

SAFETY - A. H. Sather

OCCUPATIONAL INJURIES

<u>Injuries Treated</u>	<u>March</u>	<u>1980 Year-to-Date</u>	<u>1979 Year-to-Date</u>
First Aid	8	16	6
Medical Cases	5	8	1
Restricted Workday Cases	1*	1	1
Restricted Workdays	3	3	4
Lost Time	0	0	0

Injuries By Department

Vinyl Operations	2	6	4
Compound Operations	3	7	0
Maintenance	6	10	2
Laboratory	2	2	0
Receiving and Warehouse	0	0	0
Office	0	0	2

Injuries by Type

Cuts and Abrasions	7	11	2
Eye Injuries	1	2	2
Burns	1	2	2
Bruises	2	5	2
Strains and Sprains	2	4	2
Other	2	3	0

* One of the medical cases reported during February required restricted work assignments during the reporting period.

Injuries which required medical treatment included: a mechanic who slipped and fell when he stepped on a small oil slick in the Maintenance Shop; a development technician who cut his thumb while operating a paper cutter; a vinyl utility who suffered an avulsion to his third right finger tip while changing a dryer sifter screen; a compound utility who suffered a back strain while performing product change work on Line III, and a "B" mechanic who struck his first left finger with a hammer while tightening the bolts on the D-400 reactor gearbox flange.

As of March 31, 1980, the plant operated 270 days or 351,323 manhours without a disabling injury.

FIRES

Two (2) small fires occurred in the New Reactor Module, reactor section during welding operations. Both were extinguished promptly with 30 pound hand fire extinguishers. The first occurred on 3/4/80 when a leaky vinyl chloride charge valve on 741 reactor allowed VCM to enter the sewer during the routine draining of a reactor. The fire occurred where the main sewer line enters the underground sewer. The other occurred on 3/6/80 at a leaking flange on the reactor recovery line as it leaves the reactor area going to the recovery area.

SAFETY - (cont.d)

SAFETY MEETINGS

The discussion topics for March Safety Meetings were: Hand traps, 1979 Safety Performance Review and the proper use and care of knives.

STRIKE PREPARATION

A considerable amount of time was spent preparing for plant safety and security in event of a work stoppage on March 19, 1980. Following acceptance of the contract offer, some time was dedicated collecting and consolidating strike preparation supplies and equipment into a central location.

OSHA COMPLIANCE

Activity in this area was limited to VCM and lead dosimetry. The results of sampling and an explanation of overexposures are shown below.

VCM - A total of 83 samples were taken and analyzed. Of the results, two (2) indicated overexposure.

<u>Range, ppm VCM</u>	<u>Number</u>	<u>Percent</u>
0.0 - 0.5	76	91.6
0.5 - 1.0	5	6.0
1.0 - 5.0	2	2.4
5.0+	<u>0</u>	<u>0.0</u>
		100.0

Overexposures - One overexposure occurred to a chief operator and the other, to an old module operator. The cause of overexposure is under investigation in each case. Neither of the above was wearing a respirator.

<u>Lead</u>	<u>Number</u>
Less than PEL*	32
Greater than PEL	<u>0</u>
	32

* 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	25.6	82.2	
2. Production Rate, M Pounds/C.D.	826	903	918
3. Charges, Reactor Batches/C.D.	19.4	21.0	
4. Total Charges	600	1909	
5. Reactor Stream Factor, %	84.3	87.4	
6. Drying Rates, Average Pounds/Hr.	5536	5889	
7. Dryers, Stream Factor, %	88.8	91.3	
8. Accounting Days	31	91	

Vinyl department production for the month was 90% of budget at 25.6 MM pounds. There were several major items that adversely affected overall production for the month. These items are as follows:

1. D-600 reactor required extensive downtime for repairs to the internal baffles and gearbox (99 hours).
2. Two reactor condensers were brushed during the month (74 hours).
3. Loss of the old unit slurry screener resulted in plugged slurry lines and pumps (92 hours).
4. Quality problems with 5425 production were corrected by elimination of one initiator but production rate was adversely affected. Experimentation with vendor and alternate suppliers is in progress.
5. Loss of an electrical transformer resulted in a 0.6% and 1.1% stream factor penalty in the reactor and dryer areas respectively.

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	1,720,430	40,500	-	6.9
5385	18,964,118	131,750	-	74.6
5425	3,517,910	(2,250)	-	13.7
5465	953,210	-	-	3.7
Sifter Overflow	-	-	284,135	1.1
TOTAL	25,155,668	170,000	284,135	100.0

Quality performance for the month of March was 98.2% customer grade with 0.7% "BC" grade and 1.1% "H" grade. The off-grade reported was due to sifter overflow.

VINYL - (cont.d)

The variable cost variance for the vinyl department was (\$199.7 M) with (\$289.7 M) due to price and \$90.0 M due to efficiency. The only major price variance was (\$253.9 M) for VCM. The major efficiency variances were \$9.9 M for VCM and \$12.2 M for combined initiators. The initiator variance was a result of Lupersol 188 initiator not being utilized in 5425 production during the month. The raw material requirement for the month was 1.01777 pounds VCM/pound of PVC versus a 1.01960 standard. (Y.T.D. is 1.01560)

COMPOUND - J. R. McCrimon

<u>Compound Production</u>	<u>Month</u>	<u>Daily Avg.</u>	<u>Y.T.D.</u>
Line I, M Pounds	1,359	47	3,158
Line V, M Pounds	-	-	207
Line III, M Pounds	2,673	86	7,104
Total, M Pounds	4,032	133	10,469
Accounting Days	31		91

Line I operated 29 days during March at an average rate of 47 M pounds per day. Major items affecting production efficiency were: Product changes (23 changes, 44.8 hours), dicers (41.3 hours), maintenance on No. 1 blender jacket (17 hours), and maintenance on the Banbury motor coupling (8.8 hours). Production was also hindered by Line V operation for 4 days during the month.

Line V operated 4 days during March to experiment with screw configurations to work out hard particles in 17461 Gray 545. To date no configuration has been successful on this compound. More tests will be conducted in April.

Line III operated 31 days during March at an average rate of 86 M pounds per day. Line III production was hindered by: Product changes (17 changes, 57.7 hours), quality control (12.5 hours), maintenance on mill Johnson joint (8.8 hours), and maintenance on Sweco (10.2 hours).

Quality performance for flexible compounds was 2.0% off-grade of which 96.8% was due to mill scrap. "BC" production was 2.0%.

The raw material requirement for flexible compounds was 1.02977 pounds of raw material per pound of compound versus a 1.01300 standard. (Y.T.D. is 1.01708)

The variable cost variance for compound was (\$14.6 M) with \$40.6 M due to price and (\$55.2 M) due to efficiency. The variance due to product mix was (\$44.5 M). Major efficiency variances were: (\$15.0 M) for resin, and \$15.3 M for tribasic lead sulfate. There were two major price variances; \$15.2 M for TOTM and \$10.8 M for combined colors.

<u>Dry Blend</u>	<u>Month</u>	<u>Daily Avg.</u>	<u>Y.T.D.</u>
Production, M Pounds	2,204	105	4,868
Accounting Days	31		91

Dry Blend operated 21 days during March at an average rate of 105 M pounds per day. Production included 80273G, 80274G, and 80172B. Dry Blend production was hindered by: electrical failure on both Wellex motors (51 hours on No. 1 Wellex and 43 hours on No. 2 Wellex), quality control (10.8 hours), maintenance on Orbitran (9.5 hours), and product changes (4.6 hours). Production was controlled by operating on a 5 day , 2 shift basis.

COMPOUND - (cont.d)

Quality performance for the month was 99.99% customer grade.

The raw material requirement for dry blend was 1.00915 pounds of raw material per pound of dry blend versus a standard of 1.00320. (Y.T.D. is 1.01657)

The variable cost variance for dry blend was \$41.5 M with \$6.3 M due to price and \$35.2 M due to efficiency. The variance due to mix was \$45.3 M. There were no major price or efficiency variances.

<u>Plasticizer</u>	<u>Month</u>	<u>Daily Avg.</u>	<u>Y.T.D.</u>
Production, M Pounds	1,292	56	1,777
Accounting Days	31		91

Plasticizer operated 22 days during March at an average rate of 56 M pounds per day. Production included: DOP, 610P, and DIDP.

VRP production totaled 67.6 M pounds (5.2%). The new molten phthalic anhydride system was successfully commissioned March 4, 1980.

The raw material requirement for plasticizer was 1.11049 pounds of raw materials per pound of plasticizer versus a 1.11003 standard. (Y.T.D. is 1.15446).

