

permissible exposure limit for allowable airborne concentrations of asbestos. The AIA/NA argued that lowering OSHA's current PEL of 2 f/cc was not possible because of the inherent sampling and analytical variability inherent in the use of the OSHA method (for a discussion of the variability issue, see the Methods of Measurement section in the Summary and Explanation for General Industry (Section X, below). As discussed in detail in the Preamble section on Technological Feasibility (Section VII), OSHA has determined that achieving the new PEL of 0.2 f/cc as an 8-hour time-weighted average is feasible in the great majority of workplaces with the use of engineering and work practice controls alone, although respiratory protection may be required in some operations.

The AIA/NA's recommended standard was similar in many other respects to the standard recommended by the BCTD (Ex. 330). For example, the AIA/NA's recommendations include the adoption of a product classification scheme that would rank asbestos-containing products used in construction in accordance with their potential for releasing airborne concentrations of asbestos. Implementation of the AIA/NA approach would require manufacturer certifications and the validation of empirically determined product classifications, including the use of objective data or exposure studies conducted by fully qualified testing laboratories and empirical field testing by OSHA inspectors and others to confirm these test results.

According to the AIA/NA, examples of products qualifying for Category A status (the least hazardous grouping) include products in which asbestos fibers are bound, coated, or enclosed by other materials, such as mastics, mechanical packings, oil seals, compressed gaskets, sealants and caulks, roof coatings, and electrical insulating paper (Ex. 84-307, p. 23). Category B products would include those certified by their manufacturers as being incapable, under reasonably foreseeable conditions of processing or use, of releasing asbestos fibers in excess of the PEL "when one or more specified Fabrication Installation or Removal Methods are used" (Ex. 84-307, pp. 23-24). Category C products would include, under the AIA/NA's classification scheme, products presenting the greatest exposure potential. These products would consequently be subject to the most stringent regulatory controls.

As explained in detail above in connection with the BCTD's

recommended standard, OSHA has chosen not to adopt a product and process categorization scheme in the final standard for asbestos. In addition to the objections to such an approach discussed earlier, OSHA notes that the AIA/NA's recommendations are intended to apply predominantly to the installation of new products in the construction environment, and would thus not address those construction operations that so many commenters pointed to as being the most hazardous: Asbestos renovation, demolition, and removal operations.

The Advisory Committee for Construction Safety and Health. At several critical junctures during the asbestos rulemaking, OSHA has had the benefit of the Advisory Committee's review of various draft versions of the asbestos construction standard. Most recently, CACOSH reviewed a draft standard at its September 26-27, 1985 meeting (see transcript of CACOSH proceedings for that date). In addition to providing specific reviews of successive drafts of the asbestos standard for construction, the Committee also developed, in 1980, a comprehensive document entitled *Report on Occupational Health Standards for the Construction Industry* (Ex. 84-233). Although this document is not directed specifically to asbestos, many of its findings apply to the revised construction standard. For example, CACOSH expressed concern about the difficulty of applying many traditional health standards requirements in the construction setting; specifically, the Committee noted that medical surveillance, the use of engineering controls, and extensive recordkeeping often pose problems in this high-turnover, out-of-doors, short-term work environment (Ex. 84-233).

In the context of OSHA's revised asbestos standard for construction, the Committee voted overwhelmingly in favor of the issuance of a separate standard for the construction industry (Ex. 84-424). CACOSH also recommended that the PEL for construction be set at "the lowest feasible level" (Ex. 84-424, pp. 11-13), as OSHA has in fact done (see the Preamble section on Technological feasibility, Section VII). At a later meeting (September 26-27, 1985), members of the Committee noted their support for many provisions of a draft final standard submitted to CACOSH for review; this draft was substantively similar to the standard published today. For example, committee member Joe Adam urged that the traditional hierarchy of controls be reflected in the

revised standard, i.e., "engineering controls first, work practices, and then the final [choice of method] being personal protective equipment" (see transcript of CACOSH proceedings). On other issues raised by requirements of the draft under review, CACOSH urged OSHA to refine particular provisions. OSHA has generally incorporated CACOSH's suggestions. For example, in response to the point made by Mike Deis of Better Working Environments that respirators should be qualitatively fit tested with every wearing, OSHA has revised the final standard specifically to cross-reference 29 CFR 1910.134(e). Section 1910.134(e)(5)(i) requires employers to ensure the proper fitting of half-mask respirators by checking the facepiece fit "each time he [or she] puts on the respirator." In addition, CACOSH noted several minor errors in the draft standard being reviewed, particularly in the draft respiratory protection section, and these have subsequently been corrected in the final standard (see transcript of CACOSH proceedings). The final standard thus reflects, in a large number of provisions and in many ways, the expert advice received by the Agency from the Advisory Committee over the course of this asbestos rulemaking.

X. Summary and Explanation of the Revised Standard for General Industry

1. Paragraph (a). Scope and application.

Like the existing asbestos standard and other OSHA health standards such as inorganic arsenic (§ 1910.1018); lead (§ 1910.1025), DBCP (§ 1910.1044), and acrylonitrile (§ 1910.1045), this revised standard applies to all "occupational exposures to (asbestos)." OSHA has not defined the term "occupational exposure" in the regulatory text. However, because of increased public awareness of the hazards of asbestos and its ubiquitousness, inquiries have been made to OSHA concerning the applicability of the standard to exposures in buildings which may not result from manufacturing, processing or installing asbestos products. Significant areas of concern expressed were exposures to office employees in buildings where asbestos products has been installed and to employees who work in the vicinity of asbestos abatement and renovation activities.

In both situations the exposures are occupational and are covered by this standard. The employee's presence in the workplace places him at increased risk from asbestos exposure regardless of whether the employee is actually working with asbestos.