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UNION CARBIDE

INTERNAL CORRESPONDENCE

PLAINTIFF'S EXHIBIT
UC-819

CHEMICALS AND PLASTICS

270 PARK AVENUE, NEW YORK, NEW YORK 10017

To (Name) Mr. F. D. Dexter
Division Dr. L. P. Jehle
Location Mr. W. S. Young

Date August 22, 1969

Originating Dept.

Answering letter date

Copy to

Subject The Asbestos Market in the Flooring Industry - II

There is one more aspect to the subject report which was not covered in my letter of August 20, 1969.

The Competition

The flooring industry has always preferred to deal directly with the asbestos producer to maintain leverage on price. As a result resellers are not a significant factor.

For the major producers contract purchasers are the norm. These contracts generally carry price-volume incentives and are renewed annually.

For both VA and asphalt tile only Canadian grades 7RF, 7TF and Coalinga asbestos is used. To Canadian producers 7RF and 7TF are refined tail end products from the mills. The "money" cuts from the ore are grades 4 and 5. There has been a shortage of these grades recently and so it isn't surprising that several new mines are being opened. How much grade 7 refining is planned for these new ore supplies is unknown but the potential is there. At present there is an excess of grade 7 available for milling. However, mill capacity for 7's is limited especially with the present high demand for the longer grades.

In a typical month Canadian exports of milled asbestos will approximate 90,000 tons with 52,000 tons going to the U. S. Of the U. S. import total 37,000 tons will be grade 6 and below.

Because mills are designed to profit on grades 4 and 5 it is likely that refined grades 6-9 are treated on an incremental basis. I think we should assume the Canadian asbestos industry is not vulnerable to price recessions in grade 7.

California producers are an insignificant factor in the industry as a whole particularly in the Coalinga area. Since Coalinga ore is limited to grade 7 production, it was initially viewed as a local source for West and Southwest customers. However, in retrospect, if Union Carbide had not moved so aggressively into the area and threatened the grade 7 market, it is doubtful if Johns-Manville would have developed this source at all.

Johns-Manville

Of all producers Johns-Manville has the only captive consumption in floor tile. They also deal heavily in reciprocity exchanges with GAF and Flintkote. We estimate total asbestos sales to VA flooring at approximately 31M tons -- of this at least 9,000 tons are captive.

Other than the above, floor tile manufacturers prefer not to deal with a competitor.

Johns-Manville is also the only Canadian producer active in Coalinga. We estimate Coalinga mill capacity at 25-30,000 tons per year and operations at 70% capacity and profitable.

J-M is an important UCC customer for phenolics and epoxies. They can be expected to threaten this business if we bring price pressure to bear on SG-100 or SG-144.

Philip Carey

Carey is now a subsidiary of Glen Alden Corporation -- a conglomerate which also holds Playtex, BVD, Schenley, Swift Textiles, RKO-Stanley Warner, etc. Carey net sales for 1968 were $97MM but this includes a wide range of building products and accessories. They represent 12% of Glen Alden sales.

While independent, Carey was quite interested in a joint venture at Coalinga with UCC. Nothing came of it because we wished to go it alone.

Carey provides the best available Canadian asbestos to the floor tile industry. Their volume of 33,800 tons to VA tile is mostly in 7RF-9.

Presumably Carey would be more receptive to any proposal giving them access to Coalinga fiber, since their market share is more vulnerable having no captive and no known reciprocity agreements.

California Minerals

Originally known as Atlas this business changed hands in 1966-67 and is now owned by the individual holding the mine property.

Sales appear to be in the hands of resellers though we know of personal dealings between the owner and Mr. Kennedy of Kentile.

We are unsure of the amount of sales to flooring but would estimate a minimum 10,000 tons. Mill capacity is estimated at 25,000 tons. Overhead is minimal and if sales are 50% capacity the mill should be profitable.

Of all competitors in this market California Minerals is the most vulnerable. We have captured their business at American Biltrite's plant in Trenton, mostly because of difficulties between their agent and the P. A. at Trenton on quality consistency and delivery.

If UCC severely reduces the price of its flooring grades it is unlikely that California Minerals would be able to follow.

N. J. Setter

NJS/ds

UNION CARBIDE CORPORATION
Chemicals and Plastics Operations Division
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To: W. L. Carrick
F. D. Dexter
L. P. Jehle
W. S. Young

September 25, 1969

Asbestos Products for the
Paper Industry -- 1970

It isn't necessary here to litanize the problems we have had in the past serving asbestos products to the paper industry. In 1969 we have directed our activity toward determining:

1. Do we have a product?
2. Do we have a market?
3. How do we serve it?

Products

High Purity Asbestos is expected to contribute 6.5MM pounds, $360M in NIFS in 1969. This compares with 9MM pounds, $500M in 1968. Lost business at Longview Fiber, Western Kraft to Johns-Manville's Ultrabestos is largely responsible. If we recover this business, it will not be with HP but possibly with a Standard Grade which would be exactly competitive to Ultrabestos. It is possible 1968 may be the high water mark for HP.