The variable cost for plasticizer was \$8.5 with \$37.2 M due to price and (\$28.7 M) due to efficiency. Major price variances were : \$12.3 M for isodecanol and \$34.0 for phthalic anhydride. There were no major efficiency variances.

The variance due to product mix was (\$1.9 M).

General

Total customer grade compound inventory remained constant at 4.5 MM pounds during March.

MECHANICAL - S. J. Vincent

Vinyl

There were no large reactor seal failures this month. However, there were two reactor gear box failures. The gear box failures were to the D-400 and the D-600 gear boxes in the old module. Both failures were a result of plugged oil lines to the top gear box bearings. The D-600 motor was also repaired. There were three large reactor condensers cleaned in this period. Two of the condensers were in the old module on the D-400 and D-600 reactors and on the 744 reactor in the new module.

Safety valves were tested on the D-400, D-600 and the 744 reactors. Safety discs were changed on reactors D-600 and 744. Both baffles were replaced in the D-600 reactor after they failed in an apparent similar fashion as D-500 reactor. Flow meters were installed in the oil lines feeding the top bearings on all of the old module reactor gear boxes. The seals were replaced in the D-400 and D-600 reactors as a part of the gear box repairs. Reactor system valves replaced this month were the steam stripping valves on the 744 reactor. Motors were repaired on the hot water charge pump, slurry pumps, the VCM charge pump, and the chem wash pump.

There were ten mechanical seals repaired this month on pumps and compressors in the vinyl production area. Three of the seal failures were in the old module and seven were in the new module. The seals replaced in the old unit were the seal on the reactor rinse pump, the inboard seal on one emission recovery compressor and the east recovered VCM return pump. The seals replaced in the new module were the outboard seals on the recovery compressors, the west VCM return pump, the south seal water pump, south service water pump and the west water charge pump. General repairs in the old module included cleaning the steam stripping heat exchanger on the recovery system, changing out of the steam sparger in the blowdown tank and the inspection of the incinerator quench system. Instrument repairs were made to the general monitors, controller on the knock-out tank, reactor instrumentation, and the VCM charge meters.

There was one vinyl dryer PM this month to the #8 unit. The southwest trunion roller was replaced and several minor repair items repaired on the #8 dryer train. The Bird centrifuge was replaced in the #7 train with the new centrifuge unit and the old centrifuge was rebuilt for a spare. The star valves under the 281 silo were rebuilt and locking breakers installed. New locking mechanisms were installed on #1 and #2 dryer switchgear.

Compound - Dry Blend - Plasticizer and Silo Storage

The major repairs to the compound lines one and three were maintenance and repairs to the dicers and the replacement of the Banbury drive coupling. Some dicer electrical repairs were completed. Clean-out ports were installed in the line three bagging machines and a safety item to install cutting boards on the line three dicers was completed. A new heated plasticizer filter was installed for line three. A gate valve was installed on the filler drop line to the line five welx. The line five temperature zones were calibrated on the compounder. The west compound cooling tower pump and motor were overhauled. The dry blend

MECHANICAL - (cont.d)

Compound - Dry Blend - Plasticizer and Silo Storage - (cont.d)

unit ran with only minor mechanical problems. The major repair was to the welex motors.

The repairs to the plasticizer unit were to overhaul the Glycol pump in the tank farm, repair of several steam leaks and minor process leaks. A project to run a new caustic line to tank 460 was completed this month. The Hoffman blower used for the dry blend and compound vacuum cleaning system failed and a replacement unit is on order.

Utilities and Service

There were three repairs to the plant air system and air compressors. The valves were replaced in two air compressors and one air compressor was regouted to the foundation. The aereator in the #5 lagoon was removed for repair and inspection. Leak Repair repaired 46 process steam leaks in the plant. One of the 1000 KVA transformers failed and was replaced at the chiller building motor control center. The plant air conditioning and compressor PM program is on schedule. The pressure control system was repaired on the deaerator. The magnetrol was replaced on number three boiler.

Maintenance Planner and Miscellaneous Projects

The planner issued 24 invoice registers for contracted repairs, estimated 93 work orders and ordered material for 26 of the planned work orders. There were 10 invoices processed for payment. The planner completed a listing of the plant safety valves and safety discs. The lists have been forwarded to the process area supervisors to help develop a plan for testing this equipment and to establish the necessary inspection interval.

Miscellaneous

The freeze protection tarps were removed from the vinyl operating area. The electric motor storage shed was rearranged. Installation of the control system for the double block and bleed system is in progress.

PERSONNEL - J. L. Carter

EMPLOYMENT

Willard Reed, Process Engineer
Tony Smith, General Helper
Verneta Peters, General Helper
(Q. C. Townes - Reinstated)
Douglas Vogue - Casual Labor

TO/FROM LEAVE OF ABSENCE

None.

TRANSFER/PROMOTION

Charles E. Holcomb, Vinyl Chief Operator to Maintenance Helper

RETIREMENT

None.

TERMINATION

Eugene Mays, Casual Labor
Larry Hubbard, Casual Labor
Michael Clopton, Casual Labor
William Caldwell, Casual Labor
Aaron Dobson, Casual Labor
Alonzo McKnuckle, Casual Labor
Daniel Darby, Casual Labor
Vernetta Peters, Casual Labor
Willie Heard, Casual

DEATH/DISABILITY

None.

OTHER

During the month of March there were 14 casual labor employees on payroll. Total hours worked were 807.25. The bulk of these employees were utilized for bagging resin.

CONOCO CHEMICALS
Aberdeen, Mississippi

March 1980
MONTHLY PERSONNEL REPORT

Salaries Employees	<u>78*</u>	Minority Employees	#	%
Hourly Employees	<u>157</u>	Salaries	<u>7**</u>	<u>9%**</u>
Total Employees	<u>235</u>	Hourly	<u>62</u>	<u>39%</u>
Employees (Hourly)		Total	<u>69**</u>	<u>29%**</u>
New Employees	<u>2</u>	Hourly Min. Hired	<u>2</u>	
Terminations	<u>-</u>	% Min. Hired	<u>100%</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>10</u>	<u>11</u>	<u>6</u>	<u>54%</u>	<u>2</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>1***</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>
Plasticizer	<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 1 Year to Date 34

APPLICANT BREAKDOWN:

Minority 0 % Minority 0

Female 0 % Female 0

Hires (Hourly) :

Month 0 Year to Date 2

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.

***Indicates a reinstated employee and not considered as a new hire.

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

OVERTIME AND ABSENTEEISM

March 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
Warehouse	1369.75	184.25	-	13%	-	-	-	-
Maintenance	5631.50	552.25	-	9.8%	64	87.5%	12.5%	1%
Laboratory	3157.25	102.50	-	3.2%	40	100%	-	1.3%
Compound	5182.75	244.50	160.00	7.8%	296	97.3%	2.7%	5.7%
Vinyl	5324.00	449.50	-	8.4%	136	100%	-	2.5%
Plasticizer	592.00	88.00	-	14.9%	-	-	-	-
Utility Boiler House	576.00	97.00	-	17%	-	-	-	-
General Plant	864.00	88.75	-	10%	8	100%	-	.9%
Total	22697.25	1806.75	160.00	8.6%	544	97%	3%	2.4%
								2.8%

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.

DTH 000043912

PROCESS ENGINEERING - R. A. Frohreich

A. Specialty Compound Line

Tests utilizing new screw elements were conducted in the plant the first week in March to try to eliminate the hard particles in the finished compound. These test were not successful in eliminating the hard particles. A meeting with Werner-Pfleiderer Corporation personnel was held on March 13th to discuss the problem. It was decided a test using larger diameter screw elements would be conducted in the plant the first part of April. Also it was decided a test run would be conducted at Werner-Pfleiderer using a machine with a longer screw in May. This test has now been delayed until June due to delays in moving the W/P lab.

B. Resin Expansion Project

Plant review and approval of equipment purchases and drawings is continuing. A meeting was held with Niro to finalize the control scheme for the fluid bed dryer. A review of one line piping drawing prepared by Litwin was made during the month. Also the location of tie-in points for the expansion were shown to Litwin personnel.

C. Resin Reclaim System

A vacuum truck was used to remove and transport resin slurry from one of the concrete pits to a blend tank in the V-10 dryer building. The slurry will be dried and the quality of the dried resin will be evaluated as dryer time becomes available. The class "A" process design for the reclaim system utilizing a rotary dryer is being prepared.

D. Calcium Stearate Addition System

The AFE request for this project was submitted and approved.

E. In-Line Methocel Analyzers

The class "A" process design was issued for the project. Various concentration methocel solutions were sent to Anacon to determine if their refractive index instrument could be used for this application. The tests indicated the instrument to be accurate to within ± 0.03 weight percent.

