SIX MONTHS REVIEW
ORGANIC PRODUCTION AND MATERIAL HANDLING
DEPARTMENTS LONG TERM OBJECTIVES AND
1966 GOALS AND ACTION

September 7, 1966

LONG TERM OBJECTIVES

A. Establish, maintain, and supervise procedures and policies to insure the safety of personnel and property.

B. Maintain and improve the production, and on-time delivery of uniform quality products within competitive specification.

C. To achieve by direct supervision, planning, and process control, the minimum short range costs.

D. To generate, assist in development, and implementation of process improvements to achieve long term minimum costs.

E. Effectively train and utilize all personnel to effect long term minimum costs, and provide for growth of facilities.

1966 GOALS AND ACTION

A. Establish, maintain, and supervise procedures and policies to insure the safety of personnel and property.

1. Operate with no lost time accidents, no near-miss accidents, and achieve a serious injury index of less than 9.0.

   1 lost time accident - Martin

   2 serious (Jackson, Beard)

   Index - 20.6

2. Complete a minimum of 20 significant safety improvements during the year.

3. Conduct Bi-annual safety audit on all operations and facilities.

4. Safety awareness, and training to be constantly improved by monthly departmental meetings and day-by-day contacts.

5. Safety and Housekeeping inspection to be conducted by superintendent with responsible foreman and/or supervisor. Housekeeping level to be to satisfaction of Plant Manager. Responsibility - Superintendent

B. Maintain and improve the production, and on-time delivery of uniform quality products within competitive specification.

1. Achieve average quality score of 97.0 and R.F.T. Index of 98.0.

   Quality Score - 98.1 R.F.T. Index - 98.5

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2. Achieve a quality complaint index of 2.5 per 100$\overline{M}$ pounds production, or no more than 4 justifiable complaints.

   Complaint Index - 3.0 Complaints TD - 4

3. Achieve a service complaint index of 4.0 per 100 $\overline{M}$ pounds of production, or no more than 8 justifiable complaints.

   Index - 9.0 Complaints TD - 12

4. Attain a minimum of 4 significant product quality improvements, and 2 service improvements.

5. Achieve 98% on-time shipments.

   96%

C. To achieve by direct supervision, planning, and process control, the minimum short range costs.

1. Generate raw material savings of $133,400 from 1965 practices by obtaining the following yield improvements:

Material	1965 Actual	1966 Target	1st 6 Mos. Actual	Targeted Dollar Savings	Savings or Loss*
Biphenyl Group					
Benzene (% of theory)	99.76	99.00	100.6	$12,600*	$19,700
Isopropanol	0.727	0	0	17,600	10,400
Acetone	0.189	0.650	1.004	7,200*	7,500*
Santowax C (S.R.)	119.0	116.5	114.767	7,400	7,900
Raney Nickel	0.057	0.05	0.062	1,000	500*
Santowax R	102.5	101.5	101.500	2,800	2,000
				$ 9,000	$32,000
Aroclor Group					
Biphenyl (% of theory)	95.5	97.0	96.77	$14,200	$10,900
HCl Credit (L.A.)	37.2	49.0	41.245	59,000	13,000
Santowax R (% of theory)	85.5	87.0	73.2	2,300	16,500*
HCl Credit (S.A.)	70.4	75.5	62.267	5,400	6,100*
Limestone	64.6	40.0	45.047	4,600	2,000
Anhydrous HCl	117.65	116.0	117.650	4,700	0
				$90,200	$ 3,300

*Targeted Losses

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Material	1965 Actual	1966 Target	1st 6 Mos. Actual	Targeted Dollar Savings	Savings or Loss*
PNP Group					
KCl	142.44	140.00	143.377	$11,100	$ 2,100*
PNCB	117.37	116.5	116.969	15,500	3,500
NaOH	74.97	73.0	73.058	7,600	3,600
				$34,200	$ 5,000
				$133,400	$40,300

Total raw material usages for Organic Division products represents a loss of $84,200 from 1965's practice versus targeted savings of $89,700 for the period. Principal over usage is in mercury which accounts for a loss of $102,900.

