WV-0222 #2

UNION CARBIDE CORPORATION
Engineering, Manufacturing and ~~Techn~~ology Services

39 Old Ridgebury Road
Danbury, CT 06817-0001

~~TO: WVS~~ Copies to M.T. E.L.D. GWW

KFC

(1) Copy to RGL/CHH LWP ETV

TO: Mr. J. E. Sanders
So. Chas., WV
LOC. 511

DATE: February 17, 1987

(2) AW

SUBJECT: Recommended C & P Program - Asbestos Containing Materials

The task group recommendation to phase out the use of asbestos containing materials in C & P locations, transmitted to me on October 14, 1986, is accepted. You should proceed to revise the appropriate engineering standards.

PLAINTIFF'S EXHIBIT
UC-2179

BG Perry

B. G. Perry

BGP/pmc
Attachment

UNION CARBIDE

INTERNAL CORRESPONDENCE

Engineering, Manufacturing, and Technology Services
Central Engineering
Technical Center

Post Office Box 8361
Building 2000
South Charleston, WV 25303

October 14, 1986

RECEIVED
OCT 23 1986
S. W. TURICCHI

RECEIVED
OCT 20 1986
B. G. PERRY

TO: Mr. B. G. Perry

COPY TO: Mr. P. D. Franson
Dr. P. R. Kavasmaneck
Mr. W. G. Lilly, Jr.
Mr. C. C. Neely
Mr. S. W. Turicchi

SUBJECT: Recommended C&P Program - Phase-Out Use of Asbestos-Containing Materials in Workplace

Bob:

In July of this year, you requested on behalf of the Manufacturing Council that a Task Group be assembled to evaluate the implications for Chemicals and Plastics of continued use of asbestos-containing materials in the workplace. You should be aware that asbestos-containing insulation materials were prohibited for new construction and for replacements beginning in 1976.

The Task Group, headed by Mr. C. C. Neely, Corporate Fellow - Engineering Mechanics, was comprised of the following individuals and areas of expertise.

L. E. Calvert	- Maintenance
S. W. Clark	- Health/Safety
G. B. Elder	- Corrosion-Materials
R. W. Engle	- Valve and Piping Technology

The Task Group has surveyed current and projected industry practices with regard to the use of asbestos-containing materials and has evaluated current government regulations and made judgements with regard to future regulations which could impact on the use of and cost of use of asbestos-containing materials. Additionally, the Group evaluated the availability and cost effectiveness of substitute materials.

Based on available evidence that airborne asbestos in the occupational workplace has proven to be a carcinogen and that cost effective alternative materials are available, or can be developed with relative ease, the Team has recommended that C&P continue to phase out the use of asbestos-containing materials with no purchase or installation of asbestos-containing materials, without a formal variance, after January 1, 1989. Asbestos-containing materials that are in use and retain their structural and functional integrity need be replaced only if this integrity is compromised, or when normal maintenance occurs.

Other recommendations are contained in the attached draft of the C&P Recommended Program.

I want to thank the Task Group for their efforts in this study and for their breadth of judgement as reflected in the recommendation.

Please let me know of further work you require, or of any questions you may have.

Very truly yours,

J. E. Sanders

JES:he
Attachment
4701Y

OCT 15 1986

UNION CARBIDE CORPORATION
Engineering, Manufacturing, and Technology Services
Central Engineering

P. O. Box 8361
So. Chas., WV 25303

BUSINESS CONFIDENTIAL

September 30, 1986

TO: Mr. J. E. Sanders

COPY TO: Mr. L. C. Calvert
Mr. S. W. Clark
Mr. G. B. Elder
Mr. R. W. Engle

FROM: C. C. Neely

SUBJECT: Final Draft of Recommended C&P Program
Phase-Out Use of Asbestos-Containing Materials in Work Place
Chemicals and Plastic Group

Attached herewith on behalf of the Special Working Group is a copy of the subject document dated 9/29/86. It is a slightly fine-tuned version of the 8/28/86 version which was transmitted to you under my transmittal also dated 8/28/86. The changes that have been made are of a clarifying rather than substantive nature.

At this point, we have not made an effort to obtain broad, formal review of the subject program. However, Larry Calvert has discussed it briefly with the Maintenance APM's and Maintenance Managers. In addition, Stan Clark arranged for its review by the Safety, Health Advisory Committee (SHAC), and your staff has reviewed it. Feedback indicates these groups to be supportive of the concept, but some have expressed concern regarding the January 1, 1989 date specified for the discontinuance of the purchase of asbestos-containing materials, believing it to be optimistic. Some of the concern relates to the following:

1. CED's ability to revise and reissue the V&P Specifications and the Valve Manual in time to support the deadline. The responsible CED specialists have carefully reviewed this matter and believe that reissuance of these Manuals by July 1, 1988 is realistic. This date has not been published, however.

2. Belief that field testing of new gasket and packing materials will be required. Such testing will not be necessary since the plan at this time is to accommodate most of the substitutions by broadening the use of materials already in use, materials such as reinforced Teflon and GRAFOIL™. This plan has not been broadly disseminated, and we can fully appreciate the reluctance to agree to a purchasing cut-off date for asbestos-containing products without knowing what the substitutes are. We also appreciate that, once this material substitute plan is known, there will be a natural resistance due to the higher first cost of these substitute materials.