F. Centrate Rinse Water System

The test run using centrate water for rinse water has been delayed until after the hot water charge tank in the old module has been replaced. The class "A" design for the system is being prepared.

G. Phthalic Anhydride Storage and Handling

AFE requests to provide piping modifications and to provide a new storage tank were submitted and approved.

PROCESS ENGINEERING - (cont.d)

H. API Clean Water By-Pass

An AFE request to divert clean water around the API separator and to install a continuous oil skimmer was prepared and submitted.

I. Breathing Air Modifications

The class "A" process design for installing a package water separator on the existing Nash compressors will be issued in April. A breathing air system using instrument air will be evaluated as an alternate to upgrading the existing systems.

J. Compound Line III Debottlenecking

The class "A" process design for the project will be issued the first of April. The review meeting for the design is scheduled for the second week of April.

K. Compound Die Face Pelletizer

The class "A" design for the addition of a die face pelletizer to compound line III will be issued in early April. Farrel and Buss-Condux have submitted their proposals for the project. Werner-Pfleiderer has not yet submitted their quote.

L. Reactor Agitator Replacement

The class "A" process design to replace the Philadelphia Gear agitators on D-500 and D-600 reactors with Mixco grade mounted agitators was issued in March.

M. Boiler Economizers

An AFE request to install economizers on the boiler stacks was submitted and approved.

N. Old Module Hot Water Tank Replacement

The old unit hot water tank was taken out of service due to chloride stress corrosion cracking. A design providing piping modifications to allow the use of the rinse tank as the charge tank was prepared. A process design to replace the tank with a 30,000 gallon lined carbon steel tank is being prepared and will be issued in April.

O. Vinyl Area Air Dryer

The operating procedure for the Deltech air dryer was issued.

P. Fixed Point Monitor Data Computer and Warning Lights

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

Q. Plasticizer Backup Filter

A process design providing a small backup filter to the new Schenk plasticizer filter was prepared.

ENVIRONMENTAL - V. E. Messick

I. Particulates

Particulate testing was conducted on three dryers to demonstrate compliance with the emission limitations of the plant's operating permit. These tests were observed by personnel from the Mississippi Bureau of Pollution Control. The particulate emissions measured were within the limits of the permit. The compliance report is being prepared.

II. Water

BOD and COD levels were within the NPDES permit limits.

Process Engineering assisted operations in the pump out and caustic treating of aqueous material in the underground storage tank, T-424. This underground tank is now being used to collect and store rag layer from the plasticizer operation.

III. Vinyl Chloride

The update of the OSHA Engineering and Work Practice Control Plan was issued in March.

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.									
Max.									
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 March was 110.3 MMM BTUs. The energy consumption per pound of product decreased from 3378 BTU/lb. to 3332 BTU/lb.

II. Plant Energy Conservation Program

A. Steam Leaks

Leak Repair, Inc. was called in to repair leaks on steam in key areas that could not be shut down. Seventy-two (72) leaks were repaired in March.

B. Boiler Economizers

The AFE for the installation of economizers on the Plant's three boilers was submitted and approved in March.

ENERGY CONSERVATION DATA

<u>ITEM</u>	<u>1979</u>	<u>1980</u>
<u>Production, MM Lbs.</u>		
Resin	26.3	25.6
Dry Blend	1.5	2.2
Compound	5.2	4.0
Plasticizer	<u>0.9</u>	<u>1.3</u>
TOTAL	33.9	33.1

Natural Gas

Consumption, MSCF	61,659	57,691
Conversion, BTU/SCF	1,020	1,020
Energy Consumption, MMM BTU	62.892	58.845

Electricity

Consumption, MM KWH	4.9248	5.1456
Conversion, BTU/KWH	10,000	10,000
Energy Consumption, MMM BTU	49.248	51.456

Propane

Consumption, M Gal.	0	0
Conversion, BTU/Gal.	92,000	92,000
Energy Consumption, MMM BTU	0	0

Total

Energy Consumption, MMM BTU	112.140	110.301
Energy Consumption , BTU/Lb.	3,308	3,332

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	425	384	100	19
No. 2	406	408	110	19
No. 3	452	414	115	21

MECHANICAL ENGINEERING - J. A. Dixon

AFE's Submitted, Approved and Closed

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

<u>AFE No.</u>	<u>Title</u>	<u>Authorized</u>
9550	Phthalic Anhydride Handling Improvement	\$ 63,000
9560	Safety Equipment	25,000
9570	Replace T-100 Phthalic Anhydride Tank	119,000
9580	Boiler Economizers	140,000
9580	Critical Spare Equipment	59,000

The following AFE was closed to field charges during March:

<u>AFE No.</u>	<u>Title</u>	<u>Authorized</u>
9679	Plant Winterization	\$ 64,000

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

<u>AFE No.</u>	<u>Title</u>	<u>Authorized</u>
9307	Compound Project Conveying Lines	\$ 50,000
9208	Spare Recovery Vacuum Pump	14,000
9238	Compound Line I Roof Collapse	44,000
9178	Propane Vaporizer Replacement	175,000
9529	Miscellaneous Projects Under \$10,000	125,000
9569	Miscellaneous Projects Under \$10,000	125,000

Design

Contracts were let for the Foundations, Piping and Equipment, and Electrical Modifications for the Vapor Emissions Recovery System Revisions project.

Design work is in progress on the following projects:

- Replacement Phthalic Anhydride T-100 Storage Tank
- Instrument Air Dryer Winterization
- Diking of Sphere and Curbing of Drum Storage Area
- Double Block Valves for VCM Charge
- Methocel Charge Revision
- Seal Flush Revisions
- Line III Weighup System

MECHANICAL ENGINEERING - (cont.d)

AFE Project Activity

1. AFE 9148 - Plasticizer Chemical Exposure Abatement - M. S. Richards

Revisions to the seal flush system are in progress. Design of steam tracing system and piping modifications are in progress.

2. AFE 9158 - Fire Protection Improvements - Phase I - J. P. McKee

Additional bids are due in early April.

3. AFE 9519 - Critical Spare Equipment - J. P. Windham

A Colt-on portable resin transfer unit has been purchased on a guaranteed performance basis.

4. AFE 9619 - Waste Water Revisions - Part I - J. L. White

The design of the sampling weirs and outlet piping is complete and ready for construction bidding.

5. AFE 9629 - Air Compressor - M. S. Richards

All of the revisions to the compressors will be scheduled when all of the material is received.

6. AFE 9639 - Revisions to Emission Recovery System - J. L. White

The contracts for concrete, piping and equipment, and electrical installation have been let.

7. AFE 9649 - Double Block Valves for VCM Charge - M. F. Holman

All design work is complete. Bid packages for installation are being prepared.

8. AFE 9749 - Improved Rupture Disc Holders - M. F. Holman

Installation of the improved holders is in progress.

9. AFE 9759 - Aberdeen PVC Resin Expansion - M. F. Holman

The inhibitor injection system and the cooling towers have been purchased. Preliminary piping and equipment layout drawings were revised with Litwin. The fluid bed dryer general arrangement, reactor, and miscellaneous vessel drawings were reviewed.

MECHANICAL ENGINEERING - (cont.d)

10. AFE 9570 - Replace T-100 Phthalic Anhydride Tank - J. P. Windham

T-1000 was placed in operation early this month. The design for the replacement of T-100 is in progress.

Construction - G. A. Morgan

The installation of the vessel, piping and insulation for the new phthalic anhydride tank 1000 was completed. Repairs to the phthalic anhydride charge tank T-400 were completed. A removable screen was fabricated and installed in the line five pellet cooler.

The installation of the baffles and baffle supports for D-600 reactor was completed. Air spargers were installed in 646 and 647 blend tanks. Insulation of number 4, 5, and 6 dryer inlet ducts was completed.

