

29 CFR 1926.1127 (Cadmium Standard). These provisions require a full facepiece respirator when an employee experiences eye irritation, thereby reducing the risk of eye injury among employees.

- Table 1 of 29 CFR 1910.1047 (Ethylene Oxide (EtO) Standard). This table lists only full facepiece respirators, or respirators with hoods or helmets, implying that employers must not select half-mask respirators for protection against EtO. The preamble to the final EtO Standard states:

The record reflects that high exposures to EtO have been shown to cause eye irritation and that such effects may occur at exposures that may be reached for short periods. Therefore, OSHA has chosen to retain the requirement for full-facepiece respirators in the final rule. (49 FR 25781)

Accordingly, in this proposal the Agency is making explicit the prohibition against the use of half-mask respirators to ensure that employers select only those respirators (*i.e.*, full facepiece respirators, and respirators with hoods or helmets) that OSHA found, in the earlier rulemaking, will provide the requisite level of protection to their employees.

- Footnote 2 to Table 1 of 29 CFR 1910.1048 (Formaldehyde Standard). This provision requires that employers who select half-mask respirators instead of full facepiece respirators for formaldehyde exposures up to 7.5 ppm provide effective gas-proof goggles for employees to use in combination with the half-mask respirators.

- Table 2 of 29 CFR 1910.1052 (Methylene Chloride (MC) Standard). This table lists only full facepiece respirators, or respirators with hoods or helmets, thereby indicating that employers are not to select half-mask respirators for protection against MC. In the preamble to the final MC Standard, the Agency states:

OSHA has determined that this standard is necessary because exposure to MC places employees at significant risk of developing exposure-related adverse health effects. These effects include * * * skin and eye irritation. (62 FR 1572)

Later in the preamble, the Agency states that “employers are required to provide employees who are at risk of skin and/or eye contact with MC with appropriate protective clothing and eye protection.” (See 62 FR 1589.)

The risk of MC-related skin and eye irritation and the need for proper skin and eye protection convinced OSHA to limit respirator selection to full facepiece respirators and respirators with hoods and helmets in the final MC Standard to ensure that employees’

facial skin and eyes are protected during MC exposure. Here the Agency is directly prohibiting the selection of half-masks, and explicitly limiting respirator selection to respirators (*i.e.*, full facepiece respirators, and respirators with hoods or helmets) that would provide the appropriate level of protection to employees.

- Lines 10 and 11 under “Respirator type” in Table 1 of 29 CFR 1910.1028 (Benzene Standard); lines 6–11 under “Respirator type” in Table 1 of 29 CFR 1910.1044 (1,2-dibromo-3-chloropropane Standard); lines 16 and 17 under “Respirator type” in Table I of 29 CFR 1910.1045 (Acrylonitrile Standard); line 12 under “Minimum required respirator” in Table 1 of 29 CFR 1910.1047 (Ethylene Oxide Standard); lines 11–13 under “Minimum respirator required” in Table 1 of 29 CFR 1910.1048 (Formaldehyde Standard); lines 8–10 under “Respirator type” in Table 1 of 29 CFR 1910.1050 and 1926.60 (Methylenedianiline Standards); lines 13 and 14 under “Minimum respirator required” in Table 2 of 29 CFR 1910.1052 (Methylene Chloride Standard).

These provisions specify which respirators employers are to use under emergency-escape conditions. With regard to respirators used for escape, OSHA adopts the same position it did in the final rulemaking for the Respiratory Protection Standard. In the final rulemaking for this standard, the Agency noted the variety of escape respirators permitted under its substance-specific standards, and found that these standards addressed hazards associated with many different substances and escape situations. In support of this conclusion, the Agency cited the following examples:

[U]nder current 29 CFR 1910.1050, the standard covering exposure to methylenedianiline (MDA), escape respirators may be any full facepiece air-purifying respirator equipped with HEPA cartridges, or any positive pressure or continuous flow self-contained breathing apparatus with full facepiece or hood; for formaldehyde exposure, escape respirators may be a full facepiece with chin style, front, or back-mounted industrial canister approved against formaldehyde (29 CFR 1910.1048).

(63 FR 1202.) As noted earlier in this section, the adverse physical effects of specific substances (*e.g.*, skin and eye irritation) often limit respirator selection; these limitations would apply as well to the selection of escape respirators. Accordingly, OSHA is retaining the requirements for escape respirators identified in the existing substance-specific standards because

previous rulemakings identified these respirators based on the unique characteristics of the regulated substances, as well as the conditions under which employees must use escape respirators.

As is required currently, respirators covered by these emergency-escape provisions must meet the requirements of paragraph (d)(2)(ii) of OSHA’s Respiratory Protection Standard, which specifies that these respirators must be NIOSH-certified for escape from the atmosphere in which employees will use them. In addition, employees are to use these respirators only for escaping from, not entering, IDLH atmospheres. For entering such atmospheres, paragraph (d)(2)(i) of the Respiratory Protection Standard requires that employees use only full facepiece, pressure demand SCBAs certified by NIOSH for a minimum service life of 30 minutes, or full facepiece, pressure demand SARs with an auxiliary self-contained air supply.

- Paragraphs (g)(2)(ii) of 29 CFR 1910.1001, (h)(2)(iii)(A) of 29 CFR 1915.1001, and (h)(3)(ii) of 29 CFR 1926.1101 (Asbestos Standards); (f)(3)(ii) of 29 CFR 1910.1025 (Lead Standard); (f)(3)(ii) of 29 CFR 1910.1043 (Cotton Dust Standard); and (g)(3)(iii) of 29 CFR 1910.1048 (Formaldehyde Standard).

These paragraphs require employers to upgrade a negative pressure respirator, or a non-powered air-purifying respirator in the case of the Cotton Dust Standard, to a tight-fitting powered air-purifying respirator (PAPR) when the employee chooses to use a tight-fitting PAPR; for the Formaldehyde Standard, this requirement applies when the employee has difficulty using a negative pressure respirator and the tight-fitting PAPR provides the employee with adequate protection against the airborne contaminant. OSHA is proposing to retain these requirements because tight-fitting PAPRs increase the protection provided to employees when the respirator-selection provisions identify a low-end respirator (*i.e.*, a negative pressure respirator or a non-powered air-purifying respirator) for use.

- Paragraph (h)(2)(iii)(B) of 29 CFR 1915.1001 (Asbestos Standard). The Agency also is proposing to retain this paragraph in the Asbestos Standard for Shipyards, which specifies that employers must inform employees that they (the employees) may require employers to provide them with a tight-fitting PAPR instead of a negative pressure respirator. This requirement provides an extra margin of protection to employees by ensuring that