

U.S. Department of Labor

Occupational Safety and Health Administration
Washington, D.C. 20210

4 JUN 1982

Reply to the Attention of:

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Mr. Walter Roy Quanstrom
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Dear Mr. Quanstrom:

This is in response to your letter of March 11, 1982, requesting interpretations for provisions 29 CFR 1910.1001(c)(2)(iii) and (f)(2)(ii) of the asbestos standard. Please accept my apology for the delay in our response.

All failures to use supplied-air respirators during spraying, removal, and demolition operations involving asbestos are technical violations of 29 CFR 1910.1001(c)(2)(iii). OSHA, however, has adopted the policy of regarding an employer's failure to provide and require that employees use supplied-air respirators as a de minimis violation of 29 CFR 1910.1001(c)(2)(iii) if the employer has conclusively established that, for his particular situation, the respiratory protection that he is providing his employees affords them adequate protection. This policy accords with Section 9 of the Occupational Safety and Health Act. For de minimis violations, no citations are issued, no penalties proposed, and no corrective action required.

In order to receive a de minimis classification for the violation the employer must:

- (1) have established incontrovertibly the utmost 8-hour time-weighted average and ceiling concentrations of airborne asbestos that his employees might confront;
- (2) provide and assure that his employees use respirators that afford adequate protection against such utmost asbestos concentrations; and
- (3) follow the respirator selection logic presented in 29 CFR 1910.1001(d)(2)(i), (ii), and (iii) of the asbestos standard.

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Considerable effort might be required to establish the utmost concentrations of asbestos that might occur if there were variations from operation to operation in any factors such as the following:

- (1) Binding material
- (2) Type of asbestos (e.g., length of fibers, composition)
- (3) Percentage of asbestos in the insulation
- (4) Removal techniques
- (5) Amount of insulation removed
- (6) Room size
- (7) Engineering and work practice controls instituted to reduce employee exposures
- (8) Complement of employees
- (9) How well employees are trained in asbestos control procedures.

29 CFR 1910.1001(f)(2)(ii) reads, in part:

...samples shall be of such frequency and pattern as to represent with reasonable accuracy the levels of exposure of employees. In no case shall the sampling be done at intervals greater than 6 months for employees whose exposure to asbestos may reasonably be foreseen to exceed the limits prescribed by paragraph (b) of this section.

Note that, in case respirators are being worn, "exposure" as used in the standard means exposure that would occur without the respirator.

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OSHA interprets the maximum sampling interval of 6 months to apply to stable types of exposure situations such as might occur in certain steady, mechanized production operations of the sort where variations in work practices have little effect on exposure levels. In general, the more variable the exposures, the more frequently they must be measured.

Employee asbestos exposures resulting from demolition and removal work involving asbestos can be highly variable. The amount of the variability depends on how much change there is from operation to operation in factors such as those previously listed on page 2. Even in situations where exposures do not appear to be varying much from operation to operation, the potential for large variations often exists. For example, if wet removal methods are the usual practice, an inadvertent failure to wet down the material adequately can cause large increases in exposure over what had been normal.

Accordingly, OSHA interprets 29 CFR 1910.1001(f)(2)(ii) to require employers to determine the amount of exposure of each of their employees to airborne asbestos on each day they perform demolition or removal work involving asbestos. In your company's case, although both the ceiling concentration and the 8-hour, time-weighted average concentration to which each of your employees is exposed must be determined, it appears that the ceiling concentration exposures are the most critical determinations to be made. That is, if the ceiling concentration of asbestos fibers longer than 5 microns to which your employees are exposed is held at or below the ceiling limit for exposure (10 fibers per cubic centimeter) for the duration of a one-hour exposure, then the 8-hour, time-weighted average concentration of those fibers to which they are exposed is held below 2 fibers per cubic centimeter.

It is neither advisable nor necessary to engage in unscheduled asbestos removal work in order to comply with the sampling frequency requirements presented in 29 CFR 1910.1001(f)(2)(ii). Sampling is required only whenever your company decides on its own right to perform asbestos removal work. It does not matter if more than 6 months elapse between performances of the work.

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OSHA feels that there is value in air sampling even though employees are wearing respirators. The information on the concentration levels of airborne asbestos that is obtained from the samples enables employers to monitor the continuing effectiveness of the engineering and/or work practice controls that they use, as well as to verify whether the respiratory protection they provided for the last operation was adequate. Also, such information enables employers to apprise their employees of the degree of potential hazard that was posed by the environment in which they wore their respirators, and the adequacy of the protection they were afforded.

We appreciated the opportunity to comment on your concerns. If we may be of future assistance, we shall be glad to provide it.

Sincerely,


for Patrick R. Tyson
Director, Federal Compliance
and State Programs

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