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

ABERDEEN AUTHORIZATIONS REPORT

AUTH. NO.	CAPITAL DESCRIPTION	DATE APPROVED	AUTH. AMT.	(1) EXPENDED TO DATE	(2) COMMITTED TO DATE	FINAL TOTAL EST. COST COMP.	UNDER (OVER) AUTH. AMT.	EST. COMP. DATE	EST. CLOS. DATE	REMARKS
9237	Heated Plasticizer Addition System	10/11/77	37,000	13,090	13,518	37,000	0	6/80	9/80	Design in progress.
9247	Farrel Mixer Feeders	11/21/77	47,000	42,412	42,667	42,667	4,333	11/79	3/80	Closed to field charges.
9297	Automatic Plasticizer-Stabilizer Weigh-Up System	12/14/77	60,000	56,293	57,944	60,000	0	6/80	9/80	Installation scheduled.
9098	New Compound Line	4/17/78	2,050,000	2,088,233	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	140,587	146,013	152,000	0	4/80	7/80	Revisions in progress.
9158	Fire Protection Improvements - Phase I	9/19/78	176,000	95,728	95,728	176,000	0	6/80	9/80	Re-bidding in progress.
9188	Railcar Resin Heel Clean-Up System	10/12/78	55,000	42,970	42,970	55,000	0	4/80	7/80	Project operational.
9228	Dry Blend Silo Alarms	12/13/78	25,000	4,392	9,368	25,000	0	5/80	8/80	Purchases proceeding.
9248	Silo Isolation Valves	12/14/78	25,000	21,156	22,244	25,000	0	5/80	8/80	Eighteen of twenty-one valves installed.
9258	Dryer Operation Improvements	12/14/78	315,000	249,629	264,169	315,000	0	4/80	7/80	Project operational.
9519	Critical Spare Equipment	2/6/79	175,000	97,127	158,269	175,000	0	6/80	9/80	Purchases proceeding.
9539	Laboratory Equipment	3/27/79	31,000	24,467	30,721	30,721	279	7/79	4/80	Closed to field charges.
9549	Safety Equipment	3/26/79	15,000	12,326	14,933	15,000	0	10/79	6/80	Closed to field charges.
9559	Color Weigh Room Modifications	4/19/79	25,000	16,257	16,589	25,000	0	5/80	8/80	Installation in progress.
9589	Instrument Air Dryer	5/30/79	110,000	89,183	91,197	110,000	0	6/80	9/80	Winterization 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	126,209	127,989	140,000	0	5/80	8/80	Project operational.
9629	Air Compressor	7/9/79	340,000	117,212	235,293	340,000	0	6/80	9/80	Project operational.
9639	Revisions to Emission Recovery System	7/12/79	100,000	15,619	45,945	100,000	0	6/80	9/80	Installation in progress.
9649	Double Block Valves for VCM Charge	7/18/79	182,000	53,915	77,037	182,000	0	6/80	9/80	Installation in progress.
9659	P. A. System Modifications	7/10/79	35,000	16,758	32,445	35,000	0	6/80	9/80	Project operational.
9669	New Air Header	8/15/79	25,000	15,727	13,299	25,000	0	6/80	9/80	Project operational.
9679	Plant Winterization	9/5/79	64,000	56,059	61,944	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	0	170,000	0	6/80	9/80	Engineering in progress.
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	829,021	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	10,640	66,000	0	6/80	9/80	Engineering in progress.
9749	Improved Rupture Disc Holders	10/22/79	27,000	23	24,636	27,000	0	4/80	7/80	Installation in progress.
9759	Aberdeen PVC Resin Expansion	12/10/79	11,150,000	41,328	1,779,372	11,150,000	0	7/81	10/81	Engineering in progress.
9769	Automatic Setback Thermostats	12/31/79	3,000	128	1,872	3,000	0	6/80	9/80	Thermostats received.
9510	Miscellaneous Projects Under \$10,000	1/3/80	150,000	12,508	62,604	150,000	0	12/80	3/81	Thirty-five projects approved.
9520	Replacement Phthalic Anhydride Tank	1/17/80	75,000	23,590	77,738	84,000	(9,000)	6/80	9/80	Installation in progress.
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	38,844	45,000	0	8/80	11/80	Purchases proceeding.

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

ABERDEEN AUTHORIZATIONS REPORT

<u>MITL NO.</u>	<u>CAPITAL DESCRIPTION</u>	<u>DATE APPROVED</u>	<u>AUTH. AFE 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>
9550	P A Handling Improvement	3/3/80	63,000	0	18,000	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	0	119,000	0	9/80	12/80	Engineering in progress.
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.
<u>EXPENSE</u>										
9029	Repair of Steam Tracing & Insulation	9/5/79	62,000	69,369	69,369	69,369	(7,369)	1/80	4/80	Closed to field charges.
9049	Repairs to Dryer Inlet Ducts	9/13/79	25,000	16,548	19,012	25,000	0	4/80	7/80	Insulation in progress.
9069	Centrifuge Rotors Repair	9/13/79	47,000	53,302	53,302	53,302	(6,302)	2/80	5/80	Closed to field charges.
9079	Cooling Tower Motor Repair	10/22/79	17,800	0	0	17,800	0	6/80	9/80	Motor being repaired.
9089	Vibration Study-Capacity Replacement Reactors	10/29/79	50,000	18,164	18,562	50,000	0	6/80	9/80	Prototype testing in progress.

LABORATORY - R. D. JacksonCUSTOMER COMPLAINTS

<u>Customer</u>	<u>Product</u>	<u>Complaint</u>	<u>Report By</u>
Cerro Wire & Cable	5385	Gels	RDJ
Athol	5425	Delayed Shipment	CRM
Carlton	5305	Moisture	RDJ
Permafit	90171	Particle Size	RDJ
Western Electric	36861 Nat.	Contamination-Plasticizer	JRM/RDJ

WAIVERS RECEIVED

<u>Date</u>	<u>Identification</u>	<u>Product</u>	<u>Customer</u>	<u>Reason</u>	<u>Waived By</u>
3/4	T-7769	5385-III	Can-Tex	Particle Size	JRW
3/4	T-1056	80273G	Ari Products	Fusion Torque	JRW
3/4	T-101	80172B	Columbia Plastics	Equilibrium Torque	RDJ
3/5	PTLX-41845	5305	Tyler Pipe	Particle Size	CLS
3/11	PLCX-43744	5305	N. J. Terminal	Viscosity	RNG
3/19	CONX-45282	5385-III	Charlotte Pipe	Color "b" Value	CJM
3/19	T-2481	5385-III	Can-Tex	Color "b" Value	CJM
3/20	T-2351	5305	American Hoescht	Particle Size	CJM
3/20	T-2479	5385-III	World of Plastics	Particle Size	RDJ
3/20	PLCX-43750	5385-III	World of Plastics	Particle Size	ELK
3/20	PLCX-43204	5385-III	Can-Tex	Color "b" Value	ELK
3/21	PTLX-41648	5385-III	Can-Tex	Color "b" Value	ELK
3/25	T-2481	5305	American Hoescht	Color "b" Value	CRM
3/26	PLCX-43732	5385-III	Carlton	Moisture	CRM
3/26	PLCX-43747	5385-III	Simpson	Moisture	CRM
3/27	PTLX-41603	5385-III	LCP	Color "b" Value	CLS

TOTAL 16

PRODUCT DEVELOPMENT AND SERVICE

<u>Ship Date</u>	<u>Product</u>	<u>Quantity (Lbs.)</u>	<u>Customer</u>	<u>Requested By</u>
3/4	5425	150	Fritz Air Freight	JPM
3/5	5465	5	Ciba-Geigy Corporation	RNG
3/5	5305	200	Conoco Chemicals Company	-
3/5	5425	200	Conoco Chemicals Company	-
3/5	5465	200	Conoco Chemicals Company	-
3/5	5385	900	Conoco Chemicals Company	-
3/6	38611 Nat.	100	Electri-Flex	-
3/7	5385	50	Vinyl Plastics	MAS
3/11	17461 Gry 545	50	Plastics Profiles	MAS

LABORATORY - (cont.d)

PRODUCT DEVELOPMENT AND SERVICE - (cont.d)

<u>Ship Date</u>	<u>Product</u>	<u>Quantity (Lbs.)</u>	<u>Customer</u>	<u>Requested By</u>
3/12	34431 Nat.	20	Conoco Inc.	JAP
3/18	5305	50	Polymer Service, Inc.	RNG
3/19	35851 Nat.	300	ITT Royal Electric	-
3/19	34551 Nat.	100	ITT Royal Electric	-
3/19	34431 Nat.	100	ITT Royal Electric	-
3/19	38931 Nat.	100	ITT Royal Electric	-
3/19	35851 Nat.	250	Chester Cable Operations	-
3/19	34551 Nat.	250	Chester Cable Operations	-
3/19	35851 Nat.	100	North Wire Inc.	-
3/19	34641 Nat.	100	North Wire Inc.	-
3/19	39032 Nat.	100	North Wire Inc.	-
3/19	17461 Blk.	50	Homestead Plastics	JFN
3/21	14431 C1 B1 50	100	Atcoflex Inc.	-
3/21	15041 C1 B1 50	100	Atcoflex Inc.	-
3/25	34641 Nat.	1	Universal Mfg. Co.	RNG
3/25	5385	1000	Superior	-
3/25	34641 Nat.	100	Dixie Wire Co.	JFN
3/25	16851 C1 B1 50	100	Anchor Wire	JFN
3/27	5385	10	Decorative Products	NTH
3/28	34551 Nat.	10	Conoco Inc.	-
3/31	5305	10	Inmont Corporation	-

Special Compound Testing

Western Electric specification tests were run on three lots of 36861 Natural and on two lots of 34861 Gray 546. All the lots met the specifications.

