

Request For Capital Expenditures/Retirements

REPORTING CLASSIFICATION

DATE APPROVED

JOB ORDER NO.

1/18/85

PP-1111

OR DR COMPANY

Polymer Products

LOCATION

J.G. CONTROL POINT

Chicago Plant

097

JOB TITLE

Purchase and install a 10 inch
Extruder.

SUMMARY OF AMOUNTS

DESCRIPTION

LOCAL CURRENCY

U.S. DOLLARS

ESTIMATED PROJECT COST

DISMANTLEMENT EXPENSE

TRANSFER EQUIPMENT

GROSS AMOUNT FOR APPROVAL

\$87,605

LESS TRANSFER EQUIPMENT

LESS SALVAGE OR TRADE-IN ALLOWANCE

NET CASH REQUIRED (GOF - 3027)

887.605

RETIREMENT DATA		ECONOMICS as called for in General Procedure Memo #3 Attachment C. (Attach calculations)		REVISION DETAIL (GROSS AMOUNTS)			
	AMOUNT			REV.#	DATE	AMOUNT	CUM. AUTHORIZATION
COST		ECONOMICS PERIOD 1985-90	6 YEAR AVG	1			
DISMANTLEMENT		NET SALES	1,857	2			
LESS SALVAGE		NAT (PROFIT/SAVINGS)	389	3			
		TOTAL INVESTMENT	297	4			
		% ROI (ON TOTAL INVEST.)	131	5			
		INTERNAL RATE OF RETURN	337%	6			
TOTAL - CHARGE RESERVE		PAYOUT OF NEW FIXED CAPITAL	.76 YR	7			

DESCRIPTION AND REASONS REQUIRED	
1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20
21	22
23	24
25	26
27	28
29	30
31	32
33	34
35	36
37	38
39	40
41	42
43	44
45	46
47	48
49	50
51	52
53	54
55	56
57	58
59	60
61	62
63	64
65	66
67	68
69	70
71	72
73	74
75	76
77	78
79	80
81	82
83	84
85	86
87	88
89	90
91	92
93	94
95	96
97	98
99	100

Funds of -----\$87,605
are requested to purchase and install a 10 inch Bepex Extruder to wax
encapsulate heat stabilizer.

RECEIVED

JAN 07 1985

M. ODIAN

[illegible]

ACCOUNTING TREATMENT			APPROVALS	
ITEM NO.		DEPR. RATE	NAME	DATE
1-7,9	^{83,245} Capitalize Equipment (class 320) ⁴³⁴⁰ Expense 57 A/c Sales Use Tax	7 1/2%	PROJECT SPONSOR <i>[Signature]</i> <i>[Signature]</i> <i>[Signature]</i>	10/20/85 1/11/86 1/17/86

ACCOUNTING TREATMENT / ECONOMICS APPROVED BY DIV. CONTROLLER [CHECK BOX(ES)]

1119

JAN 12 '00



**Request For Capital
Expenditures/Retirements**

REPORTING CLASSIFICATION

D-1

DATE APPROVED

JOB ORDER NO.

DIVISION OR COMPANY

olymer Products

LOCATION

J.O. CONTROL POINT

Chicago Plant

097

JOB TITLE

Purchase and install a 10 inch
Extruder.

SUMMARY OF AMOUNTS

DESCRIPTION	LOCAL CURRENCY	U.S. DOLLARS
ESTIMATED PROJECT COST		\$87,605
DISMANTLEMENT EXPENSE		
TRANSFER EQUIPMENT		
GROSS AMOUNT FOR APPROVAL		\$87,605
LESS TRANSFER EQUIPMENT		
LESS SALVAGE OR TRADE-IN ALLOWANCE		
NET CASH REQUIRED (GOF-3027)		\$87,605

RETIREMENT DATA

ECONOMICS

as called for in General Procedure Memo #3
Attachment C. (Attach calculations)

REVISION DETAIL (GROSS AMOUNTS)