Maximum potential is in the 10-12MM pounds per year range.

Though touted as a pitch control agent HP sales are almost exclusively for other uses. For example, Boise Cascade has purchased 1.5MM pounds ($86M) through August 1969 for use as a TiO_2 extender and retention aid. Conwed 1.4MM pounds ($70M) for starch retention in acoustic and ceiling tile.

We seem, therefore, to be misled as to the value and utility of this product and cannot recommend any significant sales activity for HP in 1970.

T-135 will contribute 1MM pounds and $150M in 1969 vs. 2.2MM pounds and $336M in 1968. Despite this record we look to T-135 for growth of sales to the paper industry and it is here we concentrated our studies in 1969.

We estimate potential at $2MM and 15MM pounds.

T-135 is a very good opacifying pigment and is equivalent pound for pound with TiO_2. There are no equivalent products available.

Extenders plus TiO_2 have become quite common in the paper industry but since the extender itself (Hi-Sil, Zeolex, Paper-Ad, etc.) does not contribute to opacity, the total system cost is still more than a T-135 and TiO_2 system.

However, product limitations are not insignificant. Once on the paper machine T-135 performance is reliable and it performs as advertised. The problem is delivery to the machine. To increase utility we offer pellets and open fiber and specially designed repulpable beater bags and will deliver in bulk. But a modern mill is designed to reduce manpower requirements with systems which meter important pigments in slurry form. TiO_2 purchasers are increasingly in 70% slurry which is diluted to 30% for feeding the machine. T-135 can be slurried but to date concentrations are limited to 3½-4%. As a result a large mill will have restrictive investment requirements in tankage, mixers and pumps not to mention the increased water demand and disposal problem.

Ideally we are looking for a 20% T-135 slurry which maybe fed into existing TiO_2 delivery systems. Extenders such as Hi-Sil have this capability. We propose this as a high priority development project.

Markets

It is axiomatic that more paper is sold on brightness than opacity but it is also true that opacity is a dominant specification in such products as offset, coated and uncoated including publication grades; book; catalog; envelope and glassine.

There is little point in quantifying the total production of these grades -- suffice to mention that uncoated offset alone amounts to 1.2MM tons per year.

The major producers are in order Crown Zellerbach, International Paper, Hammermill, Kimberly-Clark, Mead, Champion, Scott, Westvaco and Boise Cascade. They represent $1.4MM from a total industry sales of $2.5MM in printing and publication grades. To give you an idea of the magnitude of our problem, of this group, only Boise is a regular customer and that for HP. I. P. and Hammermill have been in and out, Westvaco gave us our first carload order in July, Scott is in trials and first contact was made with Mead on September 17, 1969.

Consumption of TiO_2 by the paper industry is 140,000 tons but this figure includes both wet end and coatings. We estimate 100,000 tons at the wet end maximum. An unknown proportion of this quantity is actually used to obtain opacity and would be vulnerable to replacement by T-135. An educated guess would be 65/35 -- opacity to brightness.

Geographically, our major potential for T-135 is in the Eastern half of the country and almost entirely concentrated in Minnesota, Michigan, Ohio, New York, Maine, Pennsylvania, Maryland, Tennessee and North Carolina.

In summary, we have a salable product which is relatively unique in the industry. It is priced to compete not only against TiO_2 itself but vs. extended TiO2 systems which cost 17-18¢/pound in combination. To reach our potential which we estimate at 10-12% of available market we need to provide a system for producing 20% solids slurries in the mill. A large sales force operating nationwide is not necessary to reach the 10 major producers with mills in 8 or 9 states.

Paper Program -- 1970

Selling: Two man years -- $70,000

It is proposed that two men or the equivalent be used to cover selected paper accounts in 1970. It would be preferable if these men were part of a separate Asbestos sales force numbering four or five in total. At any rate we would strongly resist use of the General Sales Force as we have in 1968 and 1969.

In one area around Kalamazoo, Michigan we would propose to supplement this effort with a distributor who would provide local contact for the four major mills located there.

Promotion: $ 5,000

Mostly necessary to update our sales literature which is in very poor shape. We would also plan to attend the February, 1970 TAPPI Show in New York.

Research and Development: 2 Man Years

We do not plan for a research program at this time. We will require pilot development of a T-135 slurry system.

