



Purchasing Department
Technical Center

INTERNAL CORRESPONDENCE

Post Office Box 8361
Building 2000
South Charleston, WV 25303

Copy to LE Calvert
SW Clark
RW Engle
Sent: 27 March
For your general information as members of the Asbestos Phaseout Program Team

Regards,
Hyde

TO: D. L. Kurle - 511-2000/0411
J. A. Means - 514/224
S. S. Murphree - 515/7
R. L. Newman - 512/330
J. R. Ruddle - 512/143
C. S. Tyson - 512/507
M. K. Wisman - 514/224

DATE: March 16, 1987

SUBJECT: Specialty Chemicals
Division - Purchased Goods
Quality Program -
Gasket Team

COPY TO: G. B. Elder
S. E. Illikainen
J. L. Lamar
A. J. Montero
C. C. Neely
S. F. Powe

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MAR 18 1987
CCN

The minutes of our meeting of March 5, 1987 are noted below.

- A. Steve Powe presented copies of stores gasket catalogs for Institute, South Charleston and Texas City. Service level information for stores items was not readily available.
- B. Sherry Murphree indicated that the West Virginia locations spend about \$312M/yr. on gaskets, gasket materials and packing. Packing accounts for only 5 or 10% of the total. Anticipated expenditures for the next two years are \$800M/yr. The increase is due in part to the anticipated phase out of low cost gasket materials (i.e. asbestos). Report attached.
- C. Al Montero (who was representing CED for Don Kurle) reviewed UCC and industry specifications. It was noted that some UCC specifications referred to manufacturers who no longer manufacture/sell asbestos gaskets/materials.

Al reported that the recommendations (of the EM&TS CED team) covering a C&P program for the phase-out of asbestos in the work place had been approved by C&P Management. Sherry Murphree will participate on the C&P team that will develop implementation plans. (A copy of related correspondence is attached).

UCC 015879

PLAINTIFF'S EXHIBIT

UC-2885

- D. John Ruddle/Jeff Means presented their findings relating to Accident/Incident reports and Safety Signal reports. Because South Charleston does not file A/I reports in a central location, Jeff was unable to submit a suitable sample.
- E. The team spent a good deal of time discussing a flow chart that represents gasket utilization from specification thru installation/start up. The copy attached represents the team consensus.

This chart will serve as a tool for identifying areas where improvements are required.

- F. The following "Mini-Teams" were established to list the perceived "Problems" throughout the specification - installation cycle. The teams will meet in person or via telephone conference call as appropriate.

Specifications/ Installation/ Engineering	D. L. Kurle* J. A. Means C. S. Tyson
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Information Exchange (Electronic)	P. H. Day S. F. Powe* J. D. Ruddle
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Materials Management (Including Procurement, Vendors, Stores, Descriptions, Packaging, etc.)	S. Murphree* R. L. Newman S. F. Powe M. K. Wisman
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*For purposes of kicking off the mini teams these members are identified as team leaders.

A "mini team" consisting of P. H. Day and J. D. Ruddle was established to review Institute Accident/Incident reports and develop Pareto Charts if possible.

- G. A preliminary attempt at identifying problems resulted in the following lists:

Specifications:

- 1) UCC specifications not compatible with marketplace (materials no longer available)
- 2) New technologies not addressed
- 3) No procedure for variance review

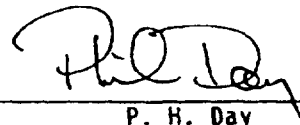
- 4) Manpower shortage in engineering
- 5) Specifications are not linked to material codes (stores codes/MMC).
- 6) Training to use specifications and to identify the availability of specifications

Materials Management

- Stores:
- 1) Lack of familiarity with resources (CRT, Fiche, Catalogs)
 - 2) Storage of material (damaged material)
 - 3) Incomplete stores catalog
 - 4) Stores order controls
 - 5) Inconsistent descriptions and no maintenance
 - 6) Lack of training - shortage of people

The next meeting will be April 6, 1987, Building 2000 (Tech Center), Room 2428 from 12:30 to 4:00 p.m. The agenda is as follows:

