Monsanto

FROM (NAME & LOCATION) W. G. Krummrich Plant

Aroclor Improvements & Plans

DATE : April 23, 1969

SUBJECT : 1ST QUARTER STATUS - 1969 AROCLOR GROUP OBJECTIVES

REFERENCE : Aroclor Group Objectives - 1969

TO : Mr. J. W. Molloy

cc Messrs. D. C. Armstrong
V. Brawley
B. Eden
D. Fitzgerald
T. E. Greenman
C. M. Hamlet
D. W. Jackson
W. A. Kuhn - G.O.
R. M. McCutchan

I. SAFETY

A. Objectives	1st Quarter Status
1. No serious injuries for Dept. 246 and Maintenance personnel in 246 area.	0
2. No disabling injuries for Dept. 246 and Maintenance personnel in 246 area.	0
3. 1.0 minor injury per man per year for Dept. 246 personnel.	4 minor injuries = 0.68 minor injuries/man-year.
4. Ten minor injuries per year for all Maintenance personnel while in Dept. 246.	1 minor injury

B. Actions	EDC	1st Quarter Status
1. Evaluate need for fume removal system on continuous chlorinators.	4/1	Complete. Need exists for #9 chlor. and sample shed. Premise to be issued by 5/15/69
2. Develop safety device and interlock system inspection frequency for new plant.	2/1	No work.
3. Use inspection frequency developed for batch plant.	4/1	No work.
4. Review grounding of equipment.	4/1	
a. List equipment to be grounded.	2/1	Complete.
b. Implement grounding.	4/1	To be done by Paul Newman

DSW 329527

B. Actions (Continued)	EDC	1st Quarter Status
5. Establish equipment preventive maintenance procedure.	10/1	In progress by Maintenance Engineering.
6. Upgrade lighting.	3/1	Installation is 50% complete.
7. Extend elevator to 29 ft. level.	3/1	No work. Scheduled for 2nd Quarter.
8. Widen walkway around fume blower.	3/1	No work. Scheduled for 2nd Quarter.
9. Remove unused, corroded steelwork on drum lean-to.	2/1	Complete.
10. Evaluate lime addition facilities.	1/15	Complete. 1 port has been altered & successfully demonstrated. 3 other ports will be altered. EDC 5/15/69.
11. Update Dept. safety audit.	2/1	Complete. Review held 4/17/69.
12. Evaluate upgrading of drum lean-to.	3/1	No work. New EDC 7/1
13. Modify tank-truck loading ramp.	3/1	Complete.

II. QUALITY

A. Objectives

1. Meet corporate quality goals

1st Quarter Status	Goals		Actual	
	1242	1254	1242	1254
a. Resistivity (10^9 OHM-CM)	10,000	15,000	3,660	16,340
b. Power Factor (%)	0.6	0.3	0.14	0.096
c. TCC (ppm)	<0.1	---	0.15	0.64

2. Produce Aroclors which are indistinguishable from a customer's standpoint from Anniston Aroclors: Successfully demonstrate

3. Customer complaints: <0.3/100 shipments 1/635 shipment = 0.16/100

DSW 329528

B. Actions	EDC	1st Quarter Status
1. Install & use the Organic Research instrument for measuring electrical properties.	2/15	Complete.
2. Investigate specification revision for A13B3B and 1260PPO.	6/1	No work.
3. Determine reasons for and correct discrepancies between lab analysis and in-line instrument indications of electrical properties.	4/1	Work is continuing.
4. Determine and match Anniston's analysis (especially GLC) to assure product continuity between plants.	4/1	Complete. Products are compatible.
5. Demonstrate Anniston's process conditions in continuous plant.	2/1	Not as yet approved by Business Group.
6. Evaluate Hooker shutdown on quality.	2/1	Complete. See Report # 91370:4023-1.
7. Demonstrate Iodine co-catalyst in continuous chlorinators.	4/1	Approved by W. Kuhn 4/14. EDC 5/15/69.
8. Define "Aging" effect on quality.	2/1	Complete. No effect on TCC's.
9. Define effect of Porocel treatment.	5/1	Continuing.
10. Define quality effects of storage retention.	6/1	
11. Define quality degradation during loading.	6/1	
12. Provide nitrogen blanket on blend and finished product tanks.	8/1	

DSW 329529

III. CAPACITY

A. Objectives		1st Quarter Status
1. Meet 1969 Sales Forecast of 60 M lbs. Aroclors and 21 M lbs. Aroclor blends.		All sales requirements were met. Aroclors - 10.75 M lbs. Blends - 4.52 M lbs.

