

UNION
CARBIDE

INTERNAL CORRESPONDENCE

CHEMICALS AND PLASTICS

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To (Name) Mr. F. D. Dexter
 Division C&P Development Division
 Location 270 Park Avenue - 29th Floor

Date October 4, 1968

Originating Dept.

Answering letter date

Copy to Mr. S. L. Tyler, Jr.

Subject Carve-Out Transaction

A carve-out, basically, involves the selling of next year's production in the current year. This is normally sold to an eleemosynary institution or a bank.

On a tax basis, the income received in the current year is not offset with production costs, thus making the entity a profitable operation and eligible for % depletion. In the following year, there is no income but there are production costs and a significant loss will occur.

The advantage of this concept is that it enables a loss operation to utilize % depletion and increase its cash flow over a two-year period.

In a typical carve-out transaction, a ruling is desirable at the outset from the Internal Revenue Service. The material has to be "carved-out" of the ground and clearly indicated. The investor can only look through to the mining and production of the mineral for return of his investment. We could not settle with other funds if the market does not materialize.

The "pre-sold" production should be geared to the most probable market in the following year. There is no time period for repayment, however, the extra time beyond one year needed to settle will significantly increase the interest rate. The higher interest charge could negate the profit potential over the two year period.

This is an undesirable concept if the business is to be sold for two reasons:

1. The obligation to settle passes to the purchaser since the investor is repaid when his carved-out segment is sold to customers.
2. The investor, when buying next year's production, looks to the seller's credit and reliability image. If the business is sold to someone else, the investor would look with high disfavor to the seller.

One other note in passing - all of the aforementioned is on a tax basis. On a book basis, accounting matches income with expenses over the two year period but does include the depletion.

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I. Introduction

A. Purpose

The workshop on Asbestos this morning is of particular importance since we will be discussing a recommendation for Union Carbide to divest itself of this business. In order for you to participate in this, it is desirable that some reasonable background information be presented. It is, therefore, the combined purposes of this discussion this morning to, first, review the performance of the Asbestos business compared to plan for the year 1967 and the first 8 months of 1968. This will bring us up to date from the last major Business Review which was held in April of 1967. Second, we wish to review some of the key events that have taken place since the Business Review of April, 1967, and particularly those that have influenced the performance of the business. Third, we will outline the major courses of action which appear available to us in the Asbestos business and, last, we will present the key facets of the recommended course of action for us to divest the business some time in 1969 with a goal of accomplishing it by mid-year. Naturally, feel free to ask questions during and following our discussion.

B. Background

Before getting into this, I think it is worthwhile for me to give you a little background on the Asbestos picture recognizing that it has been a year and a half since the last major review. First, the organization. The major components of the organization are shown in the first chart. The Asbestos business is operated partially as a business area, that is, I am responsible for both the Asbestos operations and certain market activities. In this endeavor, we have Wayne Carrick as Technology Manager, John Riddle as Production Manager, Norm Setter as Product Manager and Walt Young as Marketing Manager. Our most significant sales outside of the New Polymers area go through the Pulp and Paper Market Area and the Calendering, Flooring and Records Market Area. These are also shown on the chart. The Pulp and Paper Market Area is headed by Bud Pufahl, who reports to Tom Carmody. He has Frank Welch as Technology Manager and Joe Voit as Marketing Manager. In the Flooring area, Jim Wilkinson, Market Area Manager, reports to Tom Hart with Chuck McGary as Technology Manager and Charlie Naylor as Marketing Manager. We do work with other marketing areas although our endeavors in these areas are of very recent vintage and no products have been sold through them yet.

2 Our investment is outlined in the next chart. The gross fixed investment totals \$3,285M and consists largely of the plant and equipment at King City. Land holdings and mineral rights have a combined GFI of about \$700M. The net book value as of the end of this year according to the best estimates we have will be about \$1.6MM representing wholly the depreciation in the plant and equipment since neither land nor mineral rights have been depreciated.

3 The operating expenses for the Asbestos project since its inception are shown on the next chart. I do not plan to cover these in detail but mainly point out that so far, including the estimated picture for 1968, the ROI Income loss has been a little over \$9.3MM and the corresponding loss in after tax income has been about \$4.5MM. This combined with the prior chart on gross fixed investment briefly sums up the historical economics of the total Asbestos program.