- Review of flow chart (revisions if required)
- Report on the review of Institute A/I reports - P. H. Day/ J.D. Ruddle
- "Mini Team" reports
 - Engineering Specifications
 - Information Exchange
 - Materials Management
- First pass at prioritization
(i.e. high/medium/low benefits vs. high/medium/low efforts)



P. H. Day
8-721-3989

PHD/cw
Attachments

0556a

ESTIMATES FOR NEXT TWO YEARS

RECEIVED

MAR 13 1987

CONTRACTING & EQUIPMENT
PURCHASING

PLANT LOCATIONS

LOCATION	FIRST YEAR	SECOND YEAR	TOTAL VALUE
306 - STAR	5,000	5,800	10,800
380 - SISTERSVILLE	5,000	5,800	10,800
510 - SEADRIFT	30,000	34,800	64,800
511 - TECH CENTER	15,000	17,400	32,400
512 - INSTITUTE	140,000	162,400	302,400
514 - SOUTH CHARLESTON	150,000	174,000	324,000
515 - TEXAS CITY	45,000	52,200	97,200
519 - TAFT	95,000	110,200	205,200
		TOTAL	1,047,600

CONSTRUCTION LOCATIONS

LOCATION	FIRST YEAR	SECOND YEAR	TOTAL VALUE
510 - SEADRIFT	5,000	5,800	10,800
511 - KANAWHA VALLEY	60,000	69,600	129,600
515 - TEXAS CITY	10,000	11,600	21,600
519 - TAFT	10,000	11,000	21,600
		TOTAL	183,600

GRAND TOTAL 1,231,200

OK \$1,231M

EXPENDITURES - PRIOR KANAWHA VALLEY

GASKET AND PACKING ORDERS

TECH CENTER	VENDOR	ORIGINAL PASR	EXPENDITURES	REVISED PASR	THIRTY MONTHS
0511-741593	GORDON GASKET	\$10,000	\$2,949	\$5,000	\$3,277
0511-736490	GENERAL ENGINEERING	\$15,000	\$10,225	\$11,500	\$11,361
0511-736494	GORDON GASKET	\$20,000	\$192	\$3,000	\$213
0511-736485	NOVA RUBBER CO.	\$10,000	\$11,200	\$15,000	\$12,444
511 CONSTRUCTION					
0511-767337	GENERAL ENGINEERING	\$5,000	\$2,400	\$5,000	\$2,667
0511-736475	GORDON GASKET	\$6,000	\$43,574	\$50,000	\$48,416
0511-736491	GENERAL ENGINEERING	\$5,000	\$2,174	\$5,000	\$2,416
0511-736495	GORDON GASKET	\$10,000	\$12,775	\$16,000	\$14,194
0511-736484	NOVA RUBBER CO.	\$5,000	\$39,862	\$45,000	\$44,291
GULF COAST CONST.					
0511-736577	CORPUS CHRISTI GASKE	\$4,500	\$21,215	\$25,000	\$23,572
0511-736476	LAMONS METAL GASKET	\$21,500	\$24,121	\$28,000	\$26,801
INSTITUTE PLANT					
0512-736482	GENERAL ENGINEERING	\$34,000	\$38,326	\$45,000	\$42,584
0512-736480	GORDON GASKET	\$34,000	\$70,989	\$80,000	\$78,877
0512-736488	GENERAL ENGINEERING	\$20,000	\$84,780	\$100,000	\$94,200
0512-736492	GORDON GASKET	\$60,000	\$16,724	\$20,000	\$18,582
0512-736487	NOVA RUBBER CO.	\$20,500	\$54,755	\$62,500	\$60,839
SOUTH CHARLESTON PLANT					
0514-736481	GENERAL ENGINEERING	\$22,000	\$12,660	\$15,000	\$14,067
0514-736479	GORDON GASKET	\$10,000	\$2,419	\$5,000	\$2,688
0514-736489	GENERAL ENGINEERING	\$50,000	\$48,853	\$55,000	\$54,281
0514-736493	GORDON GASKET	\$70,000	\$43,354	\$50,000	\$48,171
0514-736486	NOVA RUBBER CO.	\$39,000	\$201,387	\$225,000	\$223,763
SISTERSVILLE PLANT					
0380-525959	GORDON GASKET	\$6,500	\$3,000	\$6,500	\$3,333
TOTALS		\$478,000	\$747,934	\$872,500	\$831,038

