23, 24 Feb HCCarter
re vacate relief needs
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22 M

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REVIEW
ORGANIC PRODUCTION AND MATERIAL HANDLING DEPARTMENTS
1966 OBJECTIVES

February 14, 1967

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. No. 4 St. II pump platform
2. Tar bossy

1 lost-time accident - Martin

3 serious (Jackson, Beard, Hughes)

Index - 14.8

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 - 96.1 R.F.T. Index - 86.8
98.8

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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 - 4.3 Complaints TD - 10 (5 justified)

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

Index - 9.2 Complaints TD - 21 (10 justified)

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

5. Achieve 98% on-time shipments.

183 late shipments out of 5,472, or 96.7% on-time

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	1966 Actual	Targeted Dollar Savings	Savings or Loss*
Biphenyl Group					
Benzene (% of theory)	99.760	99.000	99.900	$ 12,600*	$ 6,100
Isopropanol	0.727	0	0	17,600	19,600
Acetone	0.189	0.650	1.057	7,200*	15,100*
Santowax C (S.R.)	119.000	116.500	112.400	7,400	8,300
Raney Nickel	0.057	0.050	0.064	1,000	1,500*
Santowax R	102.500	101.500	101.500	2,800	4,000
				$ 9,000	$ 21,400
Aroclor Group					
Biphenyl (% of 95.5 theory)	95.5	97.0	97.80	$ 14,200	$ 23,300
HCl Credit (L.A.)	37.2	49.0	41.06	59,000	25,600
Santowax R (% of theory)	85.5	87.0	73.10	2,300	34,400*
HCl Credit (S.A.)	70.4	75.5	63.98	5,400	15,900*
Limestone	64.6	40.0	44.40	4,600	4,300

Aroclor Group (Contd.)

Material	1965 Actual	1966 Target	1966 Actual	Targeted Dollar-Savings	Savings or Loss*
Anhydrous HCl	117.65	116.0	114.45	$ 4,700	$ 10,300
				$ 90,200	$ 13,200

*Targeted Losses

PNP Group

KCl	142.44	140.00	145.6	$ 11,100	$ 24,900*
PNCB	117.37	116.50	117.6	15,500	20,400*
NaOH	74.97	73.00	73.5	7,600	6,000*
				$ 34,200	$ 51,300*
				$133,400	$ 16,700*

Total raw material usages for Organic Division products represents a loss of $156,500 from 1965's practice versus targeted savings of $184,450 for the period. Principal over usage is in mercury which accounts for a loss of $188,700.

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

Product	1965 Actual	1966 Target	1966 Usage	Equiv. Manhours
Biphenyl	0.067	0.063	0.060	2,990
Santowax R	0.090	0.085	0.074	2,055
HB-40	0.151	0.140	0.118	2,660
Liquid Aroclors	0.062	0.058	0.053	3,665
Solid Aroclors	0.202	0.170	0.174	2,395
Muriatic Acid	0.034	0.031	0.023	2,165
Cl_2 - NaOH	0.046	0.044	0.044	800
KOH	0.062	0.060	0.063	-180
PNP	0.164	0.130	0.136	4,580
			Total	21,130

Total production manhours in 1966 was 139,465 versus 126,722 in same period of 1965, or a gain of 12,743 hours. The gain is principally attributable to the additional labor (7,356 hours) for PNP operations not required in first four months of 1965, 3,200 manhours required to man the Aroclor Utility job around the clock, and 1,100 manhours generated by additional Chief Operators in Biphenyl-Aroclor.

	1965	1966
Lbs/produced/labor hours	195,471 M Lbs. / 126,772 = 1,545 Lbs.	228,806 M Lbs. / 139,465 = 1,640 Lbs.

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	0.973	1.029	0.056	$ 23,900
Santowax R	0.373	0.494	0.121	15,500
HB-40	0.416	0.404	0.012	1,000
Liquid Aroclors	0.643	0.548	0.095*	38,700*
Solid Aroclors	1.484	2.101	0.617	55,200
Muriatic Acid	0.431	0.537	0.106	20,800
Cl_2 - NaOH	0.551	0.670	0.119	47,700
KOH	1.936	1.841	0.095*	16,900*
PNP	1.440	1,741	0.301	49,200
				$ 157,700

$$\frac{\text{Dollar Improvement}}{\text{Total Dollar Directs}} = \frac{157,700}{2,282,000} = 6.9\%$$

$$\text{Volume Increase} = \frac{228,866 \text{ M lbs.}}{195,471 \text{ M lbs.}} = 17\%$$

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.

			RL
Repair	3.9	3.95	0.71
Process	3.2	2.91	0.37
Other	3.6	2.98	1.57
On-Stream	89.3	90.16	87.51

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

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

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. Project of Transmit this wk in by May

   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.

HB40
SW/R
Cl_2
PNP

area accountant who? purpose?

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

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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