4 The plant is located near King City, California, and this location along with the location of the deposit is shown in the next slide. The deposit is in the Diablo Mountain Range east of King City and about 55 road miles from the plant. This deposit consists of some 450 claims, including some wholly owned property, of which the primary ore bodies are in some 350 of these. The available reserves are conservatively estimated as 200MM tons of ore which translates into about 100MM tons of asbestos fiber. The total deposit in the mountains is the largest single deposit of asbestos in the world and while others have claims in the area Union Carbide has the lion's share. All of the asbestos fiber in this deposit is classified as Group 7 according to Canadian Standards which is the shortest fiber of the 7 defined groups of asbestos. Group 7 represents the largest tonnage of any of the groups and, for the industry, products in this Group command the lowest prices.

The plant at King City employs a wet process for recovering and refining the asbestos fiber. This process is unique to Carbide and is in part covered by patents. It permits us to produce a product having much higher purity than is possible using a standard dry process. Further, the process lends itself to chemical modification of the product.

5 Our current product line along with the principal use for the product is shown on the next slide. I don't plan to go into this in detail but show this to illustrate the range of product value and uses currently covered. We span a wide range starting with the lowest priced product, so called Standard Grade 100, which we sell to the flooring industry for the production of vinyl asbestos floor tile at a price of \$50/ton. This price is f.o.b. carloads the King City plant, as are all the prices. We range up through the various products used in drilling muds, tape joint adhesives, undercoats, adhesives and paper to R-G 244 which is our silica treated asbestos used as a thixotrope in polyester resins and organosol systems selling for \$1200/ton. I might add that the T-135 is an asbestos/TiO₂ coflocculant for use in paper as a lower cost partial replacement for TiO₂.

6 Our major customers so far in 1968 are shown on the next slide. You will note that the top five are all paper companies illustrating the present dependence of the business on the Pulp and Paper markets. Kentile buys SG-100 for flooring and is the biggest volume customer with nearly 5MM pounds in 8 months and the second biggest dollar customer. The three at the bottom represent new accounts-- business that either didn't exist in 1967 or was at an experimental level of buying. Interestingly our distributor contract with Montello was signed April 26 and the first shipment made the first of May, thus the data shown represents four months of sales.

II. Performance Versus Plan

A. 1967

7 The next chart shows the Asbestos O&R statement for 1967--both plan and actual. Our total NIFS at about \$1,600M were only 42% of the ambitious \$3.8MM plan. Planned gross income was similarly ambitious although overhead was modestly below plan. The net result is that our operating income was \$971M negative compared to a plan of \$637M positive. Likewise, our ROI Income was well in the red compared to a planned operation which was to be modestly profitable.

B. 1968

8 1968 O&R both actual and plan is shown on this chart which covers the 8 months and year figures. For the first 8 months, we operated at about 62% of plan on a NIFS basis and we expect the year to come out at about that level. Gross income is slightly ahead of plan and it appears it will emerge ahead of plan. Our operating income is also somewhat better than plan. The \$490M compares to a plan of \$635M, both negative. We believe we will end the year slightly ahead of plan at an operating loss of about \$740M compared to a plan of about \$800M.

9 The performance so far by market area is shown in the next chart which also shows 1967 actual for comparison. Generally speaking, we are behind our plan so far with the exception of the New Polymers Area which, unfortunately, is not yet large enough in volume to have a significant effect on the total picture. The Pulp and Paper figures include above plan performance in high purity and below plan in T-135. Since the gross margin ratio is better for high purity, the overall economic performance is somewhat better than is indicated by the sales dollar figures.

III. Significant Events Since Last Review (April, 1967)

A. Factors Influencing Performance

10 The most significant factors which influenced our performance in 1967 and 1968 have been first, the lower than planned penetration of our asbestos products into the paper market; second, low sales restricted operations of the plant which, because of a relatively high level of fixed costs, resulted in high unit plant costs; third, the growth of Resin Grade products has been slow and, last, there has been general lack of exposure, excepting in the paper area, of both our own field people and our customers to our product line.

