Impervious gloves.   |
| § 1910.94(d)(9)(v) .....                                      | Impervious aprons, coats.  |
| § 1910.94(d)(9)(vi) .....                                     | Jackets, chemical goggles, face shields, respirators.  |
| § 1910.132(a) .....   | Personal protective equipment, eye, face, head, extremities, protective clothing, and respiratory devices. |
| § 1910.132(b) .....   | Employee-owned PPE (any PPE owned by employees and used on the job-site).                                  |
| § 1910.218(a)(1)(iv) .....                                    | Gloves, goggles, and aprons.   |
| § 1910.242(b) .....   | PPE appropriate for hazards associated with the use of hand and portable powered tools and equipment.      |
| § 1910.243(d)(1)(ii) .....                                    | Eye, face, head protection.  |
| § 1910.252(b)(1)(i) .....                                     | Safetybelt, lifeline.  |
| § 1910.252(b)(2)(i)(A) .....                                  | Welding helmet, hand shields.  |
| § 1910.252(b)(2)(i)(B) .....                                  | Filter lens.   |
| § 1910.252(c)(4)(2)(ii) .....                                 | Airline respirator.  |
| § 1910.252(c)(4)(iii) .....                                   | SCBA.  |
| § 1910.252(c)(7)(iii) .....                                   | Respirator.  |
| § 1910.261(b)(2) .....  | Foot protection, shin guards, hardhats, noise attenuation.   |
| § 1910.261(b)(5) .....  | Lifeline, safety harness.  |
| § 1910.261(c)(2)(vii) .....                                   | Foot, head, eye protection.  |
| § 1910.261(c)(6)(ii) .....                                    | Foot, head, eye protection.  |
| § 1910.261(c)(7)(ii) .....                                    | Foot, head, eye protection.  |
| § 1910.261(d)(1)(i) .....                                     | Respirators, goggles, protective masks.  |
| § 1910.261(d)(1)(ii) .....                                    | Eye, face protection, clothing.  |
| § 1910.261(g)(2)(i),(ii),&(iii) .....                         | Gas mask, respirators, eye protection, safety belts, lifeline.   |
| § 1910.261(g)(4) .....  | Respirators, lifebelts, lifelines.   |
| § 1910.261(g)(5) .....  | Rubber boots, gloves, apron, eye protection.   |
| § 1910.261(g)(6) .....  | Respirator.  |
| § 1910.261(g)(10) .....                                       | Gas mask.  |
| § 1910.261(g)(15)(ii),(iii)&(v) .....                         | Respirator, lifeline, safetybelt.  |
| § 1910.261(g)(18)(i)&(ii) .....                               | Showers, bubblers.   |
| § 1910.261(h)(2)(iii)&(iv) .....                              | Gas mask, SCBA.  |
| § 1910.261(i)(4) .....  | Eye, head, foot and shin protection.   |
| § 1910.261(k)(3) .....  | Face shields, aprons, rubber gloves.   |
| § 1910.265(c)(21)(i) .....                                    | Safetybelt, lifeline.  |
| § 1910.265(d)(2)(ii)(h) .....                                 | Life ring and line.  |
| § 1910.265(d)(2)(iii)(g) .....                                | Buoyant devices.   |
| § 1910.335(a)(1)(i) .....                                     | Electrical protective equipment.   |
| § 1910.335(a)(2)(i) .....                                     | Protective shields, barriers, insulation.  |
| § 1910.66(j) .....  | Personal fall arrest system.   |
| § 1910.67(c)(2)(v) .....                                      | Bodybelt.  |
| § 1910.120(g)(3)(iii) .....                                   | Positive pressure SCBA, airline.   |
| § 1910.120(g)(3)(iv) .....                                    | Totally-encapsulated chemical suit.  |
| § 1910.120(c)(5)(ii) .....                                    | 5-minute ESCBA.  |
| § 1910.120(c)(5)(iii) .....                                   | Level B PPE.   |
| § 1910.120(q)(3)(iii) .....                                   | Firefighting PPE.  |
| § 1910.120(q)(3)(iv) .....                                    | Positive pressure SCBA.  |
| § 1910.133(a)(1) .....  | Eye and face protection.   |
| § 1910.134 .....  | Respirators.   |
| § 1910.135 .....  | Protective helmet.   |
| § 1910.136 .....  | Foot protection.   |
| § 1910.137 .....  | Electrical protective equipment.   |
| § 1910.138 .....  | Hand protection.   |
| § 1910.146(k)(1)(i) .....                                     | PPE, rescue equipment.   |
| § 1910.156(e)(1)(i) .....                                     | Protective clothing.   |
| § 1910.156(e)(1)(ii) .....                                    | Firefighting PPE.  |
| § 1910.156(f)(1)(i) .....                                     | Respirators.   |
| § 1910.266(d)(1)(iii) .....                                   | Hand protection.   |
| § 1910.266(d)(1)(iv) .....                                    | Leg protection.  |

TABLE II.—PPE PROVISIONS IN OSHA STANDARDS—Continued

| 29 CFR OSHA references  | Type of PPE  |
|---|--|
| § 1910.266(d)(1)(v) .....   | Logging boots.   |
| § 1910.266(d)(1)(vi) .....  | Head protection.   |
| § 1910.266(d)(1)(vii) .....   | Eye and face protection.   |
| § 1910.268(g)(1) .....  | Safetybelt and strap.  |
| § 1910.268(1)(i) .....  | Head protection and eye protection.  |
| § 1910.272(g)(1)(iii)(B) .....                                      | Respirator.  |
| § 1910.272(g)(2) .....  | Body harness and lifeline.   |
| § 1910.94(a)(5)(i) .....  | Respirators.   |
| § 1910.94(a)(5)(iv) .....   | Respirators.   |
| § 1910.94(a)(5)(v)(B) .....   | Eye and face protection.   |
| § 1910.95(b)(1) .....   | PPE (Hearing protection).  |
| § 1910.95(i)(1) .....   | Hearing protection.  |
| § 1910.95(i)(3) .....   | Hearing protection.  |
| <b>Part 1910 General Industry Health 6(b) Standards<sup>1</sup></b> |  |
| § 1910.134 .....  | Respirators.   |
| § 1910.1002 .....   | Protective equipment, Respirators.   |
| § 1910.1001(g)(2)(i) .....  | Respirators.   |
| § 191.1001(h)(1) .....  | Coveralls, gloves, head coverings, foot coverings, face shields, goggles.  |
| § 1910.1001(j)(7)(iii)(E) .....                                     | PPE (for protection against asbestos).   |
| § 1910.1003(b) .....  | Protective clothing, smocks, coveralls, gloves.  |
| § 1910.1003(c)(4)(iii) .....  | Long-sleeved shirts, pants, boots.   |
| § 1910.1003(c)(4)(iv) .....   | Respirators.   |
| § 1910.1003(c)(5)(i) .....  | Gloves, boots, respirators.  |
| § 1910.1004 .....   | Respirators, protective clothing.  |
| § 1910.1006 .....   | Respirators, protective clothing.  |
| § 1910.1007 .....   | Respirators, protective clothing.  |
| § 1910.1008 .....   | Respirators, protective equipment.   |
| § 1910.1009 .....   | Respirators, protective equipment.   |
| § 1910.1010 .....   | Respirators, protective equipment.   |
| § 1910.1011 .....   | Respirators, protective equipment.   |
| § 1910.1012 .....   | Respirators, protective equipment.   |
| § 1910.1013 .....   | Respirators, protective equipment.   |
| § 1910.1014 .....   | Respirators, protective equipment.   |
| § 1910.1015 .....   | Respirators, protective equipment.   |
| § 1910.1016 .....   | Respirators, protective equipment.   |
| § 1910.1017 .....   | Respirators, protective equipment.   |
| § 1910.1018 .....   | Respirators, protective work clothing, eye and face protection.  |
| § 1910.1025 .....   | Respirators, protective work clothing.   |
| § 1910.1027 .....   | Respirators, protective work clothing, eye and face, head protection.  |
| § 1910.1028 .....   | Respirators, protective clothing, eye and face protection.   |
| § 1910.1029 .....   | Flame resistant pants, jacket, gloves, eye and face protection, insulated footwear, protective helmets.            |
| § 1910.1030 .....   | Gloves, gown, lab coat, face shield, masks, eye protection, mouthpieces, pocket mask.                              |
| § 1910.1043 .....   | Respirators.   |
| § 1910.1044 .....   | Respirators, protective clothing, eye and face protection.   |
| § 1910.1045 .....   | Respirators, protective clothing and equipment.  |
| § 1910.1047 .....   | Respirators, protective clothing and equipment.  |
| § 1910.1048 .....   | Respirators, protective clothing and equipment.  |
| § 1910.1050 .....   | Respirators, aprons, coveralls, gloves, head coverings, foot coverings, face shields, chemical goggles, other PPE. |
| § 1910.1051 .....   | Respirators, protective clothing, eye and face protection.   |
| § 1910.1052 .....   | Respirators, protective clothing, eye and face protection.   |
| § 1910.1200(h)(3)(iii) .....  | PPE (for protection against hazardous chemicals).  |
| § 1910.1450(e)(3)(ii) .....   | PPE (for protection against hazardous chemicals in laboratories).  |
| § 1910.1450(f)(4)(i)(C) .....                                       | PPE (for protection against hazardous chemicals in laboratories).  |
| § 1910.1450(i) .....  | Respirators.   |
| <b>Part 1915—Shipyard Employment 6(a) Standards<sup>1</sup></b>     |  |
| § 1915.12(c)(4)(ii) .....   | Respirators, other PPE.  |
| § 1915.12(e)(1)(i) .....  | Respirators, other PPE.  |
| § 1915.13(b)(6)(iv) .....   | Respirators, other PPE.  |
| § 1915.32(a)(3) .....   | Respirators, protective clothing.  |
| § 1915.33(a) .....  | Eye and face protection.   |
| § 1915.33(d) .....  | Face protection.   |
| § 1915.33(e) .....  | Face protection.   |
| § 1915.34(a)(1) .....   | Goggles, face shields.   |
| § 1915.34(a)(4) .....   | Respirators.   |
| § 1915.34(b)(1) .....   | Respirators.   |
| § 1915.34(c)(3)(i) .....  | Respirators.   |
| § 1915.34(c)(3)(ii) .....   | Respirators.   |

TABLE II.—PPE PROVISIONS IN OSHA STANDARDS—Continued

| 29 CFR OSHA references   | Type of PPE  |
|--|--|
| § 1915.34(c)(iii) .....  | Respirators.   |
| § 1915.34(c)(iv) .....   | Protective clothing, gloves.   |
| § 1915.34(c)(3)(v) .....   | Safety belt.   |
| § 1915.35(a)(1)(i) .....   | Respirators.   |
| § 1915.35(a)(1)(ii) .....  | Respirators.   |
| § 1915.35(a)(1)(iii) .....   | Respirators.   |
| § 1915.35(a)(2) .....  | Respirators.   |
| § 1915.35(b)(9) .....  | Eye, face, head, hand protection, protective clothing.                         |
| § 1915.35(b)(13) .....   | Respirators and protective clothing.   |
| § 1915.35(b)(14) .....   | Respirators and protective clothing.   |
| § 1915.51(c)(3) .....  | Respirators.   |
| § 1915.51(d)(2) .....  | Respirators.   |
| § 1915.51(d)(3) .....  | Respirators.   |
| § 1915.51(e)(1)(ii) .....  | Eye protection, filter lenses.   |
| § 1915.51(e)(1)(iii) .....   | Protective clothing.   |
| § 1915.51(f)(2) .....  | Eye protection.  |
| § 1915.53(d)(1) .....  | Respirators.   |
| § 1915.53(d)(2) .....  | Respirators.   |
| <b>Part 1915—Shipyard employment 6(b) Standards<sup>1</sup></b>                                |  |
| § 1915.12(a)(3)(ii) .....  | Respirators, other PPE.  |
| § 1915.152(a) .....  | All PPE.   |
| § 1915.153(a) .....  | Eye and face protection.   |
| § 1915.154 .....   | Respirators.   |
| § 1915.155 .....   | Head protection.   |
| § 1915.156 .....   | Foot protection.   |
| § 1915.157 .....   | Hand and body protection.  |
| § 1915.158 .....   | Personal flotation devices, life rings.  |
| § 1915.159 .....   | Personal fall arrest systems.  |
| § 1915.160 .....   | Positioning device systems.  |
| <b>Part 1917—Safety and Health Regulations for Marine Terminals 6(b) Standards<sup>2</sup></b> |  |
| § 1917.22(c) .....   | Protective clothing.   |
| § 1917.23(d)(1) .....  | Respirators, emergency protective equipment.                                   |
| § 1917.25(e)(1) .....  | Respirators, emergency protective equipment.                                   |
| § 1917.26(f) .....   | Personal flotation devices, safety belts.                                      |
| § 1917.49(i)(3) .....  | Lifeline and safety harness.   |
| § 1917.73(a)(3) .....  | Respirators.   |
| § 1917.73(c) .....   | Respirators, lifeline, safety harness.   |
| § 1917.91(a)(1) .....  | Eye and face protection.   |
| § 1917.92 .....  | Respirators.   |
| § 1917.93(a) .....   | Head protection.   |
| § 1917.94(a) .....   | Foot protection.   |
| § 1917.95(a) .....   | Protective clothing.   |
| § 1917.95(b) .....   | Personal flotation devices.  |
| § 1917.118(e)(1) .....   | Ladder safety device.  |
| § 1917.126(b) .....  | Personal flotation devices.  |
| § 1917.152(e)(8)(ii) .....   | Eye protection, filter lenses.   |
| § 1917.152(e)(11) .....  | Rubber pads, rubber boots.   |
| § 1917.152(f) .....  | Respirators.   |
| § 1917.152(f)(4) .....   | Eye, head, hand protection.  |
| § 1917.152(g)(3) .....   | Respirators.   |
| § 1917.152(h) .....  | Respirators, eye, face, head protection, filter lenses.                        |
| § 1917.154 .....   | PPE (For protection against hazards resulting from the use of compressed air). |
| <b>Part 1918—Longshoring 6(b) Standards<sup>1</sup></b>  |  |
| § 1918.101 .....   | Eye protection.  |
| § 1918.102 .....   | Respirators.   |
| § 1918.103 .....   | Protective clothing.   |
| § 1918.104 .....   | Foot protection.   |
| § 1918.105 .....   | Head protection.   |
| § 1918.106 .....   | Personal flotation devices   |
| <b>Part 1926 Construction 6(a) Standards<sup>1</sup></b>                                       |  |
| § 1926.300(c) .....  | PPE (for hazards from the use of hand and power tools).                        |
| § 1926.304(e) .....  | PPE (for hazards from the use of woodworking tools).                           |
| § 1926.551(e) .....  | Eye protection, hardhats.  |

TABLE II.—PPE PROVISIONS IN OSHA STANDARDS—Continued

| 29 CFR OSHA references                                    | Type of PPE  |
|---|--|
| <b>Part 1926—Construction 6(b) Standards <sup>1</sup></b> |  |
| § 1926.52(b) .....  | Hearing protection.                                    |
| § 1926.95(a) .....  | General requirements for all PPE used in construction. |
| § 1926.95(b) .....  | Employee owned PPE.                                    |
| § 1926.95(c) .....  | Design of PPE.   |
| § 1926.701(f) .....                                       | Face and head protection.                              |
| § 1926.800(d)(7) .....                                    | PPE used in underground construction.                  |
| § 1926 Subpart L .....                                    | Personal fall arrest systems.                          |
| § 1926 Subpart M .....                                    | Personal fall arrest systems.                          |

<sup>1</sup> A 6(a) standard is any standard that OSHA adopted from an existing Federal standard or a national consensus standard under Sec. 6(a) of the Act, i.e., without notice-and-comment rulemaking. A 6(b) standard is a standard that OSHA promulgated using the rulemaking process with public participation.

For all industry sectors, employers are in the best position to choose the proper type and quality of PPE, and to maintain the PPE selected. The same statutory considerations apply to all industry sectors, as discussed above in this preamble.

However, additional considerations apply to workplaces in construction, longshoring, and marine terminals: first, there is considerable turnover in these industries, and second, many of the affected businesses employ only a small number of employees. Based on OSHA's experience, safety-toe footwear is the type of PPE most often used in these industries and the type of PPE that employees are most often required to pay for at present. This equipment would be excluded from the "employer pays" requirement, provided that the three proposed conditions are met. Therefore, OSHA does not believe that its proposal will cause economic difficulties for employers in these sectors. See also section VI., *Preliminary Economic Analysis*.

**D. Current OSHA Requirements Concerning Payment for PPE**

Earlier OSHA standards promulgated under section 6(a) of the OSH Act (i.e., those standards adopted without notice-and-comment rulemaking and public participation) that required the use of PPE did not explicitly address the issue of who is required to pay for PPE. In 1978, however, several substance-specific health standards promulgated under section 6(b) of the OSH Act (i.e., promulgated using the full rulemaking process with public participation and comment) required employers to pay for PPE. Since that time, all OSHA health standards have explicitly required employers to pay for required PPE.

However, the safety standards promulgated under section 6(b) of the OSH Act have not been consistent with respect to the employer's responsibility to pay for PPE. Several of these

standards require the employer to "provide" PPE, but do not explicitly state that the employer must pay for it. Other standards specifically require the employer to pay for all PPE. One standard, Logging Operations (§ 1910.266), requires the employer to pay for all PPE, with the exception of logging boots. The following are examples of OSHA's current PPE requirements.

*Telecommunication standard.* Paragraph (e) of § 1910.268 requires the employer to provide personal protective equipment, protective devices and special tools. However, this provision does not specifically state that the employer must pay for the PPE, even though it is common practice in the telecommunications industry for the employer to pay for all PPE except for safety-toe protective shoes (see the Regulatory Impact Analysis for that standard).

*Electric Power Generation.* Paragraph (g)(1) of § 1910.269 requires PPE to meet the requirements of subpart I of part 1910, but does not specify that the employer must pay for the PPE.

*Maritime standards.* Paragraph (a) of § 1915.152 (Shipyard standards) requires the employer to provide and ensure the use of PPE, but does not clearly state that the employer is required to pay for it.

Identical PPE standards apply to marine terminals (part 1917) and longshoring (part 1918). They state, in part: "The employer shall ensure that each affected employee wears\* \* \*[PPE]." Again, the regulatory text does not state that the employer is required to pay for the PPE. However, the preamble to the marine terminals and longshoring standards does give guidance with respect to the payment for PPE issue (62 FR 40186-87):

Although the equipment used in marine cargo handling operations often differs from that mentioned in the October 18

memorandum [OSHA Policy Memorandum, October 18, 1994] the same policy considerations apply in the Longshore and Marine Terminals standard PPE context. Therefore, OSHA will apply the above-stated policy when determining whether the employer is required to pay for a particular kind of PPE.

Therefore, OSHA's enforcement policy for marine terminals and longshoring requires employers to pay for all PPE except for safety-toe protective shoes and prescription safety glasses.

*Subpart I of part 1910.* On April 6, 1994, OSHA revised its general industry standards for PPE (59 FR 16362) and added new provisions for hazard assessment and training. The Agency had not proposed a requirement concerning the employer's responsibility to pay for PPE, and the subject was not an issue during the rulemaking.

*Permit-required confined spaces (§ 1910.146).* This standard specifically requires the employer to pay for PPE. It requires the employer to provide the equipment (including PPE) necessary for safe entry into, and rescue from, permit spaces at no cost to employees, to maintain the equipment properly, and to ensure its proper use by employees.

*Logging operations.* During the logging rulemaking, OSHA proposed that the employer provide PPE and assure its use. OSHA's intent was that the employer provide all PPE at no cost to employees. However, some commenters asserted that employers should not have to pay for all types of PPE used in logging operations.

After careful analysis of the rulemaking record, the Agency concluded that the employer should be required to pay for all PPE except for logging boots. OSHA noted that logging boots are customarily worn outside the workplace; are individually-fitted and therefore not usable by another

employee; and are used in an industry that has a high turnover rate.

#### *E. Advisory Committee on Construction Safety and Health*

The Advisory Committee on Construction Safety and Health (ACCSH) assists OSHA by providing comments and recommendations on proposed construction standards. Accordingly, the Agency provided ACCSH with the following draft revision of § 1926.95:

(d) *Payment for Protective Equipment.* All protective equipment, including personal protective equipment, required in this part, shall be provided by the employer at no cost to employees except for safety-toe protective footwear and prescription safety eyewear.

ACCSH considered the proposed language at its meeting on April 8, 1998.

ACCSH members expressed several concerns about the proposed language. Some members expressed the view that many employers were already paying for safety-toe shoes through collective bargaining agreements and that the new text might discourage them from continuing to do so (Tr. 53, 61).

Members also noted that prescription glasses are sometimes incorporated into respirator facepieces and would therefore be impractical for workers to use at home. They therefore asked why employers should not pay for that prescription eyewear (Tr. 47).

Other members of the committee mentioned the problem of employees who did not always bring their safety equipment to work. They noted that it would be expensive for an employer to have to replace that equipment frequently (Tr. 51-52).

Two resolutions were introduced. The first stated:

All protective equipment, including personal protective equipment, required in this part, shall be provided by the employer at no cost to the employees.

That resolution failed by a 6 to 7 vote.

The second resolution introduced read as follows:

The language currently in 1926.95 regarding personal protective equipment, is effective and is sufficient to protect the worker and provide the personal protective equipment. (We) recommend leav(ing) the language as is currently stated in 1926.95 (Tr. 62).

That resolution passed by a 6 to 2 vote.

Based on the recommendations and discussion of ACCSH, the Agency revised the draft regulatory text to reflect many of the Committee's concerns. OSHA is proposing the revised proposed regulatory text for general industry and maritime as well as the construction industry.

The Agency believes that the *Union Tank* decision has undercut OSHA's

ability to enforce the standard as outlined in the 1994 memo. As discussed below, the proposed rule incorporates much of the 1994 memo into the text of the Agency's various protective equipment standards. OSHA believes that this action will carry out the recommendations of ACCSH effectively.

The proposed regulatory text now makes clear that the employer is not required to pay for safety-toe protective footwear and prescription safety eyewear unless: (1) The employer does not permit it to be worn off-site; (2) the footwear or eyewear is rendered unsafe for use off-site; or (3) the footwear or eyewear is designed for special use on the job. For example, contaminated safety-toe footwear would not be permitted to be worn off the job-site because it would be unsafe to do so, and prescription eyewear mounted inside a full-facepiece respirator would not be permitted for use off the job-site because it is designed for special use on-site. Consequently, the employer would be required to pay for the PPE in these two examples.

OSHA intends to require employers to pay for the initial issue of PPE and for replacement PPE that must be replaced due to normal wear and tear or occasional loss. Only in the rare case involving an employee who regularly fails to bring employer-supplied PPE to the job-site, or who regularly loses the equipment, would the employer be permitted to require the employee to pay for replacement PPE.

#### *F. Explanation of Proposed Requirement*

OSHA is proposing to add the following language to its general industry standards as § 1910.132(h):

All protective equipment, including personal protective equipment (PPE), required in this part, shall be provided by the employer at no cost to employees.

*Exception:* The employer is not required to pay for the logging boots required by 29 CFR § 1910.266(d)(1)(v). The employer is also not required to pay for safety-toe protective footwear, or for prescription safety eyewear, provided that all three of the following conditions are met: (1) the employer permits such footwear or eyewear to be worn off the job-site; (2) the footwear or eyewear is not used at work in a manner that renders it unsafe for use off the job-site (for example, contaminated safety-toe footwear would not be permitted to be worn off a job-site); and (3) such footwear or eyewear is not designed for special use on the job.

