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MINING AND METALS DIVISION
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REGISTERED MAIL
RETURN RECEIPT REQUESTED

February 11, 1972

Office of Safety and Health Standards
Room 305
400 First Street N.W.
Washington, D.C. 20210

Subject: Comments on the Proposed Amendment to
29 CFR, Part 1910, as Published in the
Federal Register January 12, 1972

Gentlemen:

Background

For approximately nine years, Union Carbide Corporation has conducted a modest mining operation on a large short fiber, chrysotile asbestos deposit in the remote New Idria mining district of California. The asbestos is subsequently processed in a mill located near King City, California. Some of the resulting asbestos products are sold to domestic floor tile producers and for other typical applications for short fiber asbestos. However, Union Carbide Corporation's participation in these markets is relatively small, and we could not sustain this operation if it were solely based on the production and sale of traditional asbestos products in competition with the large Canadian producers. Consequently, Union Carbide Corporation has placed emphasis on the development and sale of highly refined asbestos fibers for special applications to the extent that the economic viability of our asbestos business is dependent on these products. Our most significant special asbestos product is a chemically modified high purity asbestos fiber which acts as a thixotrope for such strong binder resins as polyester, epoxy and polyvinyl chloride. Typically, the

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asbestos addition to these resins varies from 0.5% to 1.0% and in some few applications may exceed 5%. The market for this product consists of literally hundreds of customers, each using a relatively small quantity of asbestos. For instance, in 1971, 70% of the companies to whom we supplied asbestos for this purpose used less than 0.7 tons per year. [For comparison, one average size floor tile plant will consume approximately 15,000 tons of asbestos per year.] These low asbestos content resins are often applied to a mold by spraying techniques and the fabricated plastic material is often drilled or sawed, and sometimes sanded. The only significant alternate thixotropic agent available is pyrogenic silica — also designated by OSHA as a "Target Hazard". This silica product has a much lower bulk density than our asbestos product and is inherently much dustier. It is also a less efficient thixotrope and is more expensive. However, the silica dust hazard and attendant regulations have received much less publicity and, therefore, are less alarming to the customers.

General Comments

We have made significant capital investments in engineering installations at our King City mill in order to minimize concentrations of airborne asbestos fibers. We are planning to make further capital investments for this purpose and are confident of our ability to comply with the presently proposed TLV of 5 fibers per milliliter in our own operations. We are aware, however, that the National Institute for Occupational Safety and Health has proposed a lower level of 2 fibers per milliliter. It is our opinion that this lower TLV level cannot be achieved by any presently known combination of engineering installations. We also believe that the comments of Dr. G. W. Wright, in his letter of January 11, 1972 to Dr. C. H. Powell (this letter included as a part of the Appendix of the NIOSH Criteria Package) indicate a most reasonable position. Certainly, it is our view that the adoption of a 2 fiber TLV would be unreasonable within the time-frame applicable to the presently proposed regulations. Since the adoption of a 2 fiber TLV could lead to the de facto prohibition of asbestos use, it is vitally important that sufficient time be given to quantify the economic impact and practicality of such a limit.

Most of our specific comments pertain to the impact of the proposed regulations on our special asbestos product customers.

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The basis for our comments is that the specific regulations cited below are unreasonable with respect to:

1. the relatively low asbestos exposure level of our customers' employees;
2. the practical aspects of administering the regulations; and
3. the potential negative economic impact which could force us to terminate our asbestos operations.

Specific Comments

There are four major areas of concern:

1. Subparagraph (d), "Particular Operations and Products". Article 1910.93 (a) sets a low but obtainable TLV of 5 fibers per ml. Subparagraph (d) then places additional restrictions on a variety of operations such as spraying, use of various tools on asbestos materials, etc., which apply even if the TLV level is not approached. Extensive testing, medical examinations and record keeping are also mandated for situations falling under this section. In the first place, essentially all of the asbestos used in the United States will be affected by this provision, particularly as it is used by the smaller user of the final products who can least afford an extensive compliance program.

Moreover, the term, "Asbestos" is used throughout without clear definition, especially in subparagraphs (d) (3), (4), (5) and (6). For example, the meaning of "spraying of asbestos ...", "asbestos cement ...", "asbestos waste and scrap" is not well defined in that no distinction is made between materials that may contain a single asbestos fiber and those containing up to 100%. This distinction can make a major difference in the exposure generated. We do not believe these rules should be arbitrarily applied to materials containing only relatively small percents of fiber, especially those in which the fiber is prewetted and firmly bound.

Further, Operations for the area in which hand and power tools are used can be provided with local exhaust ventilation but dust collectors cannot very well be attached to hand operated tools. Also, the wording, "The requirements of this

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paragraph shall apply at all times." is unclear. Protection is needed only when the tools are generating dust.