11 Our sales into the Pulp and Paper area in 1967 were, on a percentage of plan basis, at about the same level as other areas. However, the importance of sales into this area make it a predominant factor in our performance. This next chart shows our actual versus plan in 1967. Here we have lumped domestic and export since, in 1967, all export sales of significance were to the paper area.

You can see in 1967 that our actual sales into paper markets of a little over \$1MM were about 46% of plan. This was a little better than the overall performance which ran 42% of plan. Nonetheless, the high dependence of our business on this market makes this performance a very significant factor.

Also shown in this chart are the changes in our estimates of the future for asbestos products into the paper market. Back in April of 1967 it was our view that by 1971 our sales would result in more than \$6MM of sales income. This view, I might add, was backed up by over 400 plant trials at all major paper companies which, by and large, looked very good. In almost all cases, a savings could be demonstrated. However, in common with many new products, more extensive field work revealed problems which were not apparent in early trials. For example, asbestos has an inhibiting effect on the optical brighteners used in paper; a slurry handling system needs to be offered to many mills. These, and similar problems, have resulted in a change of view on the potential sales into the paper area. This is evidenced by the decrease in estimated sales for 1971 shown on the slide. By the middle of this year that had been reduced to about \$1.3MM. In sum, it now appears that sales into the paper market will grow more slowly and will not be as large as we originally estimated.

B. Other Significant Events

- 12 Some of the other significant events include the start up of our R-G 244 semi-works plant in King City. This as I mentioned is a silica treated asbestos fiber used as a thixotrope in polyester resins and other organic systems. It includes, for example, 4 agitated tanks of various sizes, 10 25 millimeter hydraulic cyclones, a 30 plate 2 by 2 foot filter press, a filter cake storage bin, a screw conveyor, a 3 foot by 16 foot gas fired Roto Louvre dryer, a large finished product cake storage bin, a Mikro pulverizer and a bag packer all of which is on its own structure tied to the rear of the plant. Total investment is just over \$60M.

A number of changes in plant operation most particularly the installation of a locally designed and built fiberizing mill have raised our average fiber yield from ore from about 48% to nearly 60% during the last year and a half. This has resulted in improved R.M. costs.

Our 1968 plan called for a reduction in inventory from about 6500 tons at the start of the year to about 1500 tons at the end of the year. By the end of August, we were at 2900 tons and could meet the target by the end of the year. The introduction of some new products and the need to stock these will require more inventory than was originally planned.

We have set up some distributors in order to service certain special segments of the industry more effectively. For example, Montello, Inc., a company that serves the oil well drilling industry, was taken on as a distributor of Calidria Asbestos products to this industry. I might add an interesting side note that through Montello we have gotten a lead to the use of our asbestos products in the new fields in Alaska. What was required was a hydrophobic product since the drilling media is jet fuel rather than water, a requirement imposed by the need to

drill through a significant amount of frozen strata. It so happened that we had developed such a product and have since made it in the plant for experimental trials working through Montello. We also set up Harrisons & Crosfield, Limited, as the West Coast sales agent for Resin Grade products. This was to get effective coverage of the many small accounts on the West Coast which we cannot afford to contact.

We adopted the trade name "Calidria" in order to effectively identify our line of asbestos products.

Last, earlier this year we initiated an active merchandizing program which is just now gaining momentum. Some of the examples of that we have here today. Generally speaking, a rather high level of interest has been developed both inside the company and out although this interest has yet to be translated into volume sales.

C. Current Projections

13 The next chart shows our most recent projections for the asbestos business, assuming we were to continue to operate it but as a unified business. Just what effect our current thinking will have on these has not been determined. It will almost surely have some effect on these estimates which we compiled a couple of months ago. We estimated moving from an ROI Income loss of \$135M in 1969 to an ROI Income of over \$1,000M in 1973. We believed these figures to be good estimates although our track record in meeting plan has not been very good. The big jump is from 1968 to 1969. Our estimated increases over the \$1,800M sales forecast for 1968 include: \$900M more to flooring markets, which we believed could be done; \$200M more to the oil drilling industry, through Montello, which has a high level of probability; \$100-\$200M more to the tape joint cement market, also rated as a high probability; and modest increases in other on-going markets. Future years involved mostly growth of higher priced products at the expense of the low profit end of the business. We did not put any plant expansion into these plans so the plant would be sold out by 1973 and NIFS were taken as constant in following years to arrive at the NPV figure.