OSHA is proposing to add the same language (except for the first sentence of the exception, which applies only to the general industry workplaces covered by the logging standard) as shipyard § 1915.152(f) as marine terminal

§ 1917.96, as longshoring § 1918.106, and as construction § 1926.95(d).

The purpose of this language is to make clear that employers must provide and pay for all necessary PPE wherever such PPE is required by an OSHA standard, with the exceptions mentioned. The reasons for this proposal have been discussed above and are also found in the Legal Considerations section of this preamble, above.

The proposal is intended to cover every situation where an OSHA standard requires the use of PPE. OSHA preliminarily concludes that all the reasons why employers should provide and pay for PPE apply generally to all types of PPE. In other words, the reasons why an employer is in the best position to purchase the correct type and quality of wire mesh gloves to prevent finger lacerations also apply to the selection and purchase of the correct type and quality of fall protection harnesses and lanyards, respirators, and metatarsal foot protection. As noted, the proposal does contain exceptions and conditions to these exceptions. OSHA requests comment on whether other types of PPE should be excepted from the employer-payment principle and if so, why.

The proposed payment requirement in § 1910.132(h) applies to "all protective equipment required in this part." For example, part 1910 contains many different requirements for the use of PPE throughout general industry (see Table 2, above). Although the proposed regulatory language would be inserted only in § 1910.132 (which is in subpart I of part 1910), OSHA intends that employers pay for all PPE required throughout part 1910.

OSHA does not believe it necessary to specify in the proposed regulatory text that the employer ensure that employees use the required PPE and maintain it appropriately, because these concepts are already clearly stated in most of OSHA's PPE requirements. OSHA requests comments on the adequacy of this approach, and whether employee use and maintenance of PPE should be specifically required.

As discussed previously, some PPE requirements already include specific language requiring the employer to provide and pay for PPE (e.g., the language used in most health standards), while others use more ambiguous language. OSHA intends the proposed new language to cover all of the Agency's PPE requirements. OSHA believes that this approach will make the obligations of employers clear with regard to the provision and payment for PPE. The proposed language does not

affect or limit the "provide-and-pay" language in those regulatory provisions that already clearly state this requirement, such as 29 CFR 1910.266(d)(1)(v), 29 CFR 1910.1029(h)(1), 29 CFR 1910.146(d), and 29 CFR 1910.134(c).

The proposed provide-and-pay language also allows a reasonable degree of compliance flexibility. For example, the proposed language would permit an employer to send an employee to purchase appropriate PPE at a supply store if the employer paid for the employee's time and paid for the PPE.

The proposed requirement would also make the employer responsible to provide, and pay for, replacement PPE when the original PPE wears out from normal wear and tear or in the event of occasional loss or accidental damage by the employee. However, if an employee regularly and with unreasonable frequency loses or damages the PPE, the employer may request that the employee pay for the replacement PPE. This issue was discussed at the ACCSH meeting, as noted earlier. It is also important to note that current OSHA PPE standards (e.g., § 1910.132(f)(1)(v)) already require the employer to train employees in the proper care, maintenance, and useful life of PPE.

#### Exceptions

For the reasons discussed above, OSHA has preliminarily concluded that the Agency needs to codify the general principle that employers must both provide and pay for PPE. However, the Agency is also proposing exceptions to that rule. OSHA is not proposing to require employers to provide, or pay for, safety-toe protective footwear or prescription safety eyewear providing that the following three conditions are met: (1) the employer permits the footwear or eyewear to be worn off-site; (2) the footwear or eyewear is used on the job in a manner that does not make it unsafe for off-site use; and (3) the footwear or eyewear is not designed for special use on the job. In addition, as the current rule provides, general industry employers are not required to pay for the logging boots required by 29 CFR 1910.266(d)(1)(v).

*Safety-toe protective footwear (safety shoes).* This discussion of safety shoes pertains only to safety-toe protective footwear. It does not pertain to other types of foot protection, such as metatarsal or cut-resistant protective boots. (Logging boots are discussed below.)

OSHA considers safety shoes to be personal in nature. That is, safety shoes are not used by different employees. Instead, they are used by, and sized to

fit, only one individual employee. Also, one employee's safety shoes are not generally used by other employees because of size and hygienic concerns. In addition, employees often wear safety shoes away from the job-site.

Safety shoes are widely available and are not difficult for the employee to select and purchase. Evidence presented in the Preliminary Economic Analysis also shows that it is customary in some workplaces for employees to pay for their safety-toe footwear. In addition, the OSHA policy memorandum of 1994 generally excepted safety-toe safety shoes from the employer payment requirement. For these reasons, OSHA is not proposing to include safety-toe safety shoes in the employer payment requirement if all three of the conditions are met.

Thus, the proposed exception would not apply to metatarsal protection (metatarsal guards or protective footwear that incorporates metatarsal protection) or special cut-resistant footwear because these kinds of footwear are not generally used off the worksite, and employers often re-issue metatarsal guards and cut-resistant footwear to subsequent employees. Also, the proposed exception would not apply to any safety-toe safety shoe that cannot safely be worn off the worksite. For example, the exception does not include safety shoes that have been worn in a regulated area where they may have been contaminated with a toxic substance. Employers must continue to provide and pay for these safety shoes because they are not safe for use off-site. However, the exception does not prohibit employers from paying for safety-toe safety footwear of any type, if they choose to do so.

*Prescription safety eyewear.* OSHA also considers prescription safety eyewear to be personal in nature. Prescription safety eyewear is, of course, designed for the use of a single individual. Other types of protective eyewear, such as goggles, generally remain at the job-site and can be cleaned and reissued for use by other employees.

Prescription safety eyewear is usually used both on and off the job-site. Additionally, regular prescription glasses can be worn underneath goggles and other protective eyewear that has been designed to accommodate them. Therefore, in this situation OSHA believes that employers should be required to pay only for the protective goggles. Employees can then decide either to purchase their own prescription safety glasses or to wear their own prescription glasses underneath the protective eyewear

provided by the employer. Additionally, the employer may agree to pay all or part of the cost of prescription safety eyewear. However, the employer must pay for any prescription eyewear that is mounted inside the full-facepiece of a respirator, because such eyewear would fall under the "special use" condition of the proposed rule (this is also clearly required by the respirator standard). OSHA's position on this issue is discussed below in the Issues Section of this preamble.

The Agency realizes that there may be different opinions with respect to this proposal. Some may argue that requiring employers to pay for all PPE (including safety shoes and prescription safety eyewear) may lead to more employees wearing PPE and, consequently, may enhance employee safety. The Issues Section, below, requests comment on this issue.

OSHA emphasizes that payment for safety-toe footwear and prescription safety eyewear can be negotiated between management and labor. Also, this proposed rulemaking is not intended to affect any collective bargaining agreements, or any other responsibility to pay for safety-toe footwear and prescription safety eyewear in particular workplaces.

The Agency also emphasizes that this proposed rulemaking does not change the employer's obligation under the Act to ensure that all PPE, including employee-owned PPE, is worn when necessary, is adequate to protect employees from the hazard, and is properly maintained. If the employee chooses to furnish his or her personally-owned PPE, this rule does not require the employer to reimburse the employee for the cost of that equipment.

This proposed revision specifically restates the exception to the "employer pays" principle contained in the OSHA standard for logging operations (§ 1910.266(d)(1)(v)), which specifies that the employer is not required to pay for a certain type of foot protection (foot protection constructed of cut-resistant material to protect employees who operate chainsaws, etc.). OSHA considered that issue at length in the logging rulemaking and concluded that the evidence supported excluding that type of footwear from the general obligation that logging employers pay for logging PPE. See the discussion at 59 FR 51683-4 (Oct. 12, 1994).

#### V. Issues Pertaining to the Proposed Rule

OSHA requests comments, views, and data on all issues relevant to the proposed rule, including the following:

1. OSHA also considered proposing the following alternative regulatory text:

The employer shall provide, at no cost to the employee, all protective equipment and personal protective equipment except for protective equipment which the employer demonstrates is personal in nature and customarily used off the job.

This provision is stated in general language and would have the advantage of providing some flexibility for specific workplace situations involving PPE. However, a major disadvantage of this approach is that it uses the terms "personal in nature" and "customarily used off the job," which OSHA would need to define and interpret. OSHA's proposed exception, which is more specific than the text of the alternative discussed above, provides greater certainty to employers and workers.

OSHA requests comments on the merits of both approaches, including views on how OSHA should interpret the regulatory text.

2. Are there other types of PPE, beside safety-toe safety footwear and prescription eyewear, that should be excepted from the proposed payment requirement? Why or why not? Please submit any available supporting documentation. Alternatively, should OSHA require employers to pay for all PPE, including safety-toe footwear and prescription safety eyewear? Why or why not?

3. OSHA realizes that there is frequent turnover in the construction industry, where employees frequently move from job-site to job-site. This is an important factor because an employer with a high-turnover workplace would have to buy PPE for more employees if the PPE was of the type that could only be used by one employee. OSHA requests comment on whether its proposed exceptions for safety-toe footwear and prescription safety eyewear are appropriate in the construction industry. Are there any other approaches to handle the turnover situation that would be protective of construction workers? Are there any other issues unique to the construction industry that should be considered in this rulemaking?

4. The longshoring and marine terminal industries have a unique employer-employee relationship in many ports. At some ports, employees are hired for a job through a labor pool, and the same employee may work for 5 different employers in the same week. How do these factors affect the issue of who is required to pay for PPE? Does the employer customarily pay for PPE in the maritime industry? Are there any other issues unique to the maritime industry that OSHA should consider in this rulemaking?

5. OSHA requests comments, information, and data on whether employee-owned PPE is less protective than employer-provided PPE, and under what circumstances.

6. The proposal covers protective equipment and personal protective equipment used in welding, including protective gloves. Does welding PPE create any unique problems on the PPE payment issue? Does the employee usually pay for welding PPE?

7. If an employee wants to use more costly PPE because of individual preference, should that employee be responsible for any difference in cost? Is there evidence that such "individualized" PPE has caused safety problems in the past?

8. Full-facepiece respirators present a unique problem for employees who need prescription glasses. The temples of the prescription glasses break the face-to-face piece seal and greatly reduce the protection afforded by the respirator. Special glasses and mounts inside the facepiece of the respirator are sometimes used to provide an adequate seal. Because of this special situation, OSHA believes that it is appropriate for the employer to provide and pay for the special-use prescription glasses used inside the respirator facepiece. Is it common industry practice for employers to pay for these special glasses? What is the typical cost for providing "insert-type" prescription glasses inside full-facepiece respirators?

9. OSHA's Preliminary Economic Analysis has found that this proposal will not impose significant impacts on firms in any industry segment or on affected small businesses. OSHA requests comments on the analysis and on any industry or subindustry that may have particular economic problems as a result of the proposed rule.

10. Should the standard require the employer to pay for inserts or other articles that are uniquely personalized components of personal protective equipment, such as head coverings used under welding helmets and custom prescription lens inserts worn under a welding helmet or a diving helmet?

11. OSHA intends to require employers to pay for the initial issue of PPE. Should employers also be required to pay for PPE that must be replaced due to normal wear and tear or occasional loss?

12. OSHA requests comments on the conclusions about the costs and benefits contained in the Preliminary Economic Analysis section.

## VI. Preliminary Economic Analysis

It has been determined that this is a significant regulatory action under E.O.

12866, and a major rule under the Congressional Review provisions of the Small Business Regulatory Enforcement Fairness Act.

## Introduction

OSHA has prepared this Preliminary Economic Analysis to examine the feasibility of the proposed rule on Employer Payment for Personal Protective Equipment and to meet the requirements of Executive Order 12866 and the Regulatory Flexibility Act (as amended). The proposed rule would require employers to pay for protective equipment, including personal protective equipment (PPE), when OSHA standards mandate that employers provide such equipment to their employees. The only PPE employers would not be required to pay for in certain circumstances are safety-toe footwear and prescription safety eyewear. OSHA is proposing to except PPE of these types providing that these types of PPE meet three conditions: (1) The employer permits them to be worn off-site; (2) they are not used on-site in a manner that renders them unsafe for use off-site; and (3) they are not designed for special on-site use. Logging boots are also specifically excepted from employer payment by 29 CFR 1910.266(d)(1)(v).

OSHA's requirements for PPE (again, OSHA is using the abbreviation "PPE" to cover all protective equipment, (including personal protective equipment) appear in many health, safety, maritime, and construction standards. In some cases, the standard is explicit in stating that employers are to provide the PPE at no cost to the employee (see, for example, OSHA's substance-specific health standards, which are codified in Subpart Z of 29 CFR 1910.1000). In other cases, however, such as in paragraph (a) of 29 CFR 1910.132 and paragraph (a) of 29 CFR 1926.28, who is required to pay for the PPE is not expressly specified. (For a complete list of OSHA's PPE requirements, see the Summary and Explanation for the proposed standard, above.)

The proposed rule would apply to general industry, construction, and maritime workplaces covered by the PPE provisions in existing OSHA standards.

The rule would clarify OSHA's intent that, with the exceptions noted, employers provide required PPE to their employees at no cost to those employees. The kinds of PPE addressed by OSHA's PPE standards include, for example, hard hats, safety shoes, gloves, safety glasses, goggles, faceshields, welding helmets and goggles, fall

protection equipment, and chemical suits. (A more detailed list of the kinds of PPE covered appears in the Summary and Explanation, above.)

#### *Industry Profile*

The proposed rule is concerned only with who pays for OSHA-required PPE; that is, it would not require employers to provide PPE where none has been required before. Instead, the proposed rule merely stipulates that required PPE be paid for by the employer, except in the case of safety-toe footwear and prescription safety eyewear that meets the three proposed conditions. In other words, the required PPE is currently being paid for either by the employer or the employee. The proposed rule would shift the costs of that portion of the PPE currently being paid for by the employee (except for safety-toe footwear and prescription safety eyewear meeting the proposed conditions) to their employers, as has been OSHA's intent. (See the Legal Considerations section of the preamble, above, for details of OSHA's legal interpretation of this issue.) To the extent that this rule has the effect of improving the quality of PPE being used or of ensuring that PPE is being used where it has not previously been used, such improved compliance would result both in additional benefits and costs to the economy. Nevertheless, to determine the extent of PPE usage and the potential magnitude of any shift in costs, OSHA has developed a profile of industry PPE use and payment patterns.

#### *Data on PPE Usage Patterns*

The data relied on to develop this industry profile derive from a number of sources, although the Agency relied on survey data for its estimates of use patterns for most types of PPE. The main source of information on PPE use patterns for general industry was a telephone survey of more than 5,000 employers conducted by OSHA in 1989 (ERG 1998), in support of the Agency's 1994 PPE rulemaking.<sup>4</sup> The survey yielded industry- and size-class-specific PPE use information for nearly all industries affected by that rulemaking and the current one. The survey provided information on PPE use in shipyards, within the context of SIC 37, Transportation Manufacturing. It did

<sup>4</sup> Some of the results from this survey were used in OSHA's background report in support of its 1994 PPE Regulatory Impact Assessment (OSHA 1994).

not, however, survey the construction industry.

Data on usage patterns in the construction industry derive primarily from a study done for the Office of Technology Assessment (OTA 1984) in 1982 by Springborne Associates. In this survey of employers, OTA provided estimates of the number of construction workers using various types of PPE. As with the 1989 PPE survey, the Agency assumes that the patterns of PPE usage (percentage of employees using PPE) within sectors of the construction industry have remained constant. The Agency believes that this is a reasonable assumption, in part because OSHA's construction rules governing PPE usage have remained the same since 1972. Further, the OTA survey reported that several types of PPE (e.g., hard hats, gloves, eye protection) are used by virtually all construction workers; thus it would be impossible for usage of these types of PPE to have increased significantly over time. The general assumption that PPE usage patterns have not changed significantly over time is supported by a recent OSHA analysis of respirator use patterns conducted for the Agency's final rule for respiratory protection (63 FR 1172, January 8, 1998). This analysis shows that respirator usage patterns have not changed substantially from those shown in the OTA report. A comparison of the OTA data for several other types of PPE (e.g., gloves, eye protection, facemasks, safety shoes and hard hats) with usage data from the 1989 PPE survey also indicated no clear shift in usage for these types of PPE. Thus, OSHA believes that these estimates of PPE usage in construction are reasonable. However, as will be discussed further below, OSHA is conducting a survey to gather more up-to-date information on PPE use and payment. This survey will be used to update the estimates of usage of PPE in construction.

To confirm the overall accuracy of the survey data on PPE use in construction, the Agency contacted several PPE distributors to obtain information on the market share for various PPE items in the construction industry, as compared to market share in other sectors. Comparing OSHA's estimates of the percentage of PPE costs attributable to construction with the distributors' estimates of the share of PPE sales occurring in the construction industry shows that OSHA's estimates of PPE use in construction are correct and may, if

anything, be high. If OSHA's estimates are high, this analysis would tend to overstate the potential costs and impacts of the proposed rule on the construction industry. For example, OSHA's analysis estimates that approximately 25 percent of the costs of all PPE occur in the construction sector, while the distributors indicated that the construction sector accounted for 20 percent of the value of PPE sales.

Estimating use patterns for some specific types of PPE required additional analysis. For example, the OTA survey did not collect data on fall protection PPE. The number of employees using fall protection in construction was estimated from an analysis of occupational categories, based on data from BLS's 1994 Occupational Exposure Survey (OES)<sup>5</sup>. Additionally, the OES data allowed OSHA to estimate the number of workers requiring welding equipment in construction and in some industries not covered by the 1989 PPE survey (i.e., SICs 15, 16, 17, 46, 47, 59, 73, 87 and 89). Finally, because the OTA survey did not have data on the extent of the use of shoes with metatarsal guards, OSHA relied on the 1989 PPE survey data, which show that about 11 percent of all safety shoes have metatarsal guards; this percentage was applied to the OTA estimates of safety shoe usage to estimate metatarsal guard usage in the construction industry.

Table VI-1 shows OSHA's estimates of the extent of PPE use in the industries covered by the proposed rule. A total of 19.6 million workers are estimated to wear one or more kinds of PPE in these industries. Non-prescription safety glasses are worn by approximately 6.7 million workers, while 7.7 million workers wear hard hats and 10.6 million wear protective gloves of various kinds. Industries with the largest number of PPE-wearing employees include construction special trades (SIC 17), with 2.9 million such employees, building construction trades (SIC 15), with 1.2 million, wholesale trade—durable goods (SIC 50), with 1.6 million, and wholesale trade—non-durable goods (SIC 51), with 1.2 million PPE-wearing employees.

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<sup>5</sup> For workers in some occupations, such as structural metal workers and roofers, all employees were assumed to use fall protection, clearly an overestimate. For workers in other occupations, 10–20 percent were assumed to use fall protection.

TABLE VI-1  
NUMBER OF EMPLOYEES USING PERSONAL PROTECTIVE EQUIPMENT

| SIC | Industry                                  | Total Employees | Hard Hats | Gloves     | Non-Prescription Safety Glasses | Goggles   | Face Shields | Welding Helmets & Goggles | Fall Protection | Chemical Protective Suits/Clothing | Safety Shoes with Metatarsal Guards | Total Affected Employees* |
|-----|---|-----------------|-----------|------------|---------------------------------|-----------|--------------|---------------------------|-----------------|------------------------------------|-------------------------------------|---------------------------|
| 078 | Landscape and horticultural services      | 294,854         | 69,599    | 114,069    | 38,490                          | 44,696    | 11,120       | 3,032                     | 12,638          | 13,229                             | 7,192                               | 157,359                   |
| 08  | Forestry                                  | 19,462          | 4,951     | 5,452      | 1,863                           | 2,187     | 523          | 143                       | 595             | 623                                | 254                                 | 9,081                     |
| 13  | Oil and gas extraction                    | 268,561         | 75,514    | 71,034     | 38,403                          | 56,259    | 24,724       | 13,177                    | 38,921          | 6,479                              | 3,317                               | 83,813                    |
| 15  | Building Construction                     | 1,152,468       | 1,152,468 | 172,869    | 395,592                         | 249,344   | 69,148       | 41,707                    | 156,590         | 46,098                             | 126,771                             | 1,152,468                 |
| 16  | Heavy Construction                        | 685,706         | 678,845   | 34,885     | 106,990                         | 67,437    | 75,427       | 48,027                    | 64,046          | 13,714                             | 41,485                              | 685,706                   |
| 17  | Construction Special Trades               | 2,851,908       | 2,851,908 | 2,851,908  | 933,527                         | 601,015   | 424,013      | 496,169                   | 440,296         | 57,039                             | 156,843                             | 2,851,908                 |
| 20  | Food and kindred products                 | 1,488,686       | 260,960   | 417,299    | 122,661                         | 120,900   | 58,185       | 64,904                    | 28,476          | 47,106                             | 16,345                              | 918,010                   |
| 21  | Tobacco products                          | 34,746          | 6,752     | 10,948     | 3,475                           | 2,648     | 1,244        | 1,488                     | 1,016           | 1,593                              | 297                                 | 21,838                    |
| 22  | Textile mill products                     | 617,799         | 4,391     | 55,537     | 59,012                          | 66,810    | 21,107       | 5,101                     | 3,399           | 2,155                              | 8,069                               | 332,472                   |
| 23  | Apparel and other textile products        | 923,168         | 805       | 31,109     | 25,184                          | 17,449    | 56,926       | 3,082                     | 428             | 723                                | 1,088                               | 194,704                   |
| 24  | Lumber and wood products                  | 694,477         | 185,129   | 233,242    | 201,834                         | 92,121    | 25,110       | 29,146                    | 8,652           | 3,569                              | 19,881                              | 536,800                   |
| 25  | Furniture and fixtures                    | 496,292         | 10,130    | 84,627     | 136,160                         | 34,266    | 9,322        | 9,269                     | 2,720           | 1,188                              | 12,721                              | 311,600                   |
| 26  | Paper and allied products                 | 621,951         | 52,543    | 105,308    | 100,305                         | 63,049    | 37,521       | 27,015                    | 12,977          | 11,023                             | 14,719                              | 336,082                   |
| 27  | Printing and publishing                   | 1,481,903       | 4,014     | 128,012    | 63,863                          | 33,974    | 12,239       | 3,719                     | 192             | 1,496                              | 5,201                               | 384,966                   |
| 28  | Chemicals and allied products             | 824,185         | 160,783   | 283,702    | 213,576                         | 109,327   | 71,258       | 31,965                    | 52,196          | 85,937                             | 11,660                              | 414,662                   |
| 29  | Petroleum and coal products               | 111,611         | 33,918    | 34,720     | 19,365                          | 19,955    | 11,357       | 3,554                     | 8,546           | 11,588                             | 677                                 | 39,287                    |
| 30  | Rubber and miscellaneous plastics produc  | 946,129         | 9,556     | 207,304    | 205,132                         | 39,530    | 25,315       | 14,795                    | 5,883           | 9,576                              | 3,249                               | 553,554                   |
| 31  | Leather and leather products              | 99,616          | 109       | 3,335      | 3,178                           | 1,864     | 5,818        | 400                       | 51              | 76                                 | 85                                  | 21,664                    |
| 32  | Stone, clay, and glass products           | 472,321         | 127,218   | 180,737    | 135,843                         | 55,400    | 32,106       | 21,399                    | 8,747           | 11,530                             | 20,615                              | 320,051                   |
| 33  | Primary metal industries                  | 665,649         | 216,374   | 338,771    | 282,986                         | 62,153    | 57,934       | 33,760                    | 22,533          | 12,030                             | 158,449                             | 492,677                   |
| 34  | Fabricated metal products                 | 1,385,031       | 99,232    | 457,106    | 419,623                         | 75,281    | 42,389       | 72,745                    | 9,603           | 6,501                              | 109,422                             | 842,427                   |
| 35  | Industrial machinery and equipment        | 1,764,517       | 22,298    | 333,822    | 508,415                         | 121,004   | 81,425       | 86,240                    | 6,780           | 8,232                              | 39,989                              | 942,440                   |
| 36  | Electronic and other electronic equipment | 1,432,316       | 22,545    | 272,652    | 312,449                         | 44,779    | 36,871       | 24,119                    | 6,492           | 27,967                             | 5,223                               | 689,079                   |
| 37  | Transportation equipment                  | 1,554,040       | 76,503    | 519,315    | 493,880                         | 109,314   | 89,904       | 63,553                    | 27,468          | 22,942                             | 32,010                              | 960,677                   |
| 38  | Instruments and related products          | 820,640         | 12,230    | 130,176    | 159,456                         | 58,004    | 27,060       | 10,662                    | 4,522           | 25,821                             | 5,784                               | 343,987                   |
| 39  | Miscellaneous manufacturing industries    | 377,711         | 6,314     | 64,946     | 68,407                          | 35,811    | 17,669       | 6,652                     | 2,603           | 14,431                             | 3,600                               | 157,127                   |
| 41  | Local and interurban passenger transit    | 387,174         | 13,267    | 118,567    | 26,535                          | 32,943    | 8,225        | 17,839                    | 7,461           | 3,719                              | 6,900                               | 176,704                   |
| 42  | Trucking and warehousing                  | 1,695,286       | 63,009    | 495,659    | 126,536                         | 124,186   | 42,455       | 68,395                    | 31,263          | 16,173                             | 37,886                              | 761,855                   |
| 46  | Pipelines, except natural gas             | 16,354          | 0         | 0          | 0                               | 0         | 0            | 218                       | 0               | 0                                  | 0                                   | 218                       |
| 47  | Transportation services                   | 366,516         | 0         | 0          | 0                               | 0         | 0            | 983                       | 0               | 0                                  | 0                                   | 983                       |
| 48  | Communication                             | 1,308,828       | 224,254   | 203,063    | 52,153                          | 106,458   | 15,878       | 2,433                     | 177,419         | 0                                  | 8,281                               | 239,610                   |
| 49  | Electric, gas, and sanitary services      | 913,917         | 303,425   | 307,046    | 153,349                         | 160,948   | 88,712       | 42,727                    | 144,449         | 42,395                             | 16,466                              | 357,562                   |
| 50  | Wholesale trade - durable goods           | 3,499,652       | 425,495   | 825,980    | 440,925                         | 615,210   | 280,533      | 429,629                   | 52,978          | 71,057                             | 14,583                              | 1,629,167                 |
| 51  | Wholesale trade - nondurable goods        | 2,533,293       | 336,688   | 571,292    | 295,526                         | 439,710   | 202,801      | 327,304                   | 43,525          | 49,758                             | 1,046                               | 1,168,481                 |
| 52  | Building materials and garden supplies    | 728,024         | 116,799   | 259,794    | 92,354                          | 126,163   | 27,661       | 23,331                    | 7,920           | 0                                  | 35,380                              | 332,370                   |
| 55  | Automotive dealers and service stations   | 2,096,587       | 20,564    | 420,949    | 310,260                         | 299,233   | 149,981      | 162,560                   | 121             | 51,833                             | 22,417                              | 773,688                   |
| 59  | Miscellaneous retail stores               | 247,729         | 0         | 0          | 0                               | 0         | 0            | 153                       | 0               | 0                                  | 0                                   | 153                       |
| 73  | Business services                         | 623,970         | 0         | 0          | 0                               | 0         | 0            | 7,241                     | 0               | 0                                  | 0                                   | 7,241                     |
| 75  | Auto repair, services, and parking        | 935,968         | 9,002     | 184,273    | 135,819                         | 130,991   | 65,655       | 23,331                    | 53              | 22,690                             | 14,543                              | 338,687                   |
| 76  | Welding & other repair                    | 25,305          | 5,623     | 15,100     | 9,688                           | 10,683    | 9,384        | 25,305                    | 2,947           | 207                                | 1,264                               | 25,305                    |
| 87  | Engineering & management services         | 2,692,666       | 0         | 0          | 0                               | 0         | 0            | 2,812                     | 0               | 0                                  | 0                                   | 2,812                     |
| 89  | Miscellaneous services                    | 85,030          | 0         | 0          | 0                               | 0         | 0            | 62                        | 0               | 0                                  | 0                                   | 62                        |
|     | TOTAL                                     | 48,087,351      | 7,665,215 | 10,366,608 | 6,712,813                       | 4,231,133 | 2,217,001    | 2,247,013                 | 1,394,507       | 700,499                            | 963,713                             | 19,566,465                |

