PLAINTIFF'S EXHIBIT

UC-2436

UNION CARBIDE CORPORATION
ENGINEERING, MANUFACTURING, AND TECHNOLOGY SERVICES DIVISION
CENTRAL ENGINEERING
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M E M O R A N D U M

BUSINESS CONFIDENTIAL

March 27, 1987

RECEIVED
MAR 31 1987
CCN

TO: C&ME Personnel

COPY: Mr. C. C. Neely

FROM: G. B. Elder

SUBJECT: Asbestos Containing Materials

The C&P Manufacturing Council have endorsed the program to phase out asbestos containing materials in the workplace, and Clyde Neely is chairing a committee to implement the policy.

Attached is a copy of the final draft of the policy for your use. The key statement is that no asbestos containing material shall be purchased after January 1, 1989.

The biggest change will occur in the area of gaskets and packing. The approach for gaskets is to use Grafoil spiral-wound with teflon or Grafoil filler, or in some cases, reinforced teflon. The organic fiber reinforced "non-asbestos" materials do not pass fire tests and have very limited ability to maintain adequate bolt loads, so they are not being considered. Grafoil and graphite fiber will be used for packing.

The policy does not forbid the use of asbestos containing gaskets or packing and only states that we will quit buying it after January 1, 1989. However, EPA rules are making it increasingly difficult to remove and dispose of any asbestos materials including gaskets and packing. It makes sense to discourage the use of these asbestos materials starting now so that we minimize the removal and disposal problem. A second benefit of doing this will be to assist a change in the psychology and procedures over a longer period of time instead of having a crisis during 1988.

I realize that the change to other gasket and packing materials cannot take place over night and that you will be using additional asbestos materials. However, please don't recommend any asbestos gaskets or packing for any new installations and try to encourage the substitution of Grafoil and spiral-wound gaskets whenever you have the opportunity.

George

GBE/ds
2033H

9/29/86

D R A F T

RECOMMENDED C&P PROGRAM

CHEMICAL AND PLASTICS BUSINESS GROUP (C&P)

GOAL: PHASEOUT 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 the cost of mandatory work practices associated with the use of asbestos (e.g., wetting for removal or airborne fiber

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

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.

RECOMMENDED C&P PROGRAM

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 Standard Practices shall be employed for the identification, removal, modification, and/or disposal of asbestos-containing materials; and for use of asbestos-substitute 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 Program 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 Recommended C&P Program defined herein is delegated as follows:

To Central Engineering Department

- Develop and maintain C&P Standard Practices covering:
  - Identification of asbestos-containing materials;

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

- Use of asbestos-substitute materials.

To Line Operations Management

- Implement C&P Standard Practices for the identification, removal, modification, and disposal of asbestos-containing materials.

- Implement C&P Standard Practices covering asbestos substitute material applications, and communicate the service experience with these materials.

To Manufacturing Services

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

To C&P HS&EA

- Audit compliance with governmental regulations and C&P Standard Practices relating to asbestos-containing materials and, where applicable, their substitutes.

C. C. Neely
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