In sum we have an active but small business. We believe that it can be profitable although our historical performance cannot be cited as strong evidence of this fact. The question at hand is whether or not Union Carbide should continue to make the monetary and personnel investment in this business. Our internal discussions in the Development Division have resulted in our recommending that we attempt to divest ourselves of this business.

14 Now I would like to examine briefly why we arrived at this point. First let's look at the key matters faced by us in our newer activities and cast against the need to narrow the scope of, and increase the concentration on, our work. These are shown in the next chart. They are:

1. The planned level of overhead in the Development portion of our activities will not accommodate all the newer projects now active.
2. We are trying to do more things than we can manage effectively.
3. The commitment in many projects forces us to continue them.
4. The Calidria Asbestos business is a clearly defined, separate activity of UCC and thus represents a well structured divestment opportunity. This is not true of businesses which form a part of some large plant.
5. We believe a good return can be realized from the sale of this business.

I might add that we often equate "divest" to "poor business." This should not be and, in the industry, is not so equated. Many fine businesses are voluntarily divested. I feel that, if we wish to narrow our base, we should look first at those businesses which physically can be divested and which also can yield a good return to us upon divestment. Really poor businesses should be abandoned not divested--trying to convince a buyer that he can make a success of your projected failure can be a waste of time.

Recognizing that the Asbestos business is, amongst other things, divestable
 15 the major alternatives available to us are shown on the next chart. These are:

1. Continue to operate. The principal advantage here is that over the long run we believe the business can be profitable and (2) if we continued to operate it we could enhance our cash flow position by engaging in the well known carve out production payment. The principal disadvantage here is that we would continue to make both the monetary and personnel investments in this business.
2. The second alternative would be to divest in part. Its principal advantages are that it would insure better continuity than any of the following alternatives and it probably would be easier to make a partial divestment than a total divestment. Principal disadvantages are that it might be difficult to effectively manage such a joint venture although much here would depend on the compatibility between Union Carbide and the other party to the venture. Second, of course, we would continue to make some monetary and personnel investment.