Source: OSHA Office of Regulatory Analysis

*Data on PPE Payment Patterns*

To derive estimates of current employer payment patterns with regard to PPE, the Agency consulted several sources: a national study of collective bargaining agreements (BNA 1995), information from OSHA's State-plan States, information from OSHA's 1989 PPE survey (ERG 1998), and a panel of experts on PPE payment patterns (ERG 1998).

The data available to OSHA suggest that most employers in OSHA's jurisdiction are already paying for the PPE they provide to their employees to comply with OSHA standards. They do so because of labor-management agreements and collective bargaining contracts, and for other obvious reasons: if they pay for the PPE, they know what kinds of PPE their employees are using, can ensure that it is replaced when needed, and can require standardized procedures for cleaning, storing, and maintaining it. In other words, they can control what PPE is used and how it is used, and thus can have greater assurance that they are in fact in compliance with OSHA's standards. Other reasons why employers prefer to pay for PPE, according to the expert panel convened by OSHA to obtain information on PPE patterns of use and payment, are:

- The employer has experience with injuries that could have been prevented by PPE use;
- The employer has received input from his/her insurance carrier;
- The employer's staff and employees are aware of job-related hazards and know about PPE use; and
- The employer is concerned about the likelihood of an OSHA inspection (ERG 1998).

A recent study of collective bargaining agreements showed that 55% of contracts mentioning safety equipment require employers to pay for PPE, while only 11% of such agreements require the employee to pay

for any PPE; this latter figure includes payment for all kinds of safety shoes. In addition, nearly half of all U.S. workers work in States covered by OSHA State plans. These States generally require employers to pay for mandatory PPE, with the exception, in some cases, of safety-toe footwear and prescription safety glasses. For example, Kentucky, which operates its own OSHA program under an approved State-plan, requires employers to pay for all required PPE except that which is personal in nature and is also used off the job. California has required employers to pay for all PPE, without exception, for many years. OSHA is currently reviewing the PPE payment policies of all of its State-plan partners; to date, all of the State plans responding have a policy of requiring employers to pay for most PPE items.

To develop detailed estimates of sectoral patterns of PPE payment, OSHA recently sponsored an expert panel of individual representatives from industry, labor, insurance companies, and safety equipment manufacturers and distributors. These individuals are recognized for their knowledge of PPE use and purchasing patterns in the general industry, construction, and maritime sectors. Many panelists indicated that the kinds of PPE that could potentially be affected by the proposed rule, i.e., those where a shift in costs from employees to employers could potentially occur, were hard hats, gloves, safety glasses (non-prescription), goggles, safety shoes (other than safety-toe safety shoes), welding hoods and goggles, facemasks, fall protection equipment, and chemical protective clothing. Based on the responses of individual members of the panel, this industry profile includes all the major types of PPE identified as having such potential. However, the Agency solicited comments on any types of PPE not included in this analysis, the extent of the use of such PPE in each affected industry, and the extent to which

employers do not currently pay for such PPE, in each affected industry.

Table VI-2 summarizes the findings of the expert panel, which are presented as the percentage of all PPE costs currently estimated to be borne by employers, by industry and type of PPE. The table reports the median response, i.e., the median percentage reported by the experts in each case, except for manufacturing, where the panel estimated that 100% of costs for the affected kinds of PPE are being borne by employers (OSHA has reduced this to 95% to be conservative) and the service industries (where OSHA assumed that the percentages attributed by the experts to the wholesale trade industry would be applicable to all service industries). The panel's estimates of the percentage of PPE costs currently being borne by employers were generally highest for manufacturing and transportation and lowest for construction and shipyards, although estimates even within these industries varied widely by type of PPE. For example, the panel estimated that 87% of employers in the transportation industry currently pay for non-prescription safety eyewear, while 91.5% percent of these employers currently pay for chemical protective clothing. In construction, where the pattern of employer payment for PPE is generally lower than for other industries, 70% of employers are estimated currently to pay for non-prescription safety eyewear, while only 50% pay for gloves to protect against abrasion and laceration.

OSHA believes that Table VI-2 generally presents an accurate picture of current PPE payment patterns in various industries at the present time, comporting with the Agency's own experience. Thus the proposed rule, rather than representing a departure from current practice, will largely reflect it.

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TABLE VI-2  
ESTIMATED PERCENTAGE OF PPE COST CURRENTLY BORNE BY EMPLOYERS, ON AVERAGE, BY INDUSTRY SECTOR\*

| PPE Type                               | Agricultural Services | Oil & Gas | Construction | Manufacturing | Shipyards | Longshoring | Transportation | Utilities | Wholesale |
|--|-----------------------|-----------|--------------|---------------|-----------|-------------|----------------|-----------|-----------|
| Non-prescription safety glasses        | 28.8%                 | 87.0%     | 70.0%        | 95.0%         | 75.0%     | 100.0%      | 87.0%          | 91.3%     | 81.0%     |
| Goggles                                | 28.8%                 | 87.3%     | 72.5%        | 95.0%         | 84.4%     | 100.0%      | 87.8%          | 83.8%     | 82.0%     |
| Face shields                           | 28.8%                 | 87.3%     | 72.5%        | 95.0%         | 91.9%     | 100.0%      | 87.8%          | 83.8%     | 82.0%     |
| Hard hats                              | 43.0%                 | 94.0%     | 73.8%        | 95.0%         | 86.3%     | 100.0%      | 90.3%          | 81.5%     | 83.0%     |
| Gloves—chemical protection             | 82.5%                 | 94.6%     | 78.8%        | 95.0%         | 90.6%     | 100.0%      | 89.5%          | 93.8%     | 81.0%     |
| Gloves—abrasion/laceration protect.    | 55.0%                 | 85.1%     | 50.0%        | 95.0%         | 84.4%     | 100.0%      | 89.0%          | 87.5%     | 81.0%     |
| Chemical protective clothing/equipment | 86.3%                 | 99.6%     | 78.8%        | 95.0%         | 94.5%     | 100.0%      | 91.5%          | 95.6%     | 81.0%     |
| Welding goggles                        | 57.5%                 | 90.1%     | 73.8%        | 95.0%         | 83.1%     | 100.0%      | 90.5%          | 83.8%     | 81.0%     |
| Welding helmets                        | 57.5%                 | 90.1%     | 73.8%        | 95.0%         | 83.1%     | 100.0%      | 90.5%          | 83.8%     | 81.0%     |
| Fall protection                        | 82.5%                 | 93.4%     | 76.3%        | 95.0%         | 75.0%     | 100.0%      | 90.8%          | 92.5%     | 77.0%     |
| Safety shoes with metatarsal guards    | 40.0%                 | 66.0%     | 26.3%        | 51.3%         | 48.8%     | N/A         | 77.5%          | 72.5%     | 72.5%     |

\*Based on median response of a panel of experts, with the exception of manufacturing, where 100% of the costs were indicated to be currently borne by employers for most items and OSHA reduced this to 95% to be conservative.

Source: OSHA, Office of Regulatory Analysis

In order to further ensure that the Agency has accurate data on current patterns of PPE payment and usage, OSHA is conducting a nationwide telephone survey of American workplaces dealing specifically with that question. The Agency intends to have the results available for review and comment before the final rule is published. The information from the survey will be used to modify and update this economic analysis as needed with respect to both PPE use patterns (Table VI-1) and PPE payment patterns (Table VI-2). When the PPE survey is completed, OSHA will reopen the record to enable the public to comment on the results.

#### *Technological Feasibility*

This rule does not change any PPE requirements, but affects only the issue of who pays for PPE. All of the PPE affected by this rulemaking has already been found to be technologically feasible in other rulemakings. Personal protective equipment is widely manufactured, distributed, and used in workplaces in all of the industries covered by OSHA standards. The proposed rule thus raises no issues of technological feasibility.

#### *Benefits of the Proposed Rule*

Both OSHA's own enforcement experience and the experience of members of OSHA's expert panel show that when employers do not provide and pay for PPE, it is often not worn, is worn improperly, or is not cared for and replaced appropriately. In the words of one panel member:

Our experience has been that the biggest factor in determining proper, effective use of eye protection is effective supervision—if the supervisor leads by example; if he/she reinforces use of eye protection by the workers under his/her supervision; if he/she has replacement eye protection readily available when it gets scratched or otherwise damaged or lost—then there is more likely to be a pattern of effective use among the workforce. This is significantly more difficult to accomplish when employees are expected to buy their own PPE. (It is not generally feasible to provide PPE and then charge the workers for it.) . . . It is also difficult to ensure that the employees are properly trained in the care and use of PPE if the employer does not provide it. (ERG 1998)

Thus, two key problems can occur when employers fail to pay for PPE: either the PPE is not worn in cases where it is needed to protect against injury or illness, or the PPE is worn inappropriately. The consequences of these failures are the same: employees are exposed to chemical, physical, or safety hazards in the workplace, which, in turn, results in injuries, illnesses, and

death (as documented in OSHA's recent respiratory protection rule (63 FR 1152, January 8, 1998). Another panel member tried to estimate the quantitative differences between employer and employee payment for PPE:

When employees are made responsible for purchasing their own PPE, I believe that their probabilities of (1) actually purchasing PPE, and (2) purchasing appropriate PPE, are diminished because they must use some or all of their funds for this equipment, whereas they would rather save this money for their own purposes, and they simply don't have the resources to understand and choose among available PPE. There is always a reluctance to use one's own funds to pay for replacing or repairing workplace PPE. I believe that when employees are responsible for their own PPE that a higher incidence of non-use or misuse occurs. I would expect that figure would be approximately 40% for employee-purchased PPE versus 15 to 20% for employer-purchased PPE. (ERG 1998)

The estimates provided by this expert panelist are consistent with the statements of other panelists, as well as with OSHA's enforcement and regulatory experience. Most panel members indicated that if the employer did not pay for PPE, the PPE was not provided. To the extent that this is the case, OSHA's estimates may actually underestimate the effects of having employers pay for and provide PPE. To estimate the benefits of employer PPE payment, OSHA used the panel's estimates of the differences in effectiveness between employee-paid and employer-paid PPE, and the estimates of the total numbers of injuries, illnesses and deaths preventable by PPE that were developed for the 1994 PPE rulemaking. OSHA invites comment from those with experience in this area, to assist the Agency to refine, revise if necessary, or confirm the accuracy of this estimate, as discussed below.

In 1994, OSHA examined, for each body part, the number of injuries preventable by the then newly revised PPE rule [59 FR 16352]. OSHA reviewed 1,170 OSHA Form 200s describing almost 64,000 injuries; these forms had been submitted to OSHA in response to the 1989 PPE survey. The profile of injuries, as defined by body part, very closely tracked those in BLS's injury data base [OSHA 1994, pp. V-11-13]. Information on the nature of the injury and the circumstances surrounding the accident was used to determine the extent to which PPE would have prevented the injury. Most injuries were not considered preventable by PPE. For example, sprains and strains (nature), or injuries caused by overexertion (circumstance), were considered not to be preventable by PPE. Eye injuries, by

contrast, tended to be highly preventable.

From these injury descriptions, it was possible to determine that approximately one-third of injuries in general industry were preventable with PPE. However, within this group, it was apparent that PPE could be particularly effective in protecting certain body parts. As indicated in the 1994 analysis [OSHA 1994, p. V-16], eye injuries were estimated to be 95 percent PPE preventable; foot and toe, 75 percent; face and ear, 68 percent; and hand and finger, 63 percent. Head injuries were judged to be 45 percent preventable. Over 90 percent of these injuries were incurred by production workers in the subset of high-hazard industries selected for study in the PPE survey; in other words, they reflect the sort of preventable process-related PPE injuries which § 1910.132 was intended to prevent. The full analysis of the injuries judged to be preventable through the proper use of PPE is presented in detail in the Regulatory Impact Assessment [OSHA 1994]. In that analysis, OSHA found that almost 900,000 injuries in the general industry and maritime sectors would be preventable by full compliance with the new PPE rule, i.e., that 900,000 injuries could have been prevented if employees had actually worn the appropriate protective equipment. This analysis did not cover the construction sector. OSHA assumed that the same preventability factors would apply in construction as in the general industry and maritime sectors.

For the analysis of the Employer Payment for PPE rule, OSHA took into consideration the fact that compliance with the rule will not be perfect and that the likelihood of full compliance is influenced by who pays for the PPE. Therefore, OSHA developed an estimate of the number of injuries, illnesses, and deaths potentially averted by this rule by combining the following information:<sup>6</sup>

<sup>6</sup>The number of injuries resulting from the lack of appropriate PPE can be determined by examining both the likelihood of employers not providing PPE under the two payment scenarios, and data on the current pattern of payment for PPE. The equation for a particular body part and relevant type of PPE can be described this way:

$((.4Ep / (.4Ep + .175En)) \times \text{total PPE-preventable injuries}) = \# \text{ injuries among employees paying for their own PPE}$  Where:

Ep = # of employees paying for their own PPE

En = # of employees not paying for their own PPE (employer paying)

Having determined the number of injuries falling into this group, it is possible to estimate the number of injuries preventable by reassigning payment responsibility to the employer. Once the number of injuries among the employee-paying group is derived, it has to be recognized that not all of these

Continued

(1) the number of injuries preventable through proper use of PPE, classified by type of PPE (from 1994 economic analysis);

(2) the expert panel member's estimate that PPE will be missing or used inappropriately 17.5% of the time when the employers pay for their employee's PPE;

(3) the expert panel member's estimate that PPE will be missing or used inappropriately 40% of the time when employees pay for their own PPE; and

(4) the number of employees with employer paid PPE (see the Industry Profile section of this analysis).

Table VI-3 presents the number of injuries preventable by this rulemaking in general industry and construction, by body part. This analysis indicates that the proposed rule would avert approximately 47,785 injuries annually.

Although the primary benefit of the proposed rule is that it will avert injuries and save their associated costs, there are cases where the lack of

appropriate PPE has been fatal. At the time of the 1994 rulemaking, 24 fatal head injuries were considered to be preventable every year in general industry through the use of PPE. Based on that analysis, the Agency estimates that 6.9 percent of these cases, or an average of 1.7 (.069 × 24) fatal head injuries annually, will be averted by the proposed rule. According to BLS's Census of Fatal Occupational Injuries, there were 263 fatal head injuries in the construction industry in 1993, 44 of which were coded as "struck by" or "struck against." Since a larger portion of employees pay for their own PPE in construction, the impact of the proposed rule is likely to be greater in construction than in general industry. OSHA therefore estimates that 12.7 percent of these 44 fatalities are preventable, for a total of 5.6 (44 × .127) averted fatal head injuries annually. Therefore, in general industry and construction, the Agency estimates that approximately 7 (5.6 + 1.7) lives could

be saved annually by compliance with the proposed rule.

The Agency also believes that the proposed rule will achieve substantial benefits in the area of fall protection, particularly in construction. The proposal would prevent a number of fatalities and severe injuries that are now occurring either because employee-provided PPE provides inadequate protection or because the employee arrives on site without the necessary PPE. For example, OSHA estimated in the Regulatory Impact Analysis for Subpart M that fall protection systems would prevent nearly 80 fatalities and 26,600 lost workdays annually. To the extent that employers provide more effective harnesses and lanyards than those currently being provided by employees, or ensure that this equipment is available for use by the employee, this rule will avert deaths and injuries caused by falls. However, at the current time the Agency does not have sufficient detail on these accidents to quantify the benefits of this effect.

TABLE VI-3.—INJURIES JUDGED TO BE PREVENTABLE IF EMPLOYERS ARE REQUIRED TO PAY FOR PPE NOW BEING PAID FOR BY EMPLOYERS

| Body part                      | Injuries judged to be preventable by PPE | Percent of those judged to be preventable by this rule-making <sup>1</sup> | Total judged to be preventable and within scope of this rule-making | Total injuries judged to be preventable among employees paying for PPE | Injuries judged to be prevented by requiring employer payment for PPE |
|--------------------------------|--|--|---|--|---|
| <b>General Industry</b>        |  |  |   |  |   |
| Eye .....                      | 117,296                                  | 31.0   | 36,362  | 8,085  | 4,548   |
| Face & ear .....               | 36,810                                   | 50.0   | 18,405  | 4,427  | 2,490   |
| Head & neck .....              | 116,050                                  | 50.0   | 58,025  | 14,272   | 8,028   |
| Hand & finger .....            | 281,221                                  | 50.0   | 140,611   | 30,771   | 17,309  |
| Foot & toe .....               | 129,452                                  | 5.5  | 7,120   | 4,109  | 2,311   |
| Subtotal .....                 | 680,830                                  | .....  | 260,522   | 61,665   | 34,686  |
| <b>Construction:</b>           |  |  |   |  |   |
| Eye .....                      | 25,524                                   | 31.0   | 7,912   | 3,824  | 2,151   |
| Face & ear & head & neck ..... | 13,445                                   | 50.0   | 6,722   | 3,027  | 1,703   |
| Hand & finger .....            | 44,589                                   | 50.0   | 22,295  | 15,509   | 8,724   |
| Foot & toe .....               | 21,399                                   | 5.5  | 1,177   | 926  | 521   |
| Subtotal .....                 | 104,957                                  | .....  | 38,106  | 23,286   | 13,098  |
| <b>Total</b> .....             | <b>785,787</b>                           | <b>.....</b>   | <b>298,629</b>  | <b>84,951</b>  | <b>47,785</b>   |

<sup>1</sup> Only half of these injuries are judged to be within the direct coverage of this rule because employer payment rules already apply in State plan States; non-prescription safety glasses constitute approximately 62% of safety glasses; shoes with metatarsal guards account for 11% of all safety shoes.

Source: OSHA Office of Regulatory Analysis.

will be preventable by switching payment systems. Since the number of injuries was derived assuming that 60% of the employee-paying population is already wearing PPE, the proper comparison is between the 40% nonusage in the employee-paying population and the 17.5% nonusage in the employer-paying population. Therefore, the percentage of injuries remaining after switching to employer-payment would be .175/.4 or 44 percent of the original number of injuries among the employee-paying group. Thus, 1-0.175/.4 provides

the percentage prevented. In the abstract, this equation is:

The number of injuries prevented by switching to employer payment= (# of PPE-related injuries occurring among the employee-paying group) × 1-(% of time PPE is not worn when employers pay / % of time PPE is not worn when employees pay)

Using the specific numbers in this analysis, this becomes:

The number of injuries prevented by switching to employer payment= (# of PPE-related injuries

occurring among the employee-paying group) × (1-(.175/.4))

In other words, 56 percent (1-(.175/.4)) of these injuries would be preventable by switching payment patterns from employees to employers.

This analysis has included only half of the PPE-related injuries occurring currently in the United States because approximately half of all employees are already covered by employer payment requirements in State-plan States. This analysis also focuses only on those body parts, e.g., eyes, head, hand, foot, most likely to be protected by PPE.

*Direct Savings Resulting From the Reduction in Injuries Attributable to the Proposed Rule*

This section evaluates the direct savings associated with the injuries averted by the proposed rule; it does not attempt to place a monetary value on the lives that will be saved by compliance with the rule or on pain, suffering and other similar effects avoided. These other effects of occupational injuries and illnesses include the pain and suffering experienced by workers and their families, loss of esteem, disruption of family life, and feelings of anger and helplessness. Occupational injuries and illnesses impose an enormous burden on society in addition to the direct outlays of money for medical expenses, lost wages and production, and other purely economic effects.

