

lunch rooms, such as exist on fixed worksites, were probably not feasible for the construction industry, due to the nonfixed nature of construction project worksites. The term "lunch area" was adopted by OSHA to indicate that a temporary facility, such as a separate trailer, would serve the purpose of protecting employee health. OSHA agreed with the CACOSH findings that the transient work conditions in nonfixed workplaces would make the installation of fixed lunchrooms difficult, and accordingly included a requirement for clean lunch areas in its revised standard; but unlike the provision in the revised general industry standard, the revised construction standard does not require that lunch facilities be equipped with a filtered air supply.

The principal changes to the hygiene facilities section reflected in the revised standard involve OSHA's efforts to tailor these requirements to the substantial differences in exposure, work conditions, and feasibility of controls found in different construction operations. For example, as the record makes clear, the significant features of a construction task involving the replacement of an asbestos-containing gasket are grossly different from those prevailing inside a negative-pressure enclosure during a major asbestos removal operation. The revised standard takes these differences into account in two ways: by providing, in paragraph (j)(1)(i), an exception to the requirement for a clean change area for employers whose employees are engaged in small-scale, short-duration operations of the type described above for paragraph (e); and by requiring employers performing asbestos removal, demolition, or renovation operations to observe the more comprehensive hygiene facilities requirements of paragraph (j)(2).

The exception in paragraph (j)(1)(i) permits employees working on small-scale, short-duration operations, such as pipe repair and valve replacement, to clean their protective clothing with a portable high-efficiency particulate air (HEPA) filter-equipped vacuum rather than exchanging their protective work clothing for street clothing in a change area at the completion of a job. An example of a task fitting this description might be the work performed by an electrician hanging electrical conduit on hooks attached to a beam covered with asbestos-containing insulation; this task would be likely to take fewer than 30 minutes to perform, and would typically make up only a small part of the electrician's overall duties.

Several commenters to the record reported that the use of vacuums to

clean protective clothing after a small asbestos-related job reflects current industry practice on such jobs. For example, Mr. Darrell E. Anderson, of the Minnesota Department of Health, stated that "... protective clothing and vacuuming would minimize the concern for showers ..." (Ex. 92-11). In a similar vein, the docket submittal of the New York City Board of Education (Ex. 92-26) made the point that, for small boiler and pipe insulation removal projects, separate clean rooms and shower facilities are not required. The exemption in paragraph (j)(1)(i) would permit workers engaged in small-scale and short-duration tasks to use a portable vacuum equipped with a HEPA filter to clean any asbestos dust from their clothes, hair, and exposed skin before leaving the work area. This procedure will ensure that asbestos is not carried from the work area to other areas of the building and is not retained on the employee's clothing.

OSHA believes that the special exemption for small-scale, short-duration jobs will provide employers in the construction industry whose employees must occasionally engage in asbestos-related work with the flexibility necessary to perform those jobs with a minimum amount of disruption and a high degree of protection, both for the employee performing the job and for other employees and bystanders in the vicinity.

Many commenters addressed the use of hygiene facilities in major asbestos removal renovation and demolition projects (Exs. 92-8; 92-11; 92-25; 92-26; 263; 277; 330; 328; Trs. 7/5, p. 181; 7/6, p. 214; 7/12, p. 73). The rulemaking record contains several specifications for the use of shower and change room facilities on asbestos removal or renovation projects (Exs. 92-8, 92-11, 92-25, 92-26). For example, the "Specifications for Asbestos Removal" of the North Carolina Division of State Construction contains provisions for a clean room, shower, and equipment room for each asbestos removal project building owned by the State of North Carolina (Ex. 92-8). Several commenters specifically requested that OSHA require hygiene facilities for major asbestos removal, renovation, and demolition projects (Exs. 277, 330, Tr. 7/3, p. 181). The Building and Construction Trades Department, AFL-CIO stated:

The current asbestos standard only requires hygiene facilities for fixed worksites. Construction workers also need such facilities to prevent bringing dust out of the worksite and home to their families. Work clothing has been demonstrated to be a significant source of exposure for workers

(Geissert, 1983). Numerous cases of family members contracting mesothelioma from exposure to a worker's work clothing [have occurred]. For these reasons the standard hygiene facilities ... must be required on all construction asbestos projects where exposure exceeds the action level. We require separate change rooms for clean and dirty clothes separated by a shower facility ... [and] specific procedures to be followed each time an employee passes between the regulated area and the clean room. ... (Ex. 277)

On the other hand, some commenters opposed the inclusion in the revised rule of requirements for showers and change rooms for major asbestos removal and renovation operations (Exs. 263; Trs. 7/6, p. 214; 7/12, p. 73). The Advisory Committee for Construction Safety and Health (CACOSH) expressed concern that hygiene facilities might not be feasible for many construction operations when the availability of water is limited and cold weather interferes with workers' ability to take showers (Exs. 84-233, 84-244).

Based on a review of the record evidence, OSHA has required in paragraph (j)(2) that hygiene facilities consisting of a clean room, an equipment room, and a shower, where feasible, be provided for employees engaged in asbestos removal, demolition, or renovation projects. OSHA believes that providing such facilities is feasible for the great majority of projects.

In addition, in situations in which employers can demonstrate that it is not feasible to locate a shower between the equipment room and the clean change room, paragraph (j)(2)(iii) permits employers to use alternative methods of employee decontamination. These methods are:

(1) Employees may remove asbestos contamination from their disposable worksuits by using a HEPA vacuum before proceeding to a shower that is not contiguous with the work area; or

(2) Employees may remove their contaminated disposable worksuits, don clean disposable worksuits, and proceed to a shower that is not contiguous with the work area.

OSHA believes that these alternative decontamination methods will provide adequate protection to the worker and effectively prevent the spread of asbestos contamination from the work area in situations in which it is not feasible to provide a shower.

Paragraphs (j)(2) (v) and (vi) of the revised standard provide for specific decontamination practices that must be followed when entering and exiting an asbestos removal, demolition, or