

St. Louis - General Offices

May 11, 1970

W. B. Papageorge ✓

H. S. BERGEN
J. E. SPRINGGATE

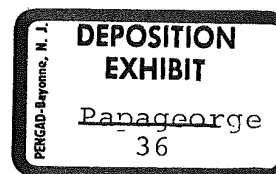
Attached hereto are copies of charts I used in the presentation with the CMC this morning.

The CMC gave its approval for us to implement the plan as outlined on the two sheets marked "PRESENT PLAN".

We are required to report to the CMC should we make any major deviation from these plans and we are also required to make a progress report probably around the 1st of August. Would you please go ahead and take the necessary action within your individual business groups and keep me advised of progress.

JOHN MASON

Att.



0001633

COST OF RAPID PHASE-OUT - ALL CHLORINATEDBIPHENYLS EXCEPT DIELECTRICS1970

LOSS IN SALES - -

LOSS IN GROSS PROFIT - -

IN ADDITION COGS WOULD INCREASE GIVING

TOTAL LOSS IN GROSS PROFIT OF - -

1971

LOSS IN SALES - -

TOTAL LOSS IN GROSS PROFIT - -

PLUS POSSIBLE WRITE-OFF OF SOME

KRUMMRICH AROCLOR FACILITIES.

0001634

OBJECTIVE

TO MAINTAIN A PROFITABLE BUSINESS SERVING THE
NEEDS OF FUNCTIONAL FLUIDS USERS AND THE
CARBONLESS DUPLICATING PAPER INDUSTRY WHILST
MINIMIZING THE ESCAPE OF NON-BIODEGRADABLE
Gals - BIPHENYLS INTO THE ENVIRONMENT.

