FROM ROBERT P. CARTER
HEALTH & ENVIRONMENT DEPARTMENT
PITTSBURGH OFFICE, 7 AB

TO INDUSTRIAL HYGIENISTS

PLAINTIFF'S EXHIBIT AL-1440

19Nov75

RE: INDUSTRIAL HYGIENE NEWSLETTER
Proposed Revision to OSHA Worker Exposure to Asbestos

In the FEDERAL REGISTER for Thursday, October 9, 1975, OSHA published a proposed revision to its standard for worker exposure to asbestos, Regulation 1910.1001. We recommend strongly that all locations obtain a copy of this proposed standard to determine its effect on their operations. If you are unable to obtain a copy of the proposed standard from your subscription to the FEDERAL REGISTER, please contact our office. The proposed standard is found on pages 47652 - 47665 of the October 9, 1975 FEDERAL REGISTER.

The Worker Exposure Standard for Asbestos currently in effect which was issued on June 7, 1972, established an 8-hour TWA worker exposure limit of 5 fibers per milliliter of air effective July 7, 1972, with that TWA limit to drop to 2 fibers per milliliter effective July 1, 1976. The new OSHA proposal will change that TWA limit to 0.5 fibers per milliliter, to become effective with the promulgation of the final revised standard.

There are many other changes in the proposed standard, the most important of which are covered in the following paragraph-by-paragraph analysis of the October 9, 1975 proposal:

(a) Scope and application. This section is entirely new. The exclusion of construction work will probably be the only significant effect on Alcoa. However, until a separate asbestos standard for construction is issued, we recommend that the general industry standard be applied to Alcoa construction people. Also, since the definition of construction under Regulation 1910.12 is not clear with respect to its application to our repair and maintenance people, we should apply that standard to their work which provides the greater degree of protection.

(b) Definitions. No significant changes.

(c) Permissible exposure to airborne concentrations of asbestos fibers. As stated in our introduction, this contains important changes. The standard presently in effect specifies that, as of July 1, 1976, the 8-hour TWA worker exposure drops from 5 fibers per milliliter to 2 fibers per milliliter. The proposed standard would reduce the 8-hour TWA to 0.5 fibers per milliliter.

ALCOA

The present standard calls for a ceiling concentration of 10 fibers per milliliter measured for 15 minutes. The proposed standard would reduce this to 5 fibers per milliliter for a period of "up to 15 minutes (emphasis ours)." Even the preamble or background material published with this standard does not clarify the meaning of the "up to." It is our intention to seek clarification of this so that it can be clearly defined in the final revised standard. As the proposal is presently written, it appears to allow for the interpretation that a worker exposure in excess of 5 fibers per milliliter for any period less than 15 minutes would be considered a violation even if the worker's exposure averaged over the worst 15-minute period did not exceed 5 fibers per milliliter.

(d) Regulated areas. This section is new with "regulated area" being defined as one where a person may be exposed to an airborne asbestos fiber concentration in excess of either the TWA or ceiling limit. A daily roster of all persons entering a regulated area is to be made and retained.

(e) Monitoring. This paragraph is expanded and revised. It allows for the selection of representative employees for monitoring to determine the exposures of a particular job occupation group. Area monitoring has been eliminated.

If either the TWA or ceiling exposure limit is exceeded, a compliance program and monthly monitoring survey are to be undertaken. If neither exposure limit is exceeded for two surveys at least 5 days apart, but not more than three months apart, no further monitoring is required unless there is reason to believe that an employee's exposure has increased. Each employee is to be notified within 5 working days of the results of tests representing the exposures of his job classification even if another worker was actually monitored. If either exposure limit is exceeded, each affected employee is also to be notified what corrective action is being taken.

(f) Method of compliance. Where worker exposures exceed either the TWA or ceiling limit, feasible engineering controls are to be used to reduce the exposures with appropriate respirators being worn until exposures are brought within limits. If needed to meet the exposure limits, work practice controls are also to be used. If airborne fiber levels after the institution of feasible engineering and work practice controls still exceed either exposure limit, respirators must be used to protect the employees.

A new provision requires measurements such as capture velocity, duct velocity or static pressure every three months in each exhaust system used for fiber level control to demonstrate continued exhaust effectiveness.

Another new requirement when any employee's exposure exceeds either limit is the establishment and implementation of a detailed written program to reduce the fiber levels within limits "solely by means of engineering and work practice controls." This, to us, implies that control of fiber levels to less than the exposure limits by engineering and work practice controls will always be interpreted by OSHA as feasible. We intend to comment to OSHA on this provision also since, in our judgment, reduction of fiber levels to 0.5 fibers per milliliter may not always be feasible by engineering and work practice controls.

(g) Respiratory Protection. This is new as a separate paragraph of the standard and has been expanded from the coverage in the present standard with the only major change for us being in the permissible type of respirator in the fiber range of 10 - 50X the exposure limits.

(h) Personal protective clothing. A major change has been made in this paragraph, requiring the providing by the employer daily of clean full-body protective clothing for all employees whose exposures exceed either the ceiling or TWA limit. The present standard requires such clothing only if the ceiling limit is exceeded.