GULF COAST PLANTS

COMMODITY	VENDOR	CONTRACT NO.	AUTH.	EXP.
CANADIAN ASBESTOS	CORPUS CHRISTI	0510-3918	18,634	20,534
FILLED SPIROWOUND	LAMONS	0515-3915	17,336	13,623
		0519-3971	35,000	43,914
GRAFOIL FILLED	SEPCO	0519-3924	1,724	1,609
METALLIC	LAMONS	0306-3917	4,310	3,561
RING JOINT	R & W	0515-3921	10,000	4,015
		0510-3920	8,000	269
		0519-3922	1,000	-
HEAT EXCHANGER	CORPUS CHRISTI	0510-3964	13,931	3,794
	LAMONS	0515-3969	30,000	20,015
		0519-3970	5,000	4,572
TEFLON FILLED	LAMONS	0515-3968	1,000	-
		0519-3916	36,000	26,456
	CC GASKET	0510-3965	9,664	13,603
TOTAL			191,599	155,965



INTERNAL CORRESPONDENCE

Engineering, Manufacturing, and Technology Services
Central Engineering
Technical Center

Post Office Box 8361
Building 2000
South Charleston, WV 25303

October 16, 1986

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

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COPY TO: Mr. C. C. Neely

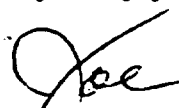
SUBJECT: Recommended C&P Program - Phase-Out Use of
Asbestos-Containing Materials in Workplace

Gentlemen:

Attached is a copy of your recommendation covering asbestos usage which I transmitted to Bob Perry.

Thanks for your insights and efforts in pulling this together. I'll keep your team posted as the recommendation proceeds through the system.

Very truly yours,


J. E. Sanders

JES:he
Attachment
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UCC 015885

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

RECEIVED
SEP 30 1986

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.

UNION CARBIDE CORPORATION

ENGINEERING, MANUFACTURING AND TECHNOLOGY SERVICES DEPARTMENT
HEALTH, SAFETY AND ENVIRONMENTAL TECHNOLOGY
SOUTH CHARLESTON, WEST VIRGINIA

MEMORANDUM

September 5, 1986

TO: Mr. S.W. Clark
Mr. D.A. Gosselin
Mr. V.H. Johnkoski
Dr. P.R. Kavasmaneck ✓
Mr. J.A. Leonard
Mr. J.B. Leverton

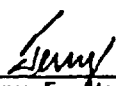
Mr. C.P. Maxwell
Mr. J.E. Neff
Mr. M.A. Patel
Mr. T.P. Raby
Mr. H.W. Wegert

FROM: T.E. Hanning

SUBJECT: Asbestos Update
For Your Information

Labor union representatives are currently endorsing a proposed asbestos ban by the Environmental Protection Agency. The unions contend that OSHA's permissible exposure limit of 0.2 fibers per cubic centimeter of air, effective July 21, provides insufficient worker protection.

The proposed EPA rule would ban completely, five asbestos products that have effective substitutes. These products are: roofing felts, flooring felts, vinyl-asbestos floor tile, asbestos clothing, and asbestos/cement pipe and fittings. Other asbestos uses would be phased out over 10 years.


