Monsanto

FROM (NAME & LOCATION) J.R. Savage - B2SL

DATE : December 1, 1975 CC:

SUBJECT : PCB Planning Task Force Meeting

REFERENCE :

TO : Messrs.

	R.E. Beal	- B2SL
*	D.R. Bishop	- B1ND
	R. Davis	- B2SF
*	W.H. Duffey	- E1SA
	M.E. Gibbs	- W1A
*	C.P. Orr	- G2WD
	W.B. Papageorge	- B2SK
	C. Paton	- B2SC
*	C. Weber	- B1ND
*	D. Wood	- B2SD
	J.J. Zeman	- B2SK

Attached are the minutes from our November 26 PCB Task Force Meeting.

Also attached is a corrected Polyphenyl Matl Balance Sheet to replace the sheet which was distributed at that meeting in the PCB information package.

J.R. Savage

/bh
Attachment

*Attached is PCB information package with corrected sheet.

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MINUTES - PCB PLANNING TASK FORCE
11/26/75

1a) Proprietary Nature of Replacements

M.E. Gibbs reported, referring to Bill Duffey's memo on patents, that our patent estate was in reasonable order. Beyond patents, we have proprietary know-how on refining of TXS, although this problem could be solved by others.

1b) Family Tree Strengths

J.R. Savage described the polyphenyls tree and the impact of losing the Aroclor volume. Since Aroclor is the greatest strength of the present family tree, the dielectric business (via MIPB ⟶ MCS 1238) may be needed to maintain the viability of Santosol 340 and Therminol 66. The converse is not true; other hydrocarbons could be used by competitors in place of MIPB in dielectric blends that might perform just as well.

The consensus of the discussion on this point was that we have a "reasonable project" in capacitors, with our strongest claim to a franchise being our status as industry leader in the eyes of our customers; no other supplier is presently recognized as a real competitor (a possible exception being Dow at McGraw-Edison).

In transformers, the outlook seems bleak. Our program is at the exploratory stage, trying to determine whether our candidates can beat silicones. Even if successful, our value added will be small, relying on purchased TCB and olefin.

2) Chicago Meeting Feedback

W.B. Papageorge reported that there is no concerted effort toward an early total ban on the use of PCB's as dielectrics. Indeed, the new products will be slowed up by more thorough scrutiny of their environmental impact. There will be more severe enforcement of effluent standards, but time will be allowed to achieve compliance.

In this area, Bill is to get our task force some guidance from the other task force which is dealing with the "corporate image" aspects of PCB's as to the likelihood of a unilateral Monsanto decision to withdraw.

3) Industry Reaction to an Abrupt Ban

A sudden local ban (e.g. New York State vs. General Electric) could temporarily be absorbed by the rest of the capacitor industry which is presently operating at 50-60% of capacity, according to C. Paton.

We have talked to high-level management at customers accounting for 80% of the capacitor volume, pointing out the need for some commitment from them before we invest in facilities that would obsolete our PCB investment. They are not ready to willingly make such a commitment pending further testing or more pressure from the government or Monsanto.

A sudden ban would probably relate to effluents from capacitor manufacture, rather than the fate of existing capacitors. Thus, the most effective protection against that contingency would be an inventory of completed capacitors. Aroclor inventory within Monsanto will be kept low, and customers probably should do the same.

A point that emerged from this discussion: Our management does not seem to recognize where we are in the product development cycle as it applies to capacitors. They apparently feel that we are still seeking a breakthrough invention when we in fact have already chosen the product (with one backup) and want to proceed with commercialization. Having taken several candidates to the industry already for time-consuming and costly evaluation, we cannot at this time introduce still others. We are ready to defend the chosen technology, although evolutionary improvements may be possible and desirable.

Again, the transformer situation is much different. Top-up would be done with TCB, but new transformers would either have to be dry-type or filled with silicone on a no-warranty basis.

4) Comments on Prior Plan

See the handout. C. Paton added to his comments that any rapid introduction of MCS 1238 should not be driven by a market need if the technology was not ready.

5) Emergency Plan

This plan will deal only with a government-imposed ban before our new products are ready from technical, environmental, medical and production availability standpoints. Marketing and Manufacturing are to have draft plans ready for the next meeting.

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	10/31 Prod. Plan	No Aroclor 8M lb. 1238	No Dielectric
	POLYPHENYL MATL BALANCE	POLYPHENYL MATL BALANCE	POLYPHENYL MATL BALANCE
	1016 SALES 18800.00*	1016 SALES 0.00*	1016 SALES 0.00*
	54201CM SALES 5233.00*	54201CM SALES 0.00*	54201CM SALES 0.00*
	70/30 SALES 5918.00*	70/30 SALES 0.00*	70/30 SALES 0.00*
	PYRB3 SALES 1645.00*	PYRB3 SALES 0.00*	PYRB3 SALES 0.00*
	1254 SALES 2200.00*	1254 SALES 0.00*	1254 SALES 0.00*
	MIPB SALES 2200.00*	MIPB SALES 2200.00*	MIPB SALES 2200.00*
	BIPHENYL SALES 1520.00*	BIPHENYL SALES 1520.00*	BIPHENYL SALES 1520.00*
	MCS 1238 SALES 200.00*	MCS 1238 SALES 8000.00*	MCS 1238 SALES 200.00*
	VP-1 SALES 1510.00*	VP-1 SALES 1510.00*	VP-1 SALES 1510.00*
	HB-40 SALES 14455.00*	HB-40 SALES 14455.00*	HB-40 SALES 14455.00*
Input ↑	HB30 SALES 0.00*	HB30 SALES 0.00*	HB30 SALES 0.00*
	SANTOWAX SALES 65.00*	SANTOWAX SALES 65.00*	SANTOWAX SALES 65.00*
↓ Output	CR 1.29	CR 1.38	CR 1.41
	SPLIT 0.54	SPLIT 0.29	SPLIT 0.16
	BENZENE REQD 42742.48	BENZENE REQD 29605.12	BENZENE REQD 25456.77
→	BENZENE USAGE 1.15	BENZENE USAGE 1.28	BENZENE USAGE 1.37
	HYDRO AVAIL 413.99	HYDRO AVAIL 310.66	HYDRO AVAIL 278.83
	UNIT HYDR GEN 0.01	UNIT HYDR GEN 0.01	UNIT HYDP GEN 0.01
→	LB PURCH HYD HB-40 164.21	LB PURCH HYD HB-40 267.54	LB PURCH HYD HB-40 299.37
	UNIT PURCH HYD 0.014	UNIT PURCH HYD 0.018	UNIT PURCH HYD 0.02
→	TOTAL POLYPHENYL 37186.92	TOTAL POLYPHENYL 23201.68	TOTAL POLYPHENYL 18599.68
	TOTAL BIPH 22450.10	TOTAL BIPH 8464.85	TOTAL BIPH 3862.85
	WCM AVAIL 3379.23	WCM AVAIL 4330.32	WCM AVAIL 4776.55
	MONTHS OCCUPIED 5.98	MONTHS OCCUPIED 4.71	MONTHS OCCUPIED 4.43
Biphenyl Unit Cost	19.20	24.04	27.27
HB-40 Unit Cost	23.64	29.50	33.07

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