



**DEPARTMENT OF LABOR**

**Occupational Safety and Health Administration**

**29 CFR Parts 1910, 1915, 1917, 1918, and 1926**

**[Docket No. OSHA-2014-0024]**

**RIN 1218-AC87**

**Updating OSHA Standards Based on National Consensus Standards; Eye and Face Protection**

**AGENCY:** Occupational Safety and Health Administration (OSHA), Department of Labor.

**ACTION:** Final rule.

**SUMMARY:** On March 13, 2015, OSHA published in the Federal Register a notice of proposed rulemaking (NPRM) to revise its eye and face protection standards for general industry, shipyard employment, marine terminals, longshoring, and construction by updating the references to national consensus standards approved by the American National Standards Institute (ANSI). OSHA received no significant objections from commenters and therefore is adopting the amendments as proposed. This final rule updates the references in OSHA's eye and face standards to reflect the most recent edition of the ANSI/International Safety Equipment Association (ISEA) eye and face protection standard. It removes the oldest-referenced edition of the same ANSI standard. It also amends other provisions of the construction eye and face protection standard to bring them into alignment with OSHA's general industry and maritime standards.

**DATES:** This final rule becomes effective on [INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]. The incorporation by reference of certain standards listed in the rule was approved by the Director of the Federal Register

as of [INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** In accordance with 28 U.S.C. 2112(a), OSHA designates Ann S. Rosenthal, Associate Solicitor of Labor for Occupational Safety and Health, Office of the Solicitor, Room S-4004, U.S. Department of Labor, 200 Constitution Avenue, NW, Washington, DC 20210, to receive petitions for review of the final rule.

The address for OSHA's docket office is: Docket Office, Technical Data Center, Room N-2625, OSHA, U.S. Department of Labor, 200 Constitution Avenue, NW, Washington, DC 20210; telephone: (202) 693-2350. (OSHA's TTY number is (877) 889-5627)). The hours of operation for the OSHA Docket Office are 8:15 a.m. to 4:45 p.m., e.t. In addition, addresses and phone numbers for OSHA's state and regional offices can be found at <http://www.osha.gov/about.html>.

**FOR FURTHER INFORMATION CONTACT:**

General information and press inquiries: Frank Meilinger, Director, OSHA Office of Communications, Room N-3647, U.S. Department of Labor, 200 Constitution Avenue, NW, Washington, DC 20210; telephone: (202) 693-1999; email: [meilinger.francis2@dol.gov](mailto:meilinger.francis2@dol.gov).

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Copies of this Federal Register notice: Electronic copies of this Federal Register notice are available at <http://www.regulations.gov>. This Federal Register notice, as well

as news releases and other relevant information, also are available at OSHA's Webpage at <http://www.osha.gov>.

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### **I. Executive Summary**

This final rule updates eye and face protection requirements in OSHA's general industry, shipyard employment, marine terminals, longshoring, and construction standards. The changes involve incorporation by reference of the latest ANSI/ISEA Z87.1-2010 standard on Occupational and Educational Eye and Face Protection Devices and removal of the oldest ANSI (Z87.1-1989) version of the same standard. In addition, OSHA is modifying the language in its construction standard to make it more consistent with the general and maritime industry standards.

This new rule will allow employers to continue to follow the existing ANSI standards referenced or allow employers to follow the latest version of the same

ANSI/ISEA standard. Employers are not required to update or replace protection devices solely as a result of this rule and may continue to follow their current and usual practices for their eye and face protection. Therefore, this rule has no compliance or economic burdens associated with it.

## **II. Background**

### A. Overview and Procedural Background.

OSHA requires employers to ensure that their employees use eye and face protection where necessary to protect them against flying objects, splashes or droplets of hazardous chemicals, and other workplace hazards that could injure their eyes and face. OSHA's standards state that the protection employers provide must meet specified consensus standards. For operations covered by OSHA's general industry, shipyard employment, longshoring, and marine terminals standards, the protection must comply with one of the following standards: ANSI Z87.1-2003, ANSI Z87.1-1989 (R-1998), and ANSI Z87.1-1989. Alternatively, the employer may show that the devices used are at least as effective as one of these consensus standards (29 CFR 1910.133(b); 29 CFR 1915.153(b); 29 CFR 1917.91(a)(1); 29 CFR 1918.101(a)(1)). The construction standard requires that eye and face protection meet the requirements of ANSI Z87.1-1968 (29 CFR 1926.102(a)(2)).

As a part of its ongoing efforts to update its standards with the latest versions of national consensus standards, (see 69 FR 68283), OSHA last updated its eye and face protection standards in 2009 (74 FR 46350). That effort did not address the eye and face protection requirements in the construction standard, which had been revised in 1993, and during the 2009 rulemaking OSHA received several comments suggesting that the

construction requirements be updated as well. After the new ANSI/ISEA 87.1-2010 standard was published, OSHA decided to again update its eye and face protection requirements.

Before publishing a proposal, OSHA consulted the Advisory Committee on Construction Safety and Health (ACCSH) on May 8, 2014, as required by 29 CFR 1911.10. OSHA presented two options to ACCSH. The first option replaced all eye and face protection provisions in the construction standard with those of the general industry and maritime standards, except those that were unique to the construction industry standard. The second option substituted only the three most current (ANSI/ISEA and ANSI) standards for the outdated ANSI standard currently cited, or allowed the employer to show that the protection was at least as protective as one of those standards. The remaining provisions of the construction standard were unchanged except for the removal of Table E-1, which referenced the outdated ANSI standard. The Committee selected the first option and passed a motion recommending that the Agency move forward in the rulemaking process. (See ACCSH meeting minutes, ID: OSHA-2014-0024-0004; see also Options presented to ACCSH, ID: OSHA-2014-0024-0003).

On March 13, 2015, OSHA published an NPRM in the Federal Register to revise its eye and face protection standards. For the general industry and maritime standards, OSHA proposed updating the ANSI standard references by deleting ANSI Z87.1-1989 and replacing it with ANSI/ISEA Z87.1-2010 (80 FR 13295). In addition, in the NPRM, the Agency proposed deleting the reference to ANSI Z87.1-1968 in its construction standard at 29 CFR 1926.102, and replacing it with the references to the same three consensus standards (including Z87.1-2010) cited in the proposed general industry,

shipyard employment, longshoring, and marine terminals standards. As recommended by ACCSH, OSHA also proposed other changes to the construction standard to bring it into greater alignment with OSHA's other eye and face protection requirements, while retaining requirements unique to the construction standard not covered by the ANSI standards. Thus, the NPRM allowed all employers covered by OSHA's standards to follow any of the three most recent versions of the ANSI/ISEA eye and face protection standard.

OSHA received no significant adverse comment to the proposal, and this notice finalizes the rule updates as proposed. This action will ensure consistency among the Agency's standards, and eliminate any confusion, clarify employer obligations, and provide up-to-date protection for workers exposed to eye and face hazards.

