

Over the past decade, since the asbestos standard was first issued, other work practices and controls have evolved and developed which have been demonstrated to be effective means of limiting exposures. The prohibition of certain practices, including blowing asbestos dust with compressed air, dry-sweeping and dry clean-up of asbestos, and prohibition against accumulation of asbestos waste on surfaces have all been shown to be effective means for preventing the resuspension of asbestos fibers, and reducing airborne concentrations [Exs. 84-009, 264].

The record shows that these work practices, prohibitions and controls are widely accepted standard procedures in many asbestos industries and operations (Ex. 84-457, 126A, 222-F 225) and feasible for the asbestos industries as a whole [Ex. 84-009]. The revised permanent standard should therefore be updated and expanded to include the work practices prohibitions and controls to reduce airborne concentrations of asbestos in the work place [Ex. 335, p. 47].

OSHA agrees with this assessment and consequently has included the specific provisions for housekeeping to the final rule. OSHA believes, however, that the obligation incurred under these provisions should be measured by a standard of practicability. Therefore, OSHA anticipates that compliance with this provision will entail a regular housekeeping schedule based on exposure conditions at a particular plant and the capability for emergency cleanup of spills or other unexpected source of exposure.

12. Paragraph (I). Medical surveillance.

In the April notice (49 FR 14116-14145), OSHA solicited comments on whether the existing medical surveillance provision for asbestos-exposed employees should be modified. Specifically, comments were invited regarding the appropriateness of triggering the medical surveillance requirements of a revised standard at 0.2 f/cc; decreasing the frequency of chest X-rays for young employees or for those with short durations of exposure; clarifying the time permitted for employers to conduct the pre-placement examination after initial hiring; and the necessity of specifying additional tests or procedures for the early diagnosis of any asbestos-related disease, including the administration of a respiratory disease questionnaire. Comments were also requested on the need for additional specifications regarding the performance of pulmonary function testing, including completion of a course in spirometry for nonphysicians who administer these tests, calculation of the percentage difference from predicted values and use of standard predicted values; the appropriateness of requiring screening for colo-rectal cancer,

including tests for occult blood in the feces; and further specifications for the interpretation and reading of chest X-rays.

The final standard requires each employer to institute a medical surveillance program for all employees who are or will be exposed to asbestos at or above the action level. Providing medical surveillance for employees exposed at or above the action level is consistent with other health standards which incorporate an action level and is considered by OSHA to be appropriate for monitoring the adequacy of the exposure limit specified.

The final standard requires that the medical surveillance program provide each affected employee with an opportunity for a comprehensive annual medical examination. In this regard the final standard does not change provisions of the existing standard requiring medical examinations on an annual basis. A comprehensive medical examination as defined by OSHA would encompass a medical history, a complete physical examination of all systems with emphasis on the respiratory system, the cardiovascular system and digestive tract, a chest roentgenogram (posterior-anterior 14 x 17 inches), pulmonary function tests to include forced vital capacity (FVC) and forced expiratory volume at 1 second (FEV₁), and any additional tests deemed appropriate by the examining physician. One major change in the final standard reduces the frequency of x-rays for younger workers who have been exposed for a short period of time.

In the final standard, OSHA believes it appropriate to trigger the medical surveillance requirements at the action level of 0.1 f/cc as an eight-hour TWA. This level is consistent with current enforcement policy based on a past judicial ruling that upheld OSHA's medical surveillance at any level, but recommended that OSHA establish administratively a level that would trigger the medical surveillance requirement. [GAF Corp. v. OSHRC, No. 76-1028, U.S. Court of Appeals for the District of Columbia Circuit]. However, in the proposal, OSHA raised the possibility of triggering medical surveillance at 0.2 f/cc.

Many commenters supported 0.1 f/cc as a trigger for medical surveillance [Exs. 86-4, 328, 90-166, 90-174, 90-180]. While others favored an action level of 0.2 f/cc [Exs. 90-160, 90-175]. A number of the concerns expressed about the medical surveillance trigger centered around general objections to a 0.1 f/cc action level, as discussed earlier.

In sum, OSHA's decision to trigger medical surveillance at 0.1 f/cc is based

upon past administrative interpretation, comments submitted to the record, and OSHA's traditional policy of using the same action level to trigger other specific compliance activities (as discussed elsewhere in the preamble). Furthermore, in the case of asbestos, significant health risks are likely to be present at an airborne concentration of 0.1 f/cc and consequently supplemental protective measures are clearly warranted.

In the final rule for asbestos, OSHA has revised the time within which the employer must conduct preplacement examinations after hiring employees. The final standard requires that preplacement medical examinations be given prior to the assignment of an individual to a job exposed to concentrations of airborne asbestos. In the general questions contained in the preamble to the proposed rule, OSHA asked for clarification of the time issue, as the current standard permits the employer to conduct medical examinations within the first 30 days of the hire date.

In response to this issue, a number of commenters strongly favored a preplacement medical examination, assessing each worker's state of health prior to the beginning of exposure to asbestos fibers [Exs. 84-397, 90-140, 91-40, 128, 158E, 258, 328]. The American Association of Occupational Health Nurses, commented:

Baseline data regarding the health status of workers is essential at the time of employment in determining whether changes occur over the period of employment. Delaying the gathering of this essential baseline information could be detrimental to both employee and employer because knowledge of a pre-existing condition could influence initial job placement. AAOHN therefore recommends that preplacement physical examinations be administered to employees before placing them into positions with asbestos exposure [Ex. 128].

A few commenters supported the current OSHA standard, that is, requiring the medical examination to be given within 30 days of job assignment [Exs. 123A, 182]. On the other hand, a number of commenters supported the proposed latitude in the timing of preplacement examinations [Exs. 90-166, 90-181].

After thorough review of all the facts, and evidence in the record, OSHA concurs with the majority of commenters supporting the position that the preplacement medical examination be given prior to job assignment. The purpose of the preplacement examination is (1) to make an initial assessment of the health of each