B. Actions	EDC	1st Quarter Status
1. Install spare pump for #2 still.	4/1	Pump is here, waiting for project group to install.
2. Install new type seals in all problem pumps.	9/1	
3. Determine proper blend compositions utilizing Brodimatic Meters.	4/1	Continuing.
4. Revise Aroclor process improvement plan.	4/1	Re-issue as MIP. EDC 6/1.
5. Evaluate necessity for increased Aroclor storage capacity.	4/1	No work.
6. Demonstrate maximum capacity of blends in expanded blend facilities.	2/1	#3 Mix Tank & TTCB storage tank were successfully demonstrate
7. Evaluate necessity for increased Pydraul storage capacity.	3/1	Complete. Increased capacity is needed.
*8. Evaluate manufacture of 1 M lbs/yr of lower pour point material.	4/15	
*9. Determine maximum capacities of all units.	6/1	
*10. Insulate #7 storage and #2 mix tanks.	7/1	

* Actions were added at end of 1st Quarter.

DSW 329530

IV. COST

A. Objectives	1st Quarter Status
1. No negative variance from 1969 cost standard.	Positive $31,500
2. Mechanical expense not to exceed 1969 budget.	Positive $18,000

B. Actions	EDC	1st Quarter Status
1. Overtime for Dept. 246 personnel - 8%.		O.T. - 10.3%
2. Absenteeism for Dept. 246 - 3%		6.5%
3. Change nitrogen standard cost from plant average ($0.375/100 SCF) to actual liq. N_2 price ($0.187/100 SCF)		Complete.
4. Determine maximum water content in steel-HCl systems to avoid corrosion.	2/1	No work. New EDC 6/1.
5. Revise item no. flow sheets.	3/1	Complete.

V. YIELD

A. Objectives		1st Quarter Status
1. Maintain the following yields on all raw materials:		
a. Biphenyl	98%	99.21% YTD
b. TCB	98%	98.96% YTD
c. TTCB	98%	95.31% YTD

B. Actions	EDC	1st Quarter Status
1. Evaluate blends yields based on results of specification study.	6/1	No work.
2. Obtain credit for Montar production.	6/1	No work.
3. Establish Porocel Usage		Still operating on 1st Porocel charge.

DSW 329531

B. Actions (Continued)	EDC	1st Quarter Status
4. Rework all off-gas condensate.		Completed. 7500 gal. condensate were recovered.

VI. PROCESS CONTROL

A. Objectives

1. Improve operational control of process.

B. Actions	EDC	1st Quarter Status
1. Install level recorder on #2 Still.	4/1	Complete.
2. Establish still boil-down and re-lime frequency.	3/1	Work in progress. New EDC 6/1.
3. Modify blending procedure dependent on specification study.	6/1	
4. Install high temperature shutdown system.	4/1	Complete.
5. Evaluate separate chlorine revaporization system.	2/1	Complete.
6. Use in-line analyzer to measure power factor.	2/1	Complete.
7. Prepare new operating instructions.		Awaiting process control study.
8. Prepare new process description.		
9. Identify key process variables and initiate control charts.		
10. Complete IFO's		
a. New Plant	2/1	Complete
b. Old Plant	8/1	99% Complete. EDC 5/1
11. Install level indicators on finished goods tanks.	4/1	Complete.

DSW 329532

B. Actions (Continued)	EDC	1st Quarter Status
12. Install rupture disk detectors on absorbers.	7/1	

P. J. Verna
Technical Services Department

/tm

DSW 329533