It would seem far better to rely upon the exposure and compliance provisions of paragraphs (a) through (c) without additional complication. At the very least, the provisions should apply only when the TLV limits are exceeded.

2. The term, "asbestos waste", as used in subparagraph (d) (5) could be interpreted to mean ore tailings from a mill. The quantity involved is such that these tailings cannot practicably be handled in sealed bags. Some provision must be made for this situation.

3. Warning Signs. The warning signs proposed seem excessively alarmist and the wording and sign specifications are too detailed. Certainly, there is hazard associated with long term and excessive inhalation of asbestos fiber. It would seem more appropriate, however, to require posting of "Asbestos Dust Hazard" or "Respirator Required" signs at entrances of the area and require that companies train their employees and enforce work rules. Further, the term, "Asbestos dust hazard" is not defined. This provision should either read "where TLV atmospheres are exceeded" or some other more precise definition. It would be impossible to place warning signs wherever asbestos fibers may be encountered in the United States.

4. Personnel Monitoring. Paragraph (f) continues the apparent inconsistency introduced by paragraph (d). Personnel monitoring provisions apply whenever exposure to concentrations as high as 250 fibers per milliliter are encountered or in concentrations as low as a single fiber when caused by operations or procedures specified in paragraph (d). Since a very large effort is required for collection of data for physical examinations and for maintenance of records for 20 years, the 250 fiber per milliliter level seems quite reasonable. It is suggested that this be the criteria and that reference to paragraph (d) be deleted. With regard to the records, we object to opening the medical records of any employee to the scrutiny of anyone but a physician. These records contain notations of personal illness which we have always held confidential.

Proposed Wording of Regulations

To incorporate these suggestions, and a few other significant but less important points, we suggest the following wording changes

be made:

1. Paragraph (c), "Allowable Respirators", specifies increasingly efficient respirators for increasing fiber concentrations which is good and proper. Precise wording, however, does not allow for use of a more powerful respirator in lieu of a less efficient one. For example, subparagraph (c) (1) provides that "A reusable or single use filter type respirator ... shall be used." Thus, according to the specific wording, use of a respirator approved for more severe conditions would not be in compliance. Perhaps wording such as "or a respirator approved under paragraph (c) (2) or (c) (3)" should be inserted before "shall be used." A similar change is needed in paragraph (c) (2).

2. Paragraph (d). The best approach would be to delete (d) (1) through (5) and rely upon exposure and compliance provisions set forth in paragraphs (a) through (c). Alternatively, paragraph (d) could read: "(d) (1). If an atmosphere in excess of the TLV of paragraph (a) is generated by the operations or use of tools described in the remaining subparagraphs of this paragraph (d), the employer shall comply with the requirements of this paragraph."

3. Paragraph (d) (5) should read: "Asbestos waste (except for large volume, low percentage content materials such as mill ore tailings) and scrap shall be collected and disposed of in sealed bags or other closed containers."

4. Paragraph (e), "Warning Signs".

(1) "Posting" should read: "Warning signs shall be provided and displayed at each location where the base TLV is likely to be exceeded. The sign shall be located so as to warn anyone approaching the area that a hazard exists."

(2) "Sign Specifications. The warning signs shall be easily readable with wording such as 'Asbestos Dust Hazard' or 'Respirator Required'."

Subparagraph (3) should be deleted as not necessary.

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5. Paragraph (f), subparagraph (1), "Personnel" should read: "Employees who would be exposed to concentrations of asbestos dust in excess of 250 fibers per milliliter if not protected by specified respirators, shall be monitored in accordance with this paragraph."

"(i) Method. Dust samples shall be collected from within the normal breathing zone of the employees in their normal working posture when no respirator is being worn. If the employee is wearing a respiratory device, a sample shall be taken so as to determine the atmosphere to which he would be exposed if he did not have a respirator."

Subparagraph (ii) does not require any change.

Subparagraph (iii) should read: "Sampling Duration. The sampling duration shall be modified according to the atmosphere so that a representative sample is obtained but shall not be so long as to result in an overloaded and, therefore, unreadable filter."

6. Paragraph (f) (2), "Environmental", should read: "Environmental monitoring shall be conducted in all areas in which employees would be exposed to concentrations of asbestos dust in excess of the limits specified in paragraph (a) of this section if they were not equipped with respirators."

The same wording changes proposed for paragraphs (f) (1) (i), (ii) and (iii) should be made for paragraph (f) (2) (i), (ii) and (iii).

7. Paragraph (h) (3) should read: "The records of medical examinations shall be made available only to the Secretary of Labor, to the Secretary of Health, Education and Welfare, to designated representatives (who shall be physicians) or either of them, and at the request of the employee, or former employee, examined, to his physician."

We will be happy to discuss these comments with your staff at your convenience.

Very truly yours,

James W. Rawlings
James W. Rawlings.

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