Monsanto

PLAINTIFF'S EXHIBIT

MON-2232

FROM (NAME—LOCATION—PHONE) G. T. Butler - Chocolate Bayou Plant - Ext. 4444

DATE : May 14, 1985

SUBJECT : Replacement Materials for Asbestos Pipe Gaskets

REFERENCE :

TO : R. C. Fisher

cc: G. L. Bragg
M. B. Gray
J. M. Harris
G. Lyng
Pat Murphy
D. H. Orrell
C. W. Ramsay
L. Reed
P. L. Sharp
J. D. Stultz

Draft

The following replacements for currently used asbestos or asbestos containing pipe flange gaskets are being recommended for implementation:

(1) Garlock Style 7021 sheet (ring type) asbestos gaskets, as well as other similar brand materials, are to be replaced with Garlock "bluegard" style 3200 (white) precut ring type gaskets, except for sheet style (ring type) hydrogen cyanide service gaskets, which will use a 1/8 inch thick "GRAFOIL" (flexible graphite) stainless steel laminate gasket (Union Carbide Style GHE).

(2) Asbestos filled spiral wound gaskets will be replaced with "FLEXITE SUPER" filled spiral wound gaskets (Flexitallic Corporation), with the exception of (a) hydrogen cyanide service, which will use "GRAFOIL" (flexible graphite) filled, stainless steel spiral wound gaskets, and (b) sulfuric and nitric acids, which will also use the "GRAFOIL" (flexible graphite) filled, stainless steel spiral wound gaskets. In all cases of non-asbestos filled spiral wound gaskets, the type of metal winding material previously used with the asbestos filler will also be used with the replacement non-asbestos filler. In the event that the first choice "FLEXITE SUPER" filled spiral wound gaskets from Flexitallic are not available, acceptable second choice filler material would be "MICARB", from the Lammons Gasket Company of Houston.

These changes in the gasket materials for pipe flanges are being reflected on the new computerized piping specifications, that are currently being implemented. The recommendation of the use of "GRAFOIL" (flexible graphite) filled spiral wound and laminate type gaskets for hazardous service applications is based upon their successful use at the MHBA unit since startup.

Such material modifications as outlined here will be monitored for any deficiencies that may arise with their use. Any report of problem areas will be reviewed, with appropriate changes being made where deemed necessary. Additionally, as more information becomes available in the future on the use of these and other non-asbestos materials in high hazardous service applications, the replacement of currently required premium materials, such as "GRAFOIL" (flexible graphite), with less expensive materials, may become justified.

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Finally, relative to the timing for this program, the Project Engineering Group will commit to no longer specify for purchase any type of asbestos, or asbestos containing, pipe flange gasket beyond a date to determined consistent with location planning. Additionally, beginning on or before the same date, the Stores and Purchasing groups will initiate the conversion of the plant's present inventory of asbestos, or asbestos containing, pipe flange gasketing to the prescribed non-asbestos materials, outlined above. Then the initial changeout of the asbestos, or asbestos containing, pipe flange gasketing inventory for non asbestos materials will have been completed.

Monsanto — MESSAGE MEMO

TO: Greg

WHILE OUT, YOU WERE

☐ TELEPHONED ☐ VISITED

BY Darrell Roden

OF Maraco (Houston)

☑ PLEASE PHONE ☐ RETURNED CALL ☐ IS IN LOBBY

(713) 928-5415 ☐ WILL CALL AGAIN ☐ IS HOLDING

☐ PLEASE VISIT ☐

MESSAGE

TIME 9:20 | DATE 4/10 | SIGNED DR

IN - 18 REV. 1/72

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