

DATE : July 21, 1975

SUBJECT : PCB CONTINGENCY PLAN

REFERENCE :

CC: A. J. Koenig
R. M. Kountz - G2WD
T. L. Gossage
W. R. Richard - T3A

TO : H. S. Bergen

Summary

We can supply TXS blends in significant volumes on relatively short notice. Costs would be high for a 2-year period while permanent facilities are built or adapted.

DetailsA. Tolyl xylyl sulfone (TXS)

We have been unable to locate interim facilities, within or outside the company, adaptable to the TSA route to TXS because of the requirement for a Hastelloy B reactor of large volume (2-3M gal.). Therefore, in an urgent situation it would be necessary to continue the higher-cost TSC1 route, probably until permanent facilities are built. Since the TSC1 route uses conventional hardware, we have found two companies with the capability and interest to do the job: Milliken Chemical and Anderson Development. A tentative timetable would be:

Completion of secrecy agreement	15 days
Transmittal of technology	15 days
Agreement on cost and terms	30 days
Set-up	60-90 days
Start-up and initial production	30 days

This adds up to 5-6 months which might be too long. We have begun on the first three steps which could reduce lead time. If TXS were needed sooner, the limited (80M lb/mo.) capacity at Queeny could be started up on about two week's notice.

Cost of TXS via the TSC1 route and toll manufacture is roughly estimated at \$1.00-\$1.50/pound, compared to 45¢/pound in the proposed permanent facility via TSA. We should have more precise cost estimates by September 1.

B. MIPB and/or Santosol 100

Dixie Chemical, who presently make MIPB for us, have a capacity of up to 10 M pounds/year. Our present contract gives us a cost of 37¢/pound at 3 M pounds/year. Since the "dielectric grade" version of MIPB requires an additional flash distillation, small

quantities of MIPB for that purpose would be 3-5¢/pound higher. However, at the 10 M pound level, Dixie has agreed to absorb the cost of flashing, leaving us at the 37¢/pound level. In permanent facilities, cost will become about 23¢.

If we allocate 2 M pounds/year of Dixie's capacity to Mead, the remaining 8 M pounds of MIPB would make 10.4 M pounds of MCS 1238 which would not maintain our present supply position to the industry but would probably supply the surviving requirement in the event of the sudden demise of Aroclor. If more production were needed, we could supply part of the market with MCS 1588 (Santosol 100/TXS) short term but, of course, the current forecasts show the Delaware River unit to be essentially sold out with current products even though the plant is currently suffering significant inventory downtime. I feel we could find available capacity for substantially more MIPB if needed.

If only MCS 1588 is accepted by our customers, life gets much more complicated and less profitable. Benzyl chloride supply would be a problem for the next two years until the WKG unit starts up. In addition, we have an occupancy conflict with Plasticizers for production time and the probability that Santosol 100 itself will be changed, resulting in needs for additional storage for raw material and finished goods (or re-qualification using the new Santosol).

C. Finished Blend MCS 1238/1588

Queeny is preparing a project (about \$25M) for blending and electrical treatment. This facility is intended to supply the quantities required by a gradual phase-out but could handle our full requirement. The present timetable would be inadequate for a sudden PCB withdrawal but could be stepped up to avoid any problem. This facility would probably become obsolete if we move to full-scale production of components in permanent facilities since it would probably be cheaper to blend in the new production facilities.

Production cost of MCS 1238 would be 55-65¢/pound during the two-year interim period while a plant was built, provided that a 5-10 M pound demand materializes. Longer range cost at high volumes is more attractive, in the 32¢/pound range, as indicated in our PIR studies.


J. R. Savage

/t1