One lot of Packard Electric 34533 Natural was tested.

One lot of 34431 Gray 547 and one lot of 34641 Black were tested and were found to meet Kaiser specifications.

Compound Property Verifications

Compound property tests are complete on seven compounds and are complete except for oven aging on four other compounds.

New Compounds

Quality control specifications and standards were prepared for two new compounds.. They were JLI 3934-26B and 3711-82B.

LABORATORY - (cont.d)

QUALITY CONTROL TESTING

Resin

Regular Samples = 362
Bag Blends = 25
Other In-Process Samples = 1941
Bulk Shipments = 238 (Railcars = 110 Trucks = 128)

Dry Blend

Blenders Produced = 240
Blenders Tested = 195
Blenders Adjusted = 7.5%
Other In-Process Samples = 75
Bulk Shipments = 26 (Railcars = 6 Trucks = 20)

Compound

Blenders Produced = 657
Blenders Adjusted = 3.5%
Other In-Process Samples = 62
Bulk Shipments = 28 (Railcars = 10 Trucks = 18)

Resin Heat Stability

Forty-five (45) samples of resin were tested for oven heat stability. They consisted of:

5385	19 Samples
5425	16 Samples
5305	8 Samples
5465	2 Samples

The 5385 and 5305 resins continue to give erratic values for heat stability and average poorer than the controls. The 5425 resin was good except for one very poor blend. The 5465 blends were better than the control. Three of the 5385 samples were railcars and had high Gardner "B" values. They were acceptable with respect to heat stability.

Raw Materials

Fifty-six (56) lots of plant raw materials were tested for quality. One small lot of SP-33 clay was rejected because it gave a low value for volume resistivity. One lot of Cyastab 523 stabilizer was rejected because dispersion was unacceptable. The other raw materials were released.

LABORATORY - (cont.d)

RVCM of Resin Shipments

A total of 185 samples of resin for bulk shipment were tested during March. Below is a summary of these results.

<u>Product</u>	<u>5385</u>	<u>5305</u>	<u>5425</u>	<u>5465</u>
Average RVCM, ppm	3.2	5.9	0.4	0.1
Number of Samples	71	61	12	3

Due to some high values all 5305 shipments were tested prior to release. Any values greater than 10 ppm were rejected for shipment. Ninety-nine (99) 5305 samples were tested for shipment. The average RVCM on all shipment samples, including rejections was 10.4 ppm.

SPECIAL PROJECTS

RVCM of Slurries

A total of 592 batches (99.7% of the batches dumped) were tested for RVCM. The overall monthly average was 293 ppm. Six days during March the daily average exceeded 400 ppm.

RVCM of Blowdown Tanks

A total of 140 samples of Blowdown tank water were tested for RVCM. The monthly average was 9.7 ppm VCM.

RVCM of 5305 Dryer Samples

Samples of 5305 were taken from the regular resin sample caught at the driers. A total of 43 samples were tested for an over all average of 13.0 ppm VCM.

Resin Volume Resistivity

Volume resistivity tests were run on four lots of 5425 resin and two lots of 5465 resin. The samples showed greater than normal variations in volume resistivity. While none of the values appear dangerously low, another series of samples will be tested soon.

NEW EQUIPMENT

A new Metrastat oven has been received for use as a replacement for a conventional forced draft oven. It will provide heat stability comparisons through the total exposure period and requires less technician time during the exposure period. The oven performance was unacceptable, as received, due to poor temperature uniformity in the front section. After extensive tests the reason was discovered, and modifications have been made which greatly reduce temperature variations. Tests are underway to compare the Metrastat and conventional forced draft oven.

LABORATORY - (cont.d)

NEW EQUIPMENT - (cont.d)

The lab minicomputer operated without problem during March.

PLANT PROCESS ENGINEERING SUPPORT

The following special samples were tested:

COD's	19 samples
Incinerator Exhaust	2 samples
Pond Solids	2 samples
Special Water for VCM	6 samples

PROFESSIONAL CONFERENCE

Manufacturing Chemist, Dave Cox spent two days at the Conference of Analytical Chemistry (Pittsburg Conference).

SURFACE TRANSPORTATION
 ABERDEEN DISTRIBUTION WAREHOUSE
MARCH ACTIVITY REPORT, 1980

Shipment by Product - M/lbs.

	<u>MARCH</u>	<u>Year-to-Date</u>
Resin	24732	62059
Plasticizer	0	43
Dry Blend	2420	6740
Compound	3890	10743
Total	<u>31,042</u>	<u>79,585</u>

Number of Shipment by Mode

	<u>R/C</u>	<u>O.T.</u>	<u>C.O.T</u>	<u>C.C.</u>	<u>TOFC</u>	<u>CPU</u>	<u>TOTAL</u>
Resin - Bulk	116	80		24		8	228
Package		6		3		12	21
Export - ABR		7					7
Plasticizer - Bulk							0
Dry Blend - Bulk	6	1				18	25
Package		14				2	16
Compound - Bulk	8	14		2			24
Package		37	1	8		8	54
Export- Pkg							
	<u>130</u>	<u>159</u>	<u>1</u>	<u>37</u>	<u>0</u>	<u>48</u>	<u>375</u>
Back Hauls for <u>MARCH</u>		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.O.T.</u>	<u>C.C.</u>	<u>TOFC</u>	<u>CPU</u>	<u>TOTAL</u>
January	104	55	72	0	4	2	36	273
February	111	83	66	0	21	4	35	320
March	130	95	64	1	37	0	48	375

LOCATION	TOTAL M SQ. FT.	CONTENTS	ESTIMATED MM POUNDS		
			ON FLOOR	OPEN	TOTAL
MAIN-East	48	Compounds	3.5		
		Dry Blend	.3		
		Export Resin	.2		
		Conoco Resin	.4	4.4	5.6
					10.0
Prairie 12-1	12	Compound	.6	.9	1.5
12-2	22	Resin	.		
		Export Resin	3.2	.3	3.5
12-3	21	Conoco	.		
		Export Resin	3.9		
			.		
			3.9	.	3.5
12-4	22	Conoco Resin	4.5		
		Resin O.G.	.		
			4.5	.	3.5
12-5	21	Mill Scraps	.		
		Compd O. G.	.7		
		Dry Blend O. G.	.1		
		Sifter Overflow	.4		
		Resin O. G.	.6	1.8	.7
					2.5
12-6	21	Compound	.1		
		Dry Blend	2.7		
		Raw Material	.3	3.1	.4
					3.5
12-7	21	Resin O. G.	4.0	.	3.5
12-8	21	Conoco	4.5	.	3.5
		Sub-Total			35.0
		(Plug-Aisles)			2.9
Total	209	Total Conoco	30.0	7.9	37.9

SAFETY REPORT

	<u>MARCH</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	2016	7173	148848

MATERIAL HANDLING REPORT

	<u>M/Lbs.</u>	<u>T/L</u>
Packaged Resin From Production	1296	32
Packaged Compound, Dry Blend From Prod.	2349	58
Transferred From Main to Prairie	1336	33
Transferred From Prairie To Prairie	0	0
Reverse Transfer Resin to Plant	770	19
Reverse Transfer Cmpd. to Plant	40	1
Shipment From Warehouses	3604	89
Special Packaging	283	7
Transferred From Prairie to Main	851	21
	<u>10529</u>	<u>260</u>

LABOR REPORT

Total regular Hours	1434
Total Overtime Hour	102
Total Worked	<u>1536</u>
Paid but not Worked	0
Total	<u>1536</u>

Labor Efficiency equals

10.5 MM/Lbs. - Hours Worked 6,855

Overtime % 6.6%

EQUIPMENT REPORT

Lift Truck Hours Worked 262
Gal of Fuel Consumed 437
Gals/Hrs 1.7

Lift Truck Efficiency Equals
10.5 MM/Lbs. - Hours Worked -40,187Lbs./hr

OFF-GRADE IN STORAGE

<u>MATERIAL</u>	<u>M/Lbs.</u>	<u>T/L</u>
Sifter Overflow	306,053	8
Resin "BC"	4,313,000	106
Resin "H"	1,615,000	40
Mills Scraps	57,600	1
Compound "B"	609,000	15
Compound "H"	3,000	0
Dry Blend "O.G."	24,275	1
Total	<u>6,927,928</u>	<u>171</u>

D. F. Operations

Total Overall inventory of packaged material remained about the same for the month. Compound and dry blend shipments were above average for the month. Warehouse space still remains tight.