Some aspects of the burden of occupational injuries and illnesses can be quantified in monetary terms. These aspects of the problem of work-related injuries and illnesses can be measured by the losses experienced by employees and by the other costs that are externalized to the rest of society. One consequence of the failure of PPE programs to prevent job-related injuries is the growth of enormously expensive income maintenance programs such as workers' compensation and long-term disability programs. These costs impose a burden on society separate from and in addition to the human toll in pain and suffering caused by workplace-related injuries.

One measure of some of the losses associated with lost time due to work-related injuries is the lost output of the worker, measured by the value the market places on his or her time. This value is measured as the worker's total wage plus fringe benefits. Other costs include: (1) Medical expenses, (2) costs of workers' compensation insurance administration, (3) indirect costs to employers (other than those for workers' compensation administration), and (4) legal expenses of employees.

OSHA estimates the value of lost output by starting with workers' compensation indemnity payments and then adding other losses associated with work-related illnesses and injuries. The Agency then follows four steps to arrive at a value for lost output:

(1) Calculate PPE-related illness and injury in terms of workers' compensation indemnity payments;

(2) Add the difference between the value of these indemnity payments and the worker's after-tax income, based on various studies comparing workers' compensation payments with after-tax

income. This step estimates the magnitude of lost after-tax income;

(3) Add the estimated value of taxes, based on the typical value of taxes as a percentage of after-tax income. This step estimates the value of total income lost; and

(4) Add the value of fringe benefits, based on data on fringe benefits as a percentage of total income. This step estimates the total market value of the lost output.

In this approach, injuries are clearly undervalued, because OSHA assumes that the value associated with injuries is the same as the value of claims for workers' compensation. An analysis of workers' compensation claim data from the Argonaut Insurance Company for 1993 show that the weighted average claim value of the injuries shown in Table VI-3 is \$2,408. Based on nationwide estimates from the U.S. Social Security Administration, an average of 58 percent of these payments are paid out for indemnity, and the remaining 42 percent are paid out for medical costs [USSA, 1993].

*Indemnity/Lost Income*

Workers' compensation indemnity payments typically take two forms: temporary total disability payments, which cover absences from work prior to the stabilization of the condition, and permanent disability payments, which compensate the worker for the long-term effects of a stabilized condition. On a nationwide basis, it is estimated that permanent disability payments account for 61.5 percent of all indemnity payments [Berkowitz and Burton].

The extent to which income is replaced by each type of indemnity payment (i.e., temporary or permanent) differs. First, although rules vary by State, temporary disability income is designed in most States to replace two-thirds of the worker's before-tax income. However, most States place a maximum and minimum on the amount of money paid out to the worker, regardless of his/her actual former income. Studies by the Worker Compensation Research Institute (WCRI) show that temporary total disability payments replace between 80 to 100 percent of the after-tax income of the majority of workers [WCRI, 1993]. From 3 to 44 percent of the workers receive less than 80 percent of their after-tax income, and from 0 to 16 percent receive more than 100 percent of their after-tax income.

Unfortunately, WCRI does not provide estimates of the average replacement rates for all workers in a State. However, based on these data, it seems reasonable to assume that, on average, workers receive no more than 90 percent of their

after-tax income while on temporary disability. On the other hand, data show that permanent partial disability payments replaced 75 percent of income lost in Wisconsin, 58 percent in Florida, and 45 percent in California [Berkowitz and Burton]. OSHA uses the simple average of these three—59 percent—to estimate the extent of after-tax income replacement for permanent partial disabilities<sup>7</sup>.

Based on these data, OSHA estimated after-tax income from the total indemnities paid for injuries preventable by the proposed rule by assuming, based on estimates for all workers' compensation claims provided by Berkowitz and Burton, that temporary disabilities account for 38.5 percent of all PPE-preventable indemnity payments and replace 90 percent of after-tax income, and that permanent partial disabilities<sup>8</sup> account for 61.5 percent of PPE-preventable indemnity payments and replace 60 percent of after-tax income.

*Fringe Benefits*

In addition to after-tax income loss, lost output includes the value of taxes that would have been paid by the injured worker and fringe benefits that would have been paid by the worker's employer. Total income-based taxes (individual Social Security payments, Federal income tax, and State income tax) paid were assumed to be 30 percent of total income. Fringe benefits were estimated as 39 percent of before-tax income, based on the average fringe benefit data provided by BLS [BLS, 1997].

Tables VI-4 and VI-5 apply the estimation parameters developed above to calculate the total value of the lost output potentially associated with temporary and permanent partial disabilities, respectively, once the final standard has been fully implemented. As shown, the total value of the lost output associated with potentially avoidable accepted workers' compensation claims that result in temporary total disability is estimated at \$55.8 million, and that associated with permanent partial disabilities at \$129.7 million a year.

<sup>7</sup>The use of a simple average rather than a population-weighted average results in a lower estimate of income loss and is thus a conservative approach.

<sup>8</sup>Permanent "partial" disabilities include all permanent disabilities, ranging from 1 to 100 percent disabled.

TABLE VI-4.—VALUE OF LOST OUTPUT ASSOCIATED WITH TEMPORARY TOTAL DISABILITIES RESULTING FROM PPE-PREVENTABLE INJURIES

| Type of benefit  | Injuries/costs prevented |
|--|--------------------------|
| Total Number of PPE-Preventable Cases Annually ..                              | 47,785                   |
| Weighted Average Total Cost per Claim .....                                    | \$2,408                  |
| Indemnity Share of Payment (58% of Total Claim) .....                          | \$1,396                  |
| Medical Share of Payment (42% of Total Claim) .....                            | \$1,011                  |
| Value of Temporary Total Disability Indemnity Payments <sup>1</sup> .....      | \$25,689,814             |
| Lost-After-Tax Income Above the Value of Indemnity Payments <sup>2</sup> ..... | \$2,854,424              |
| Lost Value of Tax Payments <sup>3</sup> .....                                  | \$11,866,247             |
| Lost Value of Fringe Benefits <sup>4</sup> .....                               | \$15,426,122             |
| <b>Total .....</b>   | <b>\$55,836,606</b>      |

<sup>1</sup> Number of cases X indemnity payments per case X 38.5 percent indemnity value share attributable to temporary total disability.

<sup>2</sup> Temporary total disability payments have been estimated to equal 90 percent of lost after-tax income.

<sup>3</sup> Taxes are estimated to equal 30 percent of before-tax income.

<sup>4</sup> Fringe benefits=39 percent of wage income [BLS, 1995].

Source: U.S. Department of Labor, OSHA, Office of Regulatory Analysis.

TABLE VI-5.—VALUE OF LOST OUTPUT ASSOCIATED WITH PERMANENT PARTIAL DISABILITIES RESULTING FROM PPE-PREVENTABLE INJURIES

| Type of benefit  | Injuries/costs prevented |
|--|--------------------------|
| Number of PPE-Preventable Injury Cases .....                                   | 47,785                   |
| Value of Indemnity Payments (Permanent Partial) <sup>1</sup> .....             | \$41,036,975             |
| Lost-After-Tax Income Above the Value of Indemnity Payments <sup>2</sup> ..... | \$28,517,220             |
| Lost Value of Tax Payments <sup>3</sup> .....                                  | \$26,142,441             |
| Lost Value of Fringe Benefits <sup>4</sup> .....                               | \$33,985,174             |

TABLE VI-5.—VALUE OF LOST OUTPUT ASSOCIATED WITH PERMANENT PARTIAL DISABILITIES RESULTING FROM PPE-PREVENTABLE INJURIES—Continued

| Type of benefit    | Injuries/costs prevented |
|--------------------|--------------------------|
| <b>Total .....</b> | <b>\$129,681,810</b>     |

<sup>1</sup> Number of cases prevented X indemnity payments per claim X 61.5 percent value share attributable to permanent partial disability.

<sup>2</sup> Permanent partial disability payments are estimated to equal 59 percent of the value of lost after-tax income.

<sup>3</sup> Taxes are estimated to be 30 percent of before tax income.

<sup>4</sup> Fringe benefits=39 percent of wage income [BLS, 1995].

Source: U.S. Department of Labor, OSHA, Office of Regulatory Analysis.

**Medical**

Medical costs do not include any first-aid costs incurred by the employer and, in some cases, costs for transportation to a medical facility; however, most elements of medical costs are included in the share of payments paid for medical costs, estimated to be 42 percent of the cost of the claims. Costs for treating injuries will remain relatively constant, regardless of who is actually paying for the medical care (i.e., the employer through workers' compensation, or a medical insurer). As presented in Table VI-6, OSHA estimates the medical costs of injuries preventable by the proposed standard to be \$48.3 million a year.

TABLE VI-6. ANNUAL SOCIAL BENEFITS ASSOCIATED WITH THE REDUCTION IN INJURIES AS A RESULT OF EMPLOYER PAYMENT FOR PPE

| Type of benefit  | Injuries/costs prevented |
|--|--------------------------|
| Lost Output Associated with Temporary Disabilities <sup>1</sup> .... | \$55,836,606             |
| Lost Output Associated with Permanent Disabilities <sup>2</sup> .... | 129,681,810              |
| Medical Costs <sup>3</sup> .....                                     | 48,319,399               |
| Insurance Administrative Costs <sup>4</sup> .....                    | 29,912,009               |
| Indirect Costs <sup>5</sup> .....                                    | 23,929,607               |
| <b>Total .....</b>   | <b>287,679,432</b>       |

<sup>1</sup> Derived from Table VI-4.

<sup>2</sup> Derived from Table VI-5.

<sup>3</sup> Calculated by multiplying the number of injuries by the value of medical payments presented in Table VI-4.

<sup>4</sup> Calculated by multiplying the total value of claims times 26 percent.

<sup>5</sup> Calculated by multiplying the total value of workers' compensation medical and indemnity payments times 20.8 percent.

Source: U.S. Department of Labor, OSHA, Office of Regulatory Analysis.

**Administrative Costs**

The administrative costs of workers' compensation insurance include all of the costs associated with the administration of workers' compensation insurance. Such costs include any funds spent directly on claims adjustment, as well as all other administrative costs incurred by the insurer in conjunction with experienced losses.

OSHA estimates the administrative costs of PPE-related injury claims as follows:

- Costs to private insurance companies are estimated, based on 1990 data, as 35.8 percent of the costs of incurred claims [Klein et al., 1993]. These costs include those for claims adjustment, sales, general expenses, taxes, licenses, and fees (historical data show that all of these elements of private insurance costs increase as the value of benefits paid out increases).
- Costs to State funds were estimated, based on 1990 data, as 17.8 percent of the costs of incurred claims [Klein et al., 1993]. These costs include those for claims administration and for costs labeled as "general costs."
- Costs to self-insured companies, estimated by the Social Security Administration to be 6.8 percent of the value of benefits paid in 1990 [Social Security Administration, 1993].

To estimate the aggregate value of the administrative costs of insurance, these costs are weighted by the value of the benefits payments made by each type of insurer (i.e., private insurer, state fund, etc.), based on 1990 data. This calculation is shown in Table VI-7, which indicates that estimated weighted administrative costs constitute 26 percent of the total value of claims. The total value of claims includes the value both of the indemnity and medical portions of insurance company payments. The costs shown in Table VI-7 represent the administrative costs associated with workers' compensation.

TABLE VI-7.—DERIVATION OF AVERAGE ADMINISTRATIVE COSTS AS A PERCENT OF THE VALUE OF CLAIMS, BY TYPE OF INSURANCE

| Type of insurance       | Administrative costs as a percentage of incurred claims <sup>1</sup> (1990) | Percentage of total benefits paid <sup>2</sup> (1990) | Weighted value |
|-------------------------|---|---|----------------|
| Private Insurance ..... | 35.5  | 58.1  | 20.6           |
| State Fund .....        | 17.8  | 22.8  | 4.1            |
| Self-Insurance .....    | 6.8   | 19.4  | 1.3            |
| Total .....             |   |   | 26.0           |

<sup>1</sup> From Klein et al. (1993) for private insurance and State funds, and U.S. Social Security Administration (1993) for self-insurance.

<sup>2</sup> Values for administrative costs as a percent of incurred claims, weighted by total benefits paid.

It should be noted that cases that fall outside the workers' compensation system will typically have administrative costs associated with them—indeed, to the extent they are borne by private medical insurers, they will carry relatively greater administrative expenses than the average estimated here.

#### Indirect Costs

The term "indirect costs", describes the costs of work-related injuries that are borne directly by employers but are not included in workers' compensation claim costs. Such costs are best estimated by looking at the costs an employer actually incurs at the time a workers' compensation claim is filed. These costs include a number of social benefits, such as payments of sick leave to workers for absences that are shorter than the workers' compensation waiting period, losses in production associated with the injured workers' departure and return to work, losses in the productivity of other workers, and a wide variety of administrative costs other than those borne directly by the workers' compensation insurer, e.g., medical management costs for the injured worker. Based on a study [Hinze & Applegate] of indirect costs of injuries in the construction industry, OSHA estimates that indirect costs are 20.8 percent of the value of workers' compensation medical and indemnity payments, i.e., add up to an indirect cost multiplier of 1.21. As indicated in Table VI-6, the Agency estimates that this proposed revision to the PPE standard will save \$23.9 million annually in these indirect costs.

Taken in its entirety, the proposed amendment to the PPE standard is estimated to save \$287.7 million annually in direct costs savings by avoiding preventable injuries. These direct cost savings do not include the economic value of the loss of leisure time. They do not account for the burden of chores that are forced on other household members or hired out. The direct savings also do not include the value of preventing pain and suffering or loss of life.

#### Costs of Compliance

To assess the costs employers may incur to comply with the proposed rule, OSHA first estimated the total costs associated with PPE currently covered by OSHA PPE standards and affected by this rule. OSHA's estimates of the costs of all required PPE were derived from the PPE use estimates shown in Table VI-1, subtracting employees in State plan States, who, as indicated in the previous section, comprise approximately half of the affected workers. Unit costs for equipment were taken from the Agency's economic analysis (Ex. 56, Docket S-060) in support of the 1994 rulemaking that revised the personal protective equipment standard (29 CFR 1910.132). Data from that analysis were supplemented with new estimates of the unit costs of welding equipment and goggles, and of fall protection equipment (ERG 1998). All cost estimates were then updated to reflect 1998 prices.<sup>9</sup> This figure was then

<sup>9</sup> Annualized costs, updated from those used in the Final Regulatory Impact Analysis for the 1994

multiplied by the percentage of these costs not currently being borne by employers (see Table VI-2).

Table VI-8 shows the total annualized costs of compliance for the proposed rule, by industry and kind of PPE. Total annualized costs are \$61.9 million. Gloves and safety shoes (with metatarsal guards) account for the largest portion of these costs, at \$17.3 and \$14.3 million, respectively; welding helmets/goggles account for an additional \$10.2 million per year. These three types of PPE together account for 68 percent of all of the proposed rule's costs of compliance. Construction special trades (SIC 17), at \$24.2 million, and building construction contractors (SIC 15), at \$6.2 million, are the industries estimated to incur the greatest costs.

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PPE rulemaking (OSHA 1994), are hard hats, \$6.67; non-prescription safety glasses, \$6.69; goggles, \$15.07; gloves, \$14.07; and faceshields, \$13.45. According to the expert panel, welders need both helmets and goggles at different times of the year. Welding helmets were assumed to have a life expectancy of 5 years and to cost \$32.00; welding goggles were assumed to be replaced every 3 months, and to cost \$11.00 (these assumptions yield a combined annualized welding unit cost of \$51.80). Fall protection (body harness and lanyard) is assumed to have a life expectancy of 5 years, and to cost \$60.00 (harnesses) and \$60.00 (lanyards), respectively, yielding a combined annualized fall protection unit cost of \$29.27. Reusable chemical protective coveralls were assumed to have a life expectancy of one year and to cost \$20.00, based on a current supply catalog (Lab Safety 1995). Safety shoes with metatarsal guards cost approximately \$100 (ERG 1998); based on an average two year life (OSHA 1994) this yields an annualized cost of \$55.17.

TABLE VI-8  
ESTIMATED INCREMENTAL EMPLOYER COST OF PROVIDING PPE BY ITEM, AS REQUIRED BY PROPOSED PPE RULE

| SIC Industry                               | Hard Hats   | Gloves       | Safety Glasses | Goggles     | Face Shields | Welding Helmets & Goggles | Full Protection | Chemical Protective Suits/Clothing | Safety Shoes with Metatarsal Guards | Total Affected PPE |
|--|-------------|--------------|----------------|-------------|--------------|---------------------------|-----------------|------------------------------------|-------------------------------------|--------------------|
| 078 Landscape and horticultural services   | \$132,284   | \$377,297    | \$91,773       | \$239,976   | \$53,264     | \$33,382                  | \$32,364        | \$18,189                           | \$119,341                           | \$1,097,870        |
| 08 Forestry                                | \$9,410     | \$18,034     | \$4,443        | \$11,744    | \$2,507      | \$1,571                   | \$1,523         | \$856                              | \$4,216                             | \$54,304           |
| 13 Oil and gas extraction                  | \$15,108    | \$71,665     | \$16,707       | \$54,052    | \$21,192     | \$33,705                  | \$37,733        | \$243                              | \$31,187                            | \$287,592          |
| 15 Building Construction                   | \$1,008,762 | \$635,316    | \$397,149      | \$516,706   | \$127,838    | \$283,579                 | \$544,220       | \$97,959                           | \$2,585,524                         | \$6,197,054        |
| 16 Heavy Construction                      | \$594,197   | \$128,205    | \$107,411      | \$139,746   | \$129,447    | \$326,554                 | \$222,590       | \$29,142                           | \$846,096                           | \$2,533,390        |
| 17 Construction Special Trades             | \$2,496,293 | \$10,481,107 | \$937,279      | \$1,245,459 | \$783,900    | \$3,373,622               | \$1,530,225     | \$121,208                          | \$3,198,860                         | \$24,187,953       |
| 20 Food and kindred products               | \$43,509    | \$153,363    | \$20,524       | \$45,552    | \$19,558     | \$84,058                  | \$20,835        | \$4,711                            | \$220,352                           | \$612,461          |
| 21 Tobacco products                        | \$1,126     | \$4,024      | \$582          | \$998       | \$418        | \$1,927                   | \$744           | \$159                              | \$3,998                             | \$13,974           |
| 22 Textile mill products                   | \$732       | \$20,411     | \$9,874        | \$25,172    | \$7,095      | \$6,607                   | \$2,487         | \$215                              | \$108,784                           | \$181,377          |
| 23 Apparel and other textile products      | \$134       | \$11,433     | \$4,214        | \$6,574     | \$19,135     | \$3,992                   | \$313           | \$72                               | \$14,662                            | \$60,530           |
| 24 Lumber and wood products                | \$30,866    | \$85,719     | \$33,771       | \$34,709    | \$8,441      | \$37,748                  | \$6,330         | \$357                              | \$268,030                           | \$505,971          |
| 25 Furniture and fixtures                  | \$1,689     | \$31,101     | \$22,783       | \$12,911    | \$3,134      | \$12,004                  | \$1,990         | \$119                              | \$171,501                           | \$257,232          |
| 26 Paper and allied products               | \$8,760     | \$38,702     | \$16,783       | \$23,755    | \$12,612     | \$34,987                  | \$9,495         | \$1,102                            | \$198,433                           | \$344,631          |
| 27 Printing and publishing                 | \$669       | \$47,046     | \$10,686       | \$12,801    | \$4,114      | \$4,816                   | \$141           | \$150                              | \$70,125                            | \$150,546          |
| 28 Chemicals and allied products           | \$26,807    | \$104,264    | \$35,736       | \$41,192    | \$23,953     | \$41,398                  | \$38,191        | \$8,594                            | \$157,199                           | \$477,332          |
| 29 Petroleum and coal products             | \$5,655     | \$12,760     | \$3,240        | \$7,518     | \$3,818      | \$4,603                   | \$6,253         | \$1,159                            | \$9,131                             | \$54,138           |
| 30 Rubber and miscellaneous plastics prod  | \$1,593     | \$76,187     | \$34,323       | \$14,894    | \$8,509      | \$19,162                  | \$4,304         | \$958                              | \$43,797                            | \$203,726          |
| 31 Leather and leather products            | \$18        | \$1,226      | \$532          | \$702       | \$1,956      | \$278                     | \$37            | \$8                                | \$1,147                             | \$6,143            |
| 32 Stone, clay, and glass products         | \$21,210    | \$66,423     | \$22,730       | \$20,885    | \$10,792     | \$518                     | \$6,400         | \$1,153                            | \$277,925                           | \$454,896          |
| 33 Primary metal industries                | \$36,075    | \$131,853    | \$47,350       | \$23,418    | \$19,474     | \$43,723                  | \$16,487        | \$1,203                            | \$2,136,145                         | \$2,455,727        |
| 34 Fabricated metal products               | \$16,544    | \$167,992    | \$70,212       | \$28,364    | \$14,249     | \$94,213                  | \$7,026         | \$650                              | \$1,475,182                         | \$1,874,433        |
| 35 Industrial machinery and equipment      | \$3,718     | \$123,419    | \$85,069       | \$45,591    | \$27,370     | \$111,690                 | \$4,961         | \$823                              | \$539,111                           | \$941,752          |
| 36 Electronic and other electronic equipme | \$3,759     | \$100,203    | \$52,280       | \$16,872    | \$12,394     | \$31,236                  | \$4,750         | \$2,797                            | \$70,410                            | \$294,700          |
| 37 Transportation equipment                | \$9,284     | \$157,854    | \$109,358      | \$34,065    | \$12,997     | \$73,523                  | \$26,596        | \$3,340                            | \$437,410                           | \$864,426          |
| 38 Instruments and related products        | \$2,039     | \$47,841     | \$26,681       | \$21,854    | \$9,096      | \$13,808                  | \$3,309         | \$2,582                            | \$77,982                            | \$205,192          |
| 39 Miscellaneous manufacturing industries  | \$1,053     | \$23,868     | \$11,446       | \$13,493    | \$5,939      | \$8,615                   | \$1,904         | \$1,443                            | \$48,539                            | \$116,300          |
| 41 Local and interurban passenger transit  | \$4,313     | \$95,865     | \$11,544       | \$30,409    | \$6,774      | \$43,896                  | \$10,099        | \$3,161                            | \$42,932                            | \$248,993          |
| 42 Trucking and warehousing                | \$20,485    | \$400,753    | \$55,048       | \$114,636   | \$34,963     | \$168,300                 | \$42,317        | \$13,747                           | \$235,738                           | \$1,085,987        |
| 46 Pipelines, except natural gas           | \$0         | \$0          | \$0            | \$0         | \$0          | \$537                     | \$0             | \$0                                | \$0                                 | \$537              |
| 47 Transportation services                 | \$0         | \$0          | \$0            | \$0         | \$0          | \$2,419                   | \$0             | \$0                                | \$0                                 | \$2,419            |
| 48 Communication                           | \$138,338   | \$186,570    | \$15,271       | \$130,360   | \$17,346     | \$10,241                  | \$194,718       | \$0                                | \$62,976                            | \$755,821          |
| 49 Electric, gas, and sanitary services    | \$188,411   | \$282,108    | \$44,903       | \$197,084   | \$96,913     | \$179,843                 | \$158,533       | \$18,548                           | \$125,223                           | \$1,291,567        |
| 50 Wholesale trade - durable goods         | \$241,198   | \$1,153,519  | \$280,351      | \$834,463   | \$339,473    | \$2,114,387               | \$178,306       | \$135,009                          | \$110,903                           | \$5,387,610        |
| 51 Wholesale trade - nondurable goods      | \$190,857   | \$797,836    | \$187,903      | \$596,417   | \$245,410    | \$1,610,804               | \$146,492       | \$94,540                           | \$7,957                             | \$3,878,216        |
| 52 Building materials and garden supplies  | \$66,209    | \$362,814    | \$58,721       | \$171,126   | \$33,473     | \$114,823                 | \$26,657        | \$0                                | \$269,069                           | \$1,102,892        |
| 55 Automotive dealers and service stations | \$11,657    | \$587,874    | \$197,271      | \$405,876   | \$181,492    | \$800,026                 | \$406           | \$98,482                           | \$170,480                           | \$2,453,565        |
| 59 Miscellaneous retail stores             | \$0         | \$0          | \$0            | \$0         | \$0          | \$753                     | \$0             | \$0                                | \$0                                 | \$753              |
| 73 Business services                       | \$0         | \$0          | \$0            | \$0         | \$0          | \$35,636                  | \$0             | \$0                                | \$0                                 | \$35,636           |
| 75 Auto repair, services, and parking      | \$5,103     | \$257,346    | \$86,357       | \$177,675   | \$79,450     | \$350,217                 | \$178           | \$43,111                           | \$110,603                           | \$1,110,039        |
| 76 Welding & other repair                  | \$3,188     | \$21,088     | \$6,160        | \$14,490    | \$11,355     | \$56,107                  | \$9,919         | \$393                              | \$9,614                             | \$132,315          |
| 87 Engineering & management services       | \$0         | \$0          | \$0            | \$0         | \$0          | \$13,840                  | \$0             | \$0                                | \$0                                 | \$13,840           |
| 89 Miscellaneous services                  | \$0         | \$0          | \$0            | \$0         | \$0          | \$306                     | \$0             | \$0                                | \$0                                 | \$306              |
|  | \$5,341,053 | \$17,269,084 | \$3,136,465    | \$5,311,541 | \$2,399,851  | \$10,196,407              | \$3,298,834     | \$706,184                          | \$14,260,581                        | \$61,934,145       |