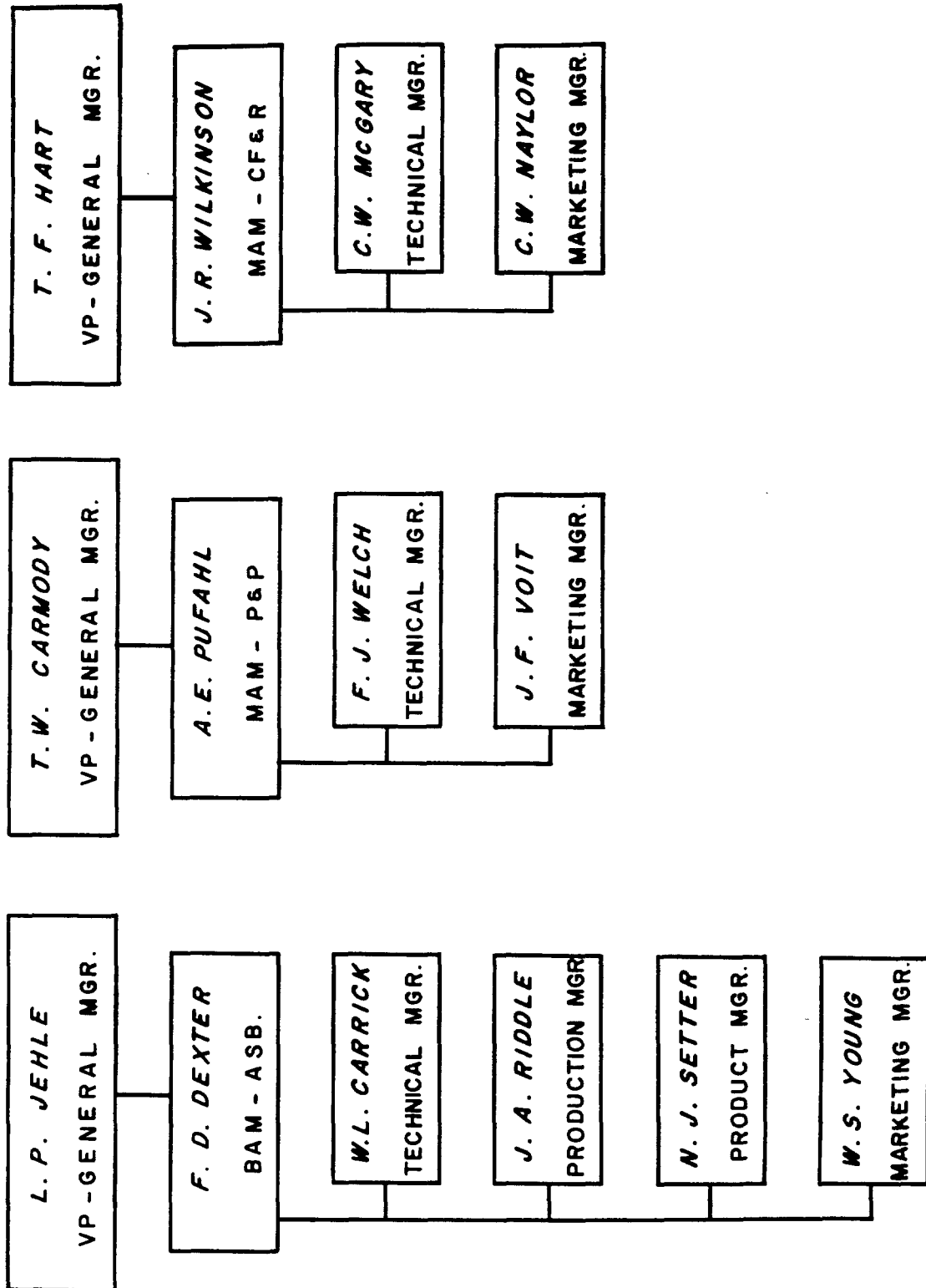
3. The third one is to divest during 1969 with a goal of completion by mid year. The principal advantage of this one is that given a period of time to search for suitable purchasers we would have an opportunity to maximize our return from this divestment. The principal disadvantage of this compared to the remaining two alternatives is that we would continue to have some overhead and plant cost during 1969.
4. The fourth alternative is to divest by the end of this year. The principal advantage of this is that it would eliminate overhead and plant costs in 1969. The main disadvantage is that it seems doubtful that we could divest at other than a distress sales price so quickly. To this extent it approaches the last alternative in effect.
5. The last alternative is immediate abandonment and it has as its principal advantages that it is simple and it would insure rapid curtailment of overhead and plant costs. Principal disadvantage is the disruptive effect on customers. We do have a number of customers for asbestos who are also customers for other Carbide products and we would, at the very least, project a highly negative image in their eyes by taking what I'm sure they regard as a cavalier action in the business. Secondly, of course, about the only thing we could salvage from such action is some income from sale of the real estate and claims plus write off of the plant equipment.

D. Key Facets of Recommended Alternative

The alternative which we would recommend is # 3; that is, divest some time in 1969 with a goal of completing it by mid year.

16 Looking at this alternative, the major actions required are outlined in the next slide. First, we need to prepare a brochure for prospective purchasers. Second, we need to consolidate our activities. Third, we should set Calidria Asbestos as a separate wholly owned subsidiary. Fourth, we need to select a list of prospects or a suitable intermediary and, last, we need to define the terms for the divestment. I might add that these are not necessarily in a time sequence order.

In the outline you received, a number of sub-items are given for each of these considerations. Rather than go through these, which are mostly straight forward details, I'd like to pose two points for discussion. The first, which is prime, is to solicit your comments on our plans to divest ourselves of the asbestos business, according to alternate 3. The second, which assumes your concurrence with our plans, is to solicit your comments on the approaches we could use in effecting this divestment.