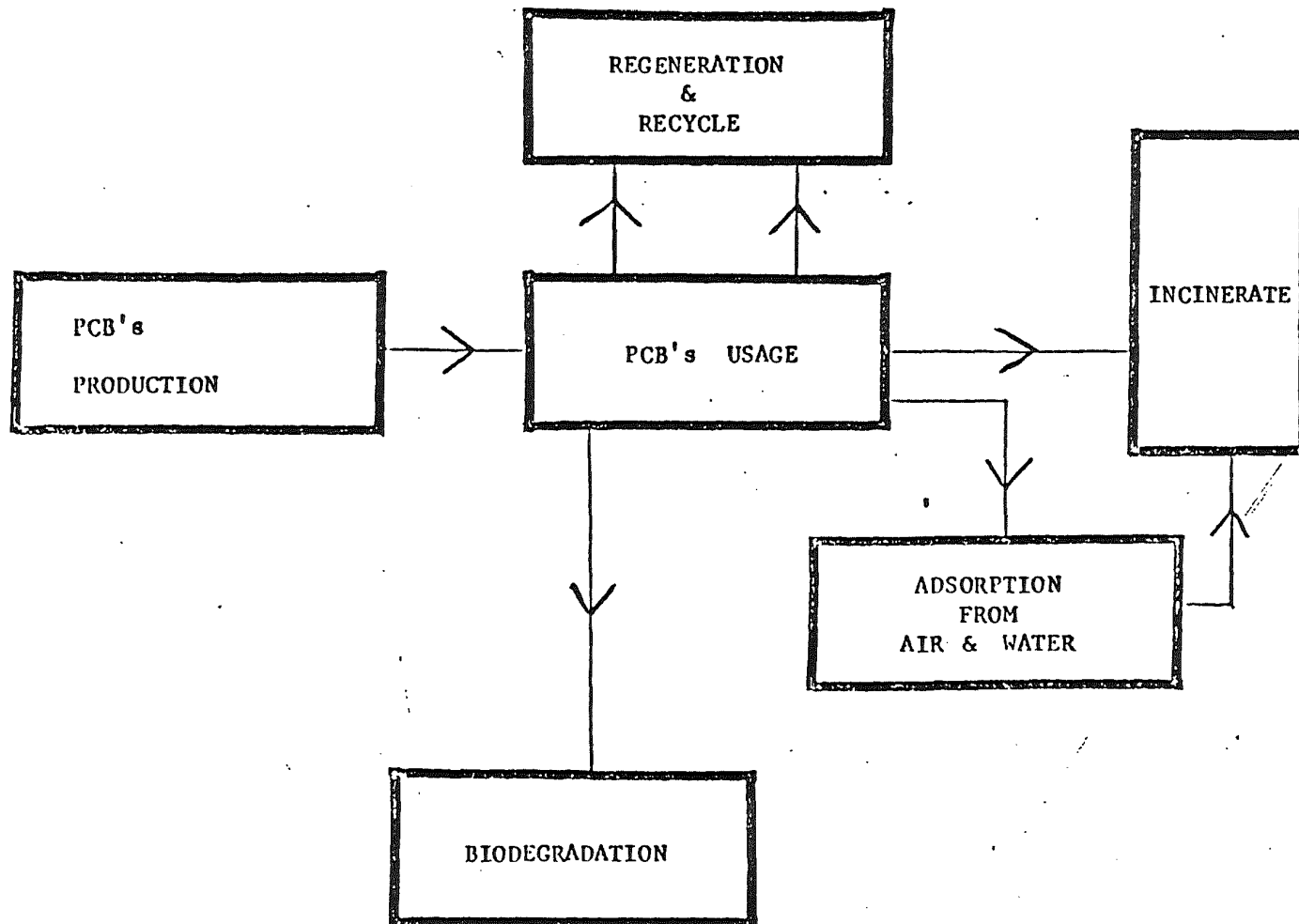
0001635

ACTION TO ACHIEVEOBJECTIVES

- 1) MARKET NON-BIODEGRADABLE CHLORINATED BIPHENYLS
ONLY FOR CLOSED SYSTEM APPLICATIONS WHERE CONTROL
IS POSSIBLE.
- 2) PHASE OUT OF ALL NON-CONTROLLABLE APPLICATIONS
REPLACING WITH BIODEGRADABLE CHLORINATED BIPHENYLS
OR OTHER SATISFACTORY PRODUCTS.

0001636

T H E C L O S E D L O O P



0001637

DO WE HAVE THE CAPABILITY TO CLOSE
THE LOOP ?