Note: Columns and rows may not sum precisely due to rounding  
Source: OSHA Office of Regulatory Analysis

**TABLE VI-9**  
**COST OF THE PROPOSED PPE STANDARD AS A PERCENT OF REVENUES AND PROFITS OF AFFECTED ESTABLISHMENTS**

| SIC | INDUSTRY                                   | Number of Affected Establishments | Annual Compliance Cost | Average Cost per Establishment | Average Sales per Establishment | Average Pre-Tax Profits per Establishment | Cost as Percent of Revenue | Profit       |
|-----|--|-----------------------------------|------------------------|--------------------------------|---------------------------------|---|----------------------------|--------------|
| 078 | Landscape and horticultural services       | 22,624                            | \$1,097,870            | \$49                           | \$255,843                       | \$16,253                                  | 0.02%                      | 0.35%        |
| 08  | Forestry                                   | 821                               | \$54,304               | \$66                           | NA                              | NA  | 0.00%                      | NA           |
| 13  | Oil and gas extraction                     | 2,962                             | \$287,592              | \$97                           | \$6,493,110                     | \$70,586                                  | 0.00%                      | 0.03%        |
| 15  | Building Construction                      | 94,247                            | \$6,197,054            | \$66                           | \$1,355,108                     | \$57,393                                  | 0.00%                      | 0.13%        |
| 16  | Heavy Construction                         | 17,744                            | \$2,533,390            | \$143                          | \$2,993,564                     | \$206,107                                 | 0.00%                      | 0.11%        |
| 17  | Construction Special Trades                | 199,400                           | \$24,187,953           | \$121                          | \$646,775                       | \$35,001                                  | 0.00%                      | 0.41%        |
| 20  | Food and kindred products                  | 11,970                            | \$612,461              | \$51                           | \$14,642,402                    | \$732,094                                 | 0.00%                      | 0.01%        |
| 21  | Tobacco products                           | 339                               | \$13,974               | \$41                           | \$88,951,671                    | \$12,264,130                              | 0.00%                      | 0.00%        |
| 22  | Textile mill products                      | 997                               | \$181,377              | \$182                          | \$9,943,687                     | \$57,429                                  | 0.00%                      | 0.05%        |
| 23  | Apparel and other textile products         | 4,135                             | \$60,530               | \$15                           | \$2,721,259                     | \$187,359                                 | 0.00%                      | 0.01%        |
| 24  | Lumber and wood products                   | 18,169                            | \$505,971              | \$28                           | \$2,229,264                     | \$164,448                                 | 0.00%                      | 0.03%        |
| 25  | Furniture and fixtures                     | 5,516                             | \$257,232              | \$47                           | \$3,680,567                     | \$271,508                                 | 0.00%                      | 0.03%        |
| 26  | Paper and allied products                  | 3,075                             | \$344,631              | \$112                          | \$18,054,335                    | \$902,685                                 | 0.00%                      | 0.02%        |
| 27  | Printing and publishing                    | 13,097                            | \$150,546              | \$11                           | \$3,119,302                     | \$271,012                                 | 0.00%                      | 0.01%        |
| 28  | Chemicals and allied products              | 7,331                             | \$477,332              | \$65                           | \$21,498,526                    | \$1,368,040                               | 0.00%                      | 0.01%        |
| 29  | Petroleum and coal products                | 3,629                             | \$54,138               | \$15                           | \$17,283,692                    | \$864,154                                 | 0.00%                      | 0.00%        |
| 30  | Rubber and miscellaneous plastics products | 7,129                             | \$203,726              | \$29                           | \$6,330,960                     | \$487,781                                 | 0.00%                      | 0.01%        |
| 31  | Leather and leather products               | 493                               | \$6,143                | \$12                           | \$3,640,190                     | \$214,824                                 | 0.00%                      | 0.01%        |
| 32  | Stone, clay, and glass products            | 7,052                             | \$454,896              | \$65                           | \$4,163,365                     | \$300,299                                 | 0.00%                      | 0.04%        |
| 33  | Primary metal industries                   | 4,375                             | \$2,455,727            | \$561                          | \$15,232,602                    | \$784,682                                 | 0.00%                      | 0.11%        |
| 34  | Fabricated metal products                  | 13,908                            | \$1,874,433            | \$135                          | \$4,774,384                     | \$344,371                                 | 0.00%                      | 0.06%        |
| 35  | Industrial machinery and equipment         | 21,995                            | \$941,752              | \$43                           | \$4,541,860                     | \$335,045                                 | 0.00%                      | 0.02%        |
| 36  | Electronic and other electronic equipment  | 6,622                             | \$294,700              | \$45                           | \$11,093,186                    | \$806,748                                 | 0.00%                      | 0.01%        |
| 37  | Transportation equipment                   | 9,637                             | \$864,426              | \$90                           | \$28,134,011                    | \$1,491,903                               | 0.00%                      | 0.01%        |
| 38  | Instruments and related products           | 4,187                             | \$205,192              | \$49                           | \$11,346,901                    | \$842,391                                 | 0.00%                      | 0.01%        |
| 39  | Miscellaneous manufacturing industries     | 5,461                             | \$116,300              | \$21                           | \$2,565,768                     | \$222,920                                 | 0.00%                      | 0.02%        |
| 41  | Local and interurban passenger transit     | 4,284                             | \$248,993              | \$58                           | \$892,732                       | \$39,910                                  | 0.01%                      | 0.17%        |
| 42  | Trucking and warehousing                   | 27,079                            | \$1,085,987            | \$40                           | \$1,391,837                     | \$72,372                                  | 0.00%                      | 0.07%        |
| 46  | Pipelines, except natural gas              | 32                                | \$537                  | \$17                           | \$17,877,734                    | \$5,850,694                               | 0.00%                      | 0.00%        |
| 47  | Transportation services                    | 13                                | \$2,419                | \$180                          | \$24,831,976                    | \$1,504,916                               | 0.00%                      | 0.01%        |
| 48  | Communication                              | 9,499                             | \$755,821              | \$80                           | \$6,151,483                     | \$2,013,142                               | 0.00%                      | 0.01%        |
| 49  | Electric, gas, and sanitary services       | 6,463                             | \$1,291,567            | \$200                          | \$15,362,493                    | \$931,027                                 | 0.00%                      | 0.02%        |
| 50  | Wholesale trade - durable goods            | 86,296                            | \$5,387,610            | \$62                           | \$4,908,643                     | \$840,389                                 | 0.00%                      | 0.01%        |
| 51  | Wholesale trade - nondurable goods         | 47,635                            | \$3,878,216            | \$81                           | \$7,693,282                     | \$734,523                                 | 0.00%                      | 0.02%        |
| 52  | Building materials and garden supplies     | 18,537                            | \$1,102,892            | \$59                           | \$1,751,380                     | \$81,728                                  | 0.00%                      | 0.10%        |
| 55  | Automotive dealers and service stations    | 62,021                            | \$2,453,565            | \$40                           | \$3,442,262                     | \$146,029                                 | 0.00%                      | 0.04%        |
| 59  | Miscellaneous retail stores                | 6                                 | \$753                  | \$125                          | \$13,662,026                    | \$1,304,057                               | 0.00%                      | 0.01%        |
| 73  | Business Services                          | 159                               | \$35,636               | \$224                          | \$11,682,230                    | \$619,490                                 | 0.00%                      | 0.05%        |
| 75  | Auto repair, services, and parking         | 59,282                            | \$1,110,039            | \$19                           | \$430,710                       | \$15,707                                  | 0.00%                      | 0.14%        |
| 76  | Welding & other repair                     | 2,860                             | \$132,315              | \$46                           | \$298,464                       | \$11,586                                  | 0.02%                      | 0.47%        |
| 87  | Engineering & Management Services          | 72                                | \$13,840               | \$191                          | \$17,873,531                    | \$568,682                                 | 0.00%                      | 0.05%        |
| 89  | Miscellaneous Services                     | 7                                 | \$306                  | \$43                           | \$4,109,167                     | \$303,126                                 | 0.00%                      | 0.01%        |
|     | <b>TOTAL</b>                               | <b>811,081</b>                    | <b>\$61,934,145</b>    | <b>\$76</b>                    | <b>\$7,190,602</b>              | <b>\$664,562</b>                          | <b>0.00%</b>               | <b>0.02%</b> |

Figures less than 0.005% round down to 0.00%.

Source: OSHA Office of Regulatory Analysis

*Economic Impacts and Certification of No Significant Impact*

OSHA analyzed the economic impacts of the proposed rule by calculating average annualized compliance costs as a percentage of the sales and profits of all establishments in affected industries. As shown in Table VI-9, annualized costs to employers for establishments in all affected industries are less than 0.01 percent of sales and only 0.02 percent of profits. Even in the most affected industry, Welding & Other Repair (SIC 76), annualized costs are still less than 0.5 percent of profits. Costs of this magnitude do not threaten the financial health of even the most marginal firm. Since most employers in most industries already pay for PPE, the major competitive effect of the rule is to limit any small short-term competitive advantage a few firms gain by not paying for PPE, i.e., by requiring their employees to pay for PPE that other employers in their industry pay for. As shown in the benefits section, many firms already pay for PPE because it proves cost-effective; many other firms may find that, when benefits as well as costs are considered, the costs of PPE are more than offset by these benefits.

OSHA also assessed the economic impacts of the proposed rule on small firms within each affected industry. Impacts on two sizes of small firm were estimated: those with fewer than 500 employees, and those with fewer than 20 employees. In using 500 employees and 20 employees to characterize firms for this screening analysis for impacts, OSHA is not proposing definitions of small business that are different from those established by the Small Business Administration (SBA) in its *Table of Size Standards*. The SBA size definitions are SIC-code specific, and are generally expressed either in terms of number of employees or as annual receipts. Instead, OSHA is using 500 employees and 20 employees as a simple method of screening for significant impacts across the large number of industries potentially affected by the proposed rule. Use of this approach avoids the need to interpolate because the underlying industry profile data do not correspond with the SIC-specific size categories established by the SBA. (OSHA notes that, for almost all of the industries affected by this rulemaking, the SBA size definitions fall within the 20- to 500-employee range.) OSHA believes that this screening approach will capture any significant impacts on small

firms in affected industries. The Agency welcomes data supporting this assumption or data demonstrating that firms in the industry-specific size classes used by the SBA will experience significant impacts.

The results of these analyses (Tables VI-10 and VI-11, respectively) demonstrate that the annualized costs of compliance do not exceed 0.1 percent of sales or 1 percent of profits for small firms in any covered industry. Based on these analyses, in accordance with the Regulatory Flexibility Act (5 U.S.C. 605) OSHA certifies that the proposed rule will not have a significant impact on a substantial number of small entities.

Because statistically meaningful survey data are available only at the two-digit Standard Industrial Classification level, OSHA has conducted this analysis of economic impacts at the 2-digit level. OSHA believes that this level of analysis adequately captures meaningful variations in economic impacts. Further, the costs are so low that even if a sub-industry were to have substantially higher costs as a percentage of sales or profits, the financial health of that sub-industry would not be in any danger. However, the Agency requests comment on any specific industry that may have an unusual pattern of PPE usage or payment that could lead to more severe impacts than those portrayed for its 2-digit sector.

To test its conclusions that the regulation is economically feasible and will not have a significant impact on a substantial number of small entities, the Agency performed sensitivity analyses relying on "worst case" scenarios. First, in order to test the potential impact on OSHA's estimates of errors in the expert panel's characterization of payment patterns, the Agency examined impacts across all industries using the extreme assumption that employers were not currently paying for any protective equipment. Under this extreme scenario, the proposed rule's costs of compliance would quadruple, but the impacts of even these costs in nearly all industries would still be below one percent of profits. The largest impacts would occur in SIC 76 (Welding & other repair), where costs under this extreme scenario would be less than 3 percent of profits.

Second, the Agency focused on the construction industry, which was not covered in OSHA's 1989 PPE use survey and is estimated in OSHA's analysis to account for half of the rule's costs of compliance, to see what the impacts

would be under an extremely unlikely scenario that assumed that all construction employees wore all types of PPE.<sup>10</sup> Under this scenario, the largest impact would occur in SIC 17, where costs would equal 2.1 percent of profits. This result shows that, even if the Agency had no data on PPE usage in the construction industry and simply assumed that every employee in the sector used every possible type of PPE, the proposed standard would still be economically feasible and would not have a significant impact on a substantial number of small entities.

Third, the Agency has constructed a "worst-worst" case scenario for the construction industry; this scenario assumes that employees in this industry are wearing all types of PPE and pay for all of this PPE, i.e., that no employer currently pays anything for any type of PPE. Even under this scenario, the costs of the proposed rule would be less than 5 percent of profits and less than 1 percent of revenues for firms in all construction subsectors. This analysis shows that even if the Agency had no data on either PPE use or PPE payment patterns in the construction industry, it would still be reasonable to conclude that the proposed standard is economically feasible in the construction sector and that small firms in that sector would not experience significant impacts.

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<sup>10</sup>This assumes that all construction employees need welding PPE, fall protection, chemical protective clothing and safety shoes with metatarsal guards and that the same workers need faceshields and standard goggles in addition to welding helmets and welding goggles.

TABLE VI-10  
COST OF THE PROPOSED PPE STANDARD TO AFFECTED ENTERPRISE WITH FEWER THAN 500 EMPLOYEES  
AS A PERCENT OF REVENUES AND PROFITS

| SIC | INDUSTRY                                   | Number of Affected Enterprises | Annual Compliance Cost | Average Cost per Enterprise | Average Sales per Enterprise | Average Pre-Tax Profits per Enterprise | Revenue | Cost as Percent of: Revenue Profit |
|-----|--|--------------------------------|------------------------|-----------------------------|------------------------------|--|---------|------------------------------------|
| 078 | Landscape and horticultural services       | 22,995                         | \$1,064,278            | \$46                        | \$203,029                    | \$12,897                               | 0.02%   | 0.36%                              |
| 08  | Forestry                                   | 824                            | \$48,688               | \$59                        | \$536,040                    | \$37,941                               | 0.01%   | 0.16%                              |
| 13  | Oil and gas extraction                     | 2,533                          | \$258,734              | \$102                       | \$2,073,259                  | \$197,123                              | 0.00%   | 0.05%                              |
| 15  | Building Construction                      | 93,112                         | \$4,790,195            | \$51                        | \$1,190,588                  | \$50,425                               | 0.00%   | 0.10%                              |
| 16  | Heavy Construction                         | 16,337                         | \$1,836,181            | \$111                       | \$2,464,742                  | \$169,697                              | 0.00%   | 0.07%                              |
| 17  | Construction Special Trades                | 197,372                        | \$12,133,846           | \$62                        | \$601,794                    | \$32,567                               | 0.01%   | 0.19%                              |
| 20  | Food and kindred products                  | 6,292                          | \$409,385              | \$65                        | \$7,520,235                  | \$406,820                              | 0.00%   | 0.02%                              |
| 21  | Tobacco products                           | 24                             | \$4,353                | \$181                       | \$11,835,119                 | \$1,631,755                            | 0.00%   | 0.01%                              |
| 22  | Textile mill products                      | 1,140                          | \$92,551               | \$81                        | \$4,662,782                  | \$282,815                              | 0.00%   | 0.03%                              |
| 23  | Apparel and other textile products         | 4,132                          | \$50,846               | \$12                        | \$1,767,907                  | \$98,999                               | 0.00%   | 0.01%                              |
| 24  | Lumber and wood products                   | 16,696                         | \$469,448              | \$28                        | \$1,621,362                  | \$97,278                               | 0.00%   | 0.03%                              |
| 25  | Furniture and fixtures                     | 4,423                          | \$223,139              | \$50                        | \$2,278,053                  | \$168,047                              | 0.00%   | 0.03%                              |
| 26  | Paper and allied products                  | 1,498                          | \$260,100              | \$174                       | \$8,176,155                  | \$442,303                              | 0.00%   | 0.04%                              |
| 27  | Printing and publishing                    | 13,871                         | \$132,501              | \$10                        | \$1,415,333                  | \$113,650                              | 0.00%   | 0.01%                              |
| 28  | Chemicals and allied products              | 2,799                          | \$238,746              | \$85                        | \$8,705,825                  | \$553,987                              | 0.00%   | 0.02%                              |
| 29  | Petroleum and coal products                | 298                            | \$45,071               | \$151                       | \$14,282,763                 | \$714,112                              | 0.00%   | 0.02%                              |
| 30  | Rubber and miscellaneous plastics products | 5,116                          | \$181,405              | \$35                        | \$4,472,080                  | \$344,559                              | 0.00%   | 0.01%                              |
| 31  | Leather and leather products               | 314                            | \$4,806                | \$15                        | \$2,460,099                  | \$134,181                              | 0.00%   | 0.01%                              |
| 32  | Stone, clay, and glass products            | 4,507                          | \$427,050              | \$95                        | \$2,636,582                  | \$191,616                              | 0.00%   | 0.05%                              |
| 33  | Primary metal industries                   | 2,070                          | \$888,724              | \$429                       | \$7,468,383                  | \$416,258                              | 0.01%   | 0.10%                              |
| 34  | Fabricated metal products                  | 12,733                         | \$1,741,611            | \$137                       | \$3,109,554                  | \$224,288                              | 0.00%   | 0.06%                              |
| 35  | Industrial machinery and equipment         | 19,473                         | \$805,426              | \$41                        | \$2,167,640                  | \$147,787                              | 0.00%   | 0.03%                              |
| 36  | Electronic and other electronic equipment  | 4,745                          | \$178,595              | \$38                        | \$4,171,209                  | \$328,216                              | 0.00%   | 0.01%                              |
| 37  | Transportation equipment                   | 3,803                          | \$365,115              | \$96                        | \$3,810,491                  | \$218,627                              | 0.00%   | 0.04%                              |
| 38  | Instruments and related products           | 3,160                          | \$160,084              | \$51                        | \$3,441,294                  | \$276,423                              | 0.00%   | 0.02%                              |
| 39  | Miscellaneous manufacturing industries     | 5,548                          | \$112,787              | \$20                        | \$1,642,138                  | \$131,863                              | 0.00%   | 0.02%                              |
| 41  | Local and interurban passenger transit     | 4,790                          | \$221,257              | \$46                        | \$646,961                    | \$28,922                               | 0.01%   | 0.16%                              |
| 42  | Trucking and warehousing                   | 30,707                         | \$847,105              | \$28                        | \$894,533                    | \$41,043                               | 0.00%   | 0.07%                              |
| 46  | Pipelines, except natural gas              | 183                            | \$894                  | \$5                         | NA                           | NA                                     | NA      | NA                                 |
| 47  | Transportation services                    | 14                             | \$2,236                | \$159                       | \$25,351,523                 | \$1,536,402                            | 0.00%   | 0.01%                              |
| 48  | Communication                              | 3,666                          | \$489,750              | \$134                       | \$2,194,304                  | \$406,473                              | 0.01%   | 0.03%                              |
| 49  | Electric, gas, and sanitary services       | 3,300                          | \$920,246              | \$279                       | \$4,038,145                  | \$417,042                              | 0.01%   | 0.07%                              |
| 50  | Wholesale trade - durable goods            | 84,969                         | \$5,249,059            | \$62                        | \$4,930,915                  | \$282,912                              | 0.00%   | 0.02%                              |
| 51  | Wholesale trade - nondurable goods         | 49,118                         | \$3,763,134            | \$77                        | \$7,337,144                  | \$372,860                              | 0.00%   | 0.02%                              |
| 52  | Building materials and garden supplies     | 17,228                         | \$1,089,709            | \$63                        | \$1,419,546                  | \$55,112                               | 0.00%   | 0.11%                              |
| 55  | Automotive dealers and service stations    | 47,392                         | \$2,453,159            | \$52                        | \$4,139,108                  | \$131,693                              | 0.00%   | 0.04%                              |
| 59  | Miscellaneous retail stores                | 135                            | \$12,105               | \$90                        | \$659,251                    | \$34,901                               | 0.01%   | 0.26%                              |
| 73  | Business Services                          | 3,142                          | \$319,069              | \$102                       | \$680,308                    | \$56,025                               | 0.01%   | 0.18%                              |
| 75  | Auto repair, services, and parking         | 52,667                         | \$1,109,861            | \$21                        | \$406,108                    | \$21,021                               | 0.01%   | 0.10%                              |
| 76  | Welding & other repair                     | 2,848                          | \$126,171              | \$44                        | \$300,365                    | \$21,555                               | 0.01%   | 0.21%                              |
| 87  | Engineering & Management Services          | 73                             | \$13,122               | \$181                       | \$635,837                    | \$44,882                               | 0.03%   | 0.40%                              |
| 89  | Miscellaneous Services                     | 7                              | \$251                  | \$36                        | \$526,769                    | \$28,507                               | 0.01%   | 0.13%                              |

Figures less than 0.005% round down to 0.00%.