ASBESTOS INVESTMENT M\$

	<u>GFI</u>	<u>NET BOOK VALUE 12/31/68 (EST.)</u>
PLANT & EQUIPMENT	2,600	922
PLANT LAND	238	238
MINERAL RIGHTS & LAND	<u>447</u>	<u>447</u>
	3,285	1,607

ASBESTOS

OPERATION EXPENSE

<u>YEAR</u>	<u>NIFS</u>	<u>PLANT COST</u>	<u>R&D</u>	<u>ROI</u>	<u>NET</u>
1960	0	171	181	(532)	(256)
1961	0	113	156	(360)	(173)
1962	0	145	407	(658)	(316)
1963	9	388	708	(1340)	(646)
1964	140	458	575	(1480)	(710)
1965	447	655	N. A.	(1500)	(718)
1966	1146	928	N. A.	(1117)	(535)
1967	1608	1342	535	(1345)	(645)
1968 (Est.)	1800	1515	405	<u>(1000)</u>	<u>(480)</u>
Total				(9332)	(4479)



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CALIDRIA ASBESTOS PRODUCT LINE

<u>PRODUCT</u>	<u>SELLING PRICE, \$/TON*</u>	<u>PRINCIPAL USE</u>
SG-100	50	FLOORING (PELLETS)
SG-144	55	FLOORING (OPENED PRODUCT)
SG-200	75	DRILLING MUDS (SUPER VISBESTOS)
SG-130	70	TAPE JOINT ADHESIVES
SG-210	82	TAPE JOINT ADHESIVES
R-G 110	115	UNDERCOATS
HIGH PURITY	120	PAPER (OPEN AND PELLET)
R-G 144	200	ADHESIVES AND SEALANTS
T-135	300	PAPER (OPEN AND PELLET)
R-G 244	1200	POLYESTER RESINS

* F. O. B. KING CITY, CALIFORNIA

PRINCIPAL CUSTOMERS

<u>NAME</u>	<u>PRODUCT</u>	<u>THRU AUGUST, 1968</u>	
		<u>M#</u>	<u>M\$</u>
BOISE CASCADE	HPP	2400	131
CONWED	HPP	1200	60
LONGVIEW FIBER	HPO	1200	66
BROWN COMPANY	T-135	364	53
RIEGEL PAPER	T-135	360	52
KENTILE	SG-100	4900	123
DAUBERT	R-G 110	900	52
J. W. MORTELL	R-G 144	242	29
MONTELLO	SUP. VISB.	<u>1400</u>	<u>48</u>
		12966	614
OTHER CUSTOMERS (240 ABOVE CUTOFF)		<u>7692</u>	<u>386</u>
		20658	1100

ASBESTOS O & R

1967

	<u>PLAN, M\$</u>	<u>ACTUAL</u>	
		<u>M\$</u>	<u>% OF PLAN</u>
NIFS	3,801	1,609	42
PRDT COST & DIST.	2,090	1,648	82
GROSS INCOME	1,711	(39)	--
OVERHEAD	1,074	932	87
OPER. INCOME	637	(971)	--
ROI INCOME	327	(1,346)	--

1968

ASBESTOS BUSINESS O & R

M\$

	8 MONTHS		YEAR	
	<u>ACTUAL</u>	<u>PLAN</u>	<u>EST. ACT.</u>	<u>PLAN</u>
NIFS	1, 100	1, 763	1, 800	2, 912
PRDT COST & DIST.	948	1, 713	1, 515	2, 695
GROSS INCOME	152	50	285	217
OVERHEAD	642	685	1, 026	1, 029
OPER. INCOME	(490)	(635)	(741)	(812)

ASBESTOS

SALES BY MARKET AREA, M\$

<u>MARKET AREA</u>	<u>YEAR</u> <u>1967</u>	<u>1968</u> <u>8 MOS. PLAN</u>	<u>1968</u> <u>8 MOS.</u>	<u>1968</u> <u>8 MOS.</u> <u>% PLAN</u>
PULP & PAPER	1,042	1,090	617	57
FLOORING	343	232	180	78
NEW POLYMERS	99	182	186	102
EXPORT	<u>125</u>	<u>269</u>	<u>117</u>	<u>43</u>
TOTAL	1,609	1,773	1,100	62

