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To: W.C. THURBER
NY-38

CALIDRIA ASBESTOS — 5 YEAR FORECAST

9/7/77

Product	PRICE, $/T	1978 Tons	1978 $M	1979 Tons	1979 $M	1980 Tons	1980 $M	1981 Tons	1981 $M	1982 Tons	1982 $M
Domestic											
SG-183	100	2000	200	3000	300	3000	300	3000	300	3000	300
SG-184	84	6000	504	6500	546	7000	588	7500	630	8000	672
SG-130	130	241	29	250	33	300	39	300	39	300	39
SG-200	120	360	39	500	60	500	60	500	60	500	60
SG-240	166	1230	202	600	100	700	116	800	133	800	133
HPP	154	60	10	50	7	50	7	50	7	50	7
APO	166	670	116	1000	166	1000	166	1000	166	1000	166
T-135-D	590	—	—	—	—	—	—	—	—	—	—
CG-135-P	150	175	110	200	30	200	30	200	30	200	30
RG-100	400	400	160	400	160	400	160	500	200	500	200
RG-110	180	440	84	500	90	550	99	600	108	650	117
RG-144	440	600	264	650	286	700	308	750	330	900	396
RG-244	2180	600	1268	650	1345	700	1470	750	1575	850	1785
Mentello	118	3500	413	4000	472	4000	472	4000	472	4000	472
Dom. Total		16276	3391	18300	3615	19100	3815	19750	4050	20750	4377
Export											
SG-100/102	100	2000	200	2200	220	2300	230	2400	240	2500	250
SG-130	120	130	16	140	17	150	18	160	19	170	20
SG-200	110	1050	116	1050	116	1150	126	1200	132	1300	143
HPP-EX	142	2400	340	2600	369	2800	398	3000	426	3200	454
APO-EX	166	600	100	650	108	700	116	750	124	800	133
T-135-D	700	60	42	60	42	65	46	70	49	75	52
T-135-P	570	410	213	450	234	475	247	500	260	500	260
RG-110-EX	270	150	32	0	0	0	0	0	0	0	0
RG-144	440/400	270	119	265	117	300	132	330	145	340	150
SX-141	315	140	44	150	47	165	52	180	57	200	63
RG-244	1900/2200	290	551	310	589	340	646	370	703	400	760
SX-241	1250	400	500	430	538	470	588	500	625	550	688
Export Total		7900	2273	8305	2397	8915	2599	9460	2780	10035	2973
Total Sales		24176	5664	26605	6012	28015	6414	29410	6830	30785	7350
	% Increase	—	—	10.0	6.1	5.3	6.7	5.0	6.5	4.7	7.6

PLAINTIFF'S EXHIBIT
UC-2827

9/7/77 - II

UCC 025026

ASBESTOS 5-YEAR PLAN (1978-82)

Union Carbide's Asbestos Business is based upon an enormous short-fiber ore deposit in the Diablo Mountains of Central California, and a mill located some 60 miles away in the Salinas River Valley near King City. The short-fiber character of the ore precludes use of this material in the major markets served by longer fiber asbestos including: asbestos cement building products, textiles, felts, and friction materials. However, Union Carbide's short-fiber asbestos is competitive in some of the so-called Group 7 markets including: vinyl asbestos floor tile, drilling muds, tape joint compounds, ceiling tile, reinforced plastics, adhesive and sealants, coatings and paper. Table I provides information on the volume growth rate of these Group 7 fiber markets and Union Carbide's past and projected sales tonnages.

"Calidria" sales have grown from about $2.4 million in 1971 to an estimated $5.4 million in 1977, with continuing attendant improvements in net income. It is estimated that sales will be marginally higher in 1978 at about $5.7 million and will grow to $7.4 million* by 1982. In the same period, sales volume will increase from about 24,000 tons to 30,800 tons. (Depending on product mix, mill capacity is about 35,000 tons.) The increase in sales revenues is in part attributable to increased volume and in part to improved product mix. Domestic sales of floor tile products should increase by 3,000 tons reaching a level of 11,000 tons in 1982. Continued improvements in all export product lines should occur with export sales increasing from 7,900 tons in 1978 to slightly over 10,000 tons in 1982. Export will contribute 33% of sales volume and 40% of sales revenues in the outpost year. Again, with reference to the outpost year, RG-244 a highly profitable thixotropic agent added to polymeric materials for viscosity control, will account for only about 6% of the sales volume, but will supply 44% of the sales revenues. Table II provides data summarizing Union Carbide's market share and that of major competitors in selected short-fiber markets.

In the ensuing 5 years (1978-82), the major element of uncertainty will continue to be government regulation. At the present time, the OSHA standard for airborne asbestos fibers in the work place is 2.0 fibers per cc time-weighted-average. In October, 1975, OSHA proposed that this standard be lowered to 0.5 fibers per cc and in 1976 NIOSH, who serve in an advisory capacity to OSHA, recommended that the standard be further reduced to 0.1 fiber per cc. Two years have past since the 0.5 fibers per cc level was officially proposed by OSHA in the Federal Register without any action by the

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*/ In 1978 dollars

Union Carbide trial exhibit UC-2827: Calidria Asbestos 5-Year Forecast Table to W. C. Thurber and Asbestos 5-Yea... Published by AsbestosClaims.Law
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government. At the present time, our King City mill is in compliance with the 2.0 fibers per cc standard, but it is not obvious that the airborne dust level can be reduced to 0.5 fibers per cc without substantial infusions of new capital, and the technical feasibility of achieving a 0.1 fiber per cc level is remote at best. Even assuming that we could achieve compliance with these stringent proposals, it is unlikely that many of our customers will be willing to undertake the requisite investment to achieve compliance in the event that these more stringent standards are eventually promulgated. In such an event, we should be forced to seriously consider withdrawing from the business.

Since the short-fiber asbestos cannot be used in many conventional markets, historically Union Carbide has devoted substantial resources to developing new applications for short-fiber asbestos. One such development is RG-600, which is produced by treating high purity asbestos with phenolic-based coupling agent. RG-600 is cost competitive with fiberglass for the reinforcement of thermoplastics. During 1977, several market opportunities for RG-600 were uncovered and are being vigorously pursued. The major barrior to acceptance of this product in the market place appears to be the asbestos toxicology question, rather than the technical performance of the material. During 1977, another new product was perfected in the laboratory. This product involves treating asbestos fiber with a siliane coupling agent for use in oil based drilling muds as a viscosity control agent. Both the siliane treated asbestos and the RG-600 can be produced at the King City mill, with minor process changes involving working budget monies. Neither of these products has been factored into the 5-Year Sales Forecast.

WCT
10/13/77

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