## B. Incorporation by Reference Under 1 CFR Part 51

### 1. Summary of the Incorporated Consensus Standards

ANSI/ISEA Z87.1-2010, Occupational and Educational Personal Eye and Face Protection Devices, provides requirements for the selection, testing, use, and maintenance of protectors intended to minimize or prevent eye and face injuries including impact, non-ionizing radiation and chemical exposures, in occupational and educational environments. ANSI Z87.1-2003 and ANSI Z87.1-1989 (R-1998) are prior versions of this standard which are also incorporated by reference as alternative means of compliance with OSHA's eye and face protection requirements.

### 2. Reasonable Availability of the Incorporated Consensus Standards

OSHA believes that the ANSI/ISEA and ANSI standards are reasonably available to interested parties. The ANSI/ISEA 2010 and ANSI 2003 and 1989 (R-1998) versions of the Z87.1 standard can be purchased as a package from ANSI in pdf form for \$57 (<http://webstore.ansi.org/>). They are also available for purchase at either the IHS Standards (<http://global.ihs.com/>) or Techstreet (<http://www.techstreet.com/>) stores. Employers may rely on manufacturer representations that protection is compliant with the indicated standard and therefore are not obligated to incur this expense to comply with the standard. These standards are also available for review in OSHA's docket office and regional offices; see the ADDRESSES section of this document for details.

### **III . Summary and Explanation of the Final Rule**

#### **A. Revisions to OSHA's Eye and Face Protection Standards**

##### **1. Final Rule for General Industry and Maritime Industry Standards**

OSHA adopted the previous revision of the general industry and maritime eye and face protection standards on September 9, 2009 (74 FR 46350). These revisions, which became effective on October 9, 2009, permit compliance with ANSI Z87.1-2003, ANSI Z87.1-1989 (R-1998), or ANSI Z87.1-1989. Since OSHA published the previous revision, ANSI/ISEA Z87.1-2010 became available. This final rule includes ANSI/ISEA Z87.1-2010 in 29 CFR 1910.133(b)(1), 29 CFR 1915.153(b)(1), 29 CFR 1917.91(a)(1)(i) and removes references to ANSI Z87.1-1989. It also updates the general incorporation by reference section for each of these standards (*i.e.*, 29 CFR 1910.6, 1915.5, 1917.3, 1918.3) to reflect the incorporation of ANSI/ISEA Z87.1-2010, ANSI Z87.1-2003, and ANSI Z87.1-1989 (R-1998).

OSHA believes that eye and face protection meeting the 2010 ANSI/ISEA standard is already on the market, and the 2010 standard is not less protective than the previous versions of the standard. Therefore it is amending its standard to allow the use of such protection in the workplace.

## 2. Final Rule for Construction Industry Standard

The final rule involves: (1) changes to the ANSI standard references and (2) inclusion of language from the general industry eye and face protection standard. With respect to the consensus standards update, OSHA is amending 29 CFR 1926.6 and 1926.102, which currently incorporate by reference ANSI Z87.1-1968 to include the same three consensus standards incorporated into the general industry and maritime standards, ANSI/ISEA Z87.1-2010, ANSI Z87.1-2003, and ANSI Z87.1-1989 (R-1998). OSHA is modifying certain existing language to make it nearly identical to the language in the general industry standard's eye and face protection provisions. It is retaining provisions unique to the current construction standard that are not covered in the versions of the consensus standards incorporated by the proposal.

Specifically, OSHA is placing language from the general industry standard, sections 1910.133(a)(1) through (a)(4) and 1910.133(b), in sections 1926.102(a)(1) through (a)(3), and (a)(7). Additionally, the Agency is replacing: (1) the scope section in 1926.102(a)(1) with the scope section in 1910.133(a)(1); (2) the reference to the 1968 ANSI standard in 1926.102(a)(2) with the updated list of national consensus standards in 1910.133(b)(1); and (3) the requirements for corrective lenses in 1926.102(a)(3) with the corrective-lens requirements in 1910.133(a)(3). The final rule removes the requirements in section 1926.102(a)(4) —to keep protective equipment clean, in good repair, and free

of structural and optical defects — which are addressed by requirements in each of the three versions of the Z87.1 standard. Likewise, it deletes Table E-1, Eye and Face Protector Selection Guide, which is specific to the 1968 version of ANSI Z87.1 and referenced in the current section 1926.102(a)(5), and renumbers Tables E-2 and E-3 under this paragraph as Tables E-1 and E-2, respectively.

The final rule substitutes the marking requirement specified by section 1926.102(a)(7) with the marking requirement in section 1910.133(a)(4). The final rule removes the requirement in 1926.102(a)(8) that employers must transmit information from manufacturers to users about equipment limitations or precautions and that such limitations and precautions must be strictly observed. It also adds a provision to the construction standard that permits an employer to use eye and face protection not manufactured in accordance with one of the incorporated Z87.1 standards if the employer can demonstrate compliance with one of the incorporated Z87.1 standards (i.e., the equivalent-protection provision). The final rule will redesignate section 1926.102(b) as section 1926.102(c).

OSHA believes these changes are warranted because it will make compliance easier for employers who perform work that is covered both by the construction standard and another of OSHA's standards. Further, OSHA believes that the consensus standard reference should be updated because the new ANSI standards are at least as protective as the 1968 standard, and the Agency does not believe that personal protective equipment (PPE) designed and tested to the 1968 ANSI standard is currently available for purchase.

## B. Discussion of Comments

OSHA received twelve comments in response to the NPRM on eye and face protection consensus standards updating. While commenters generally supported OSHA's efforts to update its standards, some raised issues to which OSHA responds below.

Mr. Bruce Donato, a private citizen, Mr. Douglas Greenhaus of the National Automobile Dealers Association (NADA), and Ms. Julie Trembly of 3M commented on OSHA's use of consensus standards. Mr. Donato asked why OSHA uses consensus standards rather than proposing its own standards (ID: OSHA-2014-0024-0006). Mr. Greenhaus advocated for use of a performance-oriented approach and removal of all consensus standard references, believing this approach would free OSHA from the obligation to continuously review and adopt new versions of third-party standards (ID: OSHA-2014-0024-0015). Ms. Trembly mentioned that OSHA may want to allow compliance only with the 2010 ANSI/ISEA standard. She reasoned that this would ease compliance because the 2010 version is the most recent and maintains a hazard-based approach (ID: OSHA-2014-0024-0013).