AMOUNT	ECONOMICS PERIOD	REV.#	DATE	AMOUNT	CUM. AUTHORIZATION
COST	NET SALES	1			
DISMANTLEMENT	NAT (PROFIT/SAVINGS)	2			
LESS SALVAGE	TOTAL INVESTMENT	3			
	% ROI (ON TOTAL INVEST.)	4			
	INTERNAL RATE OF RETURN	5			
	PAYOUT OF NEW FIXED CAPITAL	6			
TOTAL - CHARGE RESERVE		7			

DESCRIPTION AND REASONS REQUIRED

Funds of -----\$87,605
are requested to purchase and install a 10 inch Bepex Extruder to wax
encapsulate heat stabilizer.

SUMMARY OF ESTIMATED COST - Details on GOF-3027		ESTIMATE NO.	STARTING DATE	COMPLETION DATE	
			Sept. 1984	April, 1985	
ITEM NO.	DESCRIPTION	MATERIAL	LABOR	ENGINEERING	TOTAL
	See Attached				
NET CASH REQUIRED		\$76,088	11,017	500	87,605
ACCOUNTING TREATMENT		APPROVALS			
ITEM NO.	DEPR. RATE	NAME		DATE	
0980	7-1/2	PROJECT SPONSOR		10/22/84	
Dr \$ 4,340 Operating Expense					
Dr \$ 83,265 Equipment (320)					
ACCOUNTING TREATMENT / ECONOMICS APPROVED BY DIV. CONTROLLER (CHECK BOX(ES))					
POST AUDIT PERIOD		POST AUDIT DUE DATE		DIVISION PRESIDENT/DIRECTOR	
DISTRIBUTION		CORPORATE OFFICER			

NA 3006 REV. 5-77 5-77

CYWI 25-0007218

DESCRIPTION AND REASONS REQUIRED

PROPOSED WORK AND COST

Funds of -----\$87,605.00
are requested to purchase and install a 10 inch Bepex Extruder to
wax encapsulate heat stabilizer.

PRESENT SITUATION

Envirostrand, recently purchased by Associate Lead, has captured 5-10%
of the lead stabilizer market with their 1mm strand product.

Reports from our sales people indicate a very strong customer interest
in a stranded stabilizer which minimizes lead dust generation.

Hammond Lead reportedly has samples of their extrudate at customers
plants for evaluation.

Plant trials of the rental Bepex 6" Extruder have been successful on
all types of stabilizers (lead phosphite is not being considered at
this time) with production rates of 150 to 400 lbs./hr.. It is
estimated that the annual output of the RE-10 Bepex machine would
be 3.0-5.0M lbs./yr. depending upon product mix.

We have already made a 12k pound shipment to one customer, with a
40k pound order scheduled for November 1, 1984.

Technical data support our position that the Cyastab® 1000 series
stabilizers are equal to or better than our competition.

JUSTIFICATION

In order to meet customer demands and competition, we must supply
lead heat stabilizers in 1mm diameter strands. The only machine
that has been found that can produce the small strands, is a Bepex
Extruder. If we are to meet competition and stay in business, an
extruder must be purchased.

Since Cyanamid is the second entrant into the extrudate market, our
ability to respond quickly and flexibly to customers' orders will
be a key factor in establishing a strong number two position and
in achieving our longer run objective of 2.0-2.5M PPY extrudate
volume (a 20-25% share of this market segment). With the 6" machine,
our capacity to make sulfo phthalate is only 24k pounds a week; we
need nearly two weeks to prepare a single 40k pound truckload order.
Bepex indicates that the capacity of the 10" machine is at least
twice that of the 6" machine, reducing our response time to less

N14579.01

than a week -- a satisfactory interval for the vast majority of our orders.

