

XWB

October 18, 1977

MEMORANDUM

TO: R. A. Foos

FROM: R. H. Rozek

SUBJECT: FORECAST OF SALES 1978 - 1985

The attached forecast of sales for the period 1978 - 1985 reflects the expectation that a new OSHA regulation will be issued June/July 1978 and that the regulation will require the following:

1. The maximum exposure will be reduced to one microgram per cubic meter and will apply to all users of beryllium containing products.
2. "Bulk forms" will apply only to soluble salts.
3. The medical and monitoring programs contained in the proposed regulations will be required.
4. A cancer label will be required for all beryllium containing products at each stage of manufacture until the components are incorporated into an assembly.

Sales were projected in constant dollars using 1978 as a base assuming that we will continue our present method of doing business, i.e. no vertical integration and that compliance with the regulations will increase the selling price of beryllium containing products by 10% which will not significantly affect demand. A cancer label will cause industrial relations and product liability problems for our customers and accordingly presents the most serious effect on demand. A properly conceived and executed communications program directed to fabricators could essentially eliminate the industrial relations consideration. However, concern with product liability, particularly in the current climate of consumer advocates, will cause end-users of beryllium containing materials to make every reasonable effort to find substitutes.

Generally, for the domestic component of the forecast it was assumed that there will not be any new applications; that domestic military applications will continue; and that a relatively small number of domestic commercial applications will continue to use beryllium containing materials. Selection of substitute materials, redesign of components and procurement of new tooling when imposed on normal design and engineering activities will limit the amount of substitution that can be accomplished in any given period. The forecast assumes that substitution will start during 1979 and proceed at an equal rate over four years and that in any year demand related to remaining applications will continue to reflect general economic conditions. Implicit is the assumption that fabricators will exist to supply remaining demand.

Export demand is not expected to be seriously affected by the regulation except for an estimated 10% of beryllium containing products produced overseas that are sold in the U.S. Labels are not used in Europe. Compared to the U.S., cancer

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does not have the same emotional impact and business management does not have the same product liability concern.

Both domestic and export demand is expected to be low in 1979 and 1983 with normal growth of approximately 5% per year anticipated for the other years covered by the forecast.

Detailed assumptions for the alloy and beryllium projections are attached. Briefly, in alloy we expected to maintain market share. Welding applications which represent about half of Elmore product will be lost. Demand for master alloys by the aluminum industry and the use of beryllium copper for plastic tooling will not be affected. Reading products sales in 1978 are comprised of 35% military and 15% commercial that will not be eliminated and this demand will remain.

The total market for ceramic products will be reduced by 60% based on an analysis of each of 33 customers that represent approximately 75% of 1977 sales. However, Brush market share will increase to 74% as both 3M and Consolidated Beryllium leave the business and their portion is shared equally with NBC. Powder will be supplied only by Brush and sales represent demand by other fabricators plus white powder demand which is expected to reach 20,000 pounds, \$580,000 per year in 1981 and beyond.

RHR:jj

Attachments

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1978 THROUGH 1985
AT 1978 ANTICIPATED
SELLING PRICES

	DOMESTIC		EXPORT		TOTAL		BERYLLIUM		BERYLLIA		TOTAL \$	% of 1978	ALLOY NON-BE INCL. TOLL lbs.	TOTAL \$			
	lbs.	\$	lbs.	\$	lbs.	\$	lbs.	\$	lbs.	\$							
7/c 10-11-77	4,937	26,349	1,552	6,064	6,489	32,413	28.0	4,844	18.8	489	32.7	5,463	43,609	88	1,578	3,027	46,636
7/c 10-11-77	5,237	29,558	2,033	8,100	7,270	37,658	20.0	5,143	21.2	589	34.9	6,442	49,832	100	1,830	3,386	53,218
	4,251	23,835	1,800	7,200	6,051	31,035	17.6	4,700	23.2	635	30.5	5,625	41,995	84	1,555	2,885	44,880
	4,444	24,945	1,805	7,220	6,249	32,165	16.7	4,860	25.4	711	29.6	5,460	42,396	85	1,710	3,163	45,559
	3,352	19,402	1,925	7,700	5,277	27,102	13.1	3,800	28.9	816	22.8	4,220	35,938	72	1,880	3,469	53,490
	2,716	15,527	2,112	8,448	4,828	23,975	13.1	3,800	26.3	747	18.1	2,975	31,437	63	1,975	3,640	35,137
	2,315	12,713	1,795	7,180	4,110	19,893	13.1	3,800	26.0	739	15.3	2,825	27,237	55	2,075	3,820	31,077
1983 % of 1978	44	43	88	89	57	53	66	74	123	125	44	44	55	55			
	2,410	13,630	1,920	7,680	4,330	21,310	13.1	3,800	26.4	750	16.2	3,000	28,860	58	1,765	3,262	32,122
	2,637	14,411	2,150	8,600	4,787	23,011	13.1	3,800	26.7	758	17.1	3,150	30,719	62	1,940	3,577	34,296

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