3. Some belief that installers will need special training to handle the new gasket and packing materials. For reasons cited in (2), we do not believe this requirement will be significant.

4. Perhaps lack of understanding that the January 1, 1989 date is the cut-off date for the purchase of asbestos-containing materials except as approved by a variance.

5. "Is this really necessary" attitude. The Special Working Group believes that OSHA's recently revised exposure limit of 0.2 fibers per cubic centimeter of air (was previously 2.0 fibers per cubic centimeter) add significant impetus to implement the proposed Recommended Program. According to Terry Hanning's September 5, 1986 memorandum (copy attached), labor union representatives do not believe that controlling the exposure limit to this lower level provides adequate protection.

The above concerns notwithstanding, the Special Working Group decided to submit the subject Recommended Program to you with the January 1, 1989 date included since we believe that, with proper communication with the key plant personnel responsible for its implementation, along with management support, this date is realistic and achievable. We are submitting under separate cover a proposed CED Technology Program which includes request for funds to cover the important communications aspect of the understanding, acceptance and implementation process.

Please let me know how we can be of further assistance regarding this matter.

C. Neely

CCN:mr
4319I
Attachment

8/28/86

D R A F T

RECOMMENDED POLICY

CHEMICAL AND PLASTICS BUSINESS GROUP (C&P)

SUBJECT: USE OF ASBESTOS-CONTAINING MATERIALS[1] IN THE WORK PLACE

PURPOSE/BACKGROUND

The Corporate Charter (1.1) contains the following commitment to employees:

> "To provide working conditions, programs of training and education, and persistent review and appropriate modification of facilities and practices to protect the health and safety of employees."

It also contains a social commitment to conduct business "in accordance with all the applicable national and local laws and regulations."

As a result of available evidence that airborne asbestos in the occupational environment had proven to be carcinogenic in man, all C&P Insulation Standards were revised in 1976 to specify only asbestos-free insulating materials; and new or replacement installations of these materials have subsequently been selected accordingly. Additionally, a Safety/Health Standard designated SH-256 was prepared covering the safe removal and handling (includes disposal) of asbestos-containing insulating material during renovation and demolition. The requirements of this Standard equal or exceed those of current applicable government standards.

OSHA's rule-making efforts relative to asbestos usage in the work place are mired in controversy. Hearings on the latest EPA proposal which includes the phaseout of all asbestos over a ten-year period are now in progress. The proposal states: "EPA is considering banning the manufacture, importation, and processing of asbestos construction products and asbestos clothing soon after the rule's promulgation with the category of asbestos friction products banned about five years later, and other asbestos products banned at a later time." Gaskets and packing that contain asbestos are in the category of "other asbestos products" that would apparently be banned after ten years. No peer company that we are aware of has a target date for removal of existing asbestos-containing insulation, gaskets, or packing; however, one major chemical company has recently discontinued the purchase of asbestos-containing gaskets and packing.

A cost analysis of pipe-size gaskets shows that GRAFOIL®, probably the most expensive of the acceptable gasket substitute materials, is, in fact, cost effective when only the cost of mandatory work practices associated with the use of asbestos (e.g. wetting for removal or airborne fiber

[1] "Asbestos-containing materials" include but are not limited to insulation, gaskets, packing, welding blankets, and building materials.

exposure monitoring during removal, placing in labeled plastic bags after removal, landfill disposal, and record keeping) is considered. The same conclusion is drawn relative to valve packing when the additional considerations of improved service life and sealability are included.

Consistent with the aforementioned commitments and the economic use of materials, C&P has concluded that positive actions relative to asbestos-containing materials(1) should be taken.

POLICY

Except as otherwise provided by applicable law, Chemicals and Plastics Business Group will:

Continue to phase out the use of asbestos-containing materials:

- Asbestos-containing insulation shall be replaced with asbestos-free materials as required to maintain structural and functional integrity.
- No asbestos-containing materials shall be purchased after January 1, 1989.
- C&P approved practices shall be employed for the identification, removal, modification, and/or disposal of asbestos-containing materials.
- Evaluation of asbestos substitute materials shall include consideration of health effects as well as suitability for intended service and cost.
- A variance approval procedure shall be employed to cover consideration of uncommon circumstances. Approval must always include endorsement of C&P HS&EA management.

SCOPE

This recommended policy applies to all C&P operated/hosted facilities. Other components of the Corporation will be apprised of its content.

DELEGATION

The assignment of duties and authority to carry out the policy defined herein is delegated as follows:

To Central Engineering Department

- Develop and maintain engineering standards covering:
  - Identification of asbestos-containing materials;

- Removal, modification and/or disposal of asbestos-containing materials; and

- Use of asbestos-substitute materials.

To Site Management

- Implement policies and practices for the identification, removal, modification, and disposal of asbestos-containing materials.

- Use of CED Standards covering asbestos substitute materials and the communication of service experience with these materials.

To Manufacturing Services

- Monitor use of asbestos-substitute materials and the communication of service experience with these materials.

To C&P HS&EA

- Audit compliance with governmental regulations and CED-developed standards relating to asbestos-containing materials and, where applicable, their substitutes.

C. C. Neely
2073W