Based on our volume projections, the 10" machine would be able to handle our requirements for the foreseeable future. We will be capacity-limited in several years with the 6" machine, necessitating purchase of a second machine at higher capital cost. Purchase of a second 6" machine at a later date is also less attractive because of the investment required to duplicate supporting machinery and equipment. The 10" machine will require only k\$2-5 more in support investment than the 6" unit:

	(k\$)		
	<u>Single 6" Unit</u>	<u>Single 10" Unit</u>	<u>2 6" Units</u>
Extractor	34	51	68
Support Equipment	34	37	68
	<u>68</u>	<u>88</u>	<u>136</u>

Spending the additional k\$20 to install the 10" machine clearly seems worthwhile. Our marginal income (NAT basis) on a single truckload order is more than k\$9. Three truckloads more than compensate for the additional investment in the 10" unit.

The addition of the Cyastab 1000 series extrudates to our product line affords an excellent opportunity to revitalize our image in the lead stabilizer market and forge ahead in market position.

DETAILS OF PROPOSAL

A Rietz model RE-10-K5F431 Extracter will be purchased with a 20 H.P. motor, and controls. A packaging line for boxes or semi-bulk bags will be installed. The existing air pallet unloading stand, vibrator screen and take-off belt will be used.

PRODUCTION FACTORS

This proposal will not alter product quality or production.

CONTINGENT FUTURE COMMITMENTS

An additional vibrating screen at a cost of k\$5-10 may be required as the extractor output increases towards the maximum.

ALTERNATIVES CONSIDERED

Purchase of a 6" extractor was reviewed and rejected as detailed above.

RISKS

No operating risks are involved.

CONCISE SUMMARY

Purchase a 10 inch Extruder to meet customer and competitive demands for a 1mm extrudate.

TAIR SHEET

SHEET NO.		JOB ORDER NO.		DATE	
				October 22, 1984	
COMPANY		LOCATION			
American Cyanamid		Chicago Plant			
ITEM OR CODE NO.	DESCRIPTION	EQUIPMENT OR MATERIALS	LABOR	ENG. MECH. SVC.	TOTAL
1	Extruder	50,745		500	51,245
2	Packaging system	14,303			14,303
3	Electric	1,500	4,000		5,500
4	More A/P system		5,917		5,917
5	Extruder enclosure	200	600		800
6	Instrumentation	2,500			2,500
7	Shipping	500			500
8	Tax	4,340			4,340
9	Air chiller	2,000	500		2,500
		76,088	11,017	500	87,605
N14579.02					

N14579.02



To: B. Coopersmith

Date: January 16, 1985

Location: Wayne

Copy to:

From: C. G. Neumann

Location: Wayne

Extension:

Subject: BEPEX EXTRACTER JOB ORDER --
 SUPPORTING ECONOMICS

Reference:

Attached are supporting economics for the 10" Bepex extractor (k\$88) to make stranded lead stabilizer at Chicago. Projected selling prices and volumes for both powdered and stranded material are the same as the ones in the 1985 Annual Business Plan and the Plastics Additives Comprehensive Plan.

Installation of the Bepex equipment is clearly attractive. Comparing the "produce stranded material" case against "business as usual" shows that the incremental cash flows from the sale of stranded material have a present value of nearly k\$800 (20% discount rate).