OSHA disagrees with these commenters. First, the Agency is legally required to consider national consensus standards. The Occupational Safety and Health Act of 1970 (OSH Act) requires OSHA to follow them in promulgating a rule, unless OSHA explains why another requirement will better effectuate the purposes of the act (29 USC 655(b)(b)). In addition, the National Technology Transfer and Advancement Act of 1995 also requires OSHA (and other Federal agencies) to use voluntary consensus standards unless contrary to applicable law or impractical. Pub. L 104-113 §12(d), 15 U.S.C.A. 272 note; see also OMB Circular A-119, *Federal Participation in the Development and*

*Use of Voluntary Consensus Standards and in Conformity Assessment Activities*, 68 FR

8553. Second, voluntary consensus standards contain valuable information about how to address workplace hazards. As Ms. Patricia Ennis from the American Society of Safety Engineers pointed out, since experts with diverse backgrounds produce national consensus standards, the standards reflect their expertise and the latest developments in workplace safety (ID: OSHA-2014-0024-0008).

OSHA disagrees with the suggestion to only incorporate the latest ANSI/ISEA standard, because it believes some employers may be using eye and face protection meeting the ANSI 87.1-2003 and ANSI 87.1-1989 (R-1998) standards. OSHA is unaware of evidence that disallowing the use of PPE meeting those standards would significantly increase safety.

Relatedly, Mr. Donato and Mr. Greenhaus of NADA also expressed concern that the cost of obtaining consensus standards could be prohibitive to small businesses (IDs: OSHA-2014-0024-0006 and 0015). As noted above, all referenced consensus standards are available purchase for a modest sum and may be viewed for free in OSHA's regional offices, among other places.

Ms. Julie Weide, a private citizen, commented that she wanted more mandatory eye protection at worksites, in accordance with equipment manufacturers' warnings (ID: OSHA-2014-0024-0007). Though her suggestion falls outside of the scope of the proposal, OSHA notes that its current eye and face protection standards already require employers to ensure that affected employees use appropriate eye or face protection when exposed to hazards from flying particles, molten metal, liquid chemicals, acids or caustic

liquids, chemical gases or vapors, or potentially injurious light radiation. See 29 CFR 1910.133(a).

Several commenters supported OSHA's decision to make eye and face protection requirements consistent across all industry standards, stating that consistency makes compliance easier for employers (IDs: OSHA-2014-0024-0009, 0011, and 0012). OSHA agrees with the commenters' assessment.

Mr. Joe Miles of the Northeastern Retail Lumber Association (NRLA) commented that the final rule should provide a transition period so that associations such as the NRLA would have time to notify members of the new standards. Members could then inform their customers of the new PPE requirements, and have sufficient time to order and integrate necessary PPE into the workplace (ID: OSHA-2014-0024-0011). Mr. Greenhaus of NADA agreed, opining that small business employers should be given greater flexibility with respect to compliance (ID: OSHA-2014-0024-0015).

Under the final rule, employers may follow any of the three latest versions of the Z87.1 standards. The new rule places no new obligations, costs, or time constraints on employers. Employers already in compliance with OSHA's eye and face requirements may continue their current usual and customary practice in providing eye and face protection to their employees. The final now allows employers to follow the newest ANSI/ISEA Z87.1-2010 standard — if they choose and at their convenience — or to continue to follow the older versions (ANSI Z87.1-2003 or Z87.1-1989 (R-1998)), which appeared in the previous version of the rule. As Mr. Daniel Shipp of the ISEA commented, the removal of the 1989 version will have no effect on the acceptability of

any product because it is identical to the 1989 (R-1998) standard, which remains in the final rule (ID: OSHA-2014-0024-0012). Further, OSHA anticipates that compliance with the 2010 version of the ANSI/ISEA Z87.1 standard will not be burdensome, because as commenters noted, most manufacturers of eye and face protection devices already follow the latest ANSI/ISEA standard (IDs: OSHA-2014-0024-0012 and 0013).

While they supported the proposal, Mr. Faulkner and Ms. Fitch from the United Steelworkers (USW) and Mr. McCann, a private citizen, discussed their concerns about improperly-fitting PPE, especially for women and men of nonstandard body types. They further indicated that OSHA's standardized PPE requirement throughout various industries was insufficient. Instead, OSHA should require employers to: (1) provide the best fitting PPE available on the market for their workers at no cost, (2) regularly evaluate which PPE is provided to employees, and (3) purchase customized PPE where special orders are needed. They also highlighted a need to protect workers who complain about inadequate PPE from retaliation (ID: OSHA-2014-0024-0016 and 0017).

OSHA thanks the commenters for raising these issues and the agency agrees that PPE must fit properly no matter who is wearing it. A correct, comfortable fit helps to ensure the worker will receive the intended protection for the duration of the exposure. Many of the commenters' concerns are addressed in the existing PPE standard. Specifically, the general industry standard requires employers to select PPE that properly fits each affected employee, at no cost to the employee. See 29 CFR 1910.132(d)(1)(iii) (fit); 1910.132 (h)(1) (cost). It also requires employers to conduct a hazard assessment to determine which PPE is necessary. 29 CFR 1910.132(d). Moreover, the standards require employers to ensure their employees wear "appropriate" or "protective" eye and

face protection, which includes proper fit, and preclude the use of defective or damaged PPE. These requirements apply equally for workers of both sexes and all body types. With respect to the need to protect workers from retaliation, the OSH Act currently protects workers who complain to employers about workplace safety issues, including inadequate PPE, from retaliation. 29 USC 660(c); 29 CFR 1977.9(c). While the specific proposals made by USW and Mr. McCann fall outside the scope of the proposal, OSHA will continue to monitor the issues they raised.

A number of commenters noted a more general need for OSHA to revise its standards to incorporate by reference the most recent versions of consensus standards (See, e.g., IDs: OSHA-2014-0024-0008, 0015, and 0016). OSHA agrees with these commenters, and as part of its mandate to provide a safe and healthful work environment to all employees, the Agency intends to continue in its efforts to adopt the latest consensus standards as soon as possible. However, incorporation by reference can, at times, be a lengthy process because OSHA must evaluate consensus standards to ensure that they are: (1) at least as effective, or meet, the current consensus standards incorporated by reference, and (2) technologically and economically feasible. As a related matter, Mr. Faulkner and Ms. Fitch from the USW suggested that OSHA coordinate with the Mine Safety and Health Administration (MSHA), so that OSHA's standards could also benefit employees in the mining industry (ID: OSHA-2014-0024-0016). OSHA agrees with the importance of interagency cooperation, and in general the Agency attempts to coordinate with other Federal agencies when there is the possibility of duplication, overlap, or conflict. However, OSHA has no jurisdiction over employers regulated by MSHA. Nonetheless, where there may be some benefit for employees in

doing so, OSHA will consider working with MSHA on relevant standards updates in the future.

Mr. Shipp from ISEA noted that OSHA incorrectly referenced to the 2010 consensus standard in its NPRM. OSHA appreciates this comment and has corrected the final rule so all references to the 2010 standard reflect the official designation of the consensus standard: ANSI/ISEA Z87.1-2010 (ID: OSHA-2014-0024-0012).