- Safety meeting held during the month with D.F. personnel on safety of storing and removing of packaged material out of storage racks.

ABERDEEN RAIL CAR REPORT
SURFACE TRANSPORTATION DEPT.

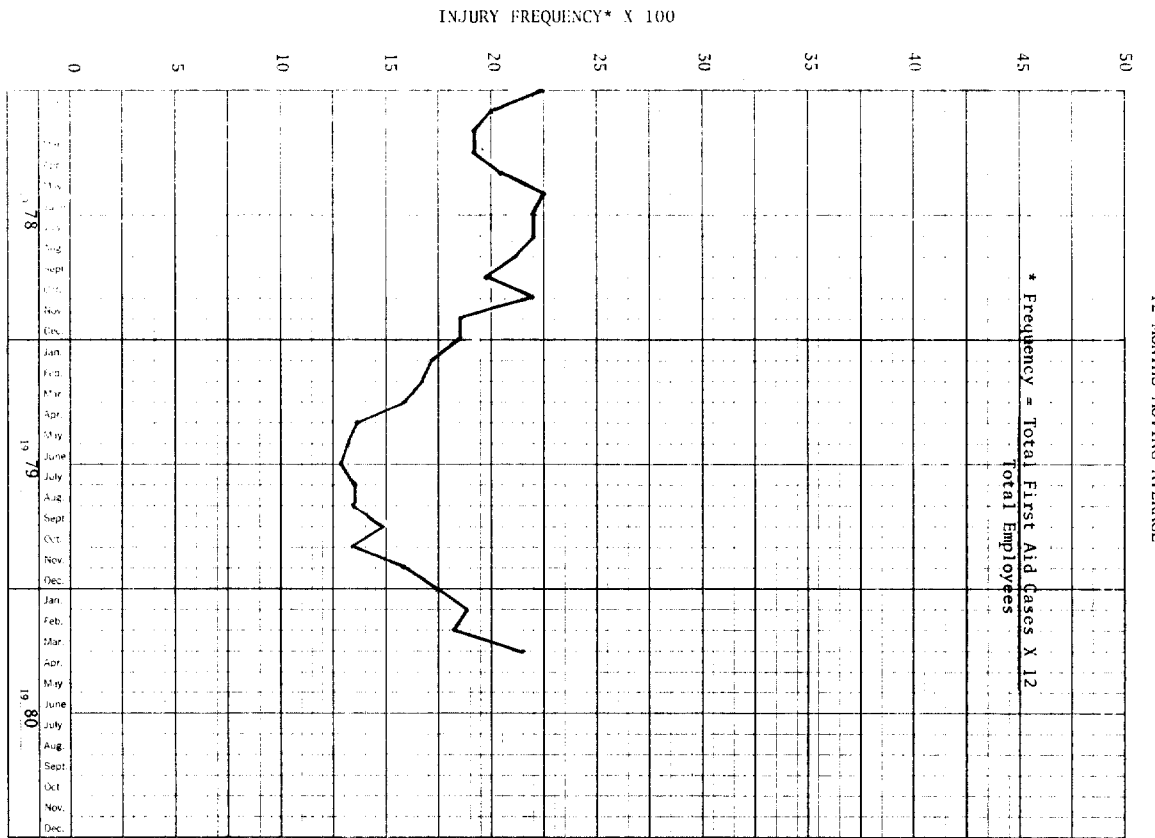
AS OF 3/31/80

LIMITS	LOCATION	LOADED VCM	EMPTY HOPPERS	LOADED HOPPERS	OTHER LOADS	TOTAL
35	IN PLANT	<u>10</u>	<u>9</u>	<u>24</u>	<u>2</u>	<u>45</u>
25	MONROE LEAD	<u>27</u>	<u>23</u>	<u>1</u>	<u>3</u>	<u>54</u>
20	BINFORD			<u>12</u>		<u>12</u>
	ICG DOWNTOWN					
	TEXICO TRACK					
	SLSF ACROSS BRIDGE					
	STRONG					
30	PRAIRIE			<u>9</u>		<u>9</u>
50	EGYPT			<u>9</u>		<u>9</u>
	OTHER					
160	TOTALS	<u>37</u>	<u>32</u>	<u>55</u>	<u>5</u>	<u>129</u>

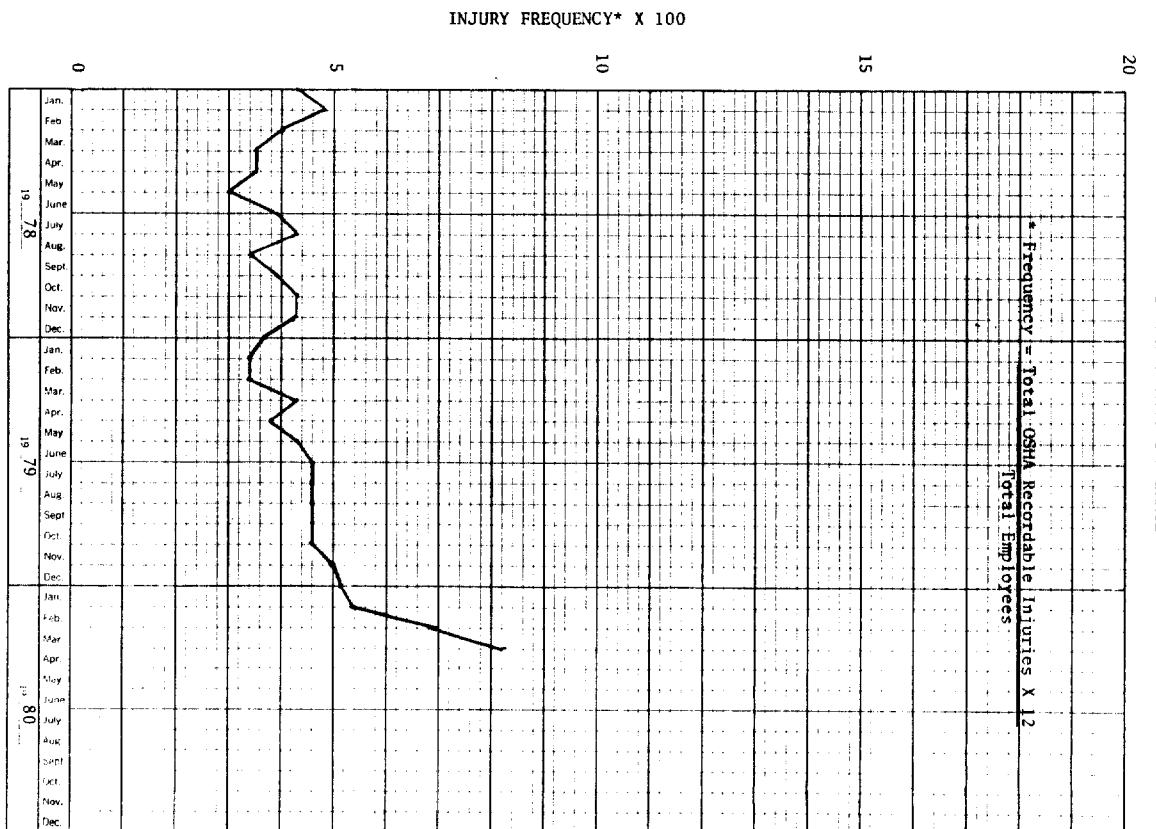
RECAP FOR MONTH

<u>3/24/80</u>	<u>2</u>	<u>28</u>	<u>62</u>	<u>7</u>	<u>99</u>
<u>3/17/80</u>	<u>29</u>	<u>34</u>	<u>63</u>	<u>5</u>	<u>131</u>
<u>3/10/80</u>	<u>27</u>	<u>37</u>	<u>71</u>	<u>7</u>	<u>142</u>
<u>3/3/80</u>	<u>37</u>	<u>29</u>	<u>73</u>	<u>8</u>	<u>147</u>

