

Description and Reasons Required

Proposed Work and Cost

Funds of -----\$82,627 are requested to purchase and install a replacement ribbon mixer for the manufacture of Sulfate and Phthalate Cyastab® heat stabilizers.

Present Situation

The Chicago Plant is the only operating unit of American Cyanamid which produces lead Sulfate and Phthalate heat stabilizers supplied to the PVC industry.

All lead Sulfate and Phthalate heat stabilizers are processed through the steam jacketed ribbon mixer, the only reactor in the plant which can be utilized for meeting the annual sales demand for these products.

For 1980, the sales for these two stabilizer types are budgeted at M4.35 pounds (\$M3.9). First quarter sales were M1.26 pounds (\$M1.04).

The 600 gallon stainless steel clad ribbon mixer, installed in 1960, has over the years been patched many times, but now has reached the point where the metal is too thin to weld. It is estimated that the effective life of the mixer is, at the most, one year.

Justification

If Cyanamid is to continue as a major supplier of lead stabilizers for the PVC, used in the wire and cable industry, it must be able to offer a wide range of stabilizers to satisfy an estimated M30 pounds per year market, with a 4% annual growth rate. Lead sulfates and phthalates account for over half of this market.

If the existing ribbon mixer is not replaced, we will lose the current \$M3.9 of sales of these products.

Commercial Factors

This order supports a plant budget for lead stabilizers as follows:

(K\$/lb.)	<u>Sales</u>		<u>Marginal Income</u>			<u>POS</u>	
	<u>Lbs.</u>	<u>\$</u>	<u>\$</u>	<u>\$</u>		<u>\$</u>	<u>%</u>
1980 Budget	7,850	6,968	2,944	42.2		2,282	32.7
First Quarter	1,945	1,675	649	38.7		486	29.0

Details of Proposal

The ribbon mixer will be replaced in kind utilizing the electric motor and drive components from the existing mixer. The Phthalate Anhydride mixer will be centered over the new mixer, rather than off to the side. The sulfuric acid and water will be metered and mixed in an adjacent tank and pumped to the top mixer by conveyor.

Production Factors

This proposal will not alter product quality or production rates.

Contingent Future Commitments

This proposal will not require additional funds to complete.

Alternatives Considered

Utilization of the Cowles mixer in Bldg. 24 is not feasible due to the small batch size allowable and the reduced solids content allowable in the type of reactor.

Risks

No operating risks are involved.

Concise Summary

To continue present production rates, replacement of the physically exhausted mixer is mandatory.

REQUEST AND AUTHORITY FOR CAPITAL
EXPENDITURES/RETIREMENTS

REPORTING CLASSIFICATION

DATE APPROVED

JOB ORDER NO.

C-1

DIVISION OR COMPANY

SUMMARY OF AMOUNTS

Organic Chemicals Division

LOCATION

J.O. CONTROL POINT

Chicago Plant

097

JOB TITLE

Purchase and install replacement
ribbon mixer.

DESCRIPTION	LOCAL CURRENCY	U.S. DOLLARS
ESTIMATED PROJECT COST		\$81,377
DISMANTLEMENT EXPENSE		1,250
TRANSFER EQUIPMENT		
GROSS AMOUNT FOR APPROVAL		\$82,627
LESS TRANSFER EQUIPMENT		
LESS SALVAGE OR TRADE-IN ALLOW.		
NET CASH REQUIRED (GOF-3027)		\$82,627

RETIREMENT DATA		ECONOMIC JUSTIFICATION		REVISION DETAIL (GROSS AMTS.)			
	AMOUNT		6-YEAR AVG.	REV. #	DATE	AMOUNT	CUM. AUTHORIZATION
COST	6,250	NET SALES		1			
DISMANTLEMENT	1,250	NET SAVINGS BEFORE TAXES		2			
LESS SALVAGE		NET AFTER TAXES		3			
		% ROI (ON TOTAL INVEST.)		4			
		PAYOUT YRS.		5			
TOTAL - CHARGE RESERVE	7,500			6			

DESCRIPTION AND REASONS REQUIRED

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manufacture of Sulfate and Phthalate Cyastab® heat stabilizers.

SUMMARY OF ESTIMATED COST - Details on GOF-3027		ESTIMATE NO.	STARTING DATE	COMPLETION DATE
			when approved	
ITEM NO.	DESCRIPTION	MATERIALS	LABOR	ENGINEERING
	Per attached estimate			
	NET CASH REQUIRED	69,227	13,000	400
				82,627
ACCOUNTING TREATMENT		RECOMMENDATIONS AND APPROVALS (CHECK BOX)		
ITEM NO.	DESCRIPTION	DEPR. RATE	NAME	REC. APPR. DATE
972	Dr. \$75,477 P. P. & E (2A 320)	7 1/4%	R. Johnson	✓ 4/14/80
70-1 & 2	Dr. \$2,300 Expense as incurred			
771	Dr. \$3,600 Expense as incurred			
	Dr. \$1,250 Res. for Depr. (61-320)			
	Cr. \$6,250 P. P. & E. (61-320)			
	Dr. \$6,250 Res. for Depr. (61-320)			
ACCOUNTING TREATMENT / ECONOMICS APPROVED BY DIV. CONTROLLER (CHECK BOX(ES))				
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POST AUDIT PERIOD		POST AUDIT DUE DATE		DATE
DISTRIBUTION		GENERAL MANAGER		
		VICE-PRESIDENT		

DETAIL SHEET

SHEET NO. 1	JOB ORDER NO.	DATE March 19, 1980
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COMPANY American Cyanamid Company	LOCATION Chicago
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ITEM OR CODE NO.	DESCRIPTION	EQUIPMENT OR MATERIALS	LABOR	TOTAL	Engineering
100-001	Ribbon Mixer	34,495	2,000	36,495	
770-001	Move Phthalate Anhydride Mixer	100	500	600	
770-002	Relocate dust collector	500	2,500	3,000	
100-002	Acid water mixing tank	1,540	100	1,640	
100-003	Mixer for tank	600	100	700	
100-004	Pumps (two)	4,308	200	4,508	
100-005	Acid meter	3,000	100	3,100	
100-006	Phthalate Anhydride conveyor	12,000	2,000	14,000	
500	Piping	1,000	1,500	2,500	
530	Electrical	2,400	2,500	4,900	
771	Dismantlement	1,250		1,250	
520	Sheet Metal	1,000	1,500	2,500	
100-007	Freight	1,000		1,000	
972	Tax 5% @ 68.75% Selling Price	2,300		2,300	
	Escalation 5%	3,734		3,734	
870	Engineering			400	400
Totals		69,227	13,000	82,627	400
<u>Dismantlement</u>		<u>Acq. Date</u>	<u>Acq. Amt.</u>	<u>Disposition</u>	
Ribbon Mixer (Less Drive)		6/71	6,250	Scrap	