Source: OSHA Office of Regulatory Analysis

**TABLE VI-11**  
**COST OF PROPOSED PPE STANDARD TO AFFECTED ENTERPRISES WITH FEWER THAN 20 EMPLOYEES**  
**AS A PERCENT OF REVENUES AND PROFITS**

| SIC | INDUSTRY                                   | Number of Affected Enterprises | Annual Compliance Cost | Average Cost per Enterprise | Average Sales per Enterprise | Average Pre-Tax Profits per Enterprise | Cost as Percent of Revenue | Cost as Percent of Profit |
|-----|--|--------------------------------|------------------------|-----------------------------|------------------------------|--|----------------------------|---------------------------|
| 078 | Landscape and horticultural services       | 21,647                         | \$771,030              | \$36                        | \$142,684                    | \$9,064                                | 0.02%                      | 0.39%                     |
| 08  | Forestry                                   | 746                            | \$25,162               | \$34                        | \$327,420                    | \$22,341                               | 0.01%                      | 0.15%                     |
| 13  | Oil and gas extraction                     | 1,902                          | \$50,582               | \$27                        | \$939,464                    | \$72,649                               | 0.00%                      | 0.04%                     |
| 15  | Building Construction                      | 88,543                         | \$2,638,102            | \$30                        | \$638,583                    | \$27,045                               | 0.00%                      | 0.11%                     |
| 16  | Heavy Construction                         | 13,433                         | \$455,798              | \$34                        | \$777,749                    | \$38,430                               | 0.00%                      | 0.09%                     |
| 17  | Construction Special Trades                | 183,519                        | \$6,024,901            | \$33                        | \$324,117                    | \$17,540                               | 0.01%                      | 0.19%                     |
| 20  | Food and kindred products                  | 4,022                          | \$14,778               | \$4                         | \$1,112,743                  | \$43,200                               | 0.00%                      | 0.01%                     |
| 21  | Tobacco products                           | 15                             | \$37                   | \$3                         | \$1,157,051                  | \$172,603                              | 0.00%                      | 0.00%                     |
| 22  | Textile mill products                      | 355                            | \$3,873                | \$11                        | \$706,350                    | \$30,746                               | 0.00%                      | 0.04%                     |
| 23  | Apparel and other textile products         | 2,406                          | \$17,399               | \$7                         | \$431,127                    | \$21,302                               | 0.00%                      | 0.03%                     |
| 24  | Lumber and wood products                   | 14,095                         | \$128,006              | \$9                         | \$549,424                    | \$29,087                               | 0.00%                      | 0.03%                     |
| 25  | Furniture and fixtures                     | 2,972                          | \$16,399               | \$6                         | \$443,302                    | \$23,468                               | 0.00%                      | 0.02%                     |
| 26  | Paper and allied products                  | 577                            | \$5,546                | \$10                        | \$1,061,389                  | \$41,207                               | 0.00%                      | 0.02%                     |
| 27  | Printing and publishing                    | 9,277                          | \$24,233               | \$3                         | \$416,601                    | \$25,976                               | 0.00%                      | 0.01%                     |
| 28  | Chemicals and allied products              | 1,834                          | \$30,561               | \$17                        | \$1,665,517                  | \$93,265                               | 0.00%                      | 0.02%                     |
| 29  | Petroleum and coal products                | 203                            | \$7,808                | \$38                        | \$3,359,261                  | \$181,724                              | 0.00%                      | 0.02%                     |
| 30  | Rubber and miscellaneous plastics products | 2,586                          | \$40,124               | \$16                        | \$757,780                    | \$41,901                               | 0.00%                      | 0.04%                     |
| 31  | Leather and leather products               | 182                            | \$1,892                | \$10                        | \$438,331                    | \$18,564                               | 0.00%                      | 0.06%                     |
| 32  | Stone, clay, and glass products            | 3,111                          | \$35,681               | \$11                        | \$738,830                    | \$38,245                               | 0.00%                      | 0.03%                     |
| 33  | Primary metal industries                   | 1,040                          | \$16,697               | \$16                        | \$930,429                    | \$37,217                               | 0.00%                      | 0.04%                     |
| 34  | Fabricated metal products                  | 7,592                          | \$143,755              | \$19                        | \$663,340                    | \$34,337                               | 0.00%                      | 0.06%                     |
| 35  | Industrial machinery and equipment         | 13,814                         | \$345,096              | \$25                        | \$526,351                    | \$27,865                               | 0.00%                      | 0.09%                     |
| 36  | Electronic and other electronic equipment  | 2,653                          | \$14,341               | \$5                         | \$717,989                    | \$40,545                               | 0.00%                      | 0.01%                     |
| 37  | Transportation equipment                   | 2,547                          | \$18,410               | \$7                         | \$653,906                    | \$26,925                               | 0.00%                      | 0.03%                     |
| 38  | Instruments and related products           | 2,033                          | \$21,129               | \$10                        | \$698,237                    | \$40,251                               | 0.00%                      | 0.03%                     |
| 39  | Miscellaneous manufacturing industries     | 4,049                          | \$45,401               | \$11                        | \$456,063                    | \$28,436                               | 0.00%                      | 0.04%                     |
| 41  | Local and interurban passenger transit     | 2,898                          | \$82,169               | \$28                        | \$197,133                    | \$8,812                                | 0.01%                      | 0.32%                     |
| 42  | Trucking and warehousing                   | 20,929                         | \$433,794              | \$21                        | \$405,150                    | \$18,588                               | 0.01%                      | 0.11%                     |
| 46  | Pipelines, except natural gas              | 25                             | \$2,348                | \$94                        | \$2,414,152                  | \$790,058                              | 0.00%                      | 0.01%                     |
| 47  | Transportation services                    | 13                             | \$1,216                | \$93                        | \$269,219                    | \$12,668                               | 0.03%                      | 0.73%                     |
| 48  | Communication                              | 2,684                          | \$136,329              | \$51                        | \$657,195                    | \$99,013                               | 0.01%                      | 0.05%                     |
| 49  | Electric, gas, and sanitary services       | 2,338                          | \$114,833              | \$49                        | \$904,668                    | \$75,989                               | 0.01%                      | 0.06%                     |
| 50  | Wholesale trade - durable goods            | 61,286                         | \$2,867,557            | \$47                        | \$2,137,838                  | \$99,762                               | 0.00%                      | 0.05%                     |
| 51  | Wholesale trade - nondurable goods         | 33,423                         | \$1,498,042            | \$45                        | \$3,148,919                  | \$147,897                              | 0.00%                      | 0.03%                     |
| 52  | Building materials and garden supplies     | 13,880                         | \$454,819              | \$33                        | \$754,755                    | \$29,302                               | 0.00%                      | 0.11%                     |
| 55  | Automotive dealers and service stations    | 40,367                         | \$2,243,689            | \$56                        | \$1,161,906                  | \$28,705                               | 0.00%                      | 0.19%                     |
| 59  | Miscellaneous retail stores                | 6                              | \$302                  | \$53                        | \$420,332                    | \$22,252                               | 0.01%                      | 0.24%                     |
| 73  | Business services                          | 138                            | \$11,089               | \$80                        | \$305,796                    | \$25,182                               | 0.03%                      | 0.32%                     |
| 75  | Auto repair, services, and parking         | 50,844                         | \$1,288,534            | \$25                        | \$292,021                    | \$15,115                               | 0.01%                      | 0.17%                     |
| 76  | Welding & misc. repair                     | 2,753                          | \$120,864              | \$44                        | \$221,241                    | \$15,876                               | 0.02%                      | 0.28%                     |
| 87  | Engineering & management services          | 66                             | \$3,309                | \$50                        | \$303,720                    | \$21,438                               | 0.02%                      | 0.23%                     |
| 89  | Miscellaneous services                     | 7                              | \$207                  | \$30                        | \$312,370                    | \$16,904                               | 0.01%                      | 0.18%                     |

Figures less than 0.005% round down to 0.00%.

Source: OSHA Office of Regulatory Analysis

### Environmental Impact Analysis

OSHA has reviewed this proposed rule in accordance with the National Environmental Policy Act (NEPA) (42 USC 4321 *et seq.*), the regulations of the Council on Environmental Quality (40 CFR Part 1500), and DOL's NEPA procedures (29 CFR Part II). As a result of this review, OSHA has determined that this action will have no significant impact on the external environment.

### Unfunded Mandates Analysis

This proposed rule on Employer Payment for Personal Protective Equipment has been reviewed in accordance with the Unfunded Mandates Reform Act of 1995 (UMRA) (2 USC 1501 *et seq.*) and Executive Order 12875. As discussed in the Preliminary Economic Analysis, OSHA estimates that compliance with the proposed rule will require expenditures of \$62.3 million per year by affected employers. Therefore, this proposed rule is not a Federal private sector mandate and is not a significant regulatory action within the meaning of Section 202 of UMRA. OSHA standards do not apply to State and local governments except in States that have voluntarily elected to adopt an OSHA State plan. Consequently, the proposed rule does not meet the definition of a "Federal intergovernmental mandate" (Section 421(5) of UMRA). In addition, the Agency has concluded that virtually all State-plan States, the only States in which this rule could have any effect on State and local government employers, already require that employers pay for required PPE. Thus, this rule will not have an impact on employers who are State and local governments. In sum, this proposed rule does not impose unfunded mandates within the meaning of UMRA.

### References for the Preliminary Economic Analysis

- Berkowitz, M., and Burton, J. *Permanent Partial Disability Benefits In Worker Compensation*. W. E. Upjohn Institute for Employment Research, Kalamazoo, Michigan, 1987.
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- Business Roundtable. *Improving Construction Safety Performance: A Construction Industry Cost Effectiveness Project*. Report A-3, January, 1982.
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- Occupational Safety and Health Administration, Office of Regulatory Analysis, *Background Document to the Regulatory Impact and Regulatory Flexibility Assessment for the PPE Standard*, 1994, Exhibit 56, S-060.
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- U.S. Social Security Administration. *Annual Statistical Supplement to the Social Security Bulletin*. Washington, D.C., 1993.
- Worker Compensation Research Institute. *Income Replacement in California*. December, 1993.
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### VII. Public Participation

#### Written Comments

Interested parties are invited to submit written data, views, and comments with respect to this proposal. These comments must be postmarked by June 14, 1999. Written comments are to be submitted in quadruplicate, or in 1 original (hard copy) and 1 disk (3½" or 5¼") in WordPerfect 5.0, 5.1, 6.0, 8.0, or ASCII, to the Docket Office, Docket No. S-042, Room N2625, U.S. Department of Labor, 200 Constitution Ave. N.W., Washington, DC. 20210. Comments may also be submitted electronically through OSHA's Internet site at URL, <http://www.osha-slc.gov/e-comments/e-comments-ppe.html>. Please be aware that information such as studies, journal articles, and so forth cannot be attached to the electronic response and must be submitted in quadruplicate to the above address. Such attachments must clearly identify

the respondent's electronic submission by name, date, and subject, so that they can be attached to the correct response. These comments must be transmitted by June 14, 1999.

All comments, views, data, and arguments received within the specified comment period will be made part of the record and will be available for public inspection and copying at the above Docket Office address.

#### Notice of Intention To Appear at the Informal Hearing

Under section 6(b)(3) of the Occupational Safety and Health Act, OSHA is scheduling an informal public hearing to provide the public with an opportunity to testify on the issues raised by the proposed standard. The informal public hearing will be held in Washington, DC on June 22, 1999, and will extend through July 2, 1999, depending on the number of persons intending to participate.

The hearing will begin at 9:30 a.m. on June 22, 1999 in the auditorium of the Frances Perkins Building, U.S. Department of Labor, 200 Constitution Avenue NW, Washington, DC 20210.

All persons who wish to participate in the hearing must file four copies of a notice of intention to appear. This notice must be postmarked on or before June 1, 1999. The notice of intention to appear, which will be available for inspection and copying at the OSHA Docket Office (Room N2625), telephone (202) 693-2350, must contain the following information:

1. The name, address, and telephone number of each person to appear;
2. The capacity in which the person will appear;
3. The approximate amount of time required for the presentation;
4. The issues that will be addressed;
5. A brief statement of the position that will be taken with respect to each issue; and,
6. Whether the party intends to submit documentary evidence and, if so, a brief summary of it.

Mail the notice of intention to appear to: Docket Office, Docket S-042, U.S. Department of Labor, 200 Constitution Avenue NW, Washington, DC 20210; telephone (202) 693-2350.

A notice of intention to appear also may be transmitted by facsimile to (202) 693-1648 (Attention: Docket S-042), by June 1, 1999 provided that the original and 3 copies are sent to the same address and postmarked no more than 3 days later.

#### Filing of Testimony and Evidence Before the Hearing

Any party requesting more than 10 minutes for a presentation at the

hearing, or who will submit documentary evidence, must provide in quadruplicate, the complete text of the testimony, including any documentary evidence to be presented at the hearing. One copy must not be stapled or bound and must be suitable for copying. These materials must be provided to the Docket Office at the address above and be postmarked no later than June 14, 1999.

Each such submission will be reviewed in light of the amount of time requested in the notice of intention to appear. If the information contained in the submission does not justify the amount of time requested, the Agency will allocate a more appropriate amount of time and notify the participant of that fact prior to the informal public hearing.

Any party who has not substantially complied with this requirement may be limited to a 10 minute presentation, and may be requested to return for questioning at a later time.

Any party who has not filed a notice of intention to appear may be allowed to testify for no more than 10 minutes as time permits, at the discretion of the Administrative Law Judge, but will not be allowed to question witnesses.

Notices of intention to appear, testimony, and evidence will be available for copying at the Docket Office at the address noted above.

#### **Conduct and Nature of the Hearing**

The hearing will commence at 9:30 a.m. on June 22, 1999. At that time, any procedural matters pertaining to the proceeding will be resolved.

The nature of an informal rulemaking hearing is established in the legislative history of section 6 of the Occupational Safety and Health Act and is reflected in OSHA's rules of procedure for hearings (29 CFR 1911.15(a)). Although the presiding officer is an Administrative Law Judge (ALJ), and limited questioning by persons who have filed notices of intention to appear is allowed on crucial issues, the proceeding is informal and legislative in type. OSHA hearings provide interested persons with an opportunity to make effective oral presentations, without procedural restraints that unnecessarily impede or protract the rulemaking process.

Additionally, the hearing is primarily for information gathering and clarification. It is an informal administrative proceeding, rather than an adjudication. The technical rules of evidence, for example, do not apply. The regulations that govern OSHA hearings, combined with the pre-hearing guidelines that the ALJ will issue for this hearing, will ensure fairness and

due process and also facilitate the development of a clear, accurate, and complete record. Questions of relevance, procedure, and participation generally will be decided in favor of the most effective development of the record.

The hearing will be conducted in accordance with 29 CFR part 1911. It should be noted that § 1911.4 specifies that the Assistant Secretary may, upon reasonable notice, issue alternative procedures to expedite proceedings or for other good cause.

The hearing will be presided over by an Administrative Law Judge who makes no decision or recommendation on the merits of OSHA's proposal. The responsibility of the Administrative Law Judge is to ensure that the hearing proceeds at a reasonable pace and in an orderly manner. The Administrative Law Judge, therefore, will have all of the powers necessary and appropriate to conduct a full and fair informal hearing as provided in 29 CFR part 1911, including the powers:

1. To regulate the course of the proceedings;
2. To dispose of procedural requests, objections, and comparable matters;
3. To confine the presentations to the matters pertinent to the issues raised;
4. To regulate the conduct of those present at the hearing by appropriate means;
5. At the Judge's discretion, to question and permit the questioning of any witness and to limit the time for questioning; and,
6. At the Judge's discretion, to keep the record open for a reasonable, stated time (known as the post-hearing comment period) to receive written information and additional data, views, and arguments from any person who has participated in the oral proceedings.

OSHA recognizes that there may be interested persons who, through their knowledge of safety or their experience in the subject matter of this proceeding, would wish to endorse or support certain provisions in the proposed standard. OSHA welcomes such supportive comments in order that the record of this rulemaking will present a balanced picture of the public response on the issues involved.

#### **VIII. State-Plan States**

The 25 States and Territories with their own OSHA-approved occupational safety and health plans must revise their existing standards within six months of the publication date of the final standard or show OSHA why there is no need for action, e.g., because an existing State standard covering this area is already "at least as effective" as the

revised Federal standard. These States are: Alaska, Arizona, California, Connecticut (State and local government employees only), Hawaii, Indiana, Iowa, Kentucky, Maryland, Michigan, Minnesota, Nevada, New Mexico, New York (State and local government employees only), North Carolina, Oregon, Puerto Rico, South Carolina, Tennessee, Utah, Vermont, Virginia, Virgin Islands, Washington, and Wyoming.

#### **IX. OSHA's Supplementary Statement of Reasons for Its Interpretation of 29 CFR 1910.132(a)**

This supplementary statement explains OSHA's interpretation that the general protective equipment standard, 29 CFR 1910.132(a), requires employers to provide protective equipment, including personal protective equipment, at no cost to employees, except for equipment that is personal in nature and normally used away from the worksite. (OSHA uses the abbreviation PPE to cover both protective equipment and personal protective equipment.) OSHA initially published this interpretation in an October 1994 memorandum to the field. In October 1997, the Occupational Safety and Health Review Commission decided that the Secretary had not adequately explained the basis for her interpretation, in light of a perceived conflict between the 1994 memorandum and interpretive statements made by OSHA officials in letters issued between 1974 and 1994. OSHA is including the following supplementary statement in this Notice of Proposed Rulemaking to set forth in detail the basis for its position on this important issue.

##### *A. Background*

OSHA's general protective equipment standard, 29 CFR 1910.132 states, in relevant part, as follows:

##### **Section 1910.132 General Requirements**

(a) *Application.* Protective equipment, including personal protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers, shall be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary by reason of hazards of processes or environment, chemical hazards, or mechanical irritants encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation or physical contact.

(b) *Employee-owned equipment.* Where employees provide their own protective equipment, the employer shall be responsible to assure its adequacy, including proper maintenance, and sanitation of such equipment.

On October 18, 1994, Deputy Assistant Secretary James Stanley issued a memorandum to OSHA's regional administrators and heads of directorates announcing a uniform agency policy on employers' responsibility to pay for personal protective equipment under section 1910.132 and other standards requiring employers to "provide" such equipment. The interpretation outlined in the Deputy Assistant Secretary's memorandum requires employers to pay for all personal protective equipment that is necessary for the employee to do his or her job safely and in compliance with OSHA standards, except for equipment that is personal in nature and normally used away from the worksite such as steel-toe safety shoes. OSHA subsequently issued a compliance directive, STD 1-6.6, incorporating this interpretation and stating that violations of the policy would be cited.

In March 1996, OSHA issued a citation alleging that the Union Tank Car Company violated 29 CFR 1910.132(a) by requiring employees to pay for metatarsal safety shoes and welding gloves. Upon review, the Occupational Safety and Health Review Commission issued a decision vacating the citation. *Secretary of Labor v. Union Tank Car Co.*, 18 O.S.H. Cas. (BNA) 1067 (Rev. Comm. 1997). In *Union Tank*, the Commission stated that it had addressed the meaning of 29 CFR 1910.132 in *The Budd Company*, 1 O.S.H. Cas. (BNA) 1548 (Rev. Comm. 1974), and had concluded that the standard could not be interpreted to require employers to pay for personal protective equipment. 18 O.S.H. Cas. (BNA) at 1068. The Commission also noted that OSHA had issued at least five letters of interpretation between 1974 and 1994 stating that the standard does not specify who pays the cost of personal protective equipment. *Id.* Characterizing the Agency's approach in these letters as acquiescence in *Budd*, the Commission criticized OSHA for failing to provide an adequate explanation for the apparently new interpretation announced in the Stanley memorandum. The Commission noted that an agency changing its course "must supply a reasoned analysis indicating that prior policies and standards were being deliberately changed, not casually ignored." *Id.* at 1069.

The Secretary believes that requiring employers to pay for personal protective equipment that must be worn because of hazards in the workplace is central to the effective administration of the Act. While the Secretary believes that the interpretation announced in STD 1-6.6

is faithful both to the standards' plain language and to the legislative intent, she is mindful of the Commission's concern that the Agency has not provided an adequate explanation of the basis for this interpretation. To address these concerns, this supplementary statement reviews the history of prior interpretive statements and explains in detail the linguistic and policy bases for requiring employers to pay for personal protective equipment.

The following discussion is organized into two sections. Section II, below, explains the bases for the Secretary's interpretation, including the meaning of the word "provide" in the standard, the legislative intent that employers bear the costs of safety and health requirements, and the reasons why requiring employers to pay for personal protective equipment contributes in practical ways to increased safety protection for employees. Section III addresses the decisions issued by the Commission and the Third Circuit in *Budd*. The section examines in detail the separate rationales offered by the Commissioners in the case, and explains why those rationales (none of which commanded a Commission majority) are not Commission precedent, nor are they consistent with subsequent Federal and Commission case law. The section also addresses OSHA's prior statements regarding personal protective equipment and demonstrates that OSHA did not have a settled national policy on the standard's interpretation until 1994.

#### *B. The Language and Purpose of the Standard, as Well as the Policy of the OSH Act, Support the Secretary's Construction*

The Secretary's interpretation of section 1910.132 is that the employer's duty to "provide" personal protective equipment when hazards dictate its use includes the obligation to pay for the equipment. See *Borton, Inc. v. OSHRC*, 734 F.2d 508, 510 (10th Cir. 1984) (usual meaning of provide is "to furnish, supply, or make available"). *Accord, Usery v. Kennecott Copper Corp.*, 577 F.2d 1113, 1119 (10th Cir. 1978); *Secretary v. Baker Concrete Constr. Co.*, 17 O.S.H. Cas. (BNA) 1236, 1239. These definitions strongly imply that what is to be "provided" is to be given without cost to the recipient.

The Review Commission itself has found that "provide" includes the requirement to "pay for" under a standard closely analogous to section 1910.132. In *Secretary of Labor v. Erie Coke Corp.*, 15 O.S.H. Cas. (BNA) 1561 (Rev. Comm. 1992), the Commission addressed the meaning of 29 CFR 1910.1029(h)(1), which requires

employers to "provide and assure the use of" appropriate personal protective equipment for coke oven workers. The Commission held that the plain meaning of "provide," as well as other factors, supported the Secretary's interpretation that flame resistant gloves must be furnished at no charge. *Id.* at 1563 (the dictionary definitions "suggest . . . that "provide" encompasses more than merely making items available").

Courts have relied upon this meaning in holding that safety equipment and other items to be "provided" under analogous state and Federal regulations must be furnished at no charge. In *Bendix Forest Prods. Corp. v. Division of Occupational Safety and Health*, 600 P.2d 1339 (Cal. 1979) (en banc), the California Supreme Court held that Cal/OSHA standards requiring employers to "furnish" and "provide" safety devices precluded employers from charging employees for personal protective equipment. The Court found, *inter alia*, that "a reasonable and ordinary interpretation of "furnish" . . . concomitantly requires the employer to pay for the safety equipment." *Id.* at 1344.<sup>11</sup> See also *Nelson v. Thornburg*, 567 F. Supp. 369, 379-82 (E.D. Pa. 1983), *aff'd*, 732 F.2d 146 (3d Cir.), *cert. denied*, 469 U.S. 1188 (1985) (HHS regulations defining "reasonable accommodation" under section 504 of the Rehabilitation Act to include "the provision of readers" required employer to pay for readers to accommodate qualified blind employees, unless such costs would pose an undue burden).

The Secretary's construction that employers are responsible for the cost of personal protective equipment finds further support in the language and purpose of the OSH Act. A central principle embodied in the Act is that the fundamental duty of ensuring safe working conditions is to be borne by employers, not employees. Early in the Act's development, Federal appellate courts established that section 5(a), 29 U.S.C. 654(a), allocates to employers sole legal responsibility for achieving compliance with safety and health standards.<sup>12</sup> *Atlantic & Gulf Stevedores v. OSHRC*, 534 F.2d 541, 553 (3d Cir. 1976); *United Steelworkers of America v. Marshall*, 647 F.2d 1189, 1231 (D.C. Cir. 1980). These courts concluded that although section 5(b) nominally refers to

<sup>11</sup> The words "provide" and "furnish" are often used interchangeably. *Webster's Third New Int'l Dictionary, id.*

<sup>12</sup> Section 5(a)(2) of the Act provides, in relevant part, that "each employer shall comply with occupational safety and health standards . . . issued pursuant to this Act." 29 U.S.C. 654(a)(2).

duties of employees as well as employers, the Act's substantive requirements and enforcement scheme<sup>13</sup> are directed only at employers. Accordingly, the statute's reference to employee duties is: essentially an exhortation to employees to cooperate in the standards and is not meant to diminish in any way the employer's compliance responsibilities or his responsibility to assure compliance by his own employees. Final responsibility for compliance with the requirements of this Act remains with the employer.

*United Steelworkers*, 647 F.2d at 1231. See also *Atlantic & Gulf Stevedores*, 534 F.2d at 553 (the Act's reference to employee duties in section 5(b) is "essentially devoid of content").