0001638

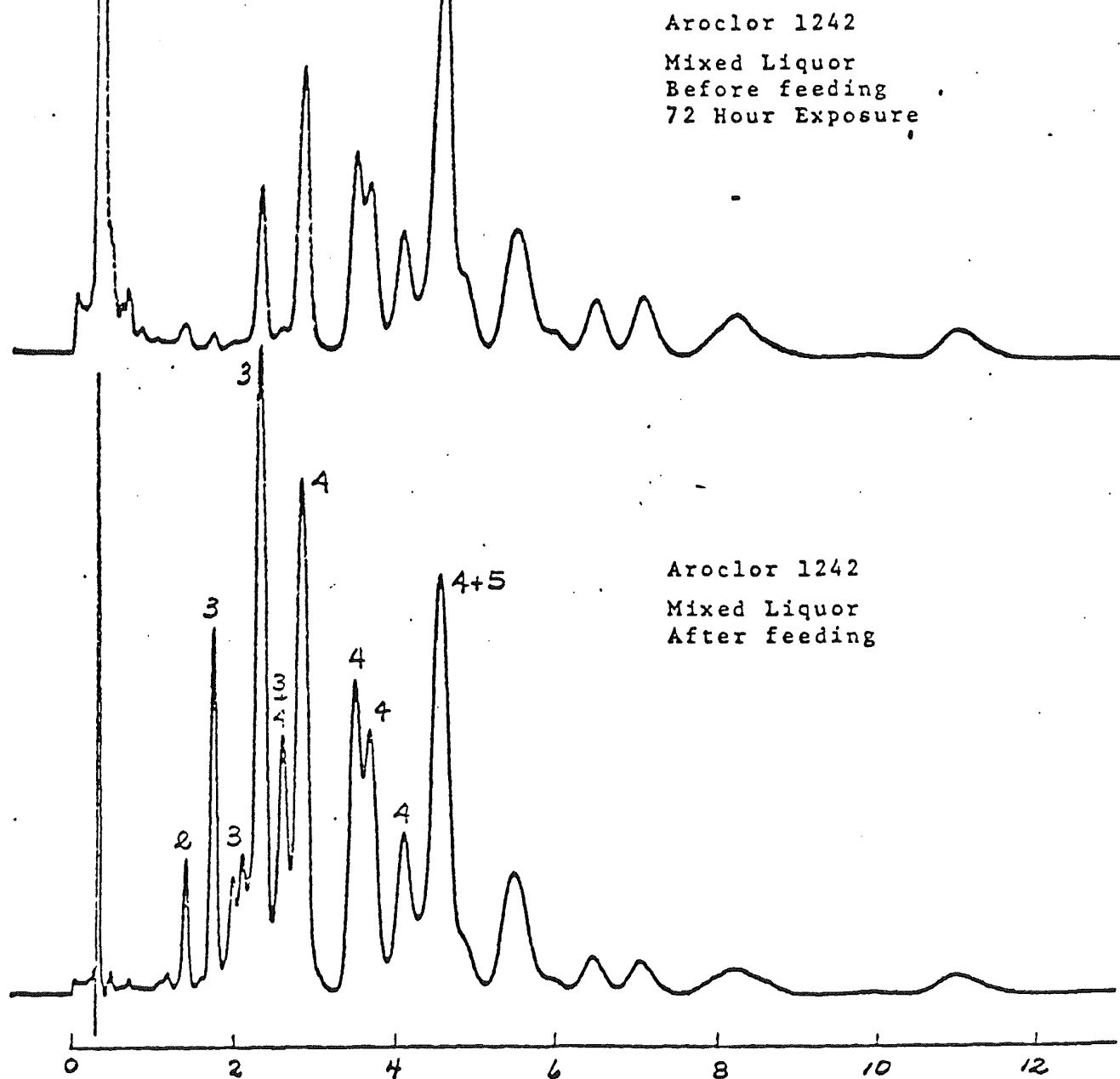
BIODEGRADATION

- 1) GOOD PROGRESS AT BOTH RUABON AND ST. LOUIS.
- 2) LOWER CHLORINATED ISOMERS RESPONDING WELL, BUT
5 & 6 CHLORINE ISOMERS EITHER NOT RESPONDING
OR VERY SLOW.
- 3) CRITICAL PRODUCT IS 1242, CONTAINS SOME 50 ISOMERS
— GOOD RESPONSE ON 2, 3, & SOME 4 CHLORINE
ISOMERS.
- 4) WORK IN HAND ON FRACTIONATED 1242 GOOD PROGRESS
TO DATE.