FACTORS INFLUENCING
PERFORMANCE

1. SALES INTO PULP AND PAPER MARKETS
2. HIGH UNIT COST - LOW PRODUCTION
3. SLOW GROWTH OF RESIN GRADE PRODUCTS
4. LACK OF EXPOSURE (EXCEPTING PAPER AREA)

ASBESTOS PERFORMANCE AND
PROJECTIONS, PAPER MARKET

M\$

1967

PLAN	2,651*
ACTUAL	1,167*

1971 PLAN

APRIL 1967	6,180
FEB. 1968	3,700 (INTERPOLATED)
JULY 1968	1,362

* INCLUDES EXPORT (ACTUAL \$125M)

SIGNIFICANT EVENTS

1. START UP OF R-G 244 PLANT
2. IMPROVED RAW MATERIAL EFFICIENCY
3. REDUCTION OF FINISHED PRODUCT INVENTORY
4. MONTELLO AS A DISTRIBUTOR; HARRISONS & CROSFIELD
AS SALES AGENT
5. TRADE NAME "CALIDRIA" ADOPTED
6. ACTIVE MERCHANDIZING PROGRAM

ASBESTOS PROJECTED ECONOMICS

	<u>1969</u>	<u>1971</u>	<u>1973</u>
NIFS	3,210	4,455	5,850
PRDT COST & DIST.	2,155	2,525	3,080
GROSS INCOME	1,055	1,930	2,770
OVERHEAD	925	1,135	1,325
OPER. INCOME	130	795	1,445
ROI	(135)	530	1,180
ROI ADJ. FOR DEPLETION	(135)	834	1,812

NPV 1969 THRU 1978, AT 10% DISCOUNT RATE = \$4,517M (ASSUMES
PLANT CAPACITY REACHED IN 1973 AND NO CHANGE THRU 1978)

1. OVERHEAD REDUCTION
2. TOO MANY PROGRAMS
3. COMMITMENT IN MANY PROGRAMS
4. CALIDRIA ASBESTOS DIVESTABLE
5. GOOD RETURN POSSIBLE

ALTERNATIVE COURSES OF ACTION

CALIDRIA ASBESTOS BUSINESS

<u>ALTERNATE</u>	<u>MAJOR ADVANTAGE</u>	<u>MAJOR DISADVANTAGE</u>
1. CONTINUE TO OPERATE	LONGER TERM PROFITABILITY	CURRENT COSTS
2. DIVEST IN PART (JOINT VENTURE)	INSURE CONTINUITY; EASIER TO PARTIALLY DIVEST	DIFFICULTY IN RUNNING AND SOME COSTS
3. DIVEST DURING 1969	OPPORTUNITY TO MAXIMIZE RETURN FROM SALE	SOME COSTS IN 1969
4. DIVEST BEFORE END 1968	ELIMINATION OF 1969 COSTS	PROBABLE LOW RETURN
5. IMMEDIATE ABANDONMENT	QUICKEST CURTAILMENT OF COSTS	DISRUPTIVE EFFECT ON CUSTOMERS; LOWEST RETURN

MAJOR ACTIONS REQUIRED

- A. PREPARE BROCHURE
- B. CONSOLIDATE ACTIVITIES
- C. SET UP CALIDRIA ASBESTOS AS
SUBSIDIARY
- D. SELECT LIST OF PROSPECTS OR A
SUITABLE INTERMEDIARY
- E. DEFINE TERMS FOR DIVESTITURE

UCC ASBESTOS BUSINESS

1. Ore Reserves: estimated 200MM tons, $\approx$ 100MM tons of asbestos.
2. Plant Capacity: 42,000 tons/year, current product mix
3. Unique position: Hydraulic process producing ultra high purity and chemically modified products.
4. Investment: GFI \$3,285M
NBV \$1,607M, estimated as of 12/31/68
5. Estimated Return to UCC:
 - a. NPV = \$4,517M, next 10 years,
10% discount rate.
 - b. Average Net Income over next
10 years = \$840M/year.