2. Labor utilization (hrs/cwt.) to be improved to achieve the following:

Product	1965 Actual	1966 Target	Usage TD	Equiv. Manhours
Biphenyl	0.067	0.063	0.054	2,939
Santowax R	0.09	0.085	0.070	1,282
HB-40	0.151	0.140	0.117	1,354
Liquid Aroclors	0.062	0.058	0.052	1,982
Solid Aroclors	0.202	0.170	0.174	1,667
Muriatic Acid	0.034	0.031	0.023	1,031
Cl_2 - NaOH	0.046	0.044	0.045	187
KOH	0.062	0.060	0.061	91
PNP	0.164	0.130	0.134	2,445
			Total	12,978

Total production manhours in 1966 through June was 67,340 versus 58,954 in same period of 1965, or a gain of 8,386 hours. The gain is principally attributable to the additional labor (7,356 hours) for PNP operations not required in first four months of 1965, and 1,623 manhours required to man the expanded Solid Aroclor operations. The 1,623 hours is equivalent to 9.4 man months, or the estimated 1.5 men added to the work force to man the utility operator's job around the clock.

	1965	1966
Pounds per produced/labor hours	91,157 M Lbs. / 58,954 = 1545 Lbs.	113,209 M Lbs. / 67,340 = 1680 Lbs.

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3. Improve variable direct manufacturing costs other than labor at a rate at least equal to volume increases.

Product	1966 D.C.	1965 D.C.	Savings Direct $/Cwt.	Gain or Loss*
Biphenyl	0.838	1.029	0.191	$43,200
Santowax R	0.343	0.494	0.151	9,700
HB-40	0.408	0.404	0.004*	200*
Liquid Aroclors	0.648	0.548	0.100*	23,200*
Solid Aroclors	1.556	2.101	0.545	23,900
Muriatic Acid	0.465	0.537	0.072	7,800
Cl_2 - NaOH	0.631	0.670	0.039	8,400
KOH	1.960	1.841	0.119*	10,900*
PNP	1.313	1.741	0.428	34,900
				$93,600

$$\frac{\text{Dollar Improvement}}{\text{Total Dollar Directs}} = \frac{93,600}{903,500} = 10.4\%$$

$$\text{Volume Increase} = \frac{1,132}{912} = 24\%$$

4. Reduce process downtime to less than 1.5% and other downtime to less than 2.0%. Process downtime to be improved by elimination of pluggage, and bottlenecking problems; other downtime to be improved by better scheduling, and development of surge capacity between departments.

Repair	3.6
Process	3.3
Other	3.2
On-Stream	89.9

5. Actively generate, and assist in the development of specific cost reduction items to achieve savings of $420 M in 1966.

   $221 M through 1st six months

6. Improve material handling costs at least equal to rate of volume increases.

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D. To generate, assist in development, and implementation of process improvements to achieve long term minimum costs.

1. Assist in development of scope, and provide liaison for Warehousing Facilities.

   Assisted as needed

2. Assist in development of scope, and provide liaison for modernization of Aroclor-Biphenyl-HB-40 finished goods handling.

   Little or no achievement

3. Provide production liaison for Biphenyl Still Project, and have start-up plans completed by 11/1/66. Achieve design premises by 1/1/67.

   Continuing

4. Complete start-up of silicon diodes rectifiers in Chlorine Plant, and achieve design premises 45 days of completion of construction.

   Continuing

5. Establish and supervise effective process control of Chlorine facilities by 6/1/66.

   Program and weekly liaison meetings achieving control

6. Evaluate and implement improvements to Aroclor treatment, and filtration facilities. Scope developed by 6/1/66.

   Assisting in evaluation

7. Audit all reports and records for possible simplification, or elimination by 10/1/66.

8. Develop measurements and controls for "Work to Assist" and "Plant Improvement" costs by 5/1/66.

9. Generate a minimum of 3 significant increases in production capabilities.

10. Actively assist, and provide process control and information on terphenyl recycle research program.

    In process

11. Develop program for upgrading of HB-40 facility - Project for dismantling by 2/1/66. Autoclave Project by 4/1/66.

    Dismantling Project completed

E. Effectively train and utilize all personnel to effect long term minimum costs, and provide for growth of facilities.

1. Complete F.L.I.T. training all personnel by 6/1/66.

2. Continue development of Process Function Outlines. All department PFO's, and operator training to be completed by 1/1/67.

3. Devise next phase in Operator Training Program by 10/1/66.

4. All Operating Instructions, and Standard Manufacturing Processes to be current by 10/1/66.

5. Develop more objective Position Guides for all personnel. Guides to be keyed to objectives, and Position Specification by 3/1/66.

6. Conduct at least 2 Supervisory Training Meetings during the year.

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