0001639

FIGURE 2

Semi-Continuous
Activated Sludge
Biodegradation



0001640

0001641

FIGURE 3

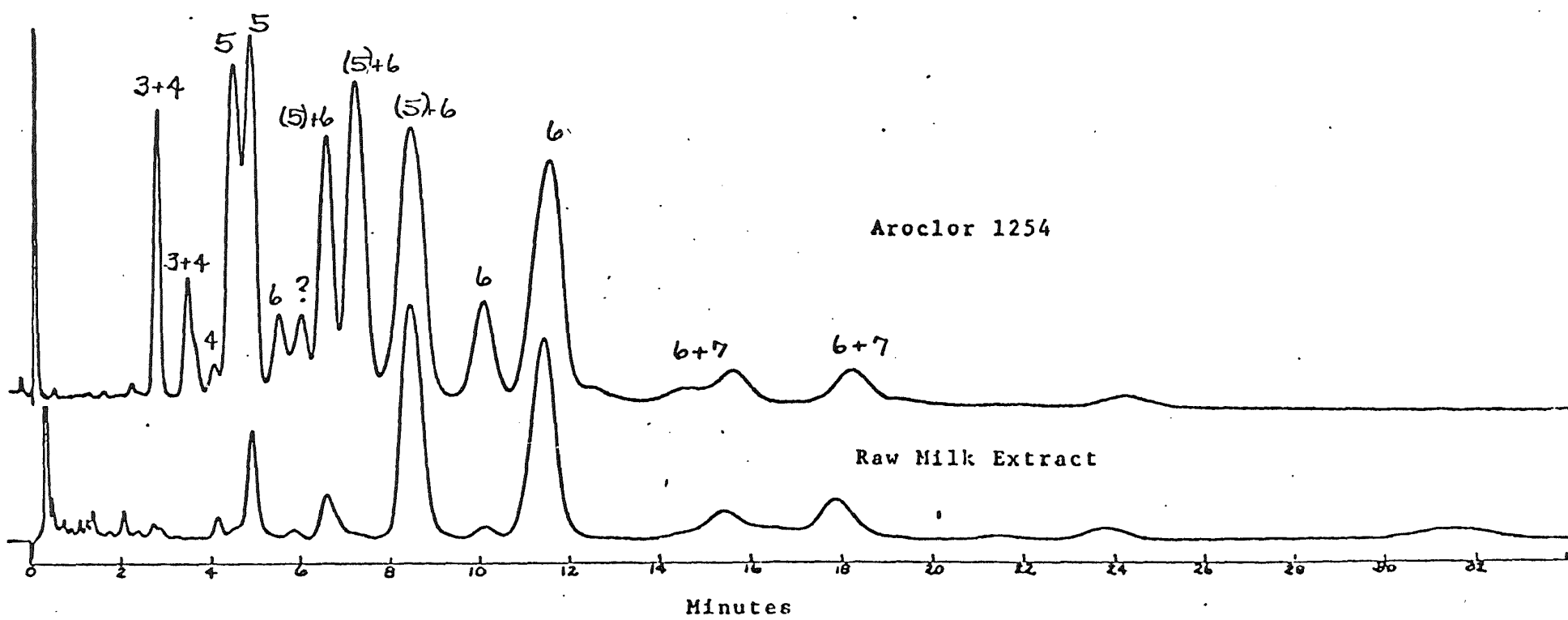
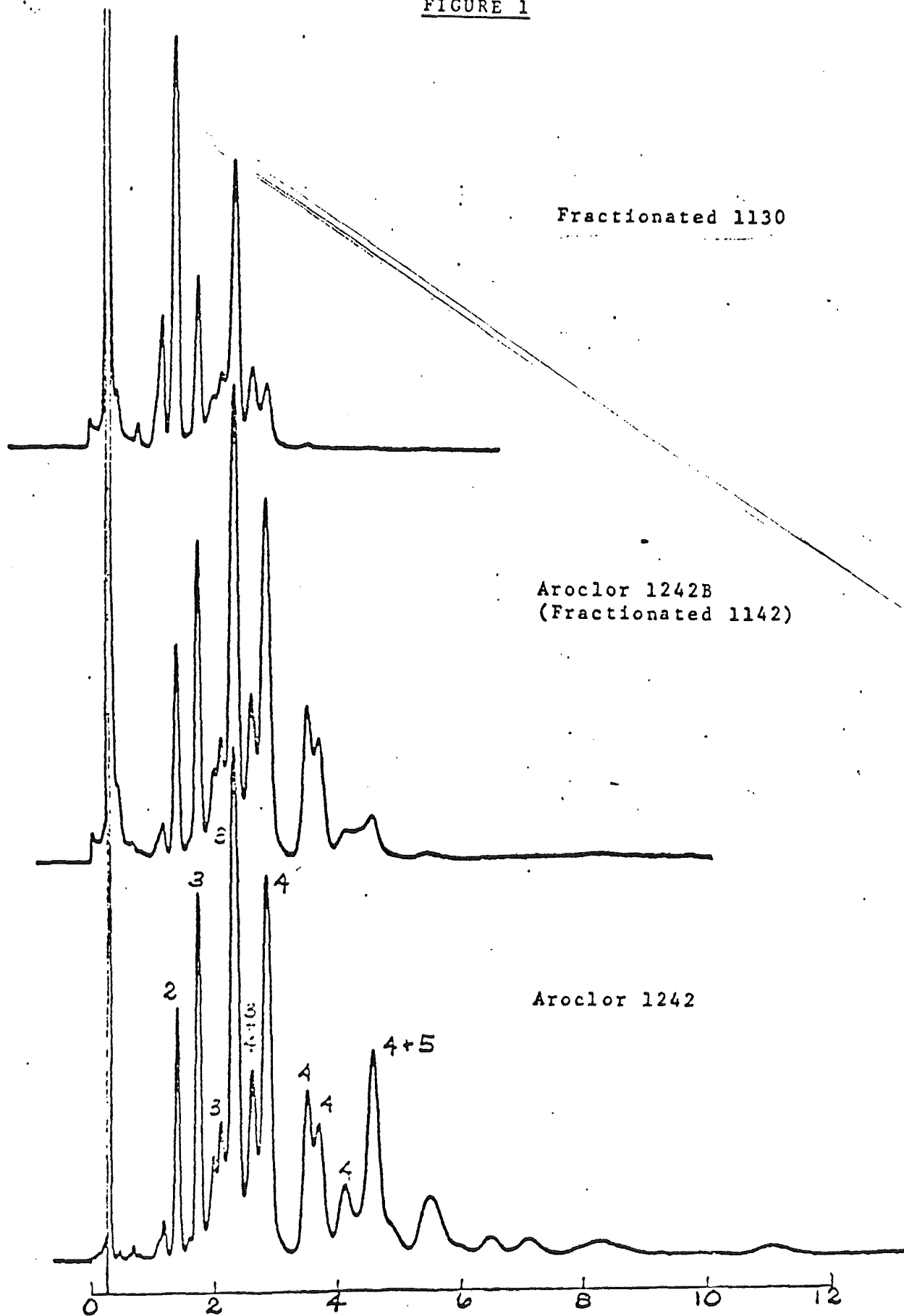


