MONSANTO COMPANY
W. G. Krummrich Plant

June 1, 1967

AROCLOR DEBOTTLENECKING - WGK

cc: Messrs.
D. C. Armstrong
G. R. Buchanan - G.O.
J. Cresce - G.O.
L. C. Fuhrmeister - Anniston
P. E. Heisler
J. W. Molloy
H. F. Ray
R. P. Stevens - G.O.
W. J. Wilson
R. S. Yates - G.O.

Mr. H. C. Carder:

**COMPANY CONFIDENTIAL**

## SUMMARY


The following installations are needed for a 5-7 M lbs/yr Aroclor capacity increase at WGK:

| | |
|---|---|
| Still preheater and $FeCl_3$ filtering system | $ 52,000 |
| Biphenyl storage and unloading facilities (also for future Aroclor expansion) | 107,000 |
| Storage tanks, finished goods | 90,000 |
| TOTAL | $249,000 |

WGK TSD will proceed with installing the still preheater and the $FeCl_3$ filtering system. TSD will also transmit necessary information to CED concerning Aroclor and biphenyl storage.


## PREMISE

An initial evaluation has been made for additional short-term Aroclor capacity and storage at WGK, including improved flexibility of operations. The premise on which the recommendations are made is:

1. Chlorine available as needed - Installation of six inch chlorine lines to Dept. 246 and 233, and another chlorine vaporizer should be complete by the fourth quarter 1967.

2. 30-40 M lbs/yr Aroclor expansion at WGK in near future.

## DETAILS

### I. Capacity - Increase of 5-7 M lbs/yr

At present, the 1242 bottleneck is the still capacity. A still feed preheater is recommended. To prevent increased fouling problems, a permanent $FeCl_3$ filtering system is needed. Filtering needs will be further defined by currently scheduled plant tests. For 1248, 1254, and 1260, the chlorinators are the bottleneck. The chlorine feed rate can be increased, but the biphenyl losses will be increased by $2-3,000/yr. For a temporary capacity increase, the Aroclor department chlorine revaporizer is adequate, but for a major expansion, a larger unit is needed. For department operations, biphenyl unloading and storage is critical at present production levels. It is recommended that a 100,000 gallon

DSW 200759

I. Capacity - Increase of 5-7 M lbs/yr (Continued)

biphenyl storage tank and an additional unloading dock be installed to serve both this temporary capacity increase and the future expansion.

To increase Aroclor capacity by 5-7 M lbs/yr, the following is required and its installation is recommended:

| | |
|---|---|
| Still feed preheater | $ 12,000 |
| Permanent $FeCl_3$ filtering system | 40,000 |
| | $ 52,000 |

Also, by way of a separate CED project:

| | |
|---|---|
| 100,000 gallon biphenyl storage tank | $100,000 |
| Unloading dock, complete | 6,000 |
| Railroad spur extension | 1,000 |
| | $107,000 |

II. Finished Goods Storage - (Based on minimum inventories recommended by H. J. Day in memo of 5/18/67.)

Two 22,000 gallon storage tanks are needed for present operations and for the incremental capacity increase if a 20% surge capacity is built in. By 1969, three more 22,000 gallon tanks will be needed. The two tanks needed now could be combined with the above proposed CED project for biphenyl storage.

Storage tanks for present production and temporary increase are recommended:

| | |
|---|---|
| Two 22,000 gallon storage tanks and accessories (pumps, piping, controls) | $90,000 |

III. Department Flexibility - Parallel operations

To produce two Aroclors simultaneously, the following items would be required, but this route is not recommended:

| | |
|---|---|
| Two blow tanks (2,000 gallons each) and pumps | $25,000 |
| Finished goods filter and pump | 24,000 |
| Filter receiver (aluminum) and pump | 16,000 |
| | $65,000 |

Parallel operation is not recommended because the time gained in not having to switch to a particular Aroclor is only about six hours. A very small amount of additional storage would serve the same purpose more economically at the present. Any resulting capacity increase would be small, less than 1 M lbs/yr.

DSW 200760

If there are any questions, please contact me at Station 530.

R M McCutchan

/gg

R. M. McCutchan, TSD