#### **IV. Agency Determinations**

##### **A. Legal Considerations**

The purpose of the OSH Act is to achieve to the extent possible safe and healthful working conditions for all employees. 29 U.S.C. 651(b). To achieve this goal, Congress authorized the Secretary of Labor to promulgate and enforce occupational safety and health standards. 29 U.S.C. 654(b), 655(b). A safety or health standard is one “which requires conditions, or the adoption or use of one or more practices, means, methods, operations, or processes reasonably necessary or appropriate to provide safe or healthful employment and places of employment.” 29 U.S.C. 652(8). A standard is reasonably necessary or appropriate within the meaning of Section 652(8) of the OSH Act when a significant risk of material harm exists in the workplace and the standard would substantially reduce or eliminate that workplace risk. See Indus. Union Dep’t, AFL-CIO v. Am. Petroleum Inst., 448 U.S. 607 (1980). OSHA already determined that requirements specified by eye and face protection standards, including design requirements, are reasonably necessary or appropriate within the meaning of Section 652(8). See, e.g., 49 FR 49726, 49737 (1978); 51 FR 33251, 33251-59 (1986).

Moreover, this final rule neither reduces employee protection nor alters an employer's obligations under the existing standards. With respect to employee protection, because the final rule will allow employers to continue to provide the same eye and face protection they currently provide, employees' protection will not change. In terms of employers' obligations, the final rule will allow employers additional options for meeting the design-criteria requirements for eye and face protection. Accordingly, this final rule does not require an additional significant risk finding (cf. Edison Elec. Inst. v. OSHA, 849 F.2d 611, 620 (D.C. Cir. 1988)).

In addition, a safety standard must be technologically feasible. See UAW v. OSHA, 37 F.3d 665, 668 (D.C. Cir. 1994). A standard is technologically feasible when the protective measures it requires already exist, when available technology can bring the protective measures into existence, or when that technology is reasonably likely to develop. See Am. Textile Mfrs. Inst. v. OSHA, 452 U.S. 490, 513 (1981); Am. Iron and Steel Inst. v. OSHA, 939 F.2d 975, 980 (D.C. Cir. 1991)). The final rule is technologically feasible because: (1) protectors are already manufactured in accordance with the 2010 ANSI/ISEA standard or the other versions permitted under the revision and (2) employers already comply with the 2003 and 1998 versions of the ANSI standard incorporated by reference into the general industry and maritime standards, which will remain in effect under the final rule.

#### B. Final Economic Analysis and Regulatory Flexibility Act Certification

OSHA has determined that employers can comply with the final rule by following their current usual and customary practice in providing eye and face protection to their employees. This final rule expands the options available to employers without removing

any existing option and thus has no costs. Therefore, OSHA finds that the final rule is not economically significant within the context of Executive Order 12866, or a major rule under the Unfunded Mandates Reform Act or Section 801 of the Small Business Regulatory Enforcement Fairness Act. In addition, this final rule complies with Executive Order 13563 because employers are allowed increased flexibility in choosing eye and face protection for their employees and are not required to update or replace that protection solely as a result of this final rule if the employer's current practice meets the new standards. Because the final rule imposes no costs, OSHA certifies that it will not have a significant economic impact on a substantial number of private or public sector entities. Likewise, it does not meet any of the criteria for an economically significant or major rule specified by the Executive Order or relevant statutes.

#### C. Paperwork Reduction Act of 1995

As was the case for the NPRM, the Department has determined this rule does not establish new or revise any existing collection of information requirements subject to OMB approval under the Paperwork Reduction Act of 1995, 44 U.S.C. 3501. The proposed rule invited comments on this determination, and OSHA received no comments.

#### D. Federalism

OSHA reviewed this final rule in accordance with the Executive Order on Federalism (Executive Order 13132, 64 FR 43255, August 10, 1999), which requires that agencies, to the extent possible, refrain from limiting state policy options, consult with states prior to taking any actions that would restrict state policy options, and take such actions only when clear constitutional authority exists and the problem is national in

scope. Executive Order 13132 provides for preemption of state law only with the expressed consent of Congress. Agencies must limit any such preemption to the extent possible.

Under Section 18 of the OSH Act, 29 U.S.C. 651 et seq., Congress expressly provides that states may adopt, with Federal approval, a plan for the development and enforcement of occupational safety and health standards (29 U.S.C. 667); OSHA refers to states that obtain Federal approval for such a plan as “State Plan states.” Occupational safety and health standards developed by State Plan states must be at least as effective in providing safe and healthful employment and places of employment as the Federal standards. 29 U.S.C. 667. Subject to these requirements, State Plan states are free to develop and enforce under state law their own requirements for occupational safety and health standards.

While OSHA developed the final rule to protect employees in every state, Section 18(c)(2) of the OSH Act permits State Plan states and U.S. Territories to develop and enforce their own standards for eye and face protection provided these requirements are at least as effective in providing safe and healthful employment and places of employment as the requirements specified in this final rule.

In summary, this final rule complies with Executive Order 13132. In states without OSHA-approved state plans, this rule limits state policy options in the same manner as other OSHA standards. In State Plan states, this rule does not significantly limit state policy options because, as explained in the following section, State Plan states do not have to adopt this final rule.

#### E. State Plan States

When Federal OSHA promulgates a new standard or amends an existing standard to be more stringent than it was previously, the 28 states or U.S. Territories with their own OSHA-approved occupational safety and health plans must revise their standards to reflect the new standard or amendment, or show OSHA why such action is unnecessary, e.g., because an existing state standard covering this area is at least as effective in protecting workers as the new Federal standard or amendment. 29 CFR 1953.5(a). In this regard, the state standard must be at least as effective as the final Federal rule. State Plan states must adopt the Federal standard or complete their own standard within six months of the publication date of the final Federal rule. When OSHA promulgates a new standard or amendment that does not impose additional or more stringent requirements than the existing standard, State Plan states need not amend their standards, although OSHA may encourage them to do so. The following 21 states and 1 U.S. Territory have OSHA-approved occupational safety and health plans that apply only to private-sector employers: Alaska, Arizona, California, Hawaii, Indiana, Iowa, Kentucky, Maryland, Michigan, Minnesota, Nevada, New Mexico, North Carolina, Oregon, Puerto Rico, South Carolina, Tennessee, Utah, Vermont, Virginia, Washington, and Wyoming. In addition, Connecticut, Illinois, Maine, New Jersey, New York, and the Virgin Islands have OSHA-approved State Plans that apply only to state and local government employees.