(i) Hygiene facilities and practices. This is a new paragraph containing a considerably expanded requirement. The major change involved is the requirement for "clean change rooms" and showers for all workers wearing protective clothing. Another new requirement is that lavatory and toilet facilities located in regulated areas shall not be accessible from uncontaminated areas.

The effect of this for us is that, if we have any workers with exposures exceeding either limit, thus requiring wearing of protective clothing, two locker rooms will be required, separated by the showers, with the "contaminated" locker room not to be used by any workers not exposed to asbestos. It would also mean that these employees having excessive exposures would have to be provided separate lavatory and toilet facilities from those used by employees not exposed to asbestos.

(j) Medical surveillance. A major change in this requirement provides for informing an employee who refuses a medical examination of the possible health consequences and obtaining a signed statement from him that he has been so informed and refuses to be examined. A serious defect in this proposed revision is that it fails to correct a problem inherent in the present standard; namely, the failure to establish some lower limit of fiber exposure below which medical surveillance will not be required.

Another major change in the medical surveillance is the requirement to obtain from the examining physician a written opinion, a copy of which is to be given to the employee, containing the physician's judgment "as to whether the examined employee has any medical conditions which would place the employee at increased risk of impairment of his health from exposure to asbestos fibers, or which would, directly or indirectly, be aggravated by such exposure." The written opinion also is to contain a physician's recommendation as to any "limitations upon the employee's exposure to asbestos fibers or upon the use of protective clothing and equipment such as respirators." It is also to include a statement that the employee has been informed by the physician of any medical conditions which require further examination or treatment, but with the written opinion not revealing special findings or diagnoses unrelated to occupational exposure to asbestos fibers.

The medical surveillance paragraph also stipulates that no employee shall be exposed to asbestos fibers in such a way as would put the employee at increased risk of material impairment of his health from such exposure and that this determination may be based on the physician's written opinion.

(k) Employee information and training. This is a new paragraph which requires detailed training for employees assigned to regulated areas including:

(1) The nature of operations causing fiber exposures and the necessary protective steps;

(2) The engineering controls and work practices associated with the job assignment;

(3) Full instructions for appropriate respirators;

(4) The purpose for and description of the medical surveillance program; and

(5) A review of the standard.

Copies of the standard and appendices A, B, and C are to be readily available to these employees.

(l) Danger signs and labels. This section was formerly titled "Caution signs and labels." The changes proposed would require the use of the words "Cancer Hazard" to replace "Dust Hazard" on signs for regulated areas and "Danger - Cancer Hazard" to replace "Caution - Breathing asbestos dust may cause serious bodily harm" on labels for raw materials and scrap materials.

(m) Housekeeping. This paragraph is essentially unchanged.

(n) Recordkeeping. This paragraph has been greatly expanded to require specific details of monitoring tests, employee exposures and rosters, employee training, ventilation measurements, and medical records, with the ventilation measurement and employee training records to be maintained three years and all others for at least 40 years or for the duration of employment plus 20 years, whichever is longer.

(o) Observation of monitoring. This is a new paragraph expanding the content of (f)(4) of the present regulation to require the employer to provide the necessary personal protective equipment, where required, for observers and to require explanation of the methods of measurement, including sampling and analysis, as well as allowing the observer to record the results obtained.

(p) Appendices. This is a new paragraph which provides the material which is to be used for the training of employees and to be maintained accessible to exposed employees.

At this time it is impossible to predict when this revised standard will be promulgated or what it will look like in final form. However, we feel that the likelihood of any major changes from what is proposed is very small. Therefore, the provisions of this proposed revision to the standard and their related cost impact should serve as a further incentive for every location to discontinue the use of asbestos of all forms to the fullest extent functionally feasible even at somewhat higher cost for the replacement material.

A major development effort is underway to try to replace completely the use of molten metal marinite in ingot operations with non-asbestos-containing alternates. The complete success of this program for all such applications, particularly the very large ingot sizes, is by no means certain. Your regular monitoring of the marinite cutting operations will be invaluable in establishing whether present practices and control equipment are capable of meeting the proposed 0.5 fiber/ml standard.

Another area that probably warrants attention by all locations is that of pipe lagging. The Construction Engineering Division has developed Alcoa Engineering Standards for non-asbestos-containing pipe lagging which are functionally equivalent to asbestos. These, of course, will now be specified on all major construction projects, but also should be required on all local construction projects and for all repair and maintenance activity.

Shortly after the institution of the asbestos standard in 1972, we recommended that all locations having furnaces of any kind or melting pots in which asbestos had been used as a backing material to any significant extent begin records of the repair and replacement of the linings of these vessels with non-asbestos backing material so that they would know when all of the old asbestos-containing lining had been removed. This was for the purpose of establishing an end point to the necessity of the required provisions of the asbestos standard for the maintenance people involved. These records for any vessels for which this transition has not been completed should certainly be continued till this has been accomplished.

If we can be of any help in interpreting the provisions of this proposed standard or any related matter, please do not hesitate to contact us.

ROBERT P. CARTER

RPC:lms

cc:
Company Physicians
Environmental Steering Committee Chairmen &
Environmental Managers

Note: Information relative to health standards proposed or promulgated under authority of the U.S. Occupational Safety and Health Act is sent to overseas locations for informational purposes only.

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