

concentration of a toxic substance. In addition, the use of such a concept would necessarily depend on increased reliance on respiratory protection as a line of defense against hazardous workplace exposures, which runs counter to the Agency's stated preference for the traditional hierarchy of controls: the use of engineering and work practice controls as the first line of defense, followed by respiratory protection. For these reasons, discussed further in the Summary and Explanation section for paragraph (g) of the general industry standard, OSHA has not adopted ORC's suggested PAC/PEL exposure limit approach.

Recommended Standards for the Construction Industry

Several rulemaking participants provided OSHA with recommended asbestos standards for construction, including the BCTD, the AIA/NA, and, more generally, the Advisory Committee (CACOSH). The general scope of these standards and the major differences between them and OSHA's revised construction standard are described below.

The BCTD Standard

The Building Construction Trades Department (AFL-CIO) submitted a comprehensive recommended standard to the docket (Ex. 330), along with extensive commentary. OSHA has found these recommendations and analyses useful in standards development, and many of the BCTD's recommendations have been adopted, often in modified form, in the final revised rule.

The BCTD recommended that OSHA adopt a construction standard that differed considerably in format from that traditionally associated with OSHA health standards. First, the BCTD recommended a three-tiered scheme for categorizing products and processes, depending on the airborne levels of asbestos likely to be produced during these operations or when handling these products. Category A products and processes are those that produce airborne levels of asbestos no greater than a 4-hour TWA of 30,000 fibers per cubic meter (0.03 f/cc); Category B products and processes would produce airborne levels no greater than 8-hour TWA levels of 0.5 f/cc; and Category C products and processes would include materials and operations that produce airborne asbestos levels above the PEL (or that produce as yet unknown or untested concentrations of airborne asbestos).

The BCTD recommended that employers using Category A products be

exempted from most of the standard's requirements, e.g., medical surveillance, monitoring, spill/emergency procedures, associated recordkeeping, etc. Employers whose construction activities involved the handling of Category B products or the performance of Category B processes would be required to observe less stringent requirements, for example less frequent employee monitoring, than employers involved in Category C work. For Category C workplaces, e.g., those involving the handling or performance of Category C products or processes, the BCTD recommended that employers be required to observe *all* of the provisions of its recommended standard.

The BCTD argued that adoption of such a categorization scheme would have a number of advantages:

- (1) It would concentrate control resources in the highest risk situations;
- (2) It would encourage the testing and categorization of as-yet-untested products and processes;
- (3) It would encourage manufacturers to develop and employers to use less hazardous, i.e., Category A or B, products or processes;
- (4) It would aid in the development of a substantial data base on employee exposures to asbestos in the construction industry.

The BCTD's suggested approach, which involves tiering the stringency of the standard's requirements to the degree of hazard associated with the use of various products or processes, essentially agrees with the structure adopted by OSHA in this revised standard for construction. That is, OSHA has tiered the standard in accordance with the relative hazard associated with certain work operations in construction. Accordingly, the revised standard reserves the standard's most stringent requirements, e.g., the use of daily exposure monitoring, negative-pressure regulated areas, disposable protective clothing, and required hygiene facilities, to asbestos renovation, demolition, and removal operations. The record evidence, discussed in connection with the Summary and Explanation sections for these paragraphs (see Section XI), repeatedly emphasizes that these operations, also known as "asbestos abatement" operations, are clearly the most hazardous asbestos-handling operations in construction at the present time.

In addition to the adoption of a tiered approach to cover asbestos renovation, demolition, and removal operations, the revised standard for construction incorporates several regulatory techniques that are designed to ensure

that the impact of the standard is proportional to the degree of occupational hazard in affected workplaces. These techniques include the use of the action level concept, which permits employers whose employees are not exposed above the action level to be exempted from complying with many of the standard's requirements, and the use of a "30-day trigger," which allows workplaces that do not have airborne concentrations of the hazardous substance in question for as many as 30 or more days in any given year to be exempted from certain requirements, e.g., the standard's medical surveillance provisions. In addition, small-scale, short-duration maintenance and renovation operations, such as those involving the installation of electrical conduit or the changing of a gasket made of asbestos-containing material, are specifically exempted from a number of provisions, e.g., protective clothing, regulated areas, and hygiene facilities. OSHA is confident that the use of these methods will ensure an adequate degree of correspondence between the seriousness of the hazard to be controlled and the stringency of the control strategy imposed by the final standard.

Although conceptually similar in many respects to the standard recommended by the BCTD, OSHA believes that the regulatory approach adopted by the Agency has several advantages over the BCTD's strategy. First, OSHA's approach is simple and can be implemented immediately, without a delay to permit various processes and products to be tested and categorized according to the amount of airborne asbestos they generate. Second, the Agency's standard will be relatively simple and straightforward both to administer and to enforce. Third, the revised standard's structure is similar to and consistent with that of other OSHA health standards, including the revised asbestos rule for general industry, which will permit employers who are already familiar with the format of OSHA regulations to comply with the standard and to understand its requirements more easily. For these reasons, OSHA has chosen to adopt the revised standard for construction that is discussed in Section XI, below.

Asbestos Information Association of North America. The AIA/NA also developed a set of recommendations that it suggested OSHA adopt to control hazardous occupational exposures to asbestos in the construction industry (Ex. 84-307). The AIA/NA's recommended standard was notable for its lack of a requirement for a revised