With regard to this final rule, it will not impose any additional or more stringent requirements on employers compared to existing OSHA standards. Through this rulemaking, OSHA is updating the references in its regulations to recognize recent editions of the applicable national consensus standards, and deleting a number of

outdated editions of the national consensus standards referenced in its existing PPE standards. The final rule does not require employers to update or replace their PPE solely as a result of this rulemaking if the PPE currently in use meets the existing standards. Therefore, the final rule does not require action under 29 CFR 1953.5(a), and States and U.S. Territories with approved State Plans do not need to adopt this rule or show OSHA why such action is unnecessary. However, to the extent these States and Territories have the same standards as the OSHA standards affected by this final rule, OSHA encourages them to adopt the amendments.

#### F. Unfunded Mandates Reform Act of 1995

OSHA reviewed this final rule according to the Unfunded Mandates Reform Act of 1995 (UMRA), 2 U.S.C. 1501-1571, and Executive Order 12875, 58 FR 58093 (October 26, 1993). As discussed above in Section IV.B (“Final Economic Analysis and Regulatory Flexibility Act Certification”) of this preamble, OSHA determined that the final rule imposes no additional costs on any private-sector or public-sector entity. Accordingly, this final rule requires no additional expenditures by either public or private employers.

As noted above under Section IV.E (“State Plan States”) of this preamble, OSHA standards do not apply to state or local governments except in states that elected voluntarily to adopt an OSHA-approved state plan. Consequently, this final rule does not meet the definition of a “Federal intergovernmental mandate.” See 2 U.S.C. 658(5). Therefore, for the purposes of the UMRA, OSHA certifies that this final rule does not mandate that state, local, or tribal governments adopt new, unfunded regulatory

obligations, or increase expenditures by the private sector of more than \$100 million in any year.

#### G. Consultation and Coordination with Indian Tribal Governments

OSHA reviewed this final rule in accordance with Executive Order 13175, 65 FR 67249 (November 6, 2000), and determined that it does not have “tribal implications” as defined in that order. The final rule does not have substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes.

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

Incorporation by reference, Occupational Safety and Health, Personal Protective Equipment

#### **V. Authority and Signature**

David Michaels, Ph.D., MPH, Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, 200 Constitution Ave., NW, Washington, DC 20210, authorized the preparation of this notice. OSHA is issuing this final rule pursuant to 29 U.S.C. 653, 655, and 657; 40 U.S.C. 3701 *et seq.*; 5 U.S.C. 553; Secretary of Labor’s Order 1-2012, 77 FR 3912 (2012); and 29 CFR part 1911.

Signed at Washington, DC, on March 15, 2016

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David Michaels,  
Assistant Secretary of Labor for Occupational Safety and Health.

#### **Amendments to Standards**

For the reasons stated above in the preamble, the Occupational Safety and Health Administration is amending 29 CFR parts 1910, 1915, 1917, 1918, and 1926 as follows:

**PART 1910—[AMENDED]**

**Subpart A—[Amended]**

1. The authority citation for subpart A of part 1910 continues to read as follows:

**AUTHORITY:** 29 U.S.C. 653, 655, 657; Secretary of Labor’s Order Numbers 12-71 (36 FR 8754), 8-76 (41 FR 25059), 9-83 (48 FR 35736), 1-90 (55 FR 9033), 6-96 (62 FR 111), 3-2000 (65 FR 50017), 5-2002 (67 FR 65008), 5-2007 (72 FR 31159), 4-2010 (75 FR 55355), or 1-2012 (77 FR 3912), as applicable.

Sections 1910.6, 1910.7, 1910.8 and 1910.9 also issued under 29 CFR 1911. Section 1910.7(f) also issued under 31 U.S.C. 9701, 29 U.S.C. 9a, 5 U.S.C. 553; Public Law 106-113 (113 Stat. 1501A-222); Pub. L. 11-8 and 111-317; and OMB Circular A-25 (dated July 8, 1993) (58 FR 38142, July 15, 1993).

2. Amend § 1910.6 by revising paragraphs (e)(69) through (71) to read as follows:

**§ 1910.6 Incorporation by reference.**

\* \* \* \* \*

(e) \* \* \*

(69) ANSI/ISEA Z87.1-2010, Occupational and Educational Personal Eye and Face Protection Devices, Approved April 13, 2010; IBR approved for § 1910.133(b). Copies are available for purchase from:

(i) American National Standards Institute’s e-Standards Store, 25 W 43rd Street, 4th Floor, New York, NY 10036; telephone: (212) 642-4980; Web site: <http://webstore.ansi.org/>;

(ii) IHS Standards Store, 15 Inverness Way East, Englewood, CO 80112; telephone: (877) 413-5184; Web site: <http://global.ihs.com>; or

(iii) TechStreet Store, 3916 Ranchero Dr., Ann Arbor, MI 48108; telephone: (877) 699-9277; Web site: <http://techstreet.com>.

(70) ANSI Z87.1-2003, Occupational and Educational Eye and Face Personal Protection Devices Approved June 19, 2003; IBR approved for §§ 1910.133(b). Copies available for purchase from the:

(i) American National Standards Institute's e-Standards Store, 25 W 43rd Street, 4th Floor, New York, NY 10036; telephone: (212) 642-4980; Web site: <http://webstore.ansi.org/>;

(ii) IHS Standards Store, 15 Inverness Way East, Englewood, CO 80112; telephone: (877) 413-5184; Web site: <http://global.ihs.com>; or

(iii) TechStreet Store, 3916 Ranchero Dr., Ann Arbor, MI 48108; telephone: (877) 699-9277; Web site: <http://techstreet.com>.

(71) ANSI Z87.1-1989 (R-1998), Practice for Occupational and Educational Eye and Face Protection, Reaffirmation approved January 4, 1999; IBR approved for § 1910.133(b). Copies are available for purchase from:

(i) American National Standards Institute's e-Standards Store, 25 W 43rd Street, 4th Floor, New York, NY 10036; telephone: (212) 642-4980; Web site: <http://webstore.ansi.org/>;

(ii) IHS Standards Store, 15 Inverness Way East, Englewood, CO 80112; telephone: (877) 413-5184; Web site: <http://global.ihs.com>; or

(iii) TechStreet Store, 3916 Ranchero Dr., Ann Arbor, MI 48108; telephone: (877) 699-9277; Web site: <http://techstreet.com>.

\* \* \* \* \*

**Subpart I—[Amended]**

3. The authority citation for subpart I of part 1910 continues 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), 8–76 (41 FR 25059), 9–83 (48 FR 35736), 1–90 (55 FR 9033), 6–96 (62 FR 111), 3–2000 (65 FR 50017), 5–2002 (67 FR 65008), 5–2007 (72 FR 31160), 4–2010 (75 FR 55355), or 1–2012 (77 FR 3912), as applicable, and 29 CFR Part 1911; Sections 1910.132, 1910.134, and 1910.138 of 29 CFR also issued under 29 CFR 1911; Sections 1910.133, 1910.135, and 1910.136 of 29 CFR also issued under 29 CFR 1911 and 5 U.S.C. 553.

