Monsanto

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SUBJECT Anniston Liquid Aroclor Costs

REFERENCE

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Potential cost savings by mothballing the Anniston liquid Aroclor Department were discussed with Joe Landwehr, and the results are conveyed herein:

Summary:

The basis for fixed and budgeted costs are the 1971 cost standards with reductions which were obtained from Joe Landwehr for three cases.

These costs are summarized in the table below:

Table 1

Case	I	II	III
Description	Completely Mothballed No Production	Partially Mothballed Produce 4M lb/yr 1221	No Mothballing Produce up to 20M lb/yr (ready on 10M) lbs forecast
Costs/month			
Fixed & Bud.	33.2	43.6	48.3 - pg 3
Dep., etc. on New Cap.	--	--	4.2 why only here? (80%) new expected
Total ($M/mo)	33.2	43.6	52.5
Incremental ($M/mo)	--	10.5	19.4
Production			
1221 (M lb/mo)	--	333	333
1242 (M lb/mo)	--	--	500
Total (M lb/mo)	--	333	833
Inc. Cost (¢/lb)	--	3.2	2.3

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Potential savings in fixed and budgeted costs could be $19,400 per month, $233,000 per year, for total mothballing. These savings could be $8,900 per month, $107,000 per year if enough equipment is kept operating for 4 M ;bs//year of 1221.

New capital costs to prevent PCB pollution from 1242 production have been estimated by Anniston to be $278 M with $62 M dismantling and repair expense.

It was assumed that no new capital would be required for 1221 manufacture. It was further assumed that a new incineration installation would not be required. If it were required, Anniston has projected this added cost to be about $500

This capital does not provide Monsanto with two manufacturing sites for MCS-1016. Additional capital of approximately $600 M would be required for a second distillation facility to be located at Anniston.

Details:

A. Fixed and Budgeted Operating Costs

The basis for the fixed and budgeted costs for Case I is cost standard bracket 1 with some reduction. Cost standard bracket 4 is the basis for Cases II and III, with some reductions for Case II, but none for Case III. A breakdown of these figures is given in the following table.

Case	I	II	III
Costs ($M/mo)			
Labor, Salary & OH	3.9	6.6	6.6
TSD, PRD, Div. Res.	4.5	4.5	4.5
Maintenance	16.6	16.6	16.6
Toxicological	3.3	3.3	3.3
Miscellaneous	1.5	13.2	13.2
Depreciation	13.1	13.1	13.1
FIE	10.1	10.1	10.1
Total ($M/mo)	53.0	67.4	67.4

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Reductions			
TSD, PRD, Div. Res.	4.5	4.5	4.5
Maintenance	12.0	12.0	9.3
Toxicological	3.3	3.3	3.3
Miscellaneous	-	4.0	2.0
Total $M/mo	19.8	23.8	19.1
Total F&B Cost $M/mo	33.2	43.6	48.3

Costs for toxicological and TSD, etc. were subtracted, since they are primarily for development of Division-wide technology for reducing PCB pollution.

No attempt was made to include the small increase in unit utility costs resulting from reduced usage.

The cost of $4.2M/mo for the new capital required in Case III of Table 1 was obtained by assuming 10% per year for depreciation, 5% per year for maintenance, and 3% per year FIE.

Fixed and budgeted costs were also shown in Table 1 as cost per pound for the incremental cost over the completely mothballed case. For comparison with the incremental cost per pound, the 1970 bracket 3 cost standard fixed and budgeted cost is 1.9¢/lb.

B. Capital

The capital and expense for projects to reduce PCB in the department effluent are detailed in a letter "Aroclor Waste Control" from J. C. Landwehr to J. R. Savage (October 20, 1970).

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The main areas of non-deferrable capital expenditure are listed below:

Area	Capital	Expense
Spill Containment	36.5	37.5
Water Flow Reduction	65	20
HCl Cleanup	16.5	4.5
Final Water Treatment	160	--
Total	278	62

There is nothing included in the above list for carbon or sand filtration - adsorption or for incineration of still bottoms.

Two alternates to a new incinerator are:

1. Modify the present Parathion incinerator to handle still bottoms.
2. Dilute the still bottoms with fuel oil and ship to Krummrich for incineration.

The still bottoms are only a small volume of material (~4% of product) and should not be a disposal problem.

Since Aroclor 1221 only contains about 0.25% of five chlorine and higher material, no capital expenditures were included for PCB removal from the effluent for the low production rate of 4 M lbs./year. The assumption that nothing additional is required should be confirmed.

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