CGN

Charles G. Neumann

CGN/mdb
9/8849j

Attachment

16-Jan
BAS1

CYANAMID LEAD STABILIZER BUSINESS
BUSINESS AS USUAL

	1984	1985	1986	1987	1988	1989	1990	1985-90 AVERAGE
BASE SALES	-----	-----	-----	-----	-----	-----	-----	-----
UNIT SELLING PRICE	0.61	0.65	0.67	0.69	0.71	0.73	0.77	
SALES VOLUME	6875	6000	5500	5000	5000	5000	5000	
SALES	4194	3900	3685	3450	3550	3650	3833	3678
UNIT VARIABLE COST	0.34	0.36	0.37	0.39	0.41	0.43	0.45	
VARIABLE COST	2338	2160	2035	1950	2050	2150	2258	
MARGINAL INCOME	1856	1740	1650	1500	1500	1500	1575	1578
STRANDED SALES	-----	-----	-----	-----	-----	-----	-----	-----
UNIT SELLING PRICE								
SALES VOLUME								
SALES								
UNIT VARIABLE COST								
VARIABLE COST								
MARGINAL INCOME								
TOTAL MARGINAL INCOME	1856	1740	1650	1500	1500	1500	1575	1578
TOTAL PERIOD COST	962	990	1080	1115	1200	1250	1378	
GROSS PROFIT	894	750	570	385	300	250	197	409
BASE COMMERCIAL EXPENSES	506	531	558	586	615	646	678	
R&D								
DIVISIONAL EXPENSES	286	300	315	331	348	365	383	
GOODWILL	-30	-30	-30	-30	-30	-30	-30	
NBT	72	-112	-333	-562	-693	-791	-894	-564
TAXES	36	-56	-167	-281	-346	-395	-447	
NAT	36	-56	-167	-281	-346	-395	-447	-282

N14579.04

BUSINESS AS USUAL CASH FLOW

	1983	1984	1985	1986	1987	1988	1989	1990	1985-90 AVERAGE
	----	----	----	----	----	----	----	----	-----
NBT		72	-112	-333	-562	-693	-791	-894	-564
+BOOK DEPRECIATION		171	183	196	210	225	240	256	
+GOODWILL		30	30	30	30	30	30	30	
-TAX DEPRECIATION		166	169	174	182	187	196	206	
NBT (Tax Basis)		107	-67	-281	-503	-625	-717	-814	
INCOME TAX		54	-34	-141	-252	-312	-359	-407	
ITC		17	18	19	20	21	22	23	
NAT (Tax Basis)		71	-16	-122	-232	-292	-337	-384	
TAX DEPRECIATION		166	169	174	182	187	196	206	
OPERATING CASH FLOW		237	153	53	-50	-105	-141	-178	-45
CAPITAL SPENDING									
MAINTENANCE CAPITAL		170	179	187	197	207	217	228	
WORKING CAPITAL									

Receivables	412	466	433	409	383	394	406	426	
Inventories	342	435	402	379	363	382	400	420	
Payables	204	260	240	226	217	228	239	251	
Total	550	641	595	562	530	548	567	595	566
CHANGE IN WORKING CAPITAL	550	91	-46	-33	-32	19	19	28	
REVALUATION		17	22	20	19	18	19	20	
NET CASH FLOW, BUSINESS AS USUAL	-8	43	-81	-196	-312	-357	-415	-415	-220
PRESENT VALUE, 1985-90 CASH FLOW (12%):			-777						
PRESENT VALUE, 1985-90 CASH FLOW (20%):			-567						

16-Jan
BAS2

CYANAMID LEAD STABILIZER BUSINESS
PRODUCE STRANDED MATERIAL

	1984	1985	1986	1987	1988	1989	1990	1985-90 AVERAGE
BASE SALES	-----	-----	-----	-----	-----	-----	-----	-----
UNIT SELLING PRICE	0.61	0.65	0.67	0.69	0.71	0.73	0.77	
SALES VOLUME	6875	6000	5500	5000	5000	5000	5000	
SALES	4194	3900	3685	3450	3550	3650	3833	3678
UNIT VARIABLE COST	0.34	0.36	0.37	0.39	0.41	0.43	0.45	
VARIABLE COST	2338	2160	2035	1950	2050	2150	2258	
MARGINAL INCOME	1856	1740	1650	1500	1500	1500	1575	1578
STRANDED SALES	-----	-----	-----	-----	-----	-----	-----	-----
UNIT SELLING PRICE		0.94	0.97	1.01	1.07	1.12	1.18	
SALES VOLUME		500	1000	1500	2000	2500	2750	
SALES		470	970	1515	2140	2800	3245	1857
UNIT VARIABLE COST		0.51	0.54	0.57	0.60	0.63	0.66	
VARIABLE COST		255	540	855	1200	1575	1815	
MARGINAL INCOME		215	430	660	940	1225	1430	
TOTAL MARGINAL INCOME	1856	1955	2080	2160	2440	2725	3005	2394
TOTAL PERIOD COST	962	990	1080	1115	1200	1250	1378	
START-UP EXPENSE		12						
GROSS PROFIT	894	953	1000	1045	1240	1475	1627	1223
BASE COMMERCIAL EXPENSES	506	531	558	586	615	646	678	
INCREMENTAL DISTRIBUTION COSTS		10	20	30	40	50	55	
INCREMENTAL ADVERTISING COSTS		25	25	25				
R&D	50							
DIVISIONAL EXPENSES	286	300	315	331	348	365	383	
GOODWILL	-30	-30	-30	-30	-30	-30	-30	
NBT	22	56	52	43	207	384	536	213
TAXES	11	28	26	22	104	192	268	
NAT	11	28	26	22	104	192	268	107