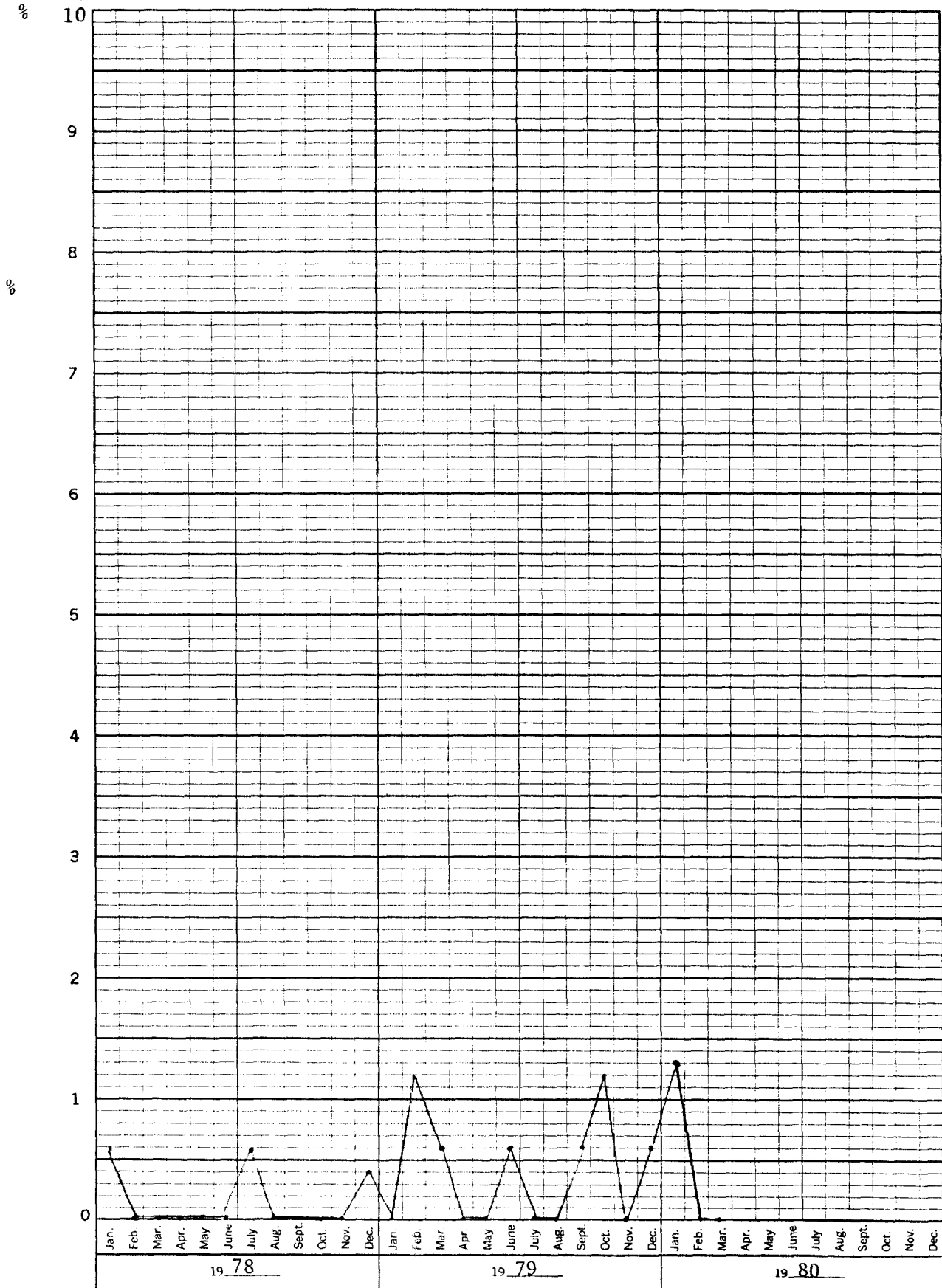
ABERDEEN FIRST-AID CASES
12 MONTHS MOVING AVERAGE