The legislative history demonstrates that employers' compliance responsibilities include the obligation to pay for devices and work practices necessary to render workplaces safe. The Supreme Court found that the legislative history:

shows that Congress understood that the Act would create substantial costs for employers, yet intended to impose such costs when necessary to create a safe and healthful working environment. Congress viewed the costs of health and safety as a cost of doing business. Senator Yarborough, a cosponsor of the [Act], stated: "We know the costs would be put into consumer goods but that is the price we should pay for the 80 million workers in America . . . Senator Eagleton commented that "[t]he costs that will be incurred by employers in meeting the standards of health and safety to be established under this bill are, in my view, reasonable and necessary costs of doing business." Other Members of Congress voiced similar views.

*American Textile Mfrs. Inst., Inc. v. Donovan*, 452 U.S. 490, 519–521 (1980) (*ATMI*) (internal citations omitted, original emphasis). See also *Forging Indus. Ass'n v. Secretary of Labor*, 773 F.2d 1436, 1451 (4th Cir. 1985) (*en banc*) (in view of Supreme Court's "clear statement" in *ATMI* that Congress intended employers to bear the costs of safety and health, OSHA may logically require employers to bear the costs of hearing protectors under the hearing conservation standard).

The D.C. Circuit also found persuasive indications of Congress's

intent to have employers bear general financial responsibility under the Act. It noted that the report of the Senate subcommittee from which the statute emerged stressed the need to place the cost of standards on employers:

many employers—particularly smaller ones—simply cannot make the necessary investment in health and safety and survive competitively, unless all are compelled to do so. The competitive disadvantage of the more conscientious employer is especially evident where there is a long period between exposure to a hazard and manifestation of an illness. In such instances a particular employer has no economic incentive to invest in current precautions, not even in the reduction of workmen's compensation costs, because he will seldom have to pay for the consequences of his own neglect.

*United Steelworkers*, 647 F.2d at 1231 (quoting S. Rep. No. 91–1282, 91st Cong. 2d Sess. 4 (1970), *reprinted in*, Senate Comm. on Labor and Public Welfare, 92nd Cong. 1st Sess., *Legislative History of the Occupational Safety and Health Act of 1970*, at 144). See also *Legislative History* at 444, 1150.

Conspicuously absent from the legislative history is any indication from Congress that compliance costs should be borne by employees. Indeed, it is reasonably implicit in the statutory scheme that Congress sought to maintain the standard of living of working men and women and did not contemplate that employees' pay and benefits would be sacrificed to achieve safe and healthful workplaces. For example, the Senate report notes that employers are bound by the "general and common duty to bring no adverse effects to the life and health of their employees throughout the course of their employment. Employers have primary control of the work environment and should ensure that it is safe and healthful." *Legislative History* at 149.

In view of the OSH Act's structure and history, there is no serious dispute that employers must pay for engineering controls necessary to reduce exposures to toxic substances. See, e.g., *Budd*, 1 O.S.H. Cas. (BNA) at 1550, n.5. In the Secretary's view, there is no principled distinction between engineering controls, which employers undoubtedly must pay for, and the personal protective equipment for which payment is required under STD 1–6.6.<sup>14</sup> OSHA addressed this issue in

<sup>14</sup> OSHA recognizes that safety-toe shoes do possess special characteristics which distinguish them from other types of personal protective equipment for cost-allocation purposes. See, e.g., *Budd*, 1 O.S.H. Cas. (BNA) at 1550 (distinguishing safety shoes, which are uniquely personal in nature and used away from work, from capital equipment, which employers ordinarily pay for).

rulemaking on the Cancer Policy in 1980 and found no distinction, for payment purposes, between engineering controls and personal protective equipment necessary to protect employees from exposure to carcinogenic substances. OSHA stated:

[T]he requirement that employers pay for protective equipment is a logical corollary of the accepted proposition that the employer must pay for the institution of required engineering and work practice controls. To the extent that protective equipment, like engineering controls, is intended also to protect against . . . contamination, employers logically must pick up the expense. There is no rational basis for distinguishing . . . personal protective equipment [from engineering controls] The goal, in each case, is employee protection; consequently, the responsibility of paying for the protection should, in each case rest on the employer.

45 FR 5261 (January 22, 1980).<sup>15</sup>

OSHA has further determined, in rulemakings addressing specific hazards, that placing payment responsibility on the employer best carries out the Act's purpose of fostering employee safety. 29 U.S.C. 651(b). Requiring employers to pay for personal protective equipment contributes to increased health and safety protection in several practical ways. The employer is most knowledgeable about hazards existing in the workplace and is therefore best able to select and maintain appropriate protective equipment. Requiring employers to purchase personal protective equipment ensures that they retain control over the selection, issuance, maintenance and use of the devices. See 43 FR 19619 (May 5, 1978) (preamble to final rule on inorganic arsenic); 46 FR 4153 (January 16, 1981) (hearing conservation preamble). Shifting the financial burden to employees, on the other hand, "risks losing the necessary control over the organized and consistent selection, issuance, maintenance and use of such equipment." 46 FR 4153.

Employer payment for protective equipment also contributes to improved health and safety by removing economic disincentives to cooperation by employees. In promulgating requirements for medical surveillance and medical removal protection (MRP) for some health standards, OSHA found that employees would be reluctant voluntarily to cooperate in such programs if they believed that they would suffer a loss of income as a result. See, e.g., 43 FR 54442–54449 (November 21, 1978) (attachments to lead

<sup>15</sup> OSHA's approach to payment for PPE under health and safety standards is discussed in detail above.

<sup>13</sup> Sections 9(a) and 10(a) provide for the issuance of citations and notifications of proposed penalties only to employers. 29 U.S.C. 658(a), 659(a). Similarly, section 10(a) refers only to employer contests of citations and proposed penalties. While employees may intervene in proceedings initiated by the employer, the only independent right granted employees is to contest the reasonableness of any time period fixed by the Secretary for abatement of a violation. 29 U.S.C. 659(c). Section 17 provides for the assessment of civil monetary penalties only against employers. 29 U.S.C. 666. See *Atlantic & Gulf Stevedores*, 534 F.2d at 553.

preamble). See also *United Steelworkers of America*, 647 F.2d at 1230-12377 (finding lead standard's MRP provisions to be authorized under the statute and reasonable). OSHA has also required employers to provide medical examinations without cost to the employee in part to ensure employee cooperation in taking the exams. 43 FR 19624 (May 5, 1978) (preamble to inorganic arsenic standard). See also *Secretary of Labor v. Phelps Dodge Corp.*, 11 O.S.H. Cas. (BNA) 1441, 1443 (Rev. Comm. 1983) (noting ALJ's finding that when employees were required to provide their own transportation to and from the hospital and to sacrifice their personal time to take medical examinations for arsenic exposure, 42% of them failed to participate in the medical surveillance program).

OSHA considers that this evidence, which shows that employees make decisions that risk their health and safety to avoid suffering economic loss is relevant to the issue of payment for personal protective equipment. It is certainly reasonable to believe that employees who are furnished personal protective equipment at no charge are more strongly motivated to wear the devices, and to replace them when they wear out or are damaged, than are employees who must purchase these devices. In the *Union Tank* case, the employee representative presented an affidavit that some employees taped or wrapped wire around their damaged metatarsal safety boots in order to avoid having to pay up to \$130 per pair to replace them. Similarly, in *Ormet Primary Aluminum Corp.*, OSHRC No. 96-0470, an employee testified that he continued to wear safety boots though the protective steel toes were exposed and posed an electrocution hazard because he could not afford a new pair. The employee also testified that some workers put a cement-like substance over the steel toes of their boots when the leather covering wore away, but that this practice was hazardous because the substance was flammable. Thus, the policy outlined in STD 1-6.6 is not only consistent with the plain meaning of the standard's text, it is supported by the statutory context and by significant practical safety considerations.

*C. The Interpretation of § 1910.132 Announced in STD 1-6.6 is Supported by Better Reasoned Authority and Reflected OSHA's Initial Determination on an Appropriate National Policy Regarding Payment for Personal Protective Equipment Under the Standard*

#### 1. Introduction

This section addresses the grounds relied upon by the Commission in *Union Tank* for rejecting the Secretary's interpretation that section 1910.132(a) requires employers to pay for most types of personal protective equipment. The Commission first stated that in *Budd* it had determined that "provide" in section 1910.132(a) could not be interpreted to mean "pay for." 18 O.S.H. Cas. (BNA) at 1068. The Commission then stated that OSHA had, for twenty years, acquiesced in the interpretation of the standard announced in *Budd, Id.* at 1069. The Commission held that the Secretary's "new interpretation" of section 1910.132(a) announced in 1994 was unreasonable because it represented a change in policy without adequate explanation. *Id.* This holding was based on five letters of interpretation issued from 1976 to 1993 stating that the standard does not specify who pays for personal protective equipment.

The following sections address the *Budd* decisions, as well as other relevant precedent, and explain in detail why *Budd* did not announce an authoritative interpretation of section 1910.132(a). The sections also address the agency's prior approaches to the cost allocation issue.

During the period from 1974 through October 1994, OSHA made a variety of statements on the question of employer payment for personal protective equipment. OSHA concedes that the statements of some agency officials during this period are inconsistent with the interpretation outlined in STD 1-6.6. However, these letters do not amount to an authoritative agency interpretation that employers are not required to pay for personal protective equipment. During the period from 1978 through 1994, OSHA promulgated health standards, pursuant to section 6(b) of the OSH Act, requiring employers to pay for personal protective equipment. In these standards, OSHA interpreted the Act to require employers to pay for personal protective equipment to the same extent that they would be required to pay for engineering controls. Furthermore, during the relevant time period some OSHA officials interpreted section 1910.132 to require employers to pay for personal protective equipment, other

than safety shoes, and one court of appeals noted that the Act's legislative history supported this interpretation. Considered as a whole, OSHA's actions during the period from 1974-1994 cannot reasonably be viewed as reflecting an official agency interpretation contrary to STD 1-6.6.

#### 2. The Commission's *Budd* Decision

The Commission's decision in *Budd* arose from a citation alleging that the employer violated 29 CFR 1910.132(a) by failing to provide safety-toe shoes to its employees. Prior to the hearing, the employer moved to withdraw its notice of contest on the understanding that its obligation to provide safety shoes did not include the requirement to pay for them. The Secretary agreed that the employer was not required to pay for the shoes because of their special characteristic, as noted below; however, the union representing the employees objected on the ground that the standard required employer payment. The issue presented to the Commission was whether the employer's motion should be granted.

The Secretary stressed the special characteristics of safety shoes, including their use away from work, as the rationale for not requiring employers to pay for this specific type of protective equipment. In her brief in *Budd*, the Secretary stated that:

by tradition, in this country shoes are considered unique items of a personal nature. Safety shoes are purchased by size, are available in a variety of styles, and are frequently worn off the job, both for formal and casual wear. Furthermore, it is neither feasible for a different employee to wear the shoes each day nor feasible that upon resigning from the position an employee will leave the shoes behind to be worn by another individual.

See Brief of the Secretary, served January 10, 1973, at 8. However, the Secretary emphasized that an interpretation requiring employers generally to provide personal protective equipment free of charge would be consistent with the statutory scheme. She noted that such an interpretation could improve safety and health by giving employees greater incentive to use personal protective equipment. *Id.* at 9. She also noted that the Act's legislative history demonstrated Congress's intent to place the costs of achieving safe and healthful workplaces upon employers. *Id.* at 10. The Secretary concluded that "[p]ersonal protective equipment cannot be segregated from equipment necessary to provide proper working conditions and therefore the purchase of such equipment by the employer was contemplated by the Act

in cases where a standard might require it." *Id.* at 10–11.

The Commission held that the employer's motion should be granted because section 1910.132(a) could not be interpreted to require the employer to pay for safety shoes. However, the Commission did not announce a majority rationale for this conclusion. Commissioners Van Namee and Cleary authored separate opinions explaining their different reasoning, while Commissioner Moran concurred in the determination on the motion without stating a rationale.<sup>16</sup>

Commissioner Van Namee reasoned that it would be anomalous to read section 1910.132(a) to require employers to provide or pay for personal protective equipment in light of the wording of section 1910.132(b), which contemplates the use of employee-provided equipment. 1 O.S.H. Cas. (BNA) at 1549, 1550. In the Commissioner's view, such a construction would render paragraph (b) meaningless. *Id.* at 1550. Thus, he interpreted section 1910.132(a) to mean that "where personal equipment is necessary, the employer shall ensure that it is used. If [the employer] provides such equipment, he is responsible for ensuring that it is 'provided, used and maintained in a sanitary and reliable condition.'" *Id.*

Commissioner Van Namee found support for his interpretation of section 1910.132(a) in the OSH Act's purpose of achieving safe workplaces, a purpose he believed to be unrelated to the question of payment. He stated that "[p]rescription of cost allocations is not essential to the effectuation of the Act's objectives. It is irrelevant for purposes of the Act who provides and pays for the equipment. Either employer or employee provision is consistent with the purpose of the Act." *Id.* Commissioner Van Namee also noted that the steel-toed safety shoes at issue were "uniquely personal" and could be used by employees away from the workplace. *Id.*, n. 5.

Commissioner Cleary concurred in the determination on a different basis. He concluded that section 1910.132(a) does impose a duty upon an employer to provide directly or indirectly the required personal protective equipment. *Id.* at 1552. He found that this reading was not inconsistent with the text of paragraph (b), because paragraph (b) imposes no duty upon employees to furnish the equipment. "Rather,"

Commissioner Cleary wrote, "what paragraph (b) seems to recognize is that equipment which is owned by employees may sometimes be used by the employees themselves . . . . When this occurs, the paragraph establishes a duty upon the employer to assure its adequacy. Under its express terms, paragraph (b) does not require employees to provide the equipment in the first instance." *Id.*

Commissioner Cleary found that the OSH Act "clearly contemplates that an employer will generally assume the costs of complying with its terms." *Id.* However, he concluded that the Commission lacked jurisdiction to provide relief as to costs in the *Budd* case because section 1910.132 did not, by its express terms, require employers to assume the costs of personal protective equipment. *Id.* In the Commissioner's view, the Commission lacked authority, in a proceeding to enforce a citation, to interpret the standard to require payment. *Id.* At the same time, the Commissioner noted that other relief might be available. He suggested that an employer's policy of requiring employees to pay for personal protective equipment could, in some cases, constitute a violation of section 11(c) of the OSH Act, which is enforced through actions in Federal district court. *Id.* at 1553.

### 3. The Court of Appeals' Affirmance

The Commission's decision was affirmed on appeal in *Budd v. OSHRC*, 513 F.2d 201 (3d Cir. 1975). The court found that the interpretation reached by the Commission and the Secretary that 29 CFR 1910.132 does not require employers to pay for safety-toe footwear was reasonable. 513 F.2d at 205. The court expressly reserved judgment on whether employers could be required to pay for other types of protective equipment. *Id.*

As support for affirmance of the Commission's order, the court found the joint position not inconsistent with the statutory scheme. The panel noted that Congress did not expressly require that the employer pay for protective equipment, and, in apparent agreement with Commissioner Van Namee's view, observed that "[t]his Act, unlike such legislation as the Fair Labor Standards Act, is not concerned with wages and hours, but rather with reducing the incidence of job-related injuries." *Id.* at 206. The court also found the joint position reasonable in light of the standard's language. It noted that the verbs "provided, used and maintained" in section 1910.132(a) are phrased in the passive voice without specifying whether the employer or the employee is to perform these functions, and that

section 1910.132(b) contemplates that employees will provide some protective equipment. *Id.*

In sum, in *Budd*, the Secretary, the Commission and the Third Circuit agreed that 29 CFR 1910.132 does not require employers to pay for safety-toe shoes. However, neither the Commission decision nor the court decision is an authoritative interpretation of the standard as it applies to other types of personal protective equipment. In *Union Tank*, the Commission referred to Commissioner Van Namee's rationale as the Commission's holding on the meaning of section 1910.132(a). 18 O.S.H. Cas. (BNA) at 1068 (stating that, in *Budd*, "the Commission held that to read subpart (a) as requiring the employer to provide protective equipment would negate subpart (b), which contemplates the use of employee provided equipment"). This characterization is substantially flawed because no one opinion in *Budd* can be said to represent the Commission's official view. See *Atlantic Gulf & Stevedores v. OSHRC*, 534 F.2d at 546 (where Commission order affirms citation but each Commissioner files a separate opinion announcing a different rationale, no one opinion represents Commission consensus).

In sum, four different approaches to the payment issue emerged from the *Budd* litigation: (1) Employers should not be required to pay for personal protective equipment that is uniquely personal in nature and usable off the worksite, but may be required to pay for other types of PPE (the Secretary's position); (2) the OSH Act is indifferent to the question of who pays for personal protective equipment (the view of Commissioner Van Namee, supported by the court of appeals at least for safety shoes); (3) section 1910.132(a) cannot be interpreted to require employers to pay for personal protective equipment in light of the language of section 1910.132(b) (the view of Commissioner Van Namee); and (4) section 1910.132(a) cannot be interpreted to require employers to pay because it does not say so expressly (Commissioner Cleary's view).

### 4. OSHA's Interpretive Statements

From 1974 through 1994, OSHA embraced a variety of approaches to the issue of employer payment for personal protective equipment. In its most formal statements on the issue, made in the context of rulemaking proceedings on a broad spectrum of health hazards, OSHA determined that the Act generally contemplates employer payment of the

<sup>16</sup> Commissioner Moran joined the majority on the question of the disposition of the employer's motion to withdraw its notice of contest relating to 29 CFR 1910.132. He dissented from the Commission's decision on another cited violation, not relevant here.

costs of safety and health, including personal protective equipment. OSHA's determinations on employers' responsibility to pay for personal protective equipment, made on the record in rulemakings for specific standards, are discussed *infra*. Similarly, OSHA issued an Interpretive Instruction stating that under 29 CFR 1910.1029 (h)(1), personal protective equipment for coke oven workers must be furnished by employers at no charge. See *Erie Coke Corp.*, 15 O.S.H. Cas. (BNA) at 1563 (citing STD 1-6.4 (March 12, 1979)).

Prior to 1994, OSHA did not publish enforcement guidance on section 1910.132 in the Field Operations Manual or by interpretive memorandum. In some letters responding to requests for information, however, agency officials suggested that *Budd* foreclosed an interpretation of section 1910.132, or of OSHA personal protective equipment standards generally, requiring employers to pay for personal protective equipment. In other letters, OSHA noted that the standards do not specifically allocate the cost of such equipment to employers, and suggested that the issue be resolved through collective bargaining, where appropriate. Typical of this viewpoint is the September 2, 1976 letter to Adlai E. Stevenson quoted by the Commission in *Union Tank*.

On the other hand, OSHA continued at times to enforce the standard to require employers to pay for personal protective equipment. In September 1990, OSHA issued a citation to a meatpacking firm alleging that it violated section 1910.132(a) by charging its employees for repair or replacement of steel mesh gloves and plastic wrist bands used for protection against knife cuts.<sup>17</sup> A July 17, 1990 agency memorandum stated that although section 1910.132(a) does not specifically allocate the costs of personal protective equipment to employers, "it is our position that the employer is obligated to pay for PPE which is not worn off the worksite. This includes welding gloves, but not safety shoes . . ." <sup>18</sup> A May 20, 1994 agency letter responding to a

request for information on OSHA's enforcement policy stated that the interpretation outlined in the agency's July 1990 memorandum "is still in effect."

Deputy Assistant Secretary Stanley's memorandum of October 1994 and the subsequent compliance directive STD 1-6.6 were intended to harmonize the different approaches to the question of employer responsibility for the costs of personal protective equipment. In requiring employers to pay for all except uniquely personal equipment, used off the worksite, the directive did not break new ground. Rather, the interpretation enunciated in the directive closely paralleled the interpretation in the July 1990 memorandum and the position taken in the Secretary's brief in *Budd*. This policy also reflected OSHA's formal position in rulemaking proceedings under section 6(b) that personal protective equipment, like engineering controls, must be paid for by employers unless special circumstances make it appropriate for employees to provide their own equipment. In stating that the matter of payment for items such as safety shoes and prescription eyewear may be left to negotiation, the Stanley memorandum recognizes the unfairness of requiring employers to pay for items of equipment that are normally used away from work, are purchased to fit particular employees, and are not, as a practical matter, reusable by other employees.

5. Why OSHA rejects the positions of Commissioners Van Namee and Cleary on the interpretation of section 1910.132 as it applies to PPE other than safety-toe shoes and prescription safety eyewear

The preceding discussion establishes two points of central importance in addressing the Commission's analysis in *Union Tank*. First, the Commission did not reach a consensus in *Budd* on the interpretation to be given section 1910.132(a) regarding payment for personal protective equipment other than safety shoes. The interpretation relied upon in *Union Tank* as the "holding" in *Budd* is, in fact, no more than the view of a single Commissioner. Second, the interpretation announced in STD 1-6.6 was not a wholly new policy, nor was it a change in OSHA's national policy since 1994. The statements in the agency letters relied upon by the Commission reflected the views of some officials that are at odds with the agency's positions taken (a) in rulemaking proceedings under the Act; (b) in its brief to the Commission in *Budd*; and (c) in a 1990 contested enforcement action before the Commission. Viewed in this context, the

interpretation announced in the Deputy Assistant Secretary's memorandum, and formally published in STD 1-6.6, is OSHA's national policy, not a change in such policy.

The following sections examine the interpretive views expressed by the individual Commissioners in *Budd*. In light of the case law and other developments since *Budd*, the Secretary believes that the position she outlined in her Commission brief—that employers should not be required to pay for equipment that is uniquely personal in nature and usable off of the job—remains the only viable basis for the disposition of that case. To the extent that the positions outlined in the concurring opinions support an interpretation that section 1910.132 does not require employers to pay for any type of personal protective equipment, they are inconsistent with subsequent Federal court and Commission case law.

a. *The Act is not indifferent to cost-allocation.* Commissioner Van Namee's position that the OSH Act is indifferent to the question of who pays for equipment mandated by OSHA standards has been rejected by subsequent court and Commission decisions. That position ignores the extensive legislative history of the Act, discussed above, indicating Congress's intent to place fiscal responsibility for the safety of employees on industry, which can pass the costs to consumers. Based on this history, OSHA has promulgated numerous standards under section 6(b) of the Act, mandating that employers pay for protective devices and other requirements necessary for safety and health.

The lead standard (29 CFR 1910.1025), promulgated in 1978, clearly stated the principle that employers should bear the costs of requirements necessary to achievement of healthful working conditions. The standard requires that an employer who removes employees from their jobs because of high blood-lead levels must maintain the workers' earnings and seniority rights during removal for up to eighteen months. 29 CFR 1910.1025(k). The standard also requires employers to provide, at no charge to employees, respirators and protective clothing. 29 CFR 1910.1025 (f), (g). In the preamble to the Medical Removal Protection (MRP) provision, OSHA explained its determination that compliance costs were properly allocable to employers under the Act.

OSHA has determined that the foregoing costs should be borne by employers in the first instance . . . MRP is meant to place those costs of worker protection directly on the industry at large rather than on the

<sup>17</sup> The citation was not contested, and thus became a final order of the Commission by operation of law. 29 U.S.C. 659(a).

<sup>18</sup> OSHA's issuance of the citation under section 1910.132(a) was in step with the agency's approach under other standards that do not expressly require employers to pay for personal protective equipment. In 1979, OSHA issued an interpretive Instruction clarifying that 29 CFR 1910.1029(h)(1), which states that the employer "shall provide" protective clothing and equipment, including flame resistant gloves, for coke oven workers, requires that this equipment be furnished at no cost to employees. OSHA Instruction STD 1-6.4 (March 12, 1979).

shoulders of individual workers unfortunate enough to be at risk of material impairment to health due to occupational exposure to lead. The costs of protecting worker health are appropriate costs of doing business, thus employers should properly bear the economic impact of temporary medical removals. The [OSH] Act . . . recognized that the costs which consumers pay for goods should reflect all costs of production, including costs associated with preventing . . . occupational disease. Under the Act, employers have the primary obligation to provide a safe and healthful work experience, [and] thus should incur the costs necessary to satisfy this obligation.