PRODUCE STRANDED MATERIAL CASH FLOW

	1983	1984	1985	1986	1987	1988	1989	1990	1985-90 AVERAGE
NBT		22	56	52	43	207	384	536	213
+BOOK DEPRECIATION		171	189	202	216	230	245	261	
+GOODWILL		30	30	30	30	30	30	30	
-TAX DEPRECIATION		166	181	191	198	203	212	206	
NBT (Tax Basis)		57	95	92	91	265	447	621	
INCOME TAX		29	47	46	46	132	224	310	
ITC		17	25	19	20	21	22	23	
NAT (Tax Basis)		46	73	65	65	153	245	333	
TAX DEPRECIATION		166	181	191	198	203	212	206	
OPERATING CASH FLOW		212	253	256	263	356	457	539	354
CAPITAL SPENDING			76						
MAINTENANCE CAPITAL		170	179	187	197	207	217	228	
WORKING CAPITAL									
Receivables	412	466	486	517	552	632	717	786	
Inventories	342	435	449	479	522	605	693	758	
Payables	204	260	268	286	312	361	414	453	
Total	550	641	667	710	762	876	996	1092	850
CHANGE IN WORKING CAPITAL	550	91	25	44	52	114	120	96	
REVALUATION		17	22	22	24	26	30	35	
NET CASH FLOW WITH STRANDED MATERIAL	-33	-5	48	38	61	151	250	91	
PRESENT VALUE, 1985-90 CASH FLOW (12%):			312						
PRESENT VALUE, 1985-90 CASH FLOW (20%):			225						
		1984	1985	1986	1987	1988	1989	1990	
NET CASH FLOW WITH STRANDED MATERIAL	-33	-5	48	38	61	151	250		
NET CASH FLOW, BUSINESS AS USUAL	-8	43	-81	-196	-312	-357	-415		
INCREMENTAL CASH FLOW	-25	-48	129	234	373	508	665		
PRESENT VALUE, 1985-90 INCR. CASH FLOW (12%):			1089						
PRESENT VALUE, 1985-90 INCR. CASH FLOW (20%):			792						

DETAIL SHEET

SHEET NO.		JOB ORDER NO.		DATE	
				October 22, 1984	
COMPANY			LOCATION		
American Cyanamid			Chicago Plant		
ITEM OR CODE NO.	DESCRIPTION	EQUIPMENT OR MATERIALS	LABOR	ENG. MECH. SVC.	TOTAL
0201	Extructor	50,745		500	51,245
0202	Packaging system	14,303			14,303
5321	Electric	1,500	4,000		5,500
0203	More A/P system		5,917		5,917
0204	Extructor enclosure	200	600		800
5901	Instrumentation	2,500			2,500
0205	Shipping	500			500
0980	Tax - Expense	4,340			4,340
0301	Air chiller	2,000	500		2,500
		76,088	11,017	500	87,605

N14579.05