4. Amend § 1910.133 by revising paragraph (b)(1) to read as follows:

**§ 1910.133 Eye and face protection.**

\* \* \* \* \*

(b) Criteria for protective eye and face protection. (1) Protective eye and face protection devices must comply with any of the following consensus standards:

(i) ANSI/ISEA Z87.1-2010, Occupational and Educational Personal Eye and Face

Protection Devices, incorporated by reference in § 1910.6;

(ii) ANSI Z87.1-2003, Occupational and Educational Personal Eye and Face Protection

Devices, incorporated by reference in § 1910.6; or

(iii) ANSI Z87.1-1989 (R-1998), Practice for Occupational and Educational Eye and

Face Protection, incorporated by reference in § 1910.6;

\* \* \* \* \*

**PART 1915—[AMENDED]**

5. The authority citation for part 1915 continues to read as follows:

**AUTHORITY:** Section 41, Longshore and Harbor Workers' Compensation Act (33 U.S.C. 941); 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), 8-76 (41 FR 25059), 9-83 (48 FR 35736), 1-90 (55 FR 9033), 6-96 (62 FR 111), 3-2000 (65 FR 50017), 5-2002 (67 FR 65008), 5-2007 (72 FR 31160), 4-2010 (75 FR 55355), or 1-2012 (77 FR 3912), as applicable; 29 CFR Part 1911.

Section 1915.100 also issued under 49 U.S.C. 1801-1819 and 5 U.S.C. 553.

Sections 1915.120 and 1915.152 of 29 CFR also issued under 29 CFR part 1911.

6. Amend § 1915.5 by revising paragraphs (d)(1)(vi) through (viii) to read as follows:

**§ 1915.5 Incorporation by reference.**

\* \* \* \* \*

(d)(1) \* \* \*

(vi) ANSI/ISEA Z87.1-2010, Occupational and Educational Personal Eye and Face Protection Devices, Approved April 13, 2010; IBR approved for § 1915.153(b). Copies are available for purchase from:

(A) American National Standards Institute's e-Standards Store, 25 W 43rd Street, 4th Floor, New York, NY 10036; telephone: (212) 642-4980; Web site: <http://webstore.ansi.org/>;

(B) IHS Standards Store, 15 Inverness Way East, Englewood, CO 80112; telephone: (877) 413-5184; Web site: <http://global.ihs.com>; or

(C) TechStreet Store, 3916 Ranchero Dr., Ann Arbor, MI 48108; telephone: (877) 699-9277; Web site: <http://techstreet.com>.

(vii) ANSI Z87.1-2003, Occupational and Educational Personal Eye and Face Protection Devices, approved June 19, 2003; IBR approved for § 1910.153(b). Copies available for purchase from the:

(A) American National Standards Institute's e-Standards Store, 25 W 43rd Street, 4th Floor, New York, NY 10036; telephone: (212) 642-4980; Web site:

<http://webstore.ansi.org/>;

(B) IHS Standards Store, 15 Inverness Way East, Englewood, CO 80112; telephone:

(877) 413-5184; Web site: <http://global.ihs.com/>; or

(C) TechStreet Store, 3916 Ranchero Dr., Ann Arbor, MI 48108; telephone: (877) 699-9277; Web site: <http://techstreet.com>.

(viii) ANSI Z87.1-1989 (R-1998), Practice for Occupational and Educational Eye and Face Protection, Reaffirmation approved January 4, 1999; IBR approved for § 1910.153(b). Copies are available for purchase from:

(A) American National Standards Institute's e-Standards Store, 25 W 43rd Street, 4th Floor, New York, NY 10036; telephone: (212) 642-4980; Web site:

<http://webstore.ansi.org/>;

(B) IHS Standards Store, 15 Inverness Way East, Englewood, CO 80112; telephone:

(877) 413-5184; Web site: <http://global.ihs.com/>; or

(C) TechStreet Store, 3916 Ranchero Dr., Ann Arbor, MI 48108; telephone: (877) 699-9277; Web site: <http://techstreet.com>.

\* \* \* \* \*

**Subpart I—[Amended]**

7. Amend § 1915.153 by revising paragraph (b)(1) to read as follows:

**§ 1915.153 Eye and face protection.**

\* \* \* \* \*

(b) Criteria for protective eye and face devices. (1) Protective eye and face protection devices must comply with any of the following consensus standards:

(i) ANSI/ISEA Z87.1-2010, Occupational and Educational Personal Eye and Face Protection Devices, incorporated by reference in § 1915.5;

(ii) ANSI Z87.1-2003, Occupational and Educational Personal Eye and Face Protection Devices, incorporated by reference in § 1915.5; or

(iii) ANSI Z87.1-1989 (R-1998), Practice for Occupational and Educational Eye and Face Protection, incorporated by reference in § 1915.5;

\* \* \* \* \*

**PART 1917—[AMENDED]**

8. The authority citation for part 1917 continues to read as follows:

AUTHORITY: 33 U.S.C. 941; 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), 6-96 (62 FR 111), 3-2000 (65 FR 50017), 5-2002 (67 FR 65008), 5-2007 (72 FR 31160), 4-2010 (75 FR 55355), or 1-2012 (77 FR 3912), as applicable; and 29 CFR 1911.

Section 1917.28 also issued under 5 U.S.C. 553.

Section 1917.29 also issued under 49 U.S.C. 1801-1819 and 5 U.S.C. 553.

\* \* \* \* \*

9. Amend § 1917.3 by revising paragraphs (b)(6) through (8) to read as follows:

**§ 1917.3 Incorporation by reference.**

\* \* \* \* \*

(b) \* \* \*

(6) ANSI/ISEA Z87.1-2010, Occupational and Educational Personal Eye and Face Protection Devices, Approved April 13, 2010; IBR approved for § 1917.91(a). Copies are available for purchase from:

(i) American National Standards Institute's e-Standards Store, 25 W 43rd Street, 4th Floor, New York, NY 10036; telephone: (212) 642-4980; Web site: <http://webstore.ansi.org/>;

(ii) IHS Standards Store, 15 Inverness Way East, Englewood, CO 80112; telephone: (877) 413-5184; Web site: <http://global.ihs.com/>; or

(iii) TechStreet Store, 3916 Ranchero Dr., Ann Arbor, MI 48108; telephone: (877) 699-9277; Web site: <http://techstreet.com>.

(7) ANSI Z87.1-2003, Occupational and Educational Personal Eye and Face Protection Devices, Approved April 13, 2010; IBR approved for § 1917.91(a). Copies available for purchase from the:

(i) American National Standards Institute's e-Standards Store, 25 W 43rd Street, 4th Floor, New York, NY 10036; telephone: (212) 642-4980; Web site: <http://webstore.ansi.org/>;

(ii) IHS Standards Store, 15 Inverness Way East, Englewood, CO 80112; telephone: (877) 413-5184; Web site: <http://global.ihs.com>; or

(iii) TechStreet Store, 3916 Ranchero Dr., Ann Arbor, MI 48108; telephone: (877) 699-9277; Web site: <http://techstreet.com>.

