

As AIA/NA indicated in its opening comments, the OSHA . . . PEL should be reduced to the lowest level feasible through engineering and work practice controls.

Like many other participants in this rulemaking, AIA/NA does not believe OSHA should rely on respirator use when engineering and work practice controls can feasibly achieve the PEL. (Tr. 7/6, p. 5)

In addition, OSHA reviewed the testimony of a number of other commenters who supported OSHA's traditional approach to methods of compliance (see Section X, Summary and Explanation for a Revised Standard for General Industry). In response to the overwhelming body of evidence contained in the record and testimony supporting the retention of the traditional hierarchy of controls in this rulemaking, the revised rule for asbestos requires that engineering and work practice controls be implemented to reduce employee exposures to the PEL, and that personal protective equipment be used only to supplement engineering and work practice controls and in emergencies. As explained in the April proposal, OSHA is considering revising its policy on the hierarchy of controls and is soliciting comment on this policy in general (49 FR 14124). Because of the serious nature of the threat posed to construction workers exposed to asbestos; however, OSHA believes it would be imprudent to await the final outcome of the general rulemaking on hierarchy of controls before promulgating a revised rule for asbestos. Therefore, OSHA is proceeding with the revised asbestos rule for construction and is retaining its traditional requirements for appropriate methods of compliance.

Paragraph (g)(2) of the revised standard for construction prohibits the use of high-speed abrasive disk saws that are not equipped with local ventilation, the use of compressed air to remove asbestos-containing materials, and the application of asbestos by spray methods. OSHA has specifically prohibited these activities in response to concerns by rulemaking participants that worker exposure to asbestos during these operations would be consistently excessive.

OSHA's prohibition of the use of abrasive disk saws is consistent with the recommendation of the AIA (Ex. 328, p. IV-15). Banning the use of these saws without local ventilation was also supported by the Association of Asbestos Cement Pipe Producers (AACPP) (Tr. 710, p. 140) and the American Water Works Association (Tr. 710, pp. 124-125). Joseph Jackson of the AACPP testified at the hearing that the use of abrasive disk saws today is "

a very infrequent practice, mainly because of the penalties involved in major market areas such as California for the use of abrasive disk saws . . . (Tr. 710, p. 124). The hazard associated with the use of unventilated abrasive saws is also evident from data obtained by CONSAD, Inc. (Ex. 92), which reported that the operator's 8-hour TWA exposure level can exceed 5 f/cc. The BCTD took a broader position and recommended that OSHA prohibit the use of any hand or power tool not equipped with local ventilation (Ex. 87-2, p. 13). Although the use of local ventilation is one of the engineering controls permitted under paragraph (g)(1) of the revised standard, OSHA did not find that the record evidence supported a prohibition against the use of all hand or power tools operated without local ventilation. Therefore, OSHA has restricted the prohibition to the use of abrasive disk saws operated without local ventilation.

In the revised standard, OSHA has also prohibited the use of compressed air to remove asbestos-containing materials, unless the compressed air is used in conjunction with an enclosed ventilation system to capture the resulting dust cloud. Using compressed air to clean asbestos dust from surfaces results in the formation of large dust clouds that lead to excessive exposures of the operator and bystanders unless local ventilation is used. Prohibitions against the use of compressed air were recommended by both the AIA (Ex. 328, p. IV-15) and the BCTD (Ex. 87-2, p. 13).

The final prohibition contained in the revised standard for construction is against the spray application of asbestos materials. This represents a change from the existing standard, which permitted the spraying of asbestos-containing materials if proper respiratory protection is used. Although workers performing the application may be adequately protected by the use of respirators and protective clothing, OSHA now believes that emissions resulting from the operation are high and can result in excessive bystander exposure to a carcinogen. It is for this reason that both EPA (40 CFR 61.140) and the State of California have banned the spraying of asbestos-containing materials in buildings and structures during construction, alteration, or repair operations. The prohibition contained in OSHA's revised standard against the application of asbestos materials by spray reflects the concern of these government agencies that the use of spray applications of asbestos poses a serious carcinogenic hazard.

Paragraph (h)—Respiratory Protection

The existing asbestos standard, 29 CFR 1910.1001 (effective July 7, 1972), required respiratory protection to be worn to reduce exposures below the 2.0 f/cc PEL under the following circumstances: (1) during the time necessary to install engineering controls and institute work practices; (2) in work situations in which engineering controls and work practices are not feasible for reducing exposures to or below the PEL; or (3) in emergencies. The existing standard also permitted single-use or reusable air-purifying respirators only be used in work situations in which the concentration of airborne asbestos fibers was less than 10 times the PEL or ceiling limit. In situations in which the concentration of asbestos fibers was less than 100 times the PEL or ceiling limit, the existing standard allowed the use of full facepiece air-purifying respirators. Type "C" supplied-air respirators operated in the continuous-flow or pressure-demand mode were required in work situations in which the concentration of asbestos fibers exceeded 100 times the PEL or ceiling limit. The existing standard also required employees to establish a respirator program in accordance with ANSI Z88.2-1969.

In addition, the existing standard required that no employee be assigned to work where respiratory protection is necessary if an examining physician determined that the employee was unable to function normally while wearing a respirator.

Paragraph (c), *Methods of Compliance*, of the existing standard required that type "C" supplied-air respirators operated in a continuous-flow or pressure-demand mode be used in any work situation that involves the spraying of asbestos or during the removal or demolition of asbestos from pipes, structures, or equipment insulated with asbestos.

In the April notice, OSHA requested public comment on the selection of appropriate respirators for various work situations. Information was specifically requested regarding the necessity for requiring type "C" supplied-air respirators during the spraying of asbestos and during asbestos demolition, removal, and renovation operations.

Paragraph (h), *Respiratory Protection*, of the revised standard for the construction industry requires that employers provide respirators at no cost to employees: