

SAFETY - A. H. Sather

OCCUPATIONAL INJURIES

<u>Injuries Treated</u>	<u>April</u>	<u>1980 Year-to-Date</u>	<u>1979 Year-to-Date</u>
First Aid	2	18	8
Medical Cases	1	9	1
Restricted Workday Cases	0	1	2
Restricted Workdays	0	3	24
Lost Time	0	0	0

Injuries by Department

Vinyl Operations	0	6	5
Compound Operations	0	7	0
Maintenance	3	13	4
Laboratory	0	2	0
Receiving and Warehouse	0	0	0
Office	0	0	2

Injuries by Type

Cuts and Abrasions	2	13	2
Eye Injuries	1	3	3
Burns	0	2	2
Bruises	1	6	4
Strains and Sprains	0	4	3
Other	0	0	0

The medical case occurred to a General Mechanic "A" who was using a ratchet wrench and torque multiplier to tighten the stud bolts on the condenser lid of 744 reactor. The torque multiplier handle slipped off of the condenser rinse nozzle flange causing him to pinch his fourth right finger tip between the ratchet wrench handle and a stud.

As of April 30, 1980, the plant operated 300 days or 387,939 manhours without a disabling injury.

SAFETY RULE BOOK

The Aberdeen Plant Safety rules were rewritten during the reporting period. The final copy of this was taken to the printer in early May. Issue of the rules to all plant personnel is targeted for the week of May 12, 1980.

FIRE SCHOOL

Mickey P. Blackwell, Vinyl Operations Engineer, attended the Lamar University Fire School April 28 through May 2, 1980.

SAFETY - (continued)

NEW EMPLOYEE ORIENTATION

During the reporting period two new engineers received Safety Orientation - Skeeter Reed, Process Engineer and Don White, Mechanical Engineer.

EMPLOYEE SAFETY RESPONSIBILITIES PROGRAM

The revisions requested as a result of previous comments to Part I were made, reviewed and comments again forwarded to M. S. Reynolds, Employee Communications-Houston during the reporting period.

EMERGENCY PLAN

The Plant Emergency Plan was revised and reissued to all holders of the PVC Plant Safety and Health Manual.

SAFETY MEETINGS

Topics covered in all Plant Safety Meetings included the following:

- 1) Lockouts - the film "Lockout for Safety" was shown and the Plant Lockout Procedure reviewed.
- 2) Live Electrical Parts - The emphasis centered upon keeping live electrical parts properly covered and authority limitations regarding access to live parts in motor starter enclosures.
- 3) Emergency Plan - This consisted of a review of the revised plan as noted above.
- 4) Railcar Safety - Several injuries occurred in the plant in recent months which involved access ladders on bulk hopper cars. The rules regarding proper usage of these ladders were reviewed.

OSHA COMPLIANCE

Specific activity regarding OSHA Compliance was limited to personnel monitoring for VCM and Lead. A digest of this information is shown below. Also, the 744 reactor condenser flange faces were machined to improve the seal. This activity should reduce the likelihood of exposure to VCM vapor to employees working in this area.

VCM - A total of 45 samples were taken for the reporting period, none of which indicated overexposure.

<u>Range (ppm)</u>	<u>Number</u>	<u>Percent</u>
0.0-0.5	44	97.78
0.5-1.0	1	2.22
1.0-5.0	0	0.0
5.0+	0	0.0
	<u>45</u>	<u>100.00</u>

SAFETY - (continued)

<u>Lead</u>	<u>Number</u>
Greater than PEL*	0
Less than PEL	<u>17</u>
	17

* Permissible Exposure Limit

VINYL - C. R. Miller

<u>Production</u>	<u>Month</u>	<u>Y.T.D.</u>	<u>Budget</u>
1. Total Production, MM Pounds	20.7	102.9	
2. Production Rate, M Pounds/C.D.	690	850	918
3. Charges, Reactor Batches/C.D.	16.3	20.0	
4. Total Charges	489	2398	
5. Reactor Stream Factor, %	72.5	83.7	
6. Drying Rates, Average Pounds/Hr.	5551	5820	
7. Dryers, Stream Factor, %	74.0	87.0	
8. Accounting Days	30	121	

Vinyl department production for the month was 75% of budget at 20.7 MM pounds. Production levels were reduced as part of the inventory control program.

The vinyl unit has undergone shutdowns in each of the reactor areas during April. These shutdowns utilized the inventory control downtime for new project tie-ins, mechanical repairs, leak repairs and the plant's annual inspection.

Production rates for 5425 resin continues to be low with use of a single initiator system. Test runs using several initiator lots were conducted, but without favorable results. An alternate source for the initiator has supplied a test quantity to the plant for testing in May.

Several test runs in addition to the 5425 initiator were also conducted in April. These included testing of a new suspending agent, J-40 methocel, and the drying and packaging of test quantities of pond resin.

Resin Quality Summary

<u>Resin Type</u>	<u>Prime Pounds</u>	<u>"BC" Grade</u>	<u>"H" Grade</u>	<u>% of Total Production</u>
5305	1,446,206	40,450	40,500	7.4
5385	11,793,161	570,550	21,050	59.8
5425	6,464,614	38,250	63,000	31.7
5465	348,700			1.7
Sifter Overflow			(123,765)	(0.6)
TOTAL	20,052,681	649,250	785	100.0

Quality performance for the month of April was 96.9% customer grade with 3.2% "BC" grade and 0.01% "H" grade.

The variable cost variance for the vinyl department was (\$536.9 M) with (\$687.8 M) due to price and \$150.9 M due to efficiency. The variance due to product mix was \$12.0 M. The only major price variance was (\$620.0 M) for VCM.

VINYL - (continued)

The only efficiency variance was \$43.3 M for VCM. The raw material requirement for the month was 1.00911 pounds VCM/pound of PVC versus a 1.01960 standard. (Y.T.D. is 1.01430)

General

1. Resin bagging continued throughout the month due to low empty hopper car inventories. Resin bagging averaged 186 M pounds per day.
2. Approximately 340 M pounds of sifter overflow was rescreened during the month.

COMPOUND - J. R. McCrimon

<u>Compound Production</u>	<u>Month</u>	<u>#'s/Day</u>	<u>Y.T.D.</u>
Line I, M Pounds	1,429	53	4,587
Line V, M Pounds	-	-	207
Line III, M Pounds	2,757	92	9,861
Total, M Pounds	4,186	139	14,655
Accounting Days	30		121

Line I operated 27 days during April at an average rate of 53 M pounds per day. Major items affecting production efficiency were: Line V operation (69.5 hours), product changes (30 changes, 68.8 hours), dicers (34.9 hours), maintenance on plasticizer pump (6.7 hours), maintenance on blender bucket (6.1 hours) and quality control (5.7 hours).

Line V operated 3 days during April. Additional tests on different screw configurations were conducted with Werner-Pfleiderer in the plant. None of the tests were successful.

Line III operated 30 days during April at an average rate of 92 M pounds per day. Major items affecting Line III production efficiency were: product changes (9 changes, 47.5 hours), maintenance on B blender (17.3 hours), changing and cleaning FCM seals (10.9 hours), maintenance on FCM conveyor (8.7 hours), and maintenance on the Sweco star valve (6.5 hours).

Quality performance for flexible compounds was 5.8% off-grade of which 56.4% was due to mill scrap. "BC" production was 0.5%.

The raw material requirement for flexible compounds was 0.98936 pounds of raw material per pound of compound versus a 1.01299 standard. (Y.T.D. is 1.00914)

The variable cost variance for compound was \$73.4 M with \$51.3 M due to price and \$22.1 M due to efficiency. The variance due to product mix was (\$14.7 M). The only major efficiency variance was \$15.2 M for resin which reflects re-blending of off-grade material from prior production.

There were two major price variances for the month: \$11.2 M for tribasic lead sulfate and \$13.3 M for combined colors.

<u>Dry Blend</u>	<u>Month</u>	<u>#'s/Day</u>	<u>Y.T.D.</u>
Production, M Pounds	1,763	84	6,631
Accounting Days	30		121

Dry Blend operated 21 days during April at an average rate of 84 M pounds per day. Production included 80172 B, 80273 G, 80274 G, and 90171. Dry Blend production efficiency was affected by: No. 2 Welex motor out for repairs (116.0 hours), blender limited due to No. 2 Welex outage (39.0 hours), out of resin (22.2 hours), maintenance on the Orbitran (8.2 hours), quality control (10.2 hours) and inventory control (8.1 hours).

COMPOUND - (continued)

Quality performance for the month was 99.99% customer grade.

The raw material requirement for dry blend was 0.98995 pounds of raw material per pound of dry blend versus a standard of 1.00319. (Y.T.D. is 1.00949)

The variable cost variance for dry blend was \$7.1 M with \$4.4 due to price and \$2.7 due to efficiency. The variance due to mix was \$19.4. There were no major price or efficiency variances.

<u>Plasticizer</u>	<u>Month</u>	<u>#'s/Day</u>	<u>Y.T.D.</u>
Production, M Pounds	1,122	53	2,898
Accounting Days	30		121

Plasticizer operated 21 days during April at an average rate of 53 M pounds per day. Production included: DIDP, 610P, and DOP.

VRP production totaled 138 M pounds (12.3%). Production was limited by: R-4 inspection by MED and maintenance repairs (192 hours) and maintenance on level instruments in the phthalic anhydride charge system (12.0 hours).

A new daily production record was set on 4/2/80 (133,548 lbs.).

The raw material requirement for plasticizer was 1.11919 pounds of raw materials per pound of plasticizer versus a 1.10574 standard. (Y.T.D. is 1.14081)

The variable cost for plasticizer was (\$39.2 M) with (\$40.0 M) due to price and \$0.8 due to efficiency. Major price variances were: (\$25.9 M) for ALFOL 610 and (\$19.7 M) for phthalic anhydride. The only major efficiency variance for the month was \$16.1 M for VRP which reflects reprocessing of recovered alcohols and oils into VRP.

The variance due to product mix was (\$6.4 M).

General

Total customer grade compound inventory increased to 5.2 MM pounds during April.

Werner-Pfleiderer lab tests will be conducted in Ramsey, NJ during the week of May 19, 1980 and in Stuttgart West Germany, June 16-27, 1980. The purpose of these tests is to determine what modifications are required to the KP-800 to allow it to produce acceptable quality compound. Preblend will be produced and shipped in May for these tests.

A Werner-Pfleiderer engineer from Germany will visit the plant May 20, 1980 to investigate problems with the pellet transfer system on Line V.

MECHANICAL - S. J. Vincent

Vinyl

There were three large reactor seal failures this period. Two of the seal failures were in the new module and one failure in the old module. The seal failures in the new module were a result of a mischarge in the 741 reactor causing major damage to the 741 reactor seal and a loss of seal oil flow to the 744 reactor seal resulting in its failure. The D-600 seal failed in the old module. This seal failed when the seal water flow was lost. There were no major reactor gearbox problems this month.

Two large reactor condensers were brushed this month, both condensers were in the new module. The condensers cleaned were on the 741 and 742 reactors in the new module. The bottom gasket on the 744 reactor was replaced. The top condenser gasket surfaces on the large reactors were indicated and machined on the four new module reactor condensers. The repairs to the gasket surfaces were done to minimize and possibly eliminate VCM leakage from these areas. The motor on 742 reactor also had to be replaced because of bearing failure and water intrusion. This was the first large reactor motor in the new module to fail since startup of this unit.

Reactors D-300, 744, and 743 were inspected by some MED inspectors. No evidence of chloride attack was found. The sections inspected were found to be mechanically sound.

Reactor system valves replaced this month were the recovery and evacuation valves on the 744 condenser, kill bomb valves for D-600 and 741, D-300 main dump valve and the condenser cooling water valve, and the 743 steam stripping valve. The suction valve on the east VCM charge pump and the RVCN filter bypass valve in the old module were replaced. Repairs were made to the flexible conduit connectors on four reactors. The controls on the old module hot water tank were calibrated, along with both fresh VCM receivers, two reactor transmitters.

The installation of the main feeder from the 2500 KVA transformer to the switchgear was completed. The transformer was successfully returned to service. A new deckwriter was installed in the vinyl area control room for laboratory data. The annual transformer service check was completed.

There were five mechanical seals repaired this month on pumps and compressors in the vinyl production area and one hot water charge pump was overhauled. Four of the seal failures were in the old module - the seals on the east VCM charge pump, one emission recovery compressor, the chem wash pump, and one recovery compressor had both the inboard and outboard seals replaced. In the new module the outboard seal was replaced on one of the recovery compressors. All eight of the reactors and condenser safety disc and holders have been changed to the newer style.

The VCM charge header plugged with polymer in the old module and was removed for cleaning. The bottom of the fresh VCM receiver also plugged and was opened to remove the polymer buildup.

MECHANICAL - (continued)

A major shutdown in the new reactor module was taken to clean equipment, repair process and steam leaks, and to PM some equipment. The shutdown work was completed without any injuries.

There were four major repairs to the vinyl dryers and Bird centrifuges. The dryer repairs were to replace a trunion roller on #7 dryer and to resecure the driving gear on #1 dryer. The Bird centrifuge repairs were to #2 centrifuge and the #5 centrifuge. The #2 centrifuge was removed for cleaning and the gearbox replaced. The gearbox and the antichatter device were replaced on #5 centrifuge. All three manual baggers were repaired. Several level indicators and torque controllers were calibrated. Repairs were also made to the pneumatic transfer activators.

Seals were replaced in the north and middle slurry pumps for the large blend tanks. One slurry pump motor was repaired. The agitators were removed and blind flanges installed on the 407 and 501 slurry blend tanks. Ball check valves were installed in the air sparge lines to both large slurry blend tanks.

Compound-Dry Blend-Plasticizer and Silo Storage

Major repairs to the compound lines were to replace the scrap conveyor belt on Line III and reworking the "B" blender gearbox base on Line III. The Hoffman blower on the vacuum cleaning system was replaced. Other repairs consisted of minor leak repairs and dicer maintenance. A new DC controller was installed for the Line III pull roll. The Line I scales were calibrated and repaired.

Repairs in the plasticizer unit were to replace the bearings on both blower units, repacking and seal repairs to the plasticizer pumps on three tanks. The seals were replaced in the new plasticizer filter. R4 reactor was inspected by the MED inspector and a repair was made to the heating coil as a result. Safety discs were replaced on three plasticizer reactors. A new level gauge was installed in the phthalic anhydride feed tank.

One of the Welox motors in the dry blend unit failed and is currently being repaired. The blender product blower controls were calibrated. The Orbitran control system spares were completely checked and are now functional. The boots were replaced on the Kason screeners.

Utilities and Service

There were four repairs to the plant instrument air system. Valves were repaired in two air compressors and one motor repaired. The air and oil wipe packings were replaced in one air compressor. The heater elements were replaced in the #3 air dryer east tower.

The pump shaft was replaced in the #15 cooling water pump. The #1 and #2 boilers were shutdown and the safety system checks completed. Mechanical

MECHANICAL - (continued)

and electrical repairs were completed to the #5 aerator and it was returned to service. Service personnel were in to replace 20 regulators in the propane vaporizers. The control panel on #3 vaporizer was also replaced. The compressor was replaced on Line III chiller and the starter repaired.

Miscellaneous

The initial training program for the various Orbitran controllers in the plant was started. Additional training sessions are now being planned. Several mechanical training sessions for various topics were also started.

PERSONNEL - J. L. Carter

EMPLOYMENT

Don W. White, Mechanical Engineer
Alonzo McKnucle, Casual Labor
Bobby Trimble, Casual Labor
Eugene Mays, Casual Labor
Larry Hubbard, Casual Labor
Clyde Neely, Casual Labor
Maruice Edmond, Casual Labor
Gary McFarling, Casual Labor
John Smith, Casual Labor

TO/FROM LEAVE OF ABSENCE

None.

TRANSFER/PROMOTION

John Hull, General Mechanic "B" to General Mechanic "A"
Edward Mize, Electrician "B" to Electrician "A"
William Phillips, General Mechanic "B" to General Mechanic "A"
Bobby Ward, General Mechanic "B" to General Mechanic "A"
George Carnathan, General Mechanic "A" to Electrician "B"

RETIREMENT

None.

TERMINATION

Gary McFarling, Casual Labor
Maruice Edmond, Casual Labor
John Smith, Casual Labor
Clyde Neely, Casual Labor
Larry Hubbard, Casual Labor
Eugene Mays, Casual Labor

DEATH/DISABILITY

None.

OTHER

During the month of April there were nine (9) casual labor employees on payroll. Total hours worked were 1551. The bulk of these employees were utilized for bagging resin.

CONOCO CHEMICALS
Aberdeen, Mississippi

April 1980
MONTHLY PERSONNEL REPORT

Salaried Employees	<u>79*</u>
Hourly Employees	<u>157</u>
Total Employees	<u>236*</u>
Employees (Hourly)	
New Employees	<u>0</u>
Terminations	<u>0</u>

Minority Employees	#	%
Salaried	<u>7**</u>	<u>8.9%**</u>
Hourly	<u>62</u>	<u>39%</u>
Total	<u>69**</u>	<u>29%**</u>
Hourly Min. Hired	<u>0</u>	
% Min. Hired	<u>0</u>	
Hourly Min. Term.	<u>0</u>	
% Min. Term.	<u>0</u>	

DEPARTMENTS	PAR	# EMPLOYEES	MIN. EMP.	% MIN.	NEW HIRES	YTD	TERM.	YTD	TURNOVER	YTD
Warehouse	<u>9</u>	<u>9</u>	<u>2</u>	<u>22%</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Gen. Plant	<u>11</u>	<u>11</u>	<u>6</u>	<u>54%</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>11%</u>
Maintenance	<u>46</u>	<u>46</u>	<u>7</u>	<u>15%</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Laboratory	<u>22</u>	<u>20</u>	<u>3</u>	<u>15%</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Compound	<u>41</u>	<u>35</u>	<u>28</u>	<u>80%</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2***</u>	<u>0</u>	<u>2.8%</u>
Vinyl	<u>32</u>	<u>32</u>	<u>13</u>	<u>41%</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Elasticizer	<u>5</u>	<u>4</u>	<u>3</u>	<u>75%</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

Number of Applicants:

Month 13 Year to Date 47

Hires (Hourly) :

Month 0 Year to Date 2

APPLICANT BREAKDOWN:

Minority 7 % Minority 54%
Female 1 % Female 7.7%

Terminations (Hourly) :

Month 0 Year to Date 3***

Overall Turnover 0

Projected Annual Turnover 1.3%

*Includes two (2) temporary employees.

**Includes one (1) temporary employee.

***Includes one (1) retirement and is not counted in turnover rate.

OVERTIME AND ABSENTEEISM

April 1980

Department	Straight Time Hours Worked	Overtime Hours Worked		Overtime as % of Straight Time	Absence Hours Lost	Absence as a % of Straight Time		
		Controllable (1)	Non-Controllable (2)			Sickness	Other	Total Year to Date
Warehouse	1204.75	126.50	38.00	13.6%	0	0	0	0
Maintenance	5294.00	407.25	16.00	8%	32	100%	0	.6%
Laboratory	2980.50	163.50	100.00	8.8%	0	0	0	0
Compound	5204.75	260.25	366.00	12%	192	96%	4%	3.7%
Vinyl	4972.25	747.75	224.00	19.5%	152	95%	5%	3%
Plasticizer	605.50	9.75	0	1.5%	0	0	0	0
Utility Boiler House	563.00	84.75	24.00	19.2%	0	0	0	0
General Plant	808.00	95.00	0	11.7%	0	0	0	0
Total	21632.75	1894.75	768.00	12%	376	96%	4%	1.7%
								2.6%

Note:

- (1) Controllable Overtime - all overtime excluding overtime due to working regular hours on a holiday and working the sixth day in operations.
- (2) Non-Controllable Overtime - that overtime due to working regular hours on a holiday and working regular hours on the sixth day in operations.

PROCESS ENGINEERING - R. A. Frohreich

A. Specialty Compound Line

Efforts to eliminate the hard particle problem in the finished compound have been unsuccessful. Tests using larger diameter screw elements were conducted, but did not reduce the number of hard particles. A test run using a compounder with a longer screw is scheduled for May at Werner-Pfleiderer's New Jersey laboratories. Further testing will be conducted in June at Werner-Pfleiderer's German location to evaluate mechanical changes required to eliminate the hard particles.

B. Centrate Rinse Water Design

The class "A" process design for this project is being prepared.

C. Breathing Air Modifications

The class "A" process design is being revised to provide for an in-house design of an air-water separator for the existing Nash Compressors.

D. Compound Line III Debottlenecking

A review meeting for the design was held in April. A test utilizing a borrowed set of No. 7 rotors in the Farrel Continuous Mixer will be conducted to determine if production rates and quality can be improved by the proposed changes to the compounder.

E. Compound Die Face Pelletizer

The class "A" process design was issued and a review meeting for the project was held.

F. Reactor Agitator Replacement

During the review meeting for this project it was decided to provide the new model Lightnin gearboxes for this project and to return to a seal oil system rather than to continue to use a seal water system.

G. Old Module Hot Water Tank Replacement

A class "A" process design for this project was issued, the definitive estimate was completed, and an AFE request was submitted.

H. V-11 Water Stripper Tank Replacement

A class "A" process design to replace the existing V-11 water stripper tank with a surplus tank is being prepared. The existing tank needs to be replaced for safety and environmental reasons.

I. Resin Reclaim System

Resin slurry from one of the concrete settling pits has been dried and bagged. The dried resin will be sent to potential customers for their evaluation. The class "A" process design for the project is being prepared.

J. Biodisc Study

A process design for the installation of a pilot rotary biological disc unit to treat effluent from the API separator is being prepared. Since approximately 70% of the BOD loading to the waste treatment ponds comes from the API separator, a reduction of BOD for this stream will greatly reduce the pond loadings.

K. Dissolved Air Flotation Tests

Results of the dissolved air flotation tests on the API effluent were issued. The tests show only a 20% reduction in COD levels of the effluent is obtainable with this technique. No further testing is planned.

M. Initiator Injection Pot Replacement

A class "A" process design to replace the existing initiator pots with pots of a higher design pressure and larger relieving area is being prepared.

N. Dual Steam Stripping Instrumentation

A class "A" process design to automatically switch steam flow from the open four inch nozzle to the nozzle with the sparger during the latter portion of the recovery operation is being prepared. Reactor vibration is significantly reduced with the steam injected through this sparger.

O. Kemp Air Dryer Evaluation

A Kemp service representative was in the plant to thoroughly evaluate the existing air dryers. Recommendations include inlet filter to remove entrained water ahead of the dryers and possible piping modifications to balance air flow to the dryers.

P. Groundwater Monitoring

Two consulting firms were contacted concerning groundwater monitoring around the resin settling pond. Both firms will visit the plant and prepare proposals to determine if organics are leaching from the pond.

Q. Rupture Disc Survey

A survey of all rupture discs used in VCM service is being prepared.

R. Firewater Improvements - Phase III

The class "A" process design for the project is being prepared.

S. Resin Expansion Project

Plant review and approval to purchase various equipment items is continuing. Piping drawings and equipment layout drawings are being reviewed and approved. PED issued the class "A" process design for the fluid bed dryer incorporating all recent changes to the design.

ENVIRONMENTAL - V. E. Messick

I. Particulates

The compliance report for particulate testing performed in March was submitted to the Mississippi Bureau of Pollution Control.

Particulate testing was performed on one dryer.

II. Water

BOD and COD levels were within NPDES permit limits.

A 24 hour static bioassay was conducted by Applied Biology of Atlanta on pond number 6 effluent. Results were 100% survival in 100% effluent.

The quarterly NPDES report was prepared and submitted to the Mississippi Bureau of Pollution Control.

TABLE I

WATER COMPLIANCE WITH

NPDES PERMIT PARAMETERS

	Flow GPM	BOD		COD		Sus. Solids		Diss. O ₂	ph
		PPM	LB./DY.	PPM	LB./DY.	PPM	LB./DY.		
Jan. - Ave.	810	43	436	86	851	11	103	6.8-8.5	7.7-8.0
Max.	941	131	1342	216	2214	13	143		
Feb. - Ave.	645	6	42	15	116	10	79	6.7-7.9	7.1-7.8
Max.	802	8	56	24	171	13	125		
Mar. - Ave.	595	29	220	66	502	11	74	6.6-8.3	7.1-7.8
Max.	743	36	314	95	828	14	94		
Apr. - Ave.	628	21	147	54	378	12	86	6.4-8.3	7.5-8.4
Max.	877	30	232	67	519	13	129		
May - Ave.									
Max.									
June - Ave.									
Max.									
July - Ave.									
Max.									
Aug. - Ave.									
Max.									
Sept. - Ave.									
Max.									
Oct. - Ave.									
Max.									
Nov. - Ave.									
Max.									
Dec. - Ave.									
Max.									
NPDES - Ave.	-	32	387	-	1390	-	605	> 6.0	6.0-8.5
Max.	-	43	520	-	1940	-	909		

ENERGY CONSERVATION - V. L. Thornhill

I. Plant Operations

Total energy consumption for April was 92.2 MMM BTUs. The energy consumption per pound of product decreased from 3332 BTU/Lb. to 3282 BTU/lb. in April.

II. Plant Energy Conservation Program

A. Steam Leaks

Forty-one steam leaks were repaired in April.

B. Energy Reporting

The first quarter energy report was issued in April. The plant had a 24.7% energy savings compared to the 1972 base year. After adjusting for EPA and OSHA projects, the plant energy savings were 38.1% compared to the 1972 base year.

ENERGY CONSERVATION DATA

<u>ITEM</u>	<u>1979</u>	<u>1980</u>
	<u>APRIL</u>	<u>APRIL</u>
<u>Production, MM Lbs.</u>		
Resin	25.0	20.8
Dry Blend	3.1	1.8
Compound	4.9	4.2
Plasticizer	<u>1.2</u>	<u>1.3</u>
TOTAL	34.2	28.1
<u>Natural Gas</u>		
Consumption, MSCF	60481	45822
Conversion, BTU/SCF	1020	1020
Energy Consumption, MMM BTU	61.691	46.738
<u>Electricity</u>		
Consumption, MM KWH	5.0208	4.5484
Conversion, BTU/KWH	10000	10000
Energy Consumption, MMM BTU	50.208	45.484
<u>Propane</u>		
Consumption, M Gal.	0	0
Conversion, BTU/Gal.	92000	92000
Energy Consumption, MMM BTU	0	0
<u>Total</u>		
Energy Consumption, MMM BTU	111.899	92.222
Energy Consumption , BTU/Lb.	3272	3282

Boiler Operating Data

	<u>Avg. Stack Temp.</u>		<u>Avg. % Excess Air</u>	
	<u>1979</u>	<u>1980</u>	<u>1979</u>	<u>1980</u>
No. 1	416	387	100	24
No. 2	428	414	94	25
No. 3	463	419	120	27

MECHANICAL ENGINEERING - J. A. Dixon

AFE's Submitted, Approved, and Closed

The following AFE's were submitted and approved during April:

<u>AFE No.</u>	<u>Title</u>	<u>Authorized</u>
9600	Calcium Stearate Addition System	\$ 84,000
9610	API Clean Water Bypass	23,000
9620	Cooling Tower Motor Replacement	17,800

The following AFE was closed to field charges during April:

<u>AFE No.</u>	<u>Title</u>	<u>Authorized</u>
9049	Repairs to Dryer Inlet Ducts	\$ 25,000

Completion reports were issued for the following AFE's during April:

<u>AFE No.</u>	<u>Title</u>	<u>Authorized</u>
9247	Farrel Mixer Feeders	\$ 47,000
9539	Laboratory Equipment	31,000
9029	Repair of Steam Tracing and Insulation	62,000
9069	Centrifuge Rotors Repair	47,000
9079	Cooling Tower Motor Repair	17,800

Design

Design work is in progress on the following projects:

- Replace T-100 P. A. Tank
- Automatic Plasticizer-Stabilizers Weigh-up System
- Revisions to Emission Recovery System
- Replace Water Stripping Tank
- Diking of Sphere and Curbing of Drum Storage Areas
- Replacement of Hot Water Charge Tank
- Double Block Valves for VCM Charge
- Methocel Charge Revisions

MECHANICAL ENGINEERING - (continued)

Contracts were let for the following projects:

Piping, Concrete and Equipment - Fire Protection
Improvements - Phase I
Repair of Three Lagoon Aerators
Repair of Plant Effluent Outfall Box
Installation of Methocel Studding Outlets.

AFE Activity

1. AFE 9297 - Automatic Plasticizer Weigh-Up System -- R. B. Harned
Engineering drawings are approximately one third complete.
2. AFE 9158 - Fire Protection Improvements - Phase I - J. P. McKee
The contract was let for the installation of the piping and equipment.
Construction is in progress.
3. AFE 9228 - Dry Blend Silo Alarms - J. L. White
Bids were received and evaluated for the installation of the remaining
silo alarms. The contract will be let in May.
4. AFE 9609 - Reactor Inert Vent System - J. P. McKee
The piping tie-ins were completed in the new reactor area.
5. AFE 9619 - Waste Water Revisions - Part I - J. L. White
The sampling weirs and catch basins were installed.
6. AFE 9649 - Double Block Valves for VCM Charge - M. S. Richards
The installation of the block valves in the new module is complete.
Bids are being evaluated for installation in the old module.
7. AFE 9689 - Diking of Sphere & Curbing of Drum Storage Area - J. L. White
Engineering is complete and the basis of bids for installation have been sent
out to qualified contractors.
8. AFE 9709 - Facilities for Multiple Grade Resin Production - CED
The pumps, dust collector, blower and silo are on order. P & I drawings
were reviewed and sent back to CED with comments.
9. AFE 9729 - Fire Protection Improvements - Phase I - CED
Quotes have been received for the fire pumps and jockey pump. The quotes
are being evaluated.

MECHANICAL ENGINEERING - (continued)

10. AFE 9759 - Aberdeen PVC Resin Expansion - V. L. Thornhill

Plant review of equipment selection and layouts is continuing. The resin storage silos, slurry blend tanks, and initiator storage system were released for purchase. The area electrical classification drawings are being prepared by Litwin. General arrangement drawings of the product screeners, weigh belts, and product rotary valves and electrical substations were reviewed.

11. AFE 9769 - Automatic Setback Thermostats - R. B. Harned

Installation of thermostats in all offices is complete.

12. AFE 9570 - Replace T-100 P. A. Tank - J. P. Windham

Engineering is substantially complete. A design review will be scheduled. Material purchases are in progress.

CONSTRUCTION - G. A. Morgan

The installation of double block valves for VCM charge in the new module was completed. Automatic setback thermostats were installed in all office areas. Defects in the new reactor condenser flanges were repaired and machined to the desired flatness. Recovered VCM, 401 and 701 receivers were cleaned during the period. Repairs were completed for the leaking PIV valve and 14 inch plant water line. Structural repairs were completed for one of the lagoon aerators.

There were six contracts and 57 register tickets issued for contractor work during the period.

(1) Thru March, 1980 Actual Accounting
(2) Thru April, 1980

ABERDEEN AUTHORIZATIONS REPORT

<u>AUTH. NO.</u>	<u>CAPITAL DESCRIPTION</u>	<u>DATE APPROVED</u>	<u>AUTH. AMT.</u>	<u>(1) EXPENDED TO DATE</u>	<u>(2) COMMITTED TO DATE</u>	<u>FINAL TOTAL EST. COST COMP.</u>	<u>UNDER (OVER) AUTH. AMT.</u>	<u>EST. COMP. DATE</u>	<u>EST. CLOS. DATE</u>	<u>REMARKS</u>
9237	Heated Plasticizer Addition System	10/11/77	37,000	13,090	13,518	37,000	0	6/80	9/80	Design in progress.
9297	Automatic Plasticizer-Stabilizer Weigh-Up System	12/14/77	60,000	56,293	57,944	60,000	0	6/80	9/80	Design in progress.
9098	New Compound Line	4/17/78	2,050,000	2,089,061	2,101,962	2,101,962	(51,962)	12/79	4/80	Closed to field charges.
9148	Plasticizer Chemical Exposure Abatement	8/21/78	152,000	141,706	146,633	152,000	0	6/80	9/80	Revisions in progress.
9158	Fire Protection Improvements - Phase I	9/19/78	176,000	105,028	164,521	176,000	0	6/80	9/80	Installation in progress.
9188	Railcar Resin Heel Clean-Up System	10/12/78	55,000	42,970	42,970	55,000	0	6/80	9/80	Project operational.
9228	Dry Blend Silo Alarms	12/13/78	25,000	4,392	9,368	25,000	0	5/80	8/80	Bids being evaluated.
9248	Silo Isolation Valves	12/14/78	25,000	21,327	22,244	25,000	0	5/80	8/80	Eighteen of twenty-one valves installed.
9258	Dryer Operation Improvements	12/14/78	315,000	260,397	272,438	315,000	0	9/80	12/80	Project operational.
9519	Critical Spare Equipment	2/6/79	175,000	97,432	159,168	175,000	0	6/80	9/80	Purchases proceeding.
9549	Safety Equipment	3/26/79	15,000	12,326	14,933	14,933	67	10/79	6/80	Closed to field charges.
9559	Color Weigh Room Modifications	4/19/79	25,000	16,921	16,962	25,000	0	7/80	10/80	Project operational.
9589	Instrument Air Dryer	5/30/79	110,000	90,275	91,318	110,000	0	6/80	9/80	Winterization design in progress.
9609	Reactor Inert Vent System	6/28/79	90,000	5,326	8,460	90,000	0	6/80	9/80	Engineering in progress.
9619	Waste Water Revisions - Part I	7/3/79	140,000	128,109	134,589	140,000	0	5/80	8/80	Project operational.
9269	Air Compressor	7/9/79	340,000	208,024	239,930	340,000	0	6/80	9/80	Project operational.
9639	Revisions to Emission Recovery System	7/12/79	100,000	17,310	53,513	100,000	0	6/80	9/80	Installation in progress.
9649	Double Block Valves for VCM Charge	7/18/79	182,000	67,626	93,824	182,000	0	6/80	9/80	Installation in progress.
9659	P. A. System Modifications	7/10/79	35,000	25,499	32,451	35,000	0	6/80	9/80	Project operational.
9669	New Air Header	8/15/79	25,000	15,727	16,106	25,000	0	6/80	9/80	Project operational.
9679	Plant Winterization	9/5/79	64,000	55,651	61,536	61,944	2,056	3/80	6/80	Closed to field charges.
9689	Diking of Sphere & Curbing of Drum Storage Areas	9/15/79	170,000	0	802	170,000	0	6/80	9/80	Bids requested.
9699	Plant Dryer Debottlenecking	9/15/79	80,000	0	0	80,000	0	9/80	12/80	Engineering in progress CED.
9709	Facilities for Multiple Grade Resin Production	9/20/79	870,000	0	0	870,000	0	9/80	12/80	Engineering in progress CED.
9719	Aberdeen PVC Resin Expansion (Partial)	9/10/79	850,000	11,421	772,000	850,000	0	9/80	12/80	Equipment on order.
9729	Fire Protection Improvements - Phase II	10/1/79	490,000	0	0	490,000	0	10/80	1/81	Engineering in progress CED.
9739	Methocel Charge Revision	10/3/79	66,000	0	14,396	66,000	0	8/80	11/80	Engineering in progress.
9749	Improved Rupture Disc Holders	10/22/79	27,000	24,495	24,495	24,495	2,505	4/80	7/80	Closed to field charges.
9759	Aberdeen PVC Resin Expansion	12/10/79	11,150,000	236,485	2,086,850	11,150,000	0	7/81	10/81	Engineering in progress.
9769	Automatic Setback Thermostats	12/31/79	3,000	128	2,124	3,000	0	6/80	9/80	Project operational.
9510	Miscellaneous Projects Under \$10,000	1/3/80	150,000	36,977	81,247	150,000	0	12/80	3/81	Forty projects approved.
9520	Replacement Phthalic Anhydride Tank	1/17/80	75,000	69,654	80,875	84,000	(9,000)	6/80	9/80	Project operational.
9530	Spare Incinerator	1/23/80	650,000	0	0	650,000	0	1/81	4/81	Engineering in progress CED.
9540	Laboratory Equipment	2/6/80	45,000	0	41,604	45,000	0	8/80	11/80	Purchases proceeding.
9550	P. A. Handling Improvement	3/3/80	63,000	16,685	20,081	63,000	0	12/80	3/80	Engineering in progress.
9560	Safety Equipment	3/12/80	25,000	0	1,630	25,000	0	9/80	12/80	Purchases proceeding.
9570	Replace T-100 P. A. Tank	3/27/80	119,000	0	5,708	119,000	0	9/80	12/80	Engineering in progress.

(1) Thru March, 1980 Actual Accounting
 (2) Thru April, 1980

ABERDEEN AUTHORIZATIONS REPORT

<u>AUTH.</u> <u>NO.</u>	<u>CAPITAL</u> <u>DESCRIPTION</u>	<u>DATE</u> <u>APPROVED</u>	<u>AUTH.</u> <u>AFE AMT.</u>	(1) <u>EXPENDED</u> <u>TO DATE</u>	(2) <u>COMMITTED</u> <u>TO DATE</u>	<u>FINAL</u> <u>TOTAL EST.</u> <u>COST COMP.</u>	<u>UNDER</u> <u>(OVER)</u> <u>AUTH. AMT.</u>	<u>EST.</u> <u>COMP.</u>	<u>EST.</u> <u>CLOS.</u>	<u>REMARKS</u>
9580	Boiler Economizers	3/26/80	140,000	0	0	140,000	0	10/80	1/81	Engineering in progress.
9590	Critical Spare Equipment	3/26/80	59,000	0	0	59,000	0	10/80	1/81	Update quotes requested.
9600	Calcium Stearate Addition System	4/2/80	84,000	0	0	84,000	0	11/80	2/81	Engineering in progress.
9610	API Clean Water Bypass	4/15/80	23,000	0	0	23,000	0	8/80	11/80	Engineering in progress.
<u>EXPENSE</u>										
9049	Repairs to Dryer Inlet Ducts	9/13/79	25,000	19,038	19,038	19,038	5,962	4/80	7/80	Closed to field charges.
9089	Vibration Study-Capacity Replacement Reactors	10/29/79	50,000	27,299	27,433	30,000	20,000	6/80	9/80	Project complete.

LABORATORY - R. D. Jackson

CUSTOMER COMPLAINTS

<u>Customer</u>	<u>Product</u>	<u>Complaint</u>	<u>Reported By</u>
Polysar Inc.	5305	Low bag weights	CRM
World of Plastics	5385	Foreign contamination - rocks	CRM
World of Plastics	5385	Foreign contamination - rocks	CRM

WAIVERS RECEIVED

<u>Date</u>	<u>Identification</u>	<u>Product</u>	<u>Customer</u>	<u>Reason</u>	<u>Waived By</u>
4/1	T-2481	5385	World of Plastics	Particle Size	RDJ
4/2	PLCX-42673	5465	Industrial Plastics	Bulk Density	CRM
4/2	CONX-45280	5385	Mastic	Particle Size	ELK
4/7	PLCX-43738	5385	World of Plastics	"B" Color Value	ELK
4/7	CONX-42962	5305	N. J. Terminal	"B" Color Value	RNG
4/7	CONX-45707	5305	N. J. Terminal	"B" Color Value	RNG
4/10	PTLX-41605	5425	Uniroyal	Gels	CLS
4/18	01902 Bags	5385	Export	Particle Size	ELK
4/18	01959 Bags	5385	Export	Particle Size	ELK
4/18	T-2481	5305	Celanese Pipe	Viscosity	ELK
4/18	PTLX-41862	5385	Charlotte Pipe	Particle Size	ELK
4/23	T-2870	5305	Intex	Viscosity	RDJ
4/25	CONX-45263	5465	3M	Bulk Density	JRW
4/29	PLCX-43230	5385	World of Plastics	Particle Size	ELK
TOTAL	14				

PRODUCT DEVELOPMENT AND SERVICE

<u>Date</u>	<u>Product</u>	<u>Quantity (lbs.)</u>	<u>Customer</u>	<u>Requested By</u>
4/1	5385-1	2	Oatey Company	JTW
4/1	5305	2	Oatey Company	JTW
4/1	17461 Blk.	50	Homestead Plastics	JFN
4/1	15041 Cl. Bl. 50	50	Homestead Plastics	JFN
4/4	34551 Nat.	10	Conoco Inc.	JAP
4/4	34641 Blk.	10	Conoco Inc.	JAP
4/4	35851 Gry. 545	10	Conoco Inc.	JAP
4/8	17461 Nat.	100	Plastic Profiles Inc.	-
4/9	27121 Blk.	50	Troxel Mfg. Co.	JFN
4/9	26421 Nat.	50	Troxel Mfg. Co.	JFN
4/9	16851 Cl. Bl. 50	50	Homestead Plastics	JFN
4/10	5305	50	Uniroyal Chemical Division	NTH
4/11	38601 Nat.	10	ITT Royal Electric	NTH
4/11	15641 Cl. Bl. 50	100	Anchor Wire	JFN
4/14	38601 Nat.	100	ITT Royal Electric	NTH
4/14	5385-1	4 x 20	RJR Filmco	ELK
4/15	39261 Clear	50	Circle F/Sylvania	RNG
4/15	16851 Cl. Bl. 50	50	Conoco Inc.	ELS
4/17	5385-1	10	Bata Shoe	RNG
4/17	5425	10	Bata Shoe	RNG

LABORATORY - (continued)

<u>Date</u>	<u>Product</u>	<u>Quantity (Lbs.)</u>	<u>Customer</u>	<u>Requested By</u>
4/18	VRP	1 Quart	Heritage International	DS
4/18	16851 Clear	50	Lavanture Products	AHH
4/22	35851 Nat.	6.6	Techni Chemical Products	WRP
4/22	34641 Blk.	6.6	Techni Chemical Products	WRP
4/22	35441 Nat.	6.6	Techni Chemical Products	WRP
4/22	Sifter Overflow	10	Heritage International	DSS
4/22	5385-1	1	Fritz Airfreight	JPM
4/22	5425	10	Zapata Industries	WBS
4/22	J-40 Methocel	4 x 50	Conoco Chemicals	PAS
4/22	J-40 Solution	5 gal.	Conoco Chemicals	PAS
4/23	26421 Nat.	50	Hadley Molded Products	AHH
4/23	27121 Blk.	50	Hadley Molded Products	AHH
4/23	27121 Blk.	50	Fritz Airfreight	JPM
4/23	27121 Nat.	50	Fritz Airfreight	JPM
4/23	28831 Blk.	50	Fritz Airfreight	JPM
4/25	5305	50	Whitaker Chemicals & Coatings	AHH
4/25	5385-1	50	Whitaker Chemicals & Coatings	AHH
4/25	5425	50	Whitaker Chemicals & Coatings	AHH
4/25	5465	50	Whitaker Chemicals & Coatings	AHH
4/25	80172 B	5	Whitaker Chemicals & Coatings	AHH
4/25	80273 G	5	Whitaker Chemicals & Coatings	AHH
4/25	90171	5	Whitaker Chemicals & Coatings	AHH
4/25	35851 Nat.	50	Interstate Wire	-
4/25	5465	50	Belden Corp.	MAS
4/30	35851 Nat.	50	Interstate Wire	-
4/30	28831 Blk.	5	Conoco Inc.	JAP

Special Compound Testing

Six (6) lots of compound were tested and compared with Western Electric specifications. There were four (4) lots of 36861 Natural and two (2) lots of 34861 Gray 546. One lot of 36861 Natural was high in plasticizer content; the other lots met specifications.

One lot of 34533 Natural for Packard Electric was tested and found acceptable. One lot of 34431 Natural was tested and found to meet Phelps Dodge specifications.

QUALITY CONTROL TESTING

Resin

Regular Samples = 234

Bag Blends = 139

Other In-Process Samples = 1746

Bulk Shipments = 119 (Railcars = 75; Trucks = 44)

LABORATORY - (continued)

Dry Blend

Blenders Produced = 250
Blenders Tested = 215
Blenders Adjusted = 12.0%
Other In-Process Samples = 163
Bulk Shipments = 15 (Railcars = 4; Trucks = 11)

Compound

Blenders Produced = 681
Blenders Adjusted = .9%
Other In-Process Samples = 73
Bulk Shipments = 21 (Railcars = 13; Trucks = 8)

Resin Heat Stability

Oven heat stability tests were run on forty-four (44) blends of resin.

5385	16 Blends
5425	16 Blends
5305	8 Blends
5465	4 Blends

Only one blend (5385) was significantly poor than the control.

Raw Material Testing

Sixty-eight (68) lots of plant raw materials were tested. A small amount of a lot of SP-33 clay that was rejected in March reappeared in 2 truck loads received in April. It was rejected and a complaint was filed with the supplier. Approval has also been withheld on one lot of gray color concentrate until acceptable color tolerances are established.

RVCM of Shipment Samples

A total of 159 samples of resin were tested prior to shipment for RVCM. Eleven of these were rejected for residual content. Following is a summary of the shipment RVCM testing results:

<u>Product</u>	<u>5305</u>	<u>5385</u>	<u>5425</u>	<u>5465</u>
Average ppm RVCM	3.0	2.0	0.9	0.2
No. samples	79	33	31	5

LABORATORY - (continued)

SPECIAL PROJECTS

RVCM of Slurry

A total of 456 samples of slurry were tested for RVCM in April. The overall average was 258 ppm. There were two days during the month the slurry RVCM average was above 400 ppm.

RVCM of Blowdown Tanks

A total of 132 samples of water from the blowdown tanks were tested for RVCM. The overall average for April was 3.6 ppm.

RVCM of 5305 Resin from Drier

A total of 45 samples of 5305 resin from the driers were tested for RVCM. The overall average was 9.2 ppm.

Resin Volume Resistivity

Volume resistivity tests were run on 5425 and 5465 resin samples. The six samples gave uniform, high values for VR.

Metrastat Oven

The new Metrastat heat stability oven has been modified to give good temperature uniformity from the door to the back of the oven. A large number of resin samples have been exposed both in the Metrastat and the Blue M conventional forced draft oven. There was good agreement of results for most samples; however, occasionally the two ovens gave results which were not exactly the same. Plans for the future include tests to determine day-to-day reproducibility of Metrastat results, a recheck of center to wall temperature uniformity in the oven, and tests to see if exposure tests on the raw resin correlate with results on a compound containing the resins.

Line V Start-Up

Laboratory Welx blending tests were run to compare the current Line V procedure with one suggested by Werner & Pfleiderer. The Werner & Pfleiderer procedure gave little or no reduction in hard particles.

EQUIPMENT

Schott Automatic Viscometer

This new unit was received and installed. Start-up of the viscometer was very smooth and trouble free. It has permitted us to analyze up to 30 samples a day, including all bulk shipments, compared to a maximum of

LABORATORY - (continued)

six samples in the same man-hours by the manual method.

F-42 Perkin Elmer

Equipment problems on the F-42 which had caused the need for manual injection of samples during several days of the month have been corrected.

TRANSPORTATION - J. E. Stark

Shipment by Product - M/lbs.

	<u>APRIL</u>	<u>Year-to-Date</u>
Resin	13205	75264
Plasticizer	156	199
Dry Blend	813	7553
Compound	3418	14161
Total	17592	97177

Number of Shipment by Mode

	<u>R/C</u>	<u>O.T.</u>	<u>C.C.</u>	<u>C.O.T.</u>	<u>TOFC</u>	<u>CPU</u>	<u>TOTAL</u>
Resin - Bulk	60	33					93
Package		3	1			9	13
Export - ABR		42					42
Plasticizer - Bulk						4	4
Dry Blend - Bulk		2				9	11
Package		7				2	9
Compound - Bulk	9	8					17
Package		28	4			5	37
Export - Package		4					4
	<u>69</u>	<u>127</u>	<u>5</u>	<u>0</u>	<u>0</u>	<u>29</u>	<u>230</u>
Back Hauls for April		20	1	1			

Number of Shipment by Month-Year-To Date

	<u>R/C</u>	<u>O.T. Bulk</u>	<u>O.T. Van</u>	<u>C.C.</u>	<u>C.O.T.</u>	<u>TOFC</u>	<u>CPU</u>	<u>TOTAL</u>
January	104	53	72	4	0	2	36	273
February	111	83	66	21	0	4	35	320
March	130	95	64	37	1	0	48	375
April	69	43	84	5	0	0	29	230

LOCATION	TOTAL M SQ. FT.	CONTENTS	ESTIMATED MM POUNDS		
			ON FLOOR	OPEN	TOTAL
MAIN-East	48	Compounds	3.4		
		Dry Blend	.6		
		Export Resin	1.1		
		Conoco Resin	.4	5.5	4.5 10.0
Prairie 12-1	12	Compound	1.2	.3	1.5
12-2	22	Resin	.		
		Export Resin	3.5	.	3.5
12-3	21	Conoco	.		
		Export Resin	3.5		
			.	3.5	. 3.5
12-4	22	Conoco Resin	4.5		
		Resin O.G.	.	4.5	. 3.5
12-5	21	Mill Scraps	.1		
		Cmpd O. G.	1.0		
		Dry Blend O. G.	.1		
		Sifter Overflow	.2		
		Resin O. G.	.7	2.1	.4 2.5
12-6	21	Compound	.1		
		Dry Blend	2.9		
		Raw Material	.2	3.2	.3 3.5
12-7	21	Resin O. G.	4.0	4.0	. 3.5
12-8	21	Conoco	4.5	4.5	. 3.5
12-9	21	Conoco Resin	1.8	1.8	1.7 3.5
		Sub-Total			38.5
		(Plug-Aisles)			2.5
Total	209	Total Conoco	33.8	7.2	41.0

SAFETY REPORT

	<u>APRIL</u>	<u>Y.T.D.</u>	<u>GRAND TOTAL SINCE L.T.A.</u>
Lost Time Accident	0		
Doctor Cases	0		
First-Aid Cases	0		
Man Hours Worked	2,390	9,563	151,238

MATERIAL HANDLING REPORT

	<u>M/Lbs.</u>	<u>T/L</u>
Packaged Resin From Production	6115	151
Packaged Compound, Dry Blend From Prod.	2835	70
Transferred From Main to Prairie	4334	107
Transferred From Prairie To Prairie	0	0
Reverse Transfer Resin to Plant	364	9
Reverse Transfer Cmpd. to Plant	162	4
Shipment From Warehouses	4091	101
Special Packaging	1863	46
Transferred From Prairie to Main	1417	35
	<u>21,181</u>	<u>523</u>

LABOR REPORT

Total regular Hours	1702
Total Overtime Hour	208
Total Worked	<u>1910</u>
Paid but not Worked	80
Total	<u>1990</u>

Labor Efficiency equals
21.2 MM/Lbs. - Hours Worked 11,090
Overtime % 10%

EQUIPMENT REPORT

Lift Truck Hours Worked 378
Gal of Fuel Consumed 596
Gals/Hrs 1.6

Lift Truck Efficiency Equals
21.2 MM/Lbs. - Hours Worked -56032 Lbs./hr

OFF-GRADE IN STORAGE

<u>MATERIAL</u>	<u>M/Lbs.</u>	<u>T/L</u>
Sifter Overflow	98,595	2
Resin "BC"	4,916,601	121
Resin "H"	1,741,352	43
Mills Scraps	76,417	2
Compound "B"	713,445	18
Compound "H"	150,100	4
Dry Blend "O.G."	86,115	2
Total	7,782,625	192

D.F. OPERATION

Total inventory of packaged product increased approx 4MM lbs. during the month. Most of the increase was due to resin production. Export shipments picked up some from the previous month. Due to the resin build-up we had to lease a warehouse at Prairie outside our complex.

Safety

Safety meeting held during the month on housekeeping, especially oil spills on floor and loose objects laying around that could be a trip hazard.

ABERDEEN RAIL CAR REPORT
SURFACE TRANSPORTATION DEPT.

AS OF 4/30/80

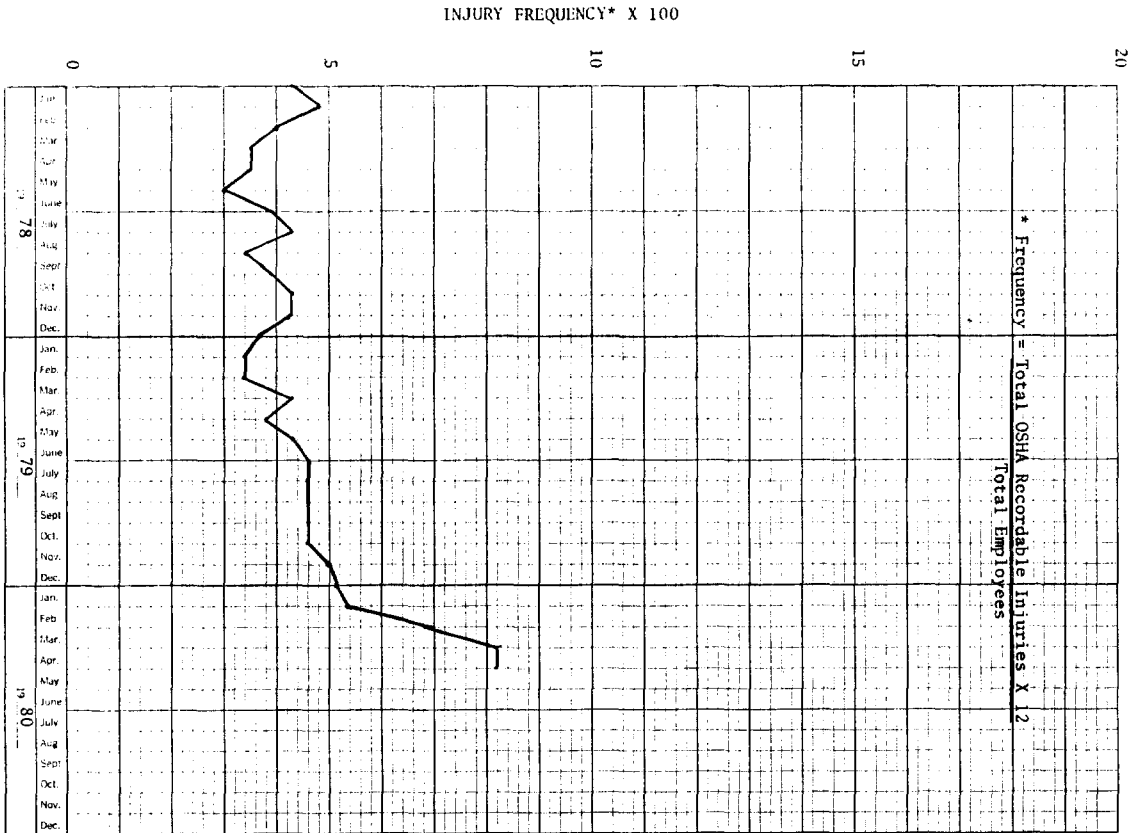
LIMITS	LOCATION	LOADED VCM	EMPTY HOPPERS	LOADED HOPPERS	OTHER LOADS	TOTAL
35	IN PLANT	<u>10</u>	<u>8</u>	<u>16</u>	<u>1</u>	<u>35</u>
25	MONROE LEAD	<u>39</u>	<u>16</u>	<u>2</u>	<u>3</u>	<u>60</u>
20	BINFORD			<u>11</u>		<u>11</u>
	ICG DOWNTOWN					
	TEXICO TRACK					
	SLSF ACROSS BRIDGE					
	STRONG					
30	PRAIRIE			<u>1</u>		<u>1</u>
50	EGYPT			<u>31</u>		<u>31</u>
	OTHER					
160	TOTALS	<u>49</u>	<u>24</u>	<u>61</u>	<u>4</u>	<u>138</u>

RECAP FOR MONTH

<u>4/2/80</u>	<u>35</u>	<u>30</u>	<u>50</u>	<u>5</u>	<u>120</u>
<u>4/8/80</u>	<u>36</u>	<u>28</u>	<u>56</u>	<u>4</u>	<u>124</u>
<u>4/16/80</u>	<u>27</u>	<u>29</u>	<u>68</u>	<u>4</u>	<u>128</u>
<u>4/23/80</u>	<u>33</u>	<u>25</u>	<u>64</u>	<u>3</u>	<u>125</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

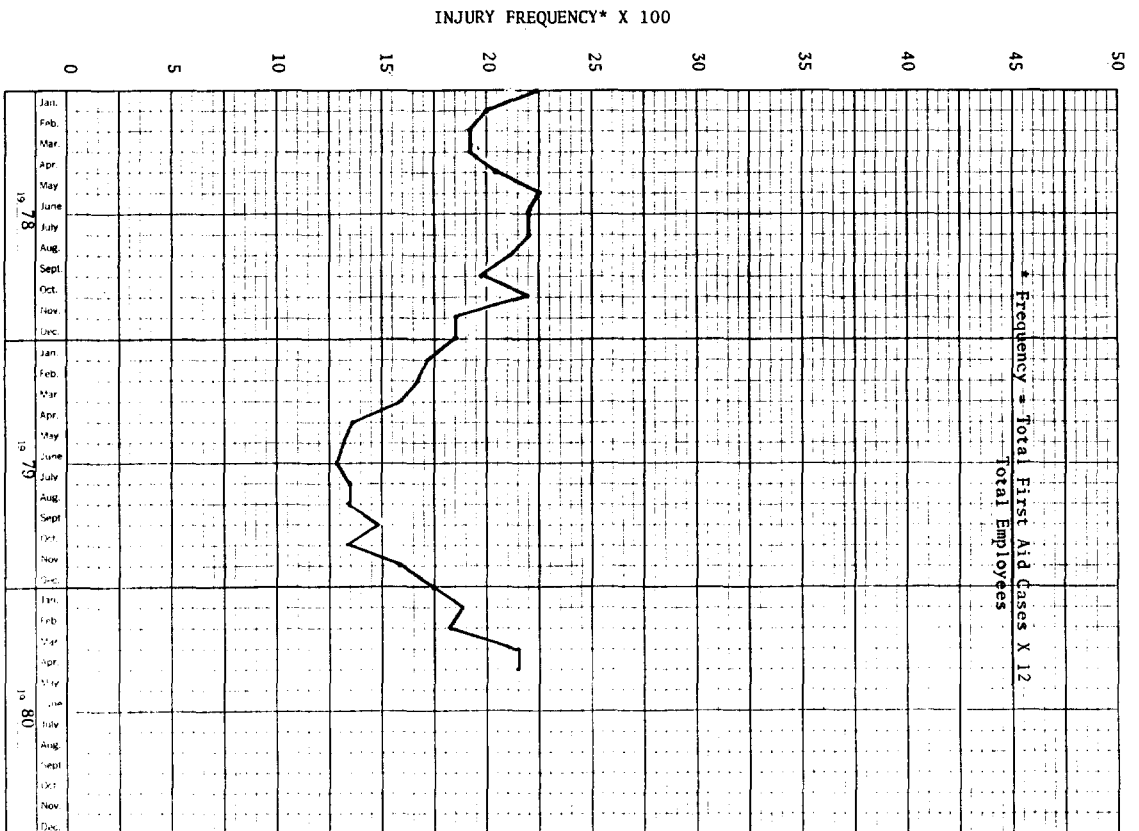
ABERDEEN OSHA RECORDABLE INJURIES

12 MONTH MOVING AVERAGE

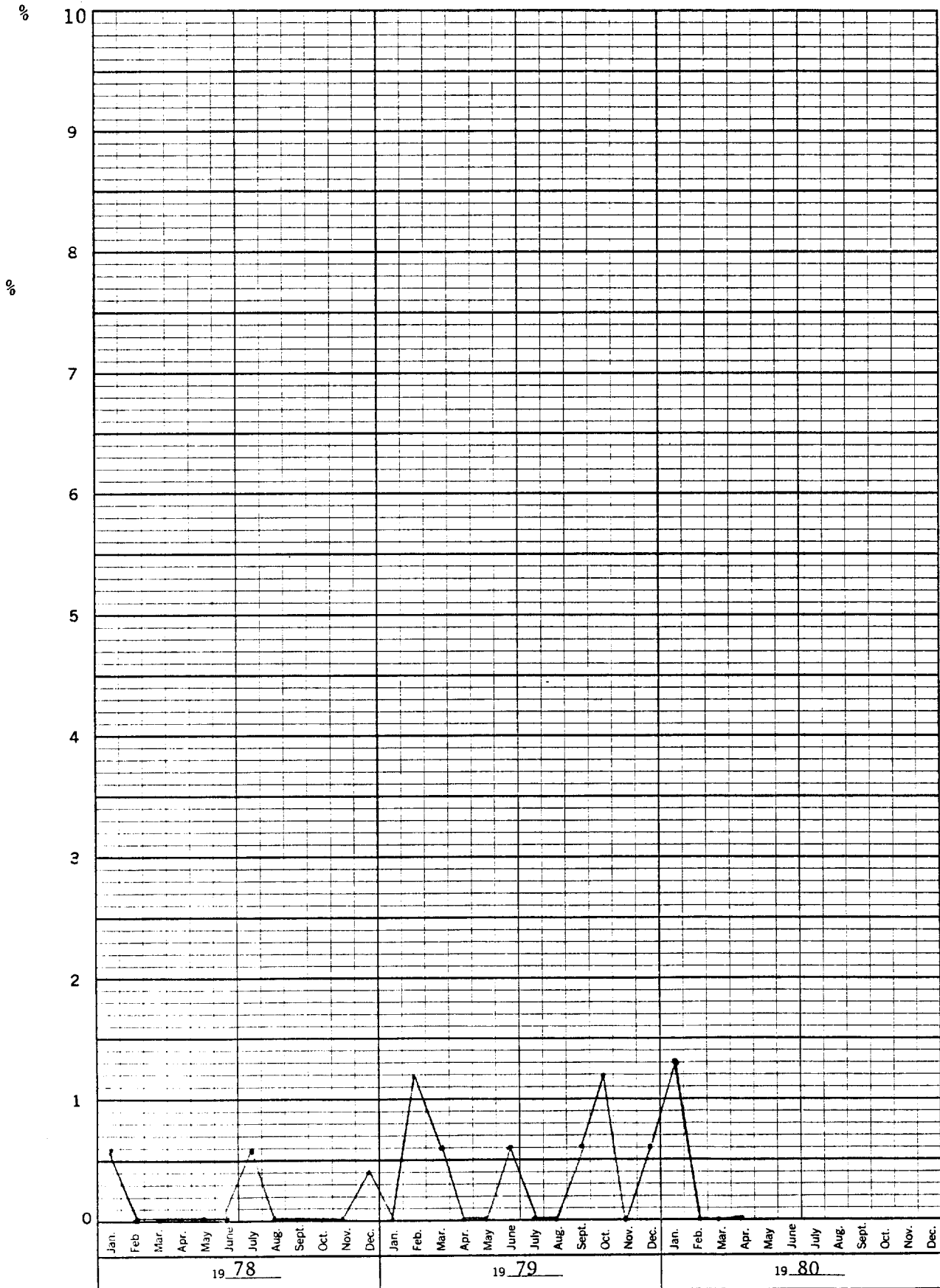


ABERDEEN FIRST-AID CASES

12 MONTHS MOVING AVERAGE



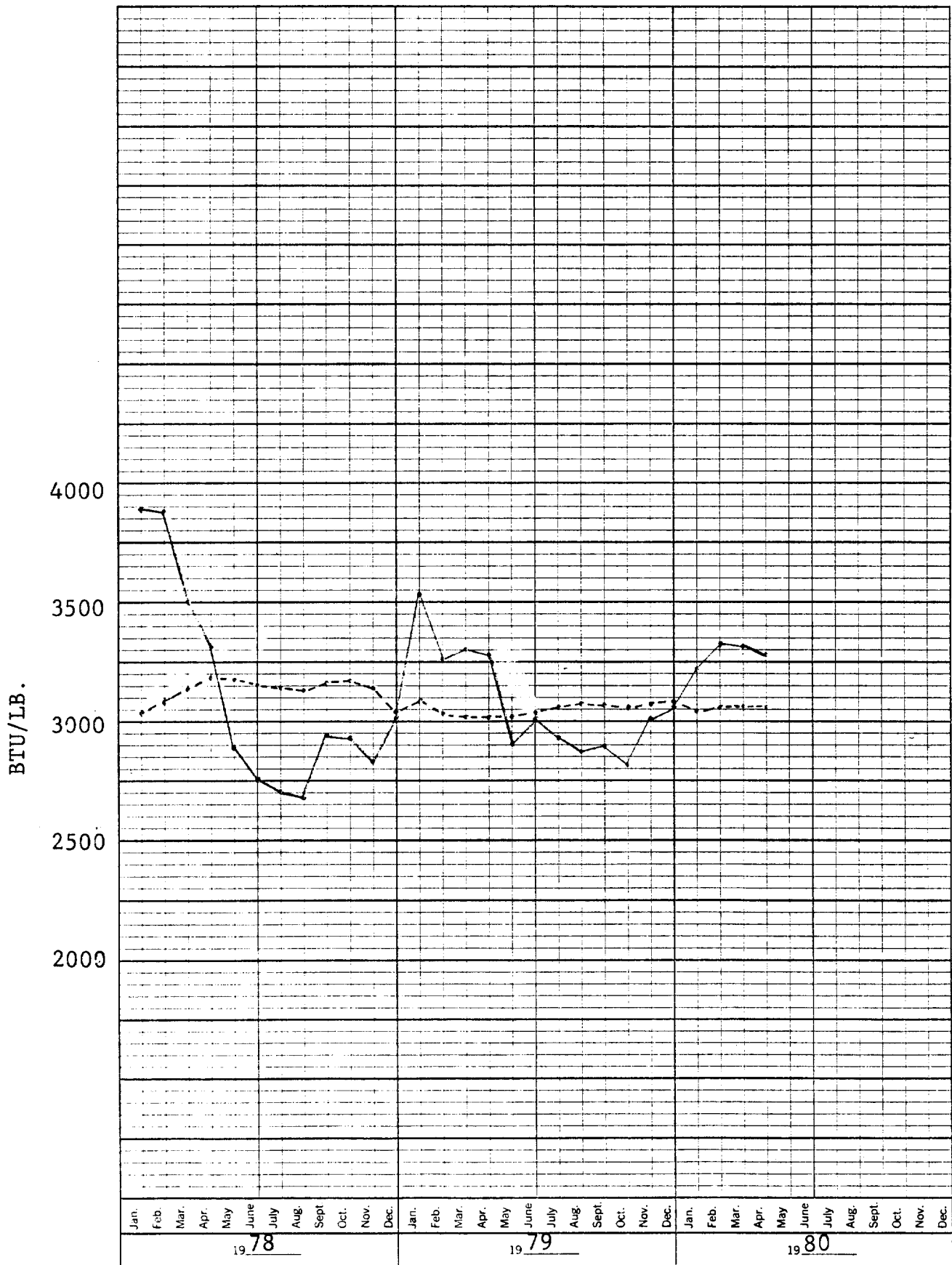
MONTHLY HOURLY TURNOVER



46 3290

3 YEARS BY MONTHS X 100 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.

ENERGY USAGE

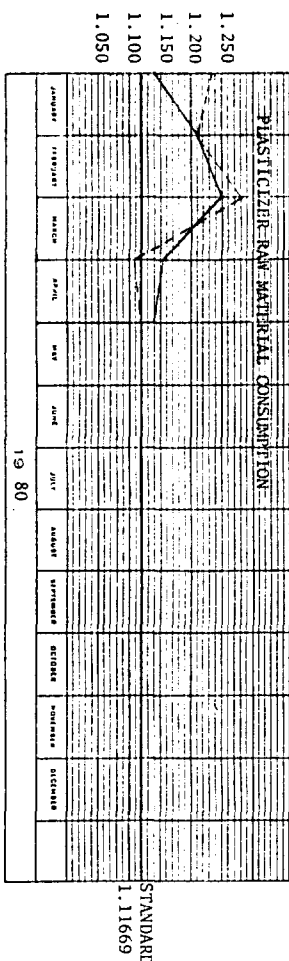
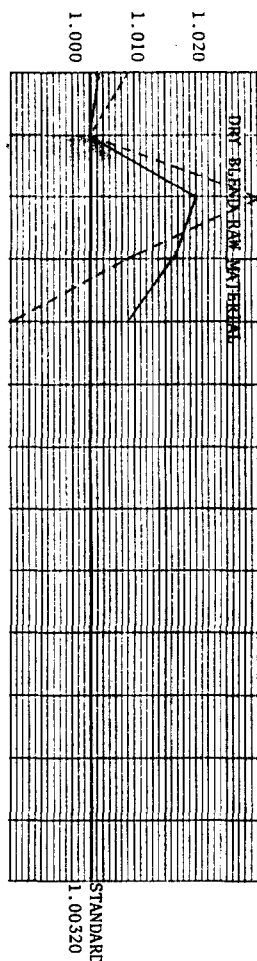
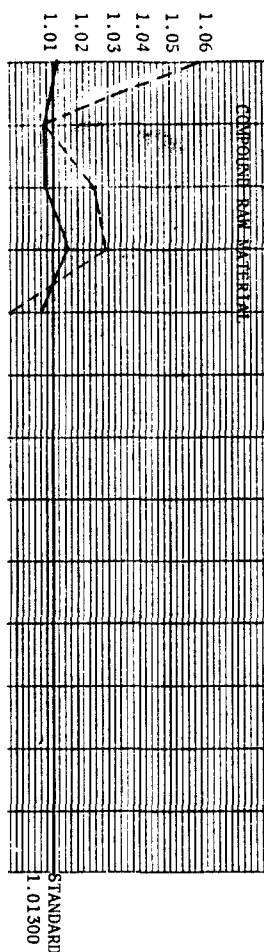
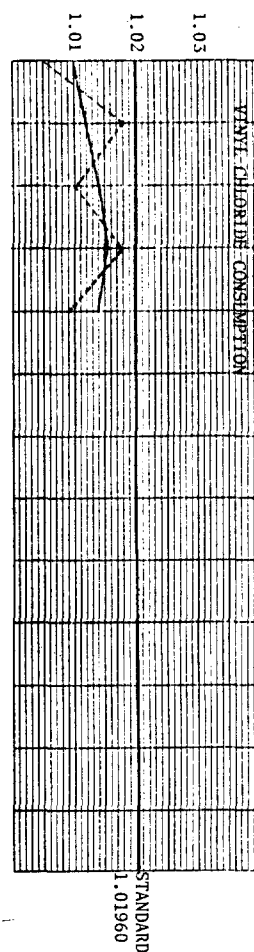


_____ Month
 ----- 12 Month Moving Average
 DTH 000019294

ABERDEEN PLANT EFFICIENCY

1980

POUNDS OF RAW MATERIAL/POUND OF PRODUCT



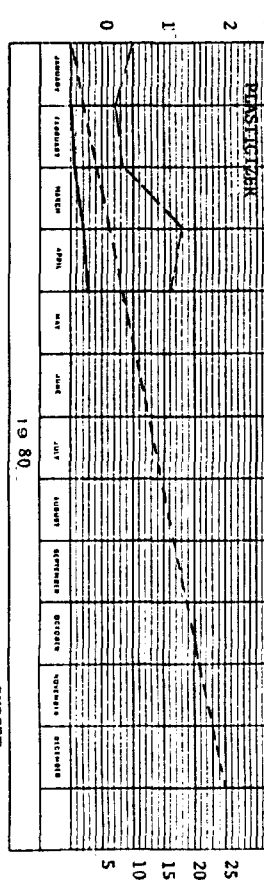
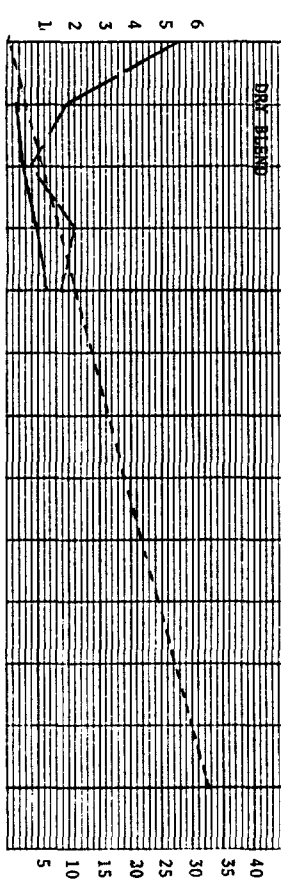
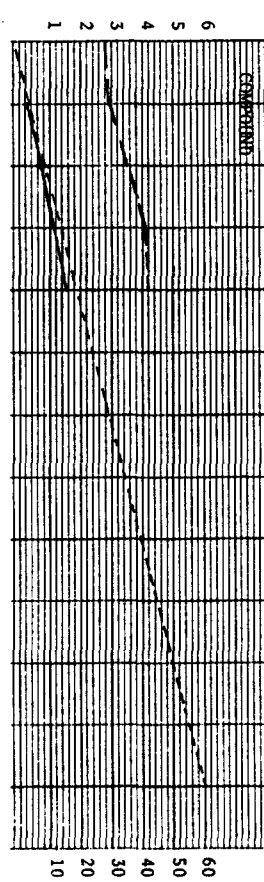
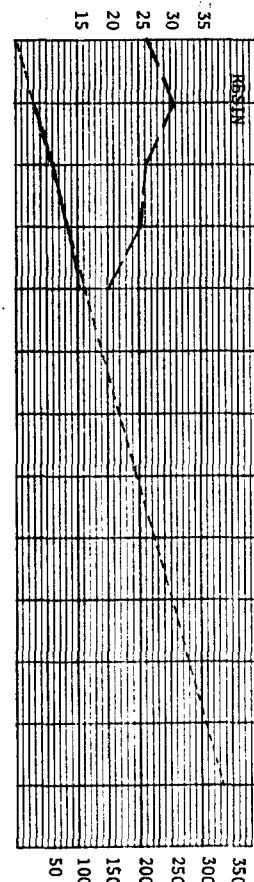
----- MONTHLY
----- CUMULATIVE

MM POUNDS
MONTHLY

ABERDEEN PLANT PRODUCTION

1980

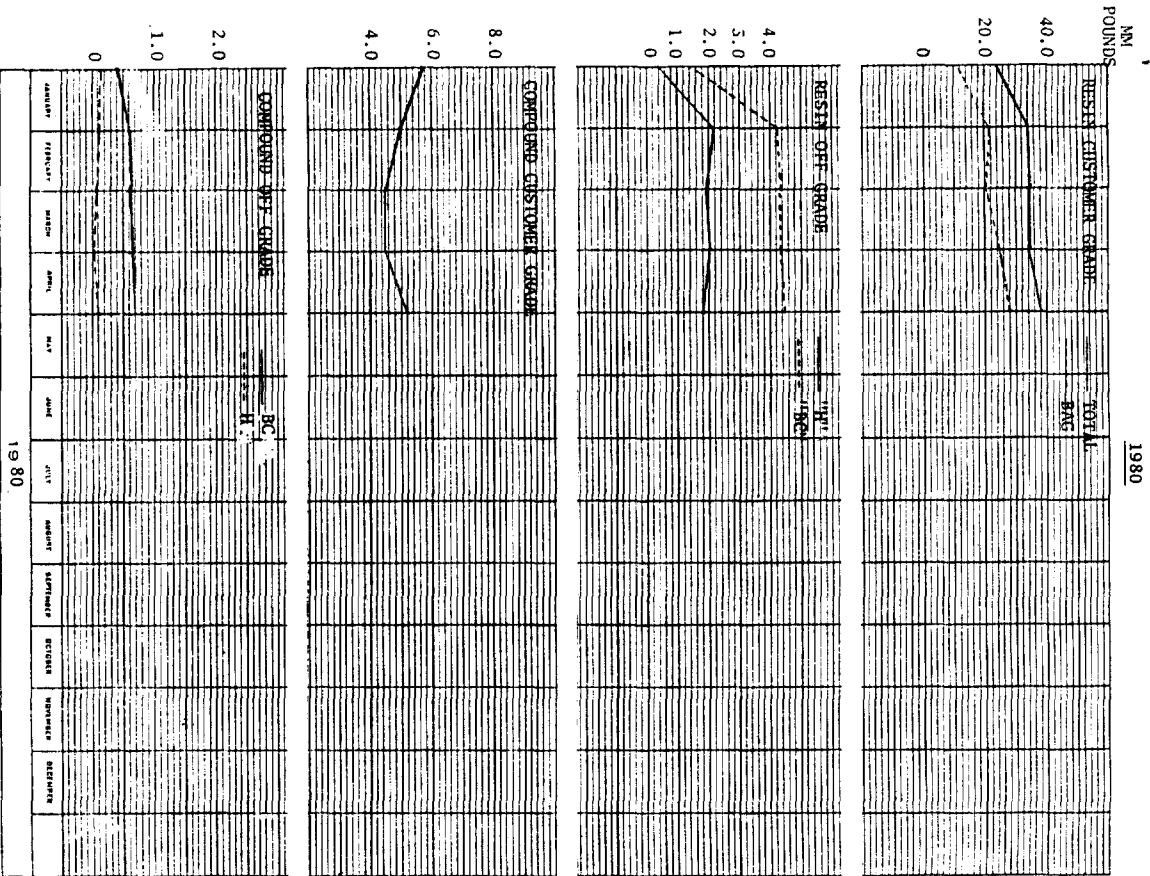
MM POUNDS
CUMULATIVE



----- BUDGET
----- ACTUAL
----- CUMULATIVE

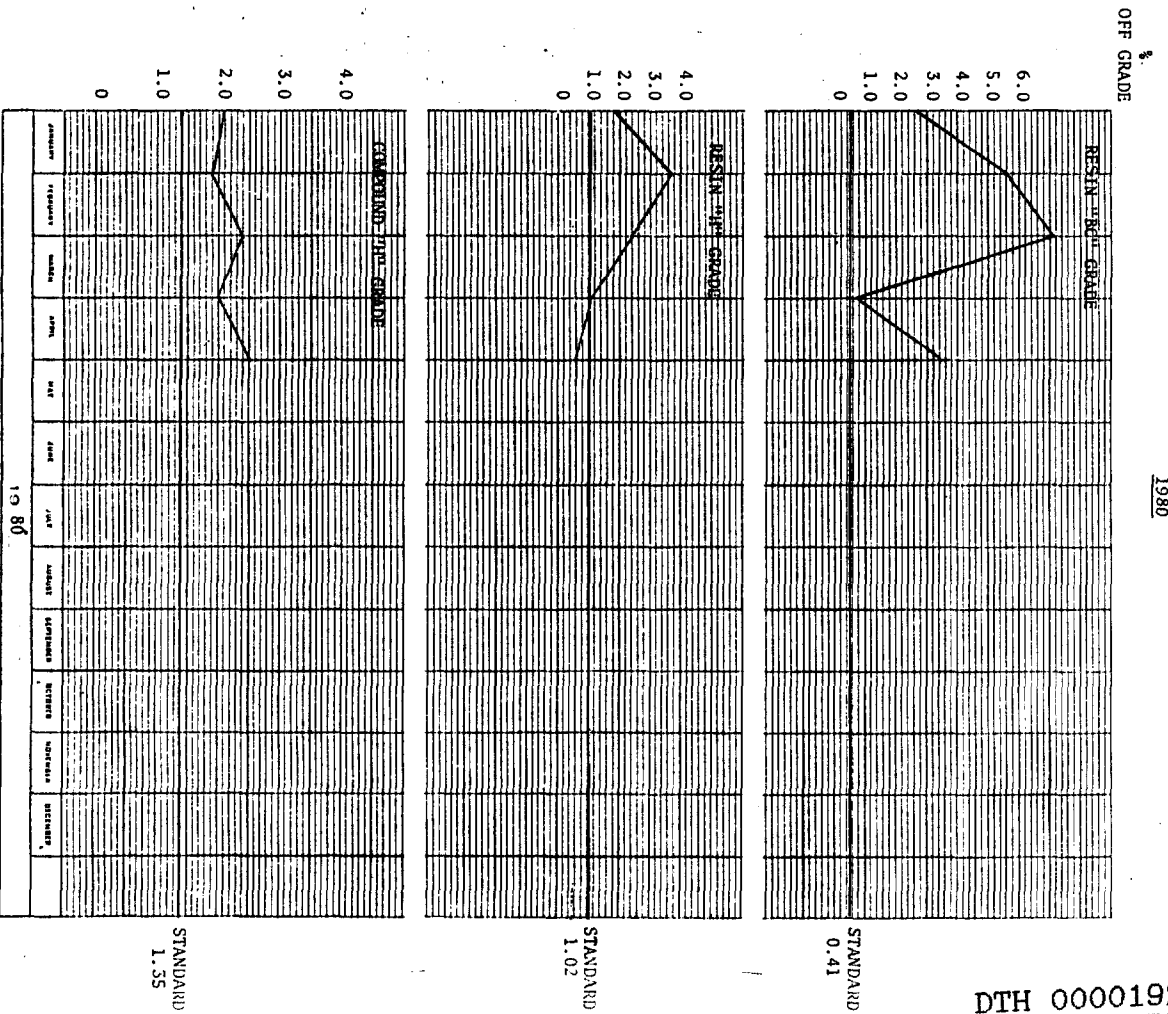
ABERDEEN PLANT INVENTORIES

1980



ABERDEEN PLANT QUALITY PERFORMANCE

1980



DTH 000019296