(8) ANSI Z87.1-1989 (R-1998), Practice for Occupational and Educational Eye and Face Protection, Reaffirmation approved January 4, 1999; IBR approved for § 1917.91(a).

Copies are available for purchase from:

(i) American National Standards Institute's e-Standards Store, 25 W 43rd Street, 4th Floor, New York, NY 10036; telephone: (212) 642-4980; Web site: <http://webstore.ansi.org/>;

(ii) IHS Standards Store, 15 Inverness Way East, Englewood, CO 80112; telephone: (877) 413-5184; Web site: <http://global.ihs.com>; or

(iii) TechStreet Store, 3916 Ranchero Dr., Ann Arbor, MI 48108; telephone: (877) 699-9277; Web site: <http://techstreet.com>.

\* \* \* \* \*

#### **Subpart E—[Amended]**

10. Amend § 1917.91 by revising paragraph (a)(1)(i) to read as follows:

#### **§ 1917.91 Eye and face protection.**

(a)(1)(i) The employer shall ensure that each affected employee uses protective eye and face protection devices that comply with any of the following consensus standards:

(A) ANSI/ISEA Z87.1-2010, Occupational and Educational Personal Eye and Face Protection Devices, incorporated by reference in § 1917.3;

(B) ANSI Z87.1-2003, Occupational and Educational Personal Eye and Face Protection Devices, incorporated by reference in § 1917.3;

or

(C) ANSI Z87.1-1989 (R-1998), Practice for Occupational and Educational Eye and Face Protection, incorporated by reference in § 1917.3;

\* \* \* \* \*

**PART 1918—[AMENDED]**

11. The authority citation for part 1918 is revised to read as follows:

**AUTHORITY:** 33 U.S.C. 941; 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), 6-96 (62 FR 111), 3-2000 (65 FR 50017), 5-2002 (67 FR 65008), 5-2007 (72 FR 31160), 4-2010 (75 FR 55355), or 1-2012 (77 FR 3912), as applicable; and 29 CFR 1911.

Section 1918.90 also issued under 5 U.S.C. 553.

Section 1918.100 also issued under 49 U.S.C. 1801-1819 and 5 U.S.C. 553.

12. Amend § 1918.3 by revising paragraphs (b)(6) through (8) to read as follows:

**§ 1918.3 Incorporation by reference.**

\* \* \* \* \*

(b) \* \* \*

(6) ANSI/ISEA Z87.1-2010, Occupational and Educational Personal Eye and Face Protection Devices, Approved April 13, 2010; IBR approved for § 1918.101(a). Copies are available for purchase from:

(i) American National Standards Institute's e-Standards Store, 25 W 43rd Street, 4th Floor, New York, NY 10036; telephone: (212) 642-4980; Web site:

<http://webstore.ansi.org/>;

(ii) IHS Standards Store, 15 Inverness Way East, Englewood, CO 80112; telephone: (877) 413-5184; Web site: <http://global.ihs.com>; or

(iii) TechStreet Store, 3916 Ranchero Dr., Ann Arbor, MI 48108; telephone: (877) 699-9277; Web site: <http://techstreet.com>.

(7) ANSI Z87.1-2003, Occupational and Educational Personal Eye and Face Protection Devices, Approved June 19, 2003; IBR approved for § 1918.101(a). Copies available for purchase from the:

(i) American National Standards Institute's e-Standards Store, 25 W 43rd Street, 4th Floor, New York, NY 10036; telephone: (212) 642-4980; Web site:

<http://webstore.ansi.org/>;

(ii) IHS Standards Store, 15 Inverness Way East, Englewood, CO 80112; telephone: (877) 413-5184; Web site: <http://global.ihs.com>; or

(iii) TechStreet Store, 3916 Ranchero Dr., Ann Arbor, MI 48108; telephone: (877) 699-9277; Web site: <http://techstreet.com>.

(8) ANSI Z87.1-1989 (R-1998), Practice for Occupational and Educational Eye and Face Protection, Reaffirmation approved January 4, 1999; IBR approved for § 1918.101(a).

Copies are available for purchase from:

(i) American National Standards Institute's e-Standards Store, 25 W 43rd Street, 4th Floor, New York, NY 10036; telephone: (212) 642-4980; Web site:

<http://webstore.ansi.org/>;

(ii) IHS Standards Store, 15 Inverness Way East, Englewood, CO 80112; telephone: (877) 413-5184; Web site: <http://global.ihs.com/>; or

(iii) TechStreet Store, 3916 Ranchero Dr., Ann Arbor, MI 48108; telephone: (877) 699-9277; Web site: <http://techstreet.com>.

\* \* \* \* \*

**Subpart J—[Amended]**

13. Amend § 1918.101 by revising paragraph (a)(1)(i) to read as follows:

**§ 1918.101 Eye and face protection.**

(a) \* \* \*

(1)(i) Employers must ensure that each employee uses appropriate eye and/or face protection when the employee is exposed to an eye or face hazards, and that protective eye and face devices comply with any of the following consensus standards:

(A) ANSI/ISEA Z87.1-2010, Occupational and Educational Personal Eye and Face Protection Devices, incorporated by reference in § 1918.3;

(B) ANSI Z87.1-2003, Occupational and Educational Personal Eye and Face Protection Devices, incorporated by reference in § 1918.3; or

(C) ANSI Z87.1-1989 (R-1998), Practice for Occupational and Educational Eye and Face Protection, incorporated by reference in § 1918.3

\* \* \* \* \*

**PART 1926—[AMENDED]**

**A—General [Amended]**

14. The authority citation for subpart A of part 1926 continues to read as follows:

**AUTHORITY:** 40 U.S.C. 3701 et seq.; 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), 6-96 (62 FR 111), 5-2002 (67 FR 65008), 5–2007 (72 FR 31160), 4-2010 (75 FR 55355), or 1-2012 (77 FR 3912), as applicable; and 29 CFR part 1911.

15. Amend § 1926.6 as follows:

- a. Revise paragraph (h)(31);
- b. Redesignate paragraphs (h)(32) thru (34) as (h)(34) thru (36);
- c. Add new paragraphs (h)(32) and (h)(33).