Terry E. Hanning
Extension 5903

TEH/db
6209D

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SEP 10 1986
P.R. KAVASMANECK

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SEP 29 1986
CCN

9/29/86

D R A F T

RECOMMENDED C&P PROGRAM

CHEMICAL AND PLASTICS BUSINESS GROUP (C&P)

GOAL: PHASE-OUT 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

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

9/29/86

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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;

9/29/86

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- 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

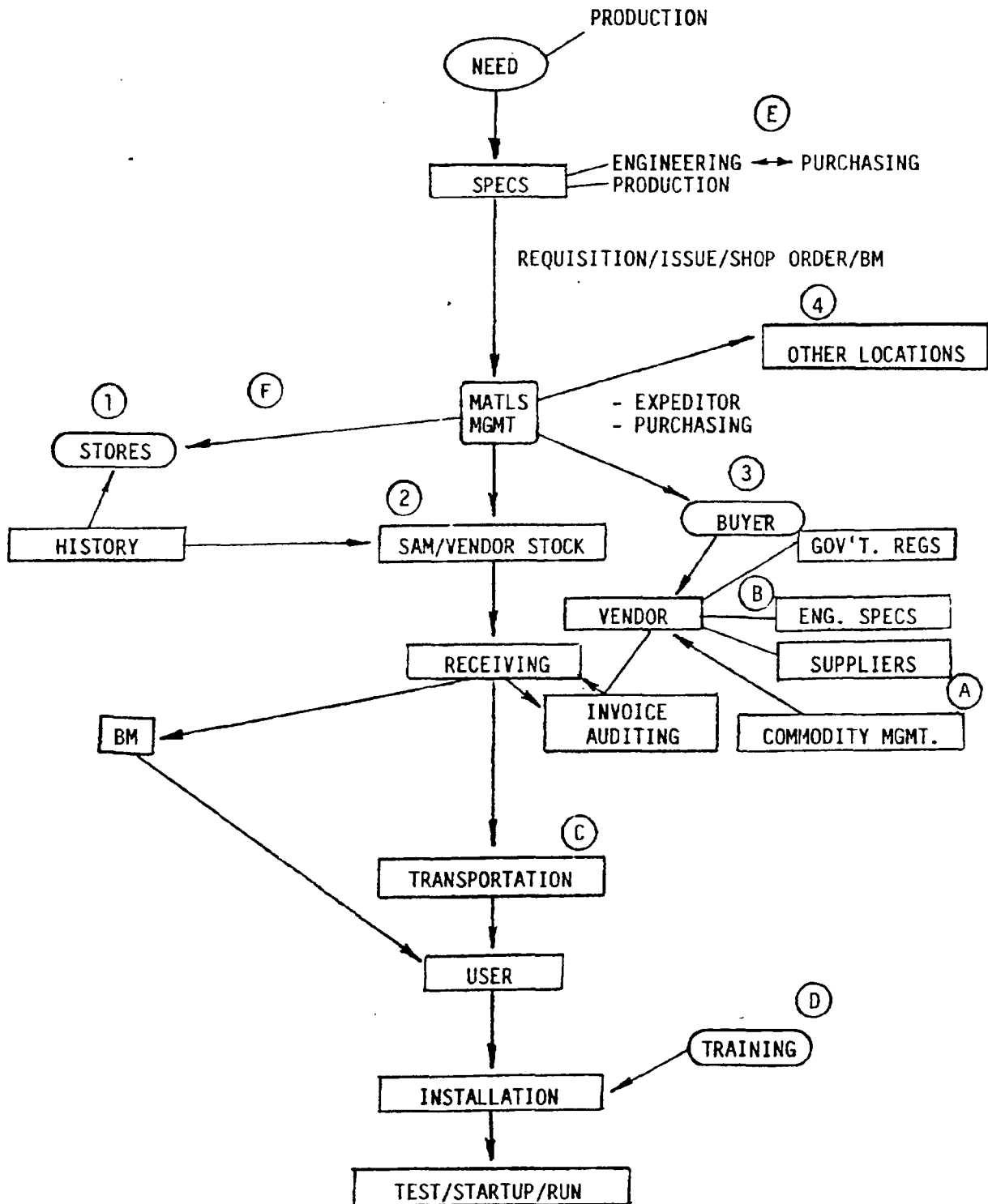
- Monitor use of asbestos-substitute materials and communicate the service experience with these materials.

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
2073W

FLOW CHART GASKETS



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