6260

AVOID VERBAL INSTRUCTIONS

FROM L.B. HEWITT

BLDG./ROOM 514/307-2

SUBJECT GASKETING MATERIALS

TO W.B. TROUTMAN

BLDG./ROOM 514/189-3

COPY R.P. FULKNIER

L.W. PHAIR

DATE 7/14/82

BILL -

I THOUGHT YOU MIGHT BE INTERESTED IN SEEING THE ATTACHED MEMO IN VIEW OF THE INCREASING EMPHASIS ON NON ASBESTOS MATERIAL.

- LARRY

PLAINTIFF'S EXHIBIT

UC-4263

Copy To AEW DC
~~[illegible]~~
ECL
DBS KAH

WC WB3

# UNION CARBIDE CORPORATION

TECHNICAL CENTER

SOUTH CHARLESTON, WEST VIRGINIA

RECEIVED
JUN 28 1982
M. P. HEFNER

## MEMORANDUM

June 22, 1982

TO: "SEE ATTACHED DISTRIBUTION LIST"

COPY: Mr. G. M. Everitt
Mr. J. C. Hovious
Mr. P. R. Schweppe
Mr. L. S. Slaughter

FROM: Mr. W. G. Ashbaugh/D. W. Moody, Jr./C. C. Neely

SUBJECT: Non-Asbestos Compressed Non-Metallic Gasketing Materials

Salesmen calling on us and advertisements in the literature have been extolling the virtues of non-asbestos compressed non-metallic gasketing materials as a universal replacement for the compressed asbestos gasketing that we have used for many years. We wish to caution you that the non-asbestos compressed non-metallic gaskets have not been proven in our services. Moreover, limited testing of these gasketing materials in our materials laboratory has indicated that from a chemical-resistance standpoint they are inferior to compressed asbestos gaskets and have a lower maximum temperature limit. In addition, we have not tested the non-asbestos gaskets from a mechanical standpoint; therefore, we have no data concerning their sealability, bolt load requirements and other information of a mechanical-design nature.

Compressed asbestos gaskets are still widely available and generally cost less than the newer non-asbestos gaskets being offered as their replacement. We should continue to use the compressed asbestos gaskets approved in our standards and specifications for process vessels and piping. Approved compressed asbestos gaskets are listed in COP-1 for Pressure Vessels and PPF-4 for Piping.

In the event that compressed asbestos gaskets are not available for a specific installation, the approved substitution for standard pipe sizes would be a GRAFOIL gasket. GRAFOIL is available in several forms, including tape, GHE (metal inserted), and spiralwound with a GRAFOIL filler. We recommend that you check with the Process Vessel Design group or the Piping Technology group in Central Engineering if there is any question regarding the proper substitution of GRAFOIL for an asbestos gasket. In many instances, it is important to insure that the substituted gasket has the same thickness as the asbestos gasket originally specified.

Although there appears to be no immediate prospect of asbestos gaskets disappearing from the market, it is important for us to obtain information on the non-asbestos gaskets being offered as their replacements. For this reason, we encourage testing of these substitute gaskets in low-hazard piping and vessels where the penalty for failure would be low. Services such as water, nitrogen, air, low pressure steam and ethylene glycol might be candidates for such testing. We recommend that you consult with your local corrosion and materials engineer before you do any testing of the substitute gaskets and keep him advised of the results. The corrosion and materials engineers will collect information on the substitute gaskets for possible future use.

In summary, don't be misled by the claims being made for non-asbestos compressed non-metallic gaskets offered as substitutes for the approved compressed asbestos gaskets specified in our standards and specifications. Except for specific testing for the purpose of collecting data on these substitute gaskets, do not use them. They are untried and unproven in our services. Limited testing has shown that they have poorer chemical resistance and lower maximum service temperatures than compressed asbestos. Compressed asbestos is still widely available and generally costs less than the substitute gaskets.

W. G. Ashbaugh

D. W. Moody, Jr.

C. C. Neely

WGA:DWM,JR:CCN/gp

Attachment (Distribution List)