The revisions and additions read as follows:

**§ 1926.6 Incorporation by reference.**

\* \* \* \* \*

(h) \* \* \*

(31) ANSI/ISEA Z87.1-2010, Occupational and Educational Personal Eye and Face Protection Devices, Approved April 3, 2010; IBR approved for § 1926.102(b). Copies are available for purchase from:

(i) American National Standards Institute's e-Standards Store, 25 W 43rd Street, 4th Floor, New York, NY 10036; telephone: (212) 642-4980; Web site:

<http://webstore.ansi.org/>;

(ii) IHS Standards Store, 15 Inverness Way East, Englewood, CO 80112; telephone: (877) 413-5184; Web site: <http://global.ihs.com>; or

(iii) TechStreet Store, 3916 Ranchero Dr., Ann Arbor, MI 48108; telephone: (877) 699-9277; Web site: <http://techstreet.com>.

(32) ANSI Z87.1-2003, Occupational and Educational Personal Eye and Face Protection Devices, Approved June 19, 2003; IBR approved for § 1926.102(b). Copies available for purchase from the:

(i) American National Standards Institute's e-Standards Store, 25 W 43rd Street, 4th Floor, New York, NY 10036; telephone: (212) 642-4980; Web site:

<http://webstore.ansi.org/>;

(ii) IHS Standards Store, 15 Inverness Way East, Englewood, CO 80112; telephone: (877) 413-5184; Web site: <http://global.ihs.com>; or

(iii) TechStreet Store, 3916 Ranchero Dr., Ann Arbor, MI 48108; telephone: (877) 699-9277; Web site: <http://techstreet.com>.

(33) ANSI Z87.1-1989 (R-1998), Practice for Occupational and Educational Eye and Face Protection, Reaffirmation approved January 4, 1999; IBR approved for § 1926.102(b). Copies are available for purchase from:

(i) American National Standards Institute's e-Standards Store, 25 W 43rd Street, 4th Floor, New York, NY 10036; telephone: (212) 642-4980; Web site:

<http://webstore.ansi.org/>;

(ii) IHS Standards Store, 15 Inverness Way East, Englewood, CO 80112; telephone: (877) 413-5184; Web site: <http://global.ihs.com>; or

(iii) TechStreet Store, 3916 Ranchero Dr., Ann Arbor, MI 48108; telephone: (877) 699-9277; Web site: <http://techstreet.com>.

\* \* \* \* \*

#### **Subpart E—[Amended]**

16. Revise the authority citation for subpart E of part 1926 to read as follows:

**AUTHORITY:** 40 U.S.C. 3701 et seq.; 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), 6-96 (62 FR 111), 5-2002 (67 FR 65008), 5-2007 (72 FR 31160), 4-2010 (75 FR 55355), or 1-2012 (77 FR 3912), as applicable; and 29 CFR part 1911.

17. Amend § 1926.102 as follows:

- a. Revise paragraphs (a)(1) thru (4).
- b. Remove paragraphs (a)(5), (a)(7), (a)(8), and Tables E-1, E-2, and E-3.
- c. Redesignate paragraph (a)(6) as (a)(5).
- d. Revise paragraph (b).
- e. Add paragraph (c).

The additions and revisions read as follows:

#### **§ 1926.102 Eye and face protection.**

(a) General requirements. (1) The employer shall ensure that each affected employee uses appropriate eye or face protection when exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation.

(2) The employer shall ensure that each affected employee uses eye protection that provides side protection when there is a hazard from flying objects. Detachable side protectors (e.g. clip-on or slide-on side shields) meeting the pertinent requirements of this section are acceptable.

(3) The employer shall ensure that each affected employee who wears prescription lenses while engaged in operations that involve eye hazards wears eye protection that incorporates the prescription in its design, or wears eye protection that can be worn over the prescription lenses without disturbing the proper position of the prescription lenses or the protective lenses.

(4) Eye and face PPE shall be distinctly marked to facilitate identification of the manufacturer.

\* \* \* \* \*

(b) Criteria for protective eye and face protection. (1) Protective eye and face protection devices must comply with any of the following consensus standards:

(i) ANSI/ISEA Z87.1-2010, Occupational and Educational Personal Eye and Face Protection Devices, incorporated by reference in § 1926.6;

(ii) ANSI Z87.1-2003, Occupational and Educational Personal Eye and Face Protection Devices, incorporated by reference in § 1926.6; or

(iii) ANSI Z87.1-1989 (R-1998), Practice for Occupational and Educational Eye and Face Protection, incorporated by reference in § 1926.6;

(2) Protective eye and face protection devices that the employer demonstrates are at least as effective as protective eye and face protection devices that are constructed in accordance with one of the above consensus standards will be deemed to be in compliance with the requirements of this section.

(c) Protection against radiant energy—(1) Selection of shade numbers for welding filter. Table E-1 shall be used as a guide for the selection of the proper shade numbers of filter lenses or plates used in welding. Shades more dense than those listed may be used to suit the individual's needs.

**TABLE E-1—FILTER LENS SHADE NUMBERS FOR PROTECTION AGAINST RADIANT ENERGY**

<b>Welding operation</b>	<b>Shade number</b>
Shielded metal-arc welding 1/16-, 3/32-, 1/8-, 5/32-inch diameter electrodes	10
Gas-shielded arc welding (nonferrous) 1/16-, 3/32-, 1/8-, 5/32-inch diameter electrodes	11
Gas-shielded arc welding (ferrous) 1/16-, 3/32-, 1/8-, 5/32-inch diameter electrodes	12
Shielded metal-arc welding 3/16-, 7/32-, 1/4-inch diameter electrodes	12
5/16-, 3/8-inch diameter electrodes	14
Atomic hydrogen welding	10-14
Carbon-arc welding	14

Soldering	2
Torch brazing	3 or 4
Light cutting, up to 1 inch	3 or 4
Medium cutting, 1 inch to 6 inches	4 or 5
Heavy cutting, over 6 inches	5 or 6
Gas welding (light), up to 1/8-inch	4 or 5
Gas welding (medium), 1/8-inch to 1/2-inch	5 or 6
Gas welding (heavy), over 1/2-inch	6 or 8

(2) Laser protection. (i) Employees whose occupation or assignment requires exposure to laser beams shall be furnished suitable laser safety goggles which will protect for the specific wavelength of the laser and be of optical density (O.D.) adequate for the energy involved. Table E-2 lists the maximum power or energy density for which adequate protection is afforded by glasses of optical densities from 5 through 8. Output levels falling between lines in this table shall require the higher optical density.

**TABLE E-2—SELECTING LASER SAFETY GLASS**

Intensity, CW maximum power density (watts/cm <sup>2</sup> )	Attenuation	
	Optical density (O.D.)	Attenuation factor
10 <sup>-2</sup>	5	10 <sup>5</sup>
10 <sup>-1</sup>	6	10 <sup>6</sup>
1.0	7	10 <sup>7</sup>
10.0	8	10 <sup>8</sup>

(ii) All protective goggles shall bear a label identifying the following data:

(A) The laser wavelengths for which use is intended;

(B) The optical density of those wavelengths;

(C) The visible light transmission.

**Billing Code: 4510-26-P**

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