Monsanto

PLAINTIFF'S EXHIBIT

MON-2259

FROM (NAME—LOCATION—PHONE) R. C. Fisher - Chocolate Bayou Plant - Ext. 4690

DATE : October 29, 1985

SUBJECT : Revision to Memo Issued 10-24-85, Subject "Changeover to Non-Asbestos Pipe and Sheet Gasket"

REFERENCE :

TO :
H. A. Bass
W. H. Crutchfield
W. W. Goza
J. S. Hagood
J. M. Harris
B. S. King
L. J. Little
B. G. Matlock
R. E. Mathews
L. B. Menard
D. H. Orrell
W. A. Strickland

CC.
J. K. Atkins
G. L. Bragg
G. T. Butler
M. B. Gray
B. E. Hamilton
T. A. Harlan
K. A. Lindberg
R. V. Louvet
W. C. Marvin
V. P. Osburn
J. C. Ochsner
L. Reed
[redacted]
L. F. Sheppard
M. T. Sheridan
Z. Silva
P. A. Steinhauser
R. M. Watkins

The subject memo was issued with an erroneous date of October 31, 1985 as the date targeted for the removal of any remaining asbestos gaskets and sheet from shop stock. The target date should have read December 31, 1985. Please note that this interval provides for a two-month asbestos stock reduction prior to complete removal.

R. C. Fisher/vm

R. C. Fisher

/vm

C 000300

IN - 10 (REV. 8/77)

LAM022411

Monsanto

FROM (NAME—LOCATION—PHONE) R. C. Fisher - Chocolate Bayou Plant - Ext. 4690

DATE : October 24, 1985

SUBJECT : Changeover to Non-Asbestos Pipe and Sheet Gasket

REFERENCE :

TO :
H. A. Bass
W. H. Crutchfield
W. W. Goza
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L. J. Little
B. G. Matlock
R. E. Mathews
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W. C. Marvin
V. P. Osburn
J. C. Ochsner
L. Reed
[redacted]
L. F. Sheppard
M. T. Sheridan
Z. Silva
P. A. Steinhauser
R. M. Watkins

Earlier this month, a briefing was held with unit representatives to discuss this location's planned changeover to non-asbestos pipe and sheet gasketing. Discussion was primarily directed toward a review of proposed substitute materials, and a general approach to the change out of current asbestos inventory.

It was emphasized during the meeting that, for HCN service, a conservative approach to non-asbestos gasket material specification was followed. Field experience in MHBA, coupled with a lack of test data from gasket manufacturers, led to the specification of flexible graphite sheet material instead of a lesser expensive asbestos substitute. Also, it was noted that the perforated stainless core, laminated into the graphite sheet, satisfied a concern item raised during the hydrogen cyanide HHM audit.

Since the briefing, vendor bid proposals have been evaluated and delivery timing for the new materials has been established. Based on this information, a plan to replace shop gasket inventory on a "first in - first out" basis will begin November 1, 1985. Effective this date, new gaskets received at the shops will be of the non-asbestos variety, and will be inventoried in a manner to promote attrition of current asbestos stock. Rate of-use history indicates that by October 31, 1985, a significant level of asbestos will have been used, and, on this date, Stores personnel will remove all remaining asbestos gaskets and sheet. Net value of this remaining material is projected at about $6,000.

From an overall cost standpoint, it is estimated that conversion to the recommended non-asbestos gasket materials will cost about $20,000 initially and will increase Stores costs about $4,000 annually. It is anticipated that additional industry test data will become available which supports the use of less expensive asbestos substitutes in hazardous services. As this occurs, periodic reviews of potential impact on plant costs will have to be conducted.

To assist in the development of unit training information, a conversion chart, by general service application, has been prepared and will be issued under separate cover. Limited quantities of the new gasket materials are also available for unit training.

Should there by any additional questions regarding the changeover plan, conversion chart, or sample availability, please contact Presley Sharp at Ext. 4517.

R. C. Fisher

/vm
Attachment

C 000502

LAM022413

Monsanto

FROM (NAME—LOCATION—PHONE): R. C. Fisher - Chocolate Bayou Plant - Ext. 4690

: September

SUBJECT : Elimination of Asbestos in Pipe and Sheet Gasket Applications

REFERENCE :

TO :
H. A. Bass
W. H. Crutchfield
W. W. Goza
J. S. Hagood
J. M. Harris
B. S. King
L. J. Little
B. G. Matlock
R. E. Mathews
L. B. Menard
D. H. Orrell
W. A. Strickland

cc:
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M. T. Sheridan
Z. Silva
P. A. Steinhauser
R. M. Watkins

As a step toward the elimination of asbestos at Chocolate Bayou, plans are now underway to make a transition to non-asbestos sheet and pipe gasket materials. A review of potential substitute materials now available has been completed, and a recommendation for replacement sheet and spiral-wound gasket materials has been made (see attachment). The recommendation includes gasketing for all plant applications including HHM services.

This step represents a significant change for the plant, and a potential for questions regarding this action does exist -- especially with the movement toward increased processor involvement in unit maintenance activities. For this reason, it is appropriate that an opportunity be provided to review study results and changeover plans, and to answer any questions which may arise.

Would you please make a representative from your operation available to attend a briefing in the Maintenance Training Building at 0900, Thursday, October 3.

Your unit trainer is suggested. Samples of the new gasket materials will be available, and topics such as proper applications of new gasket materials, the proposed changeover plan, and needed orientation of unit personnel will be discussed.

R. C. Fisher

/vm
Attachment

C 000503

LAM022414

Monsanto

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

DATE : June 12, 1985

SUBJECT : REPLACEMENT MATERIALS FOR ASBESTOS PIPE GASKETS

REFERENCE :

TO : [redacted]

cc: E. M. Birch, G. L. Bragg, J. M. Harris, C. Isadore, G. P. Lyng, D. H. Orrell, D. C. Pickett, L. Reed, P. L. Sharp, J. D. Stultz, J. W. Frizzell, M. B. Gray, R. E. Guilliams, J. S. Hagood, J. W. Kongable, C. R. Murrell, W. A. Wall, S. J. Yeretsky, C.F. - Pipe Standards

In support of my recent discussions with you and others and relative to the elimination of the practice of using asbestos or asbestos containing gasketing materials as a long range industrial hygiene consideration, a study of the subject has been completed and the findings compiled herein for your review and consideration.

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 newly specified non-asbestos filled spiral wound gaskets, the type of metal winding material previously used with the prior 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.

C 000504

LAM022415

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.

Additionally, these changes and substitutions for asbestos flange gaskets will have a significant correlation to the safety related considerations that have been prompted by the recently conducted "High Hazardous Materials" (HHM) Audits, dealing with lethal grade chemicals handled here at Chocolate Bayou. In addition to the industrial hygiene related benefits accruing from the elimination of asbestos gaskets, the new use of "GRAFOIL" (flexible graphite) laminated gaskets for hydrogen cyanide service will enhance their blow-out resistance significantly over that of the previously used ring type sheet gaskets. Other advantages of the use of non-asbestos gasketing from the viewpoint of HHM considerations include the following:

(1) Improved materials inventory control over that of asbestos sheet gasketing.

(2) Improved sealing capability in many applications over that of asbestos gasketing.

(3) Less likelihood of damage to the gaskets during warehousing.

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 gaskets beyond a date yet to be 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, as outlined above. Then the initial changeout of the asbestos, or asbestos containing, pipe flange gasketing inventory, with replacement non-asbestos materials, will have been completed.

G. T. Butler

GTB/kw

MONSANTO/Chocolate Bayou Prod.
Box 1---Folder 2

LAM022410