Technical service will be required to support sales. The degree and type will be determined largely by the quality of sales personnel we will have available.

In addition we would like the capability of operating a corrective sales program with technical service personnel. In the past many T-135 and HP mill trials resulted in no new business for various reasons. This losing image haunts the program. We propose to establish a technical task force with the responsibility for reclaiming these accounts. In one sense it will be a floating lab program, but success will provide a buffer for the future.

NJS/ds

N. J. Setter

1969 BUDGET SUMMARY

Material	$673,020
Direct Labor	177,333
Departmental Expense	277,337
Auxiliary Expense	338,940
Gas	53,912
Electricity	74,148
Production Budget	1,594,690
Packing Expense	1,250
Finished Product Storage	24,126
Distribution	35,163
Shipping and Storage	60,539
TOTAL	1,655,229

1969 DEPARTMENTAL EXPENSE AND DIRECT LABOR BUDGETS

Dept.	Description	1969 BUDGET Direct Labor	1969 BUDGET Dept. Expense	1968 BUDGET Direct Labor	1968 BUDGET Dept. Expense	1968 EST. ACTUAL Direct Labor	1968 EST. ACTUAL Dept. Expense
032-10	Rock Fiber	$23,949	$56,487	$13,872	$36,000	$11,326	$37,612
033-10	Milling	26,598	19,000	14,616	18,000	10,027	12,223
034-10	Refining	-0-	17,325	-0-	26,400	-0-	19,187
035-10	Filter Press	25,740	57,959	14,412	54,000	14,803	44,799
036-10	Drying	-0-	15,963	-0-	12,000	-0-	11,800
037-10	Raymond Mills	-0-	8,945	-0-	2,400	-0-	3,580
038-10	Packaging-Palletizing	52,131	59,158	27,120	31,200	31,743	49,472
039-10	Chemical Additive	48,915	42,500	17,628	12,000	14,762	19,363
	TOTAL	$177,333	$277,337	$87.648	$192,000	$82,661	$198,036

1969 AUXILIARY DEPARTMENT BUDGETS

Dept.	Description	1969 BUDGETS	1968 BUDGETS	1968 EST. ACTUAL
305-01	Safety	$ 4,200	$ 3,600	$ 4,442
319-01	Water Wells & Storage	4,440	4,200	2,787
320-01	Boiler & Compressed Air	18,000	9,000	10,106
327-01	General Maintenance	39,000	40,800	39,427
328-01	Miscellaneous Maintenance & Supplies	24,000	14,400	21,721
331-01	Maintenance of Grounds	7,200	12,000	14,543
333-01	Maintenance of Buildings	6,000	8,400	5,680
334-01	Manufacturing Office	45,600	43,200	43,404
341-00	Telephone, Telegraph & Postage	10,800	9,600	11,828
342-01	General Stores	17,400	16,200	15,678
344-01	Inventory Adjustment	1,200	4,200	10,621
353-01	Freight, Express, Parcel Post, Etc.	6,000	4,800	5,941
355-01	Works Laboratory	40,320	36,000	36,494
361-01	Plant Management	48,480	62,412	69,841
370-01	Insurance, Rent, Royalties & Taxes	66,300	57,600	67,386
	TOTAL	$338,940	$326,412	$359,899

1969 UTILITY BUDGETS

Dept.	Description	1969 BUDGET Gas	1969 BUDGET Elect.	1968 BUDGET Gas	1968 BUDGET Elect.	1968 EST. ACTUAL Gas	1968 EST. ACTUAL Elect.
032-10	Rock Fiber		$ 7,398		$ 3,970		$ 4,159
033-10	Milling		16,814		9,528		9,950
034-10	Refining		22,866		13,101		13,960
035-10	Filter Press		8,743		5,161		5,439
036-10	Drying	$52,022	9,415	$30,060	5,559	$28.736	5,791
037-10	Raymond Mills		5,317		3,415		3,304
038-10	Packaging & Palletizing		2,017		1,191		1,279
039-10	Chemical Additive	1,890	1,578	792	1,191	979	722
	TOTAL	$53,912	$74,148	$30,852	$43,116	$29,715	$44,604

NOTE: Utilities are charged directly from 707 (purchased fuel or power) to Manufacturing Accounts as direct material. We do not use the Auxiliary 318 purchased gas, water & electricity account.

1969 ALL OTHER BUDGETS

Material		
Ore	$244,620	
TiO_2	246,225	
Sodium Silicate	3,010	
Acetic Acid	3,125	
Bags	117,073	
Pallets	58,967	
Total Material		$673,020
Packing Expense	1,250	
Distribution	35,163	
Finished Product Storage	24,126	
Total		60,539
TOTAL ALL		$733,559