FIGURE 1



0001642

R E P L A C E M E N T P R O D U C T S

- 1) 1242B SHOWS GOOD PROPERTIES AS CAPACITOR DIELECTRIC -
NOW MAKING 500 GALS. AT DAYTON FOR CUSTOMER TRIALS. -
ALSO WORKING ON 1230B.
- 2) GOOD PROGRESS ON PHOSPHATE ESTER REPLACEMENTS FOR
HYDRAULIC FLUID APPLICATIONS. — TCP — CDP —
TBP — NONYL PHENYL/COMYL PHENYL DIPHENYL PHOSPHATE.
- 3) HEAT TRANSFER FLUIDS — USING MAINLY ESTABLISHED
PRODUCTS, E.G. HB-40 — EXAMINING POSSIBLE ENTRY
INTO DIPHENYL OXIDE PRODUCTION EITHER OWN PROCESS OR
LICENSING.

0001643

TOXICITY

- 1) NO CHANGE SINCE LAST REPORT - HAVE DISCUSSED RESULTS
WITH DR. BURGER, EXECUTIVE OFFICE OF THE PRESIDENT.
- 2) WE HAVE ANALYZED AROCLORS 1248 AND 1254 FOR OCTOCHLORO
DIBENZO p-DIOXIN -- NONE FOUND.
- 3) CENTRAL INSTITUTE FOR NUTRITION AND FOOD RESEARCH,
ZEIST, HOLLAND -- EXAMINED BAYER, PRODELAC AND MONSANTO
CHLORINATED BIPHENYLS FOR DIBENZO FURANS -- NONE
FOUND IN MONSANTO MATERIAL.

0001644

INCINERATION

- 1) SUCCESSFUL TRIAL AT JOHN ZINC CO., TULSA. 1242, 1260, 1254 DESTROYED AT 2000° F. -- OFF GAS HCl. ENGINEERING WORK NOW IN HAND TO BUILD SUITABLE INCINERATOR. ESTIMATED COST \$250,000 M.
- 2) INTEND TO CARRY OUT FURTHER TRIALS ON STILL BOTTOMS.
- 3) INCINERATOR PROBABLY LOCATED AT KRUMMRICH.

0001645

CLOSING THE
LOOP FOR INDIVIDUAL
BUSINESSES.

0001646

TRANSFORMER & CAPACITOR DIELECTRICS

0001647

HEAT TRANSFER FLUIDS

0001648

HYDRAULIC FLUIDS

- 1) RECOGNIZE THAT CONTROL OF SPILLAGE AND PUMP LEAKAGE
MAKES THE USE OF NON-BIODEGRADABLE CHLORINATED
BIPHENYLS UNDESIRABLE.
- 2) ALREADY REFORMULATED PYDRAUL 625, ACWG, -280 and F9
— REPLACEMENT COMPLETE BY AUGUST 1
- 3) OTHER PRODUCTS IN INTERIM STAGES (E.G. PYDRAUL AC
FORMULATION ON COMPRESSOR TEST AT JFQ).
- 4) AIM TO COMPLETE 90% PHASE-OUT BY DECEMBER, 1970.

0001649

P R E S E N T P L A N

- 1) TERMINATE SALES OF ALL NON-BIODEGRADABLE CHLORINATED
BIPHENYLS TO NON-CONTROLLABLE END USES.

COMPLETE - AUGUST 30th, 1970.

- 2) DISCONTINUE SALE OF AROCLOR 1242 TO NCR AND REPLACE
WITH HB-40 IN U.K., AND MIBP IN U.S.A.

COMPLETE - U.K. -- JULY 1st, 1970

COMPLETE - U.S. -- JANUARY 30th, 1971

0001650

4) REPLACE ALL NON-BIODEGRADABLE CHLORINATED BIPHENYLS
IN HYDRAULIC APPLICATIONS.

COMPLETE 20% - AUGUST 1st, 1970

" 40% - NOVEMBER 1st, 1970

" 100% - DECEMBER 30th, 1970

0001651

(18)

NEW CAPITAL NEEDED

HB-40 EXPANSION - ANNISTON

SANTOMAX R REFINING - ANNISTON

HB-40 CAPACITY - NEWPORT

MTBP CAPACITY - ANNISTON ?

CUMYL/NONYL PHENYL DIPHENYL PHOSPHATE
JFQ

INCINERATOR/RECLAIMING EQUIPMENT

TOTAL NEW FIXED CAPITAL

0001652

PROFITABILITY FORECAST

1971

EXISTING AROCLOR
BUSINESS

AROCLORS &
NEW PRODUCTS

SALES

G. P.

N.I.A.T.

GROSS INVESTMENT

R.O.I.

0001653