(43 FR 54449/3).

Beginning in 1978, OSHA determined that the costs of personal protective equipment necessary to guard employees against exposure to toxic substances should be paid for by employers. The standard on Inorganic Arsenic requires employers to pay for respirators, protective clothing and protective equipment, including gloves, shoes, and face shields or goggles. 29 CFR 1910.1018(j)(1). The preamble to the rule states that:

the obligation is on the employer to provide protective equipment at no cost to the employee. In this way the employer is in the best position to provide the correct type of equipment and keep it in repair. Also, as the employer has permitted exposures to exceed the permissible exposure limits, the obligation properly rests on the employer.

43 FR 19619 (May 5, 1978). OSHA applied the same reasoning in requiring employers to pay for respirators when necessary to protect employees from exposure to cotton dust. 43 FR 27387/2 (June 23, 1978) (preamble to final rule on occupational exposure to cotton dust). The Cotton Dust preamble notes that the language requiring employers to provide respirators "at no cost to the employee" . . . makes explicit the position which has long been implicit in all OSHA health standard proceedings under section 6(b) of the Act" *Id.* OSHA expressed a similar view in the preamble for the 1,2-Dibromo-3-chloropropane (DBCP) standard. 43 FR 11523/3 (March 17, 1978).

In the following decades, OSHA has expanded its justification for explicitly requiring employers to bear the costs of necessary protective devices. In the preamble to the hearing conservation standard, OSHA determined that employers should pay for hearing protectors based in part on a commenter's statement that "where personal protective equipment is necessary to afford [a safe and healthful working] environment, it is . . . almost universally accepted that its purchase is the responsibility of the employer." 46 FR 4153 (January 16, 1981). The

preamble also noted that permitting an employer to charge employees for hearing protectors could discourage the use of such devices and thereby undermine the effectiveness of the employer's hearing conservation programs. *Id.*

The formaldehyde standard, promulgated in 1987, expressly linked the question of payment for personal protective equipment and the employer's duty to "provide" such equipment under 29 CFR 1910.132. The formaldehyde standard requires employers to comply with 29 CFR 1910.132 and 1910.133 and specifies that the appropriate protective equipment is to be provided at no cost to the employee. 29 CFR 1910.148(h). The preamble to the formaldehyde standard stated that the standard "reminds all employers of their obligation to comply with . . . 29 CFR 1910.132 . . . and requires the employer to provide such clothing or equipment at no cost to the employee." 52 FR 46269/1 (December 4, 1987).

By 1991, OSHA's policy was firmly established. In the bloodborne pathogens standard, the Agency justified the requirement that employers pay for various items of specialized equipment necessary to protect health care workers from exposure to blood or other potentially infectious materials. The preamble states that:

[i]t has been the Agency's longstanding policy to hold the employer responsible for controlling exposure to hazards in his or her workplace and to fulfill this responsibility at no cost to the employee. Therefore, the financial burden for purchasing and providing personal protective equipment rests upon the employer *just as it does for all other control measures (e.g., engineering controls).*

56 FR 64125/1 (December 6, 1991) (emphasis added).

This policy has been carried forward to the present. OSHA's standards for methylenedianiline, 29 CFR 1910.1050(h)(2)(i), (i)(1); cadmium, 29 CFR 1910.1027(g)(1), (i)(1); 1,3-butadiene, 29 CFR 1910.1051(h)(1), (i); and methylene chloride, 29 CFR 1910.1052(g)(1), (h)(1), promulgated between 1992 and 1997, all require employers to pay for respirators, protective clothing and personal protective equipment when such devices are necessary. OSHA's new Respiratory Protection standard, promulgated January 8, 1988, also requires employers to provide respirators, as well as training and medical evaluations, at no cost to the employees. 63 FR 1271 (January 8, 1988).

While OSHA has generally required employers to pay for all types of personal protective equipment, it has recognized an exception to the policy in certain circumstances. In the safety standard on logging operations, promulgated shortly before issuance of the Deputy Assistant Secretary's memorandum in October 1994, OSHA determined that logging employers should pay for protective equipment for the head, eyes, face, hands, and legs, but should not be required to pay for logging boots. OSHA excepted logging boots from among the types of equipment that employers must purchase for three reasons. First, the Agency found that the logging industry is highly transient and that logging boots, unlike other types of personal protective equipment, are not reusable. Therefore, OSHA concluded, "employers would have to purchase non-reusable logging boots costing \$200 to \$400 many times a year for newly-hired employees, even though there is a significant likelihood that these employees will remain in the job for only a short time." 59 FR 51684 (October 12, 1994).

OSHA also found that logging employees tend to move from one establishment to another, taking their logging boots with them as tools of the trade. OSHA noted that logging boots are readily portable, and, unlike head and leg protection, are sized to fit a particular employee. OSHA found that it was appropriate to allow employees to follow the established custom of taking their boots with them from job to job rather than requiring employers to provide logging boots. *Id.*

Finally, the Agency noted that there was evidence in the record that employees use their logging boots away from work, for such activities as hunting and cutting their own wood, and that there was not comparable evidence that employees also use other types of protective equipment off-site. *Id.* For all of these reasons, OSHA decided not to require employers to purchase logging boots. However, it found no basis to depart from its "long established policy" regarding the costs of other items of required personal protective equipment. *Id.*

Federal appellate courts have upheld OSHA's statutory authority to impose on employers the costs of requirements reasonably necessary for safe and healthful workplaces. In *United Steelworkers of America*, the D.C. Circuit upheld OSHA's authority to charge employers with the costs of MRP, finding that "the scheme of the statute, manifest in both the express language and the legislative history, appears to

permit OSHA to charge to employers the cost of any new means it devises to protect workers" 647 F.2d at 1231. The *United Steelworkers* court noted that the Third Circuit's decision in *Budd* should be confined to its facts, stating "[t]he court [in *Budd*] stressed the special character of protective devices which the employee would wear off-the-job as well as on-the-job and made clear it was expressing no opinion on the proper party to be charged for other devices and methods. Moreover, the court there failed to address the relevant parts of the legislative history." 647 F.2d at 1231-1232, n.66.

The Fourth Circuit upheld the hearing conservation standard's allocation of the costs of hearing protectors to employers in *Forging Indus. Ass'n v. Secretary of Labor*, 773 F.2d 1436, 1451 (4th Cir. 1985) (en banc). The *Forging Indus.* court noted that in view of the Supreme Court's finding in *ATMI* that Congress intended to impose compliance costs on employers, "it is only logical that OSHA may require employers to absorb such costs." 773 F.2d at 1451.

The Commission itself has squarely rejected the view that the Act is indifferent to cost allocation in *Erie Coke Corp.*, discussed *supra*, at p.4. In *Erie Coke*, the commission upheld the reasonableness of the Secretary's construction that the coke oven emissions standard at 29 CFR 1910.1029(h)(1)(ii) required employers to pay for flame resistant gloves. In doing so, the Commission addressed the legislative history and court precedent establishing that Congress intended employers to bear the costs of compliance with standards. The Commission stated: "[w]e agree with these courts of appeals that, based on the legislative history, Congress intended that the cost of compliance with OSHA would be uniformly reflected in the price of goods and services, so as not to place the safety-conscious employer at a competitive disadvantage." 15 O.S.H. Cas. (BNA) at 1565. Thus, Commissioner Van Namee's view that it is irrelevant under the Act whether employers or employees pay for protective devices finds no support in the statute and has been rejected by subsequent court and Commission case law.

*b. Neither the language of section 1910.132(b), nor the use of the passive voice in section 1910.132(a) poses interpretive difficulties.* The view of Commissioner Van Namee that section 1910.132(a) cannot be interpreted to require employers to "provide" personal protective equipment because section 1910.132(b) contemplates the use of employee-owned equipment, is

similarly unsupported. If Commissioner Van Namee were correct that reading section 1910.132(a) to require employers to provide protective equipment would render section 1910.132(b) superfluous, it could only be because section 1910.132(b) itself imposes some duty upon employees to provide their own protective equipment. See 1 O.S.H. Cas. (BNA) at 1550. However, section 1910.132(b), by its terms, does not require employees to "provide" anything. As Commissioner Cleary correctly noted, section 1910.132(b)'s introductory phrase "where employees provide their own protective equipment . . ." is to be read, not as imposing a duty upon employees to furnish equipment, but rather, as recognizing that employees may sometimes wish to use their own equipment. See 1 O.S.H. Cas. (BNA) at 1552. Such use might occur, for example, if employee-owned equipment is more comfortable or provides a greater degree of protection than would be afforded by employer-provided equipment.<sup>19</sup> Thus read, in accordance with its terms, section 1910.132(b) poses no conflict with a reading of section 1910.132(a) that requires employers to provide personal protective equipment.

This result not only follows from the plain language of the standard: it is also compelled by case law, decided subsequent to *Budd*, rejecting the premise that the OSH Act imposes enforceable duties upon employees. In *Atlantic Gulf & Stevedores*, the Third Circuit expressly rejected Commissioner Van Namee's position, stated in his concurring opinion in that case, that the Act imposes enforceable compliance responsibilities upon employees. The court found that the "detailed scheme of enforcement set out in sections 9, 10 and 17 of the Act . . . is directed only against employers." 534 F.2d at 553. The court also found section 5(b) of the Act, upon which Commissioner Van Namee relied as a basis for his view, to be "essentially devoid of content." *Id.*

In *USWA*, the D.C. Circuit similarly concluded that the Act imposes compliance obligations exclusively upon employers. It found, based on the legislative history, that section 5(b) "is essentially an exhortation to employees to cooperate in standards and is not meant to diminish in any way the employer's compliance responsibilities or his responsibility to assure

<sup>19</sup> As Deputy Assistant Secretary Stanley noted in his 1994 memorandum, section 1910.132(b) permits employees to use their own equipment in some circumstances but does not specify that practice as the norm. "[I]nstead, the standard underscores the employer's obligation to assure that such equipment is adequate and that it is properly maintained."

compliance by his own employees." 647 F.2d at 1231 (quoting legislative history). This case law necessarily precludes any reading of section 1910.132(b) that would impose a duty upon employees to provide protective equipment.

Considered in the statutory context of exclusive employer responsibilities, section 1910.132(a)'s language stating that personal protective equipment "shall be provided" is equivalent to a direction that "employers shall provide" the equipment. Though the paragraph itself lacks precision, the Act leaves no room for doubt about which actor—the employer or the employee—is to do the providing. Moreover, the standard, considered in its entirety, provides further assurance that employers are to provide protective equipment. Section 1910.132(d)(i)-(iii) requires employers to perform a hazard assessment of their workplaces and to "select and have each employee use" appropriate personal protective equipment. "Selection" and "provision" are closely related functions that should logically be performed by the same actor. It would be an anomalous reading that required the employer to "select" items of PPE suitable for each of its employees, yet required employees to "provide" such equipment. All of these reasons compel rejection of Commissioner Van Namee's position in favor of the Secretary's construction, accepted by Commissioner Cleary, that the standard requires employers to provide and pay for personal protective equipment when necessary to employee safety.<sup>20</sup>

*c. The standard may be interpreted to require employer payment in the absence of explicit cost-allocation language.* Finally, the position of Commissioner Cleary—that if the standard does not explicitly allocate the costs of personal protective equipment, the Commission cannot require employers to pay—must be rejected. Unquestionably, the Secretary possesses the power authoritatively to interpret ambiguous OSHA standards in an administrative adjudication before the Commission. *Martin v. OSHRC (CF& I*

<sup>20</sup> Section 1910.132(a)'s general requirement that personal protective equipment "shall be provided, used and maintained . . ." is given additional specificity by the other standards in Subpart I, *Personal Protective Equipment*. These standards make clear that the duties listed in section 1910.132(a) fall upon employers. See, e.g., section 1910.133(a) ("The employer shall ensure that each employee uses appropriate eye or face protection . . ."); section 1910.134 (a)(2) ("Respirators shall be provided by the employer when such equipment is necessary to protect the health of the employee"). The active and passive voices are used interchangeably in the standards comprising Subpart I.

*Steel Corp.*), 499 U.S. at 144, 151 (1991). The Secretary's interpretation may, as in *Budd*, be embodied initially in a citation, "a form expressly provided for by Congress." *Id.* at 157. It may also be disseminated by other means, including interpretive rules and enforcement guidelines. *Id.*

The Commission has held that the Secretary properly exercised her delegated interpretive authority to construe the word "provide" to mean "pay for." *Erie Coke Corp.* 15 O.S.H. Cas. (BNA) at 1563 (affirming Secretary's interpretation of coke oven emissions standard to require employers to pay for flame resistant gloves). Therefore, the Commission's authority is not limited to enforcement of explicit regulatory requirements, as Commissioner Cleary supposed.

### Summary and Conclusion

The uniform interpretation of section 1910.132 announced in STD 1-6.6 is consistent with the standard's language and purpose, as well as with the statute's clear design to place fiscal responsibility for achievement of workplace safety on employers. The interpretation is also consistent with Federal appellate decisions recognizing the Secretary's statutory authority to charge employers with the cost of regulatory requirements and with the Commission's precedent in *Erie Coke Corp.* Finally, the interpretation is consistent with the result in *Budd* that employers need not pay for safety shoes. To the extent that the concurring rationales offered by Commissioners Van Namee and Cleary in *Budd* address payment for other types of personal protective equipment, the foregoing discussion demonstrates that the positions taken by these Commissioners are contrary to case law decided since *Budd* and to now-settled principles of regulatory construction.

The fact that some agency letters issued prior to Deputy Assistant Secretary Stanley's memorandum suggest agency acquiescence in the Commissioners' concurring opinions in *Budd*, does not render invalid the Secretary's interpretation here. These letters must be considered in the context of OSHA's overall approach to the payment issue in rulemaking under section 6(b) of the Act, and the Agency's 1990 interpretive memorandum and citation under section 1910.132(a). In this context, the letters reflected divergent positions within the Agency concerning the employer's duty to pay for personal protective equipment, rather than a settled agency interpretation. Significantly, when these letters were sent out, OSHA had not

developed an authoritative, nationwide position on the allocation of such costs. Cf. *Drummond Coal Co. v. Hodel*, 796 F.2d 503, 508 (D.C. Cir. 1986) (regulatory interpretation given by some agency personnel in Alabama and relied upon by some Alabama companies for four years did not amount to a national policy which the Agency could not change without reasoned explanation). See also *Martin*, 144 U.S. at 157 (interpretive rules and agency enforcement guidelines contained in Field Operations Manual may be consulted by reviewing courts to determine consistency of interpretation advanced in enforcement litigation). In fact, OSHA did not develop such a position until the field directive (STD 1-6.6) in 1994.

Furthermore, the inconsistent statements prior to 1994 resulted, in substantial part, from the erroneous positions stated in the separate concurring opinions in *Budd*: that section 1910.132(a) either imposes no duty upon employers to provide personal protective equipment, or cannot be interpreted to require employers to pay for such equipment absent explicit cost allocation language.

The Supreme Court has observed that:

The Secretary is not estopped from changing a view she believes to have been grounded upon a mistaken legal interpretation. Indeed, an administrative agency is not disqualified from changing its mind; and when it does, the courts still sit in review of the administrative decision and should not approach the statutory construction issue de novo and without regard to the administrative understanding of the statutes.

*Good Samaritan Hospital v. Shalala*, 508 U.S. 402, 418 (1993). And in the circumstances presented here, "where the Agency's interpretation of [its regulation] is at least as plausible as competing ones, there is little, if any, reason not to defer to its construction." *Id.* The interpretation in STD 1-6.6 is reasonable, even if it is not the only permissible reading of the standard.

### X. List of Subjects in 29 CFR Parts 1910, 1915, 1917, 1918, and 1926

Construction industry; Eye and face protection; Foot protection; General industry; Hand protection; Head protection; Longshoring operations; Marine terminals; Occupational safety and health; Personal protective equipment; Protective equipment; Safety glasses; Safety shoes; Shipyard industry.

### XI. Authority

This document was prepared under the authority of Charles N. Jeffress, Assistant Secretary of Labor for

Occupational Safety and Health, U.S. Department of Labor, 200 Constitution Avenue, NW, Washington, DC 20210.

Accordingly, pursuant to sections 4, 6, and 8 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653,655, 657), section 107 of the Construction Work Hours and Safety Standards Act (Construction Safety Act) (40 U.S.C. 333), section 41 of the Longshore and Harbor Workers Compensation Act (33 U.S.C. 941), Secretary of Labor's Order No. 6-96 (62 FR 111), and 29 CFR part 1911, it is hereby proposed to amend 29 CFR parts 1910, 1915, 1917, 1918, and 1926 as set forth below.

Signed at Washington, D.C., this 18th day of March, 1999.

**Charles N. Jeffress,**  
Assistant Secretary of Labor.

## XII. Proposed Standards

### General Industry

### PART 1910—[AMENDED]

29 CFR part 1910 is proposed to be amended as follows:

1. The authority citation for subpart I of 29 CFR part 1910 would be revised to read as follows:

**Authority:** Sections 4, 6, and 8 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653,655,657); Secretary of Labor's Order No. 12-71 (36 FR 8754), No. 8-76 (41 FR 25059) No. 9-83 (48 FR 35736), No. 1-90 (55 FR 9033) and No. 6-96 (62 FR 111) as applicable, and 29 CFR Part 1911.

2. A new paragraph (h) would be added to § 1910.132, to read as follows:

#### § 1910.132 General requirements.

\* \* \* \* \*

(h) *Payment for protective equipment.* All protective equipment, including personal protective equipment (PPE), required in this part, shall be provided by the employer at no cost to employees. *Exception:* The employer is not required to pay for the logging boots required by 29 CFR § 1910.266(d)(1)(v). The employer is also not required to pay for safety-toe protective footwear, or for prescription safety eyewear, provided that all three of the following conditions are met:

(1) The employer permits such footwear or eyewear to be worn off the job-site;

(2) The footwear or eyewear is not used at work in a manner that renders it unsafe for use off the job-site (for example, contaminated safety-toe footwear would not be permitted to be worn off a job-site); and

(3) Such footwear or eyewear is not designed for special use on the job.

*Shipyards***PART 1915—[AMENDED]**

29 CFR Part 1915 is proposed to be amended as follows:

1. The Authority citation for Subpart I of 29 CFR Part 1915 would be revised to read as follows:

**Authority:** Secs. 4, 6, and 8, Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); section 41, Longshore and Harbor Workers' Compensation Act (33 U.S.C. 941), Secretary of Labor's Order No. 8-76 (41 FR 25059), No. 9-83 (48 FR 35756), No. 1-90 (55 FR 9033) and No. 6-96 (62 FR 111) as applicable; and 29 CFR part 1911.

2. A new paragraph (f) would be added to § 1915.152, to read as follows:

**§ 1915.152 General Requirements.**

\* \* \* \* \*

(f) *Payment for protective equipment.* All protective equipment, including personal protective equipment (PPE), required in this part, shall be provided by the employer at no cost to employees.

*Exception:* The employer is not required to pay for safety-toe protective footwear, or for prescription safety eyewear, provided that all three of the following conditions are met:

(1) The employer permits such footwear or eyewear to be worn off the job-site;

(2) The footwear or eyewear is not used at work in a manner that renders it unsafe for use off the job-site (for example, contaminated safety-toe footwear would not be permitted to be worn off a job-site); and

(3) Such footwear or eyewear is not designed for special use on the job.

*Marine Terminals***PART 1917—[AMENDED]**

29 CFR Part 1917 is proposed to be amended as follows:

1. The authority citation for Subpart E of 29 CFR part 1917 would continue to read as follows:

**Authority:** Sec. 41, Longshore and Harbor Workers' Compensation Act (33 U.S.C. 941); Secs. 4, 6, and 8 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 12-71 (36 FR 8754), 8-76 (41 FR 25059), 9-83 (48 FR 35736), or 6-96 (62 FR 111), as applicable; and 29 CFR part 1911. Section 1917.28 also issued under 5 U.S.C. 553.

2. A new § 1917.96 would be added to subpart E, to read as follows:

**§ 1917.96 Payment for protective equipment.**

All protective equipment, including personal protective equipment (PPE), required in this part, shall be provided by the employer at no cost to employees. *Exception:* The employer is not required to pay for safety-toe protective footwear, or for prescription safety eyewear, provided that all three of the following conditions are met:

(a) The employer permits such footwear or eyewear to be worn off the job-site;

(b) The footwear or eyewear is not used at work in a manner that renders it unsafe for use off the job-site (for example, contaminated safety-toe footwear would not be permitted to be worn off a job-site); and

(c) Such footwear or eyewear is not designed for special use on the job.

*Longshoring***PART 1918—[AMENDED]**

29 CFR part 1918 is proposed to be amended as follows:

1. The authority citation for 29 CFR part 1918 would be revised to read as follows:

**Authority:** Secs. 4, 6, and 8 of the Occupational Safety and Health Act, 29 U.S.C. 653, 655, 657; Walsh-Healey Act, 41 U.S.C. 35 *et seq.*; Service Contract Act of 1965, 41 U.S.C. 351 *et seq.*; Sec. 107, Contract Work Hours and Safety Standards Act (Construction Safety Act), 40 U.S.C. 333; Sec. 41, Longshore and Harbor Workers' Compensation Act, 33 U.S.C. 941; National Foundation of Arts and Humanities Act, 20 U.S.C. 951 *et seq.*; Secretary of Labor's Order No. 6-96 (62 FR 111) and 29 CFR part 1911.

2. A new § 1918.106 would be added, to read as follows:

**§ 1918.106 Payment for protective equipment.**

All protective equipment, including personal protective equipment (PPE), required in this part, shall be provided by the employer at no cost to employees. *Exception:* The employer is not required to pay for safety-toe protective footwear, or for prescription safety eyewear, provided that all three of the following conditions are met:

(a) The employer permits such footwear or eyewear to be worn off the job-site;

(b) The footwear or eyewear is not used at work in a manner that renders it unsafe for use off the job-site (for example, contaminated safety-toe footwear would not be permitted to be worn off a job-site); and

(c) Such footwear or eyewear is not designed for special use on the job.

*Construction***PART 1926—[AMENDED]**

29 CFR part 1926 is proposed to be amended as follows:

1. The authority citation for subpart E of part 1926 would be revised to read as follows:

**Authority:** Sec. 107, Contract Work Hours and Safety Standards Act (Construction Safety Act) (40 U.S.C. 333); Secs. 4, 6, and 8 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 12-71 (36 FR 8754), 8-76 (41 FR 25059), 9-83 (48 FR 35736), 1-90 (55 FR 9033), or 6-96 (62 FR 111), as applicable; and 29 CFR part 1911.

2. A new paragraph (d) would be added to § 1926.95, to read as follows:

**§ 1926.95 Criteria for personal protective equipment.**

\* \* \* \* \*

(d) *Payment for Protective Equipment.* All protective equipment, including personal protective equipment (PPE), required in this part, shall be provided by the employer at no cost to employees. *Exception:* The employer is not required to pay for safety-toe protective footwear, or for prescription safety eyewear, provided that all three of the following conditions are met:

(1) The employer permits such footwear or eyewear to be worn off the job-site;

(2) The footwear or eyewear is not used at work in a manner that renders it unsafe for use off the job-site (for example, contaminated safety-toe footwear would not be permitted to be worn off a job-site); and

(3) Such footwear or eyewear is not designed for special use on the job.

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