ABERDEEN OSHA RECORDABLE INJURIES
12 MONTH MOVING AVERAGE



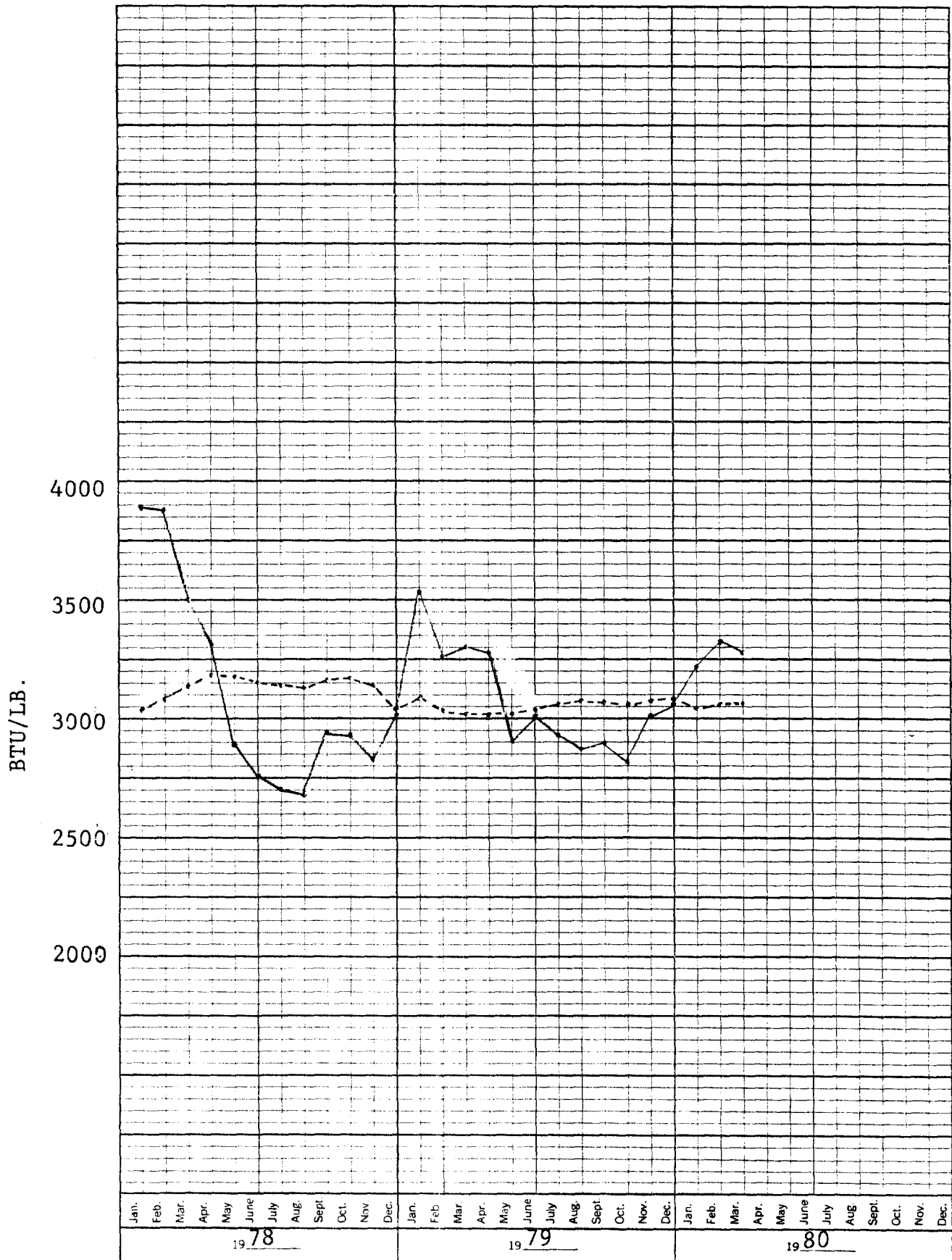
MONTHLY HOURLY TURNOVER



46 3290

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

ENERGY USAGE



DTH 000043937

Monthly

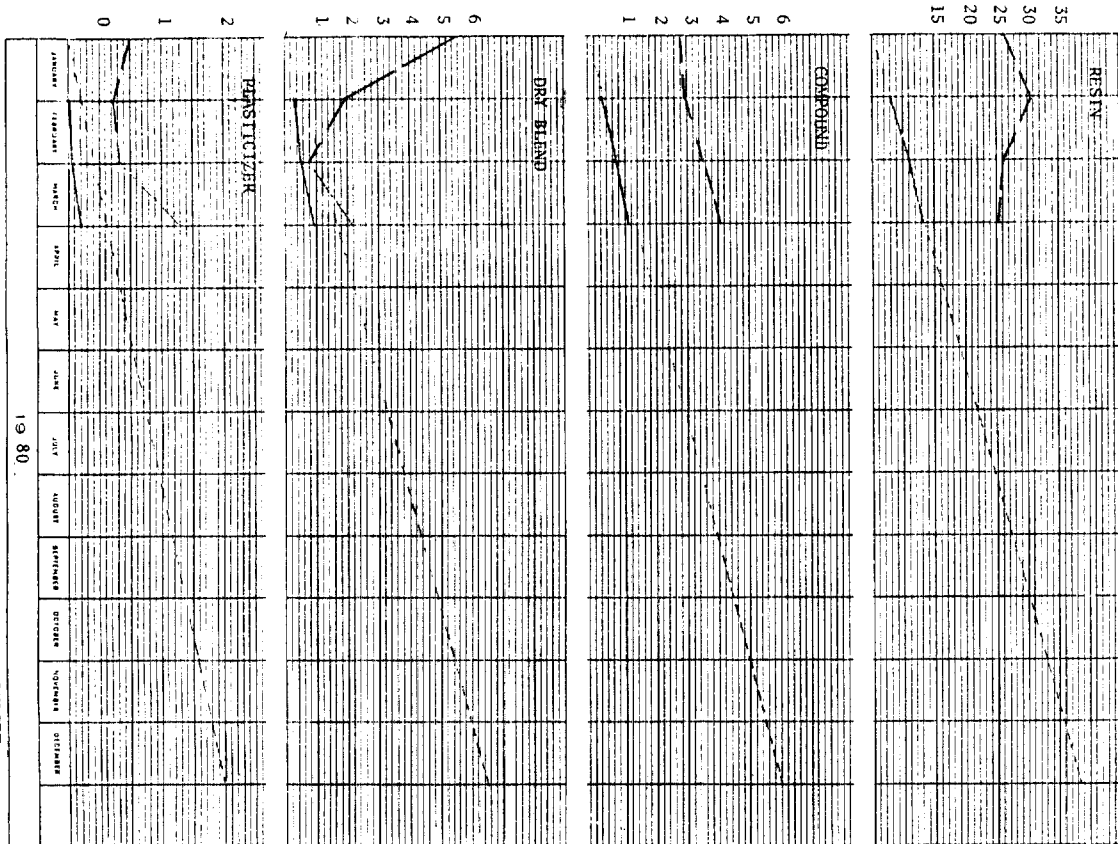
----- 12 Month Moving
Average

MM POUNDS
MONTHLY

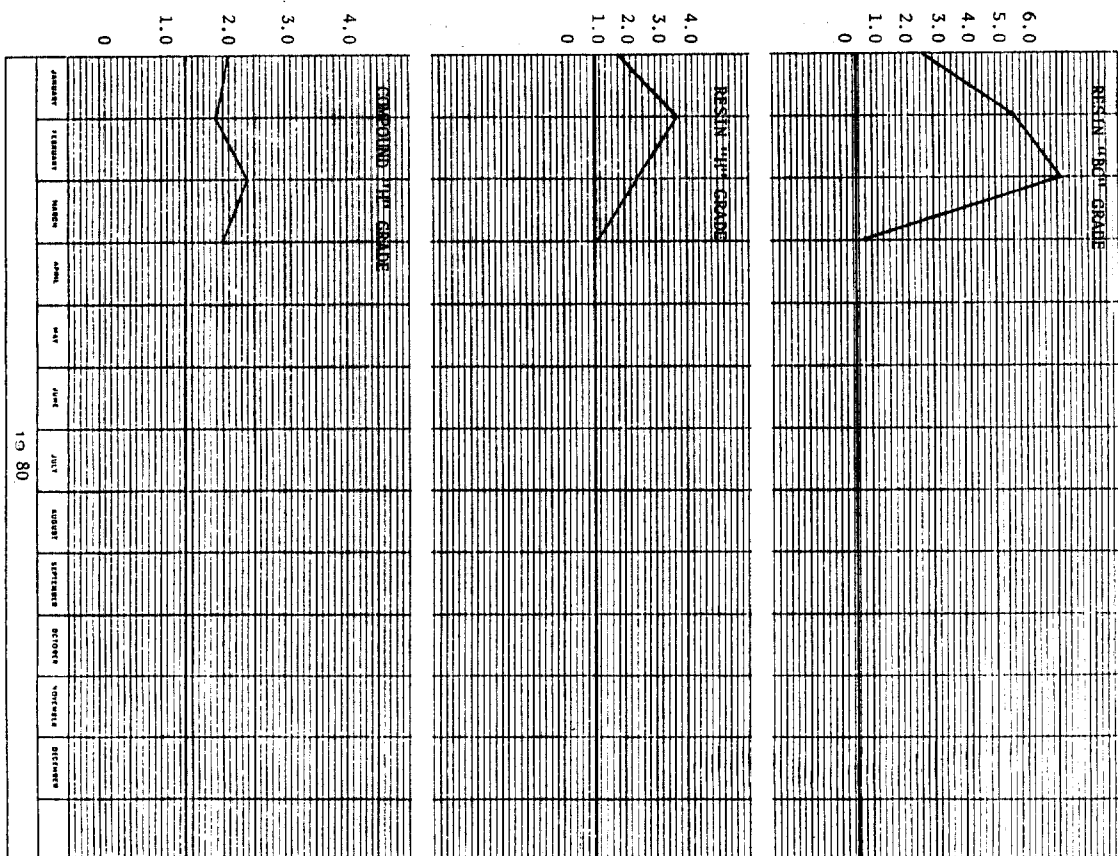
ABERDEEN PLANT PRODUCTION

1980

MM POUNDS
CUMULATIVE



%
OFF GRADE



ABERDEEN PLANT QUALITY PERFORMANCE

1980

DTH 000043938

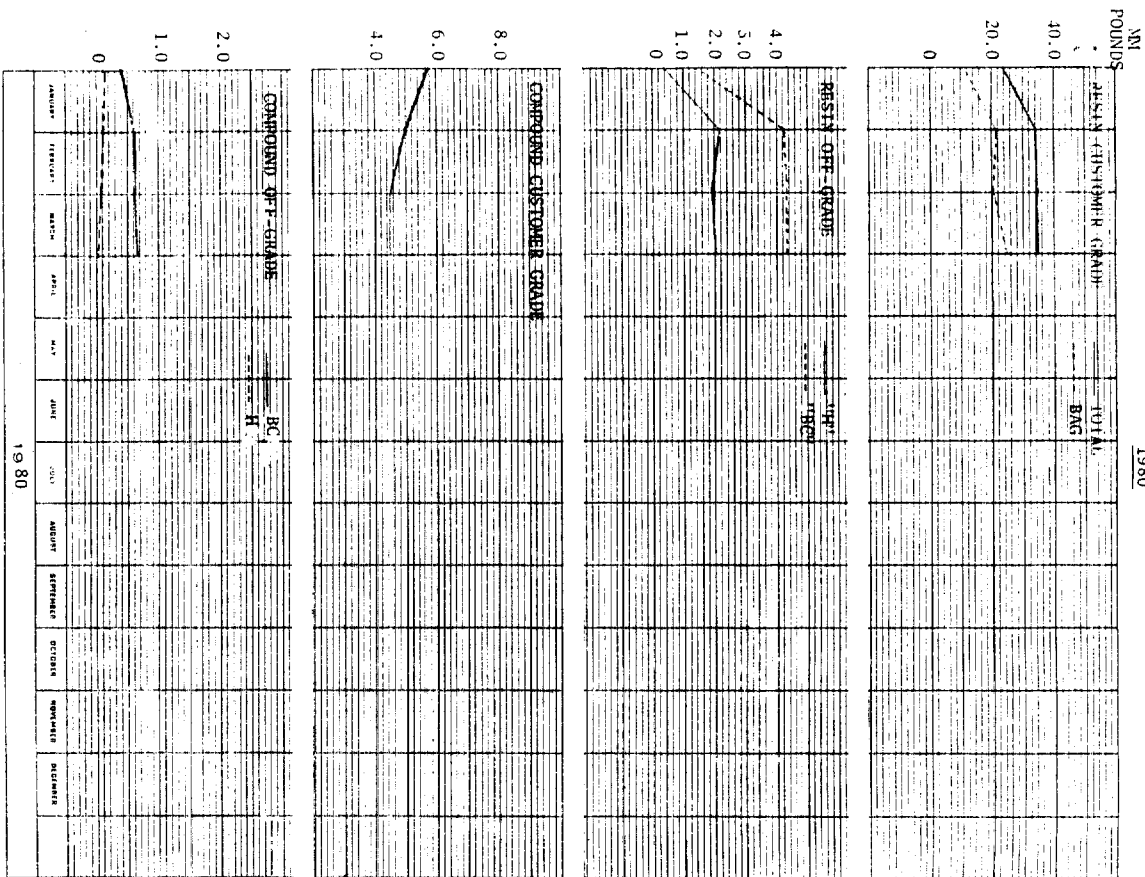
STANDARD
0.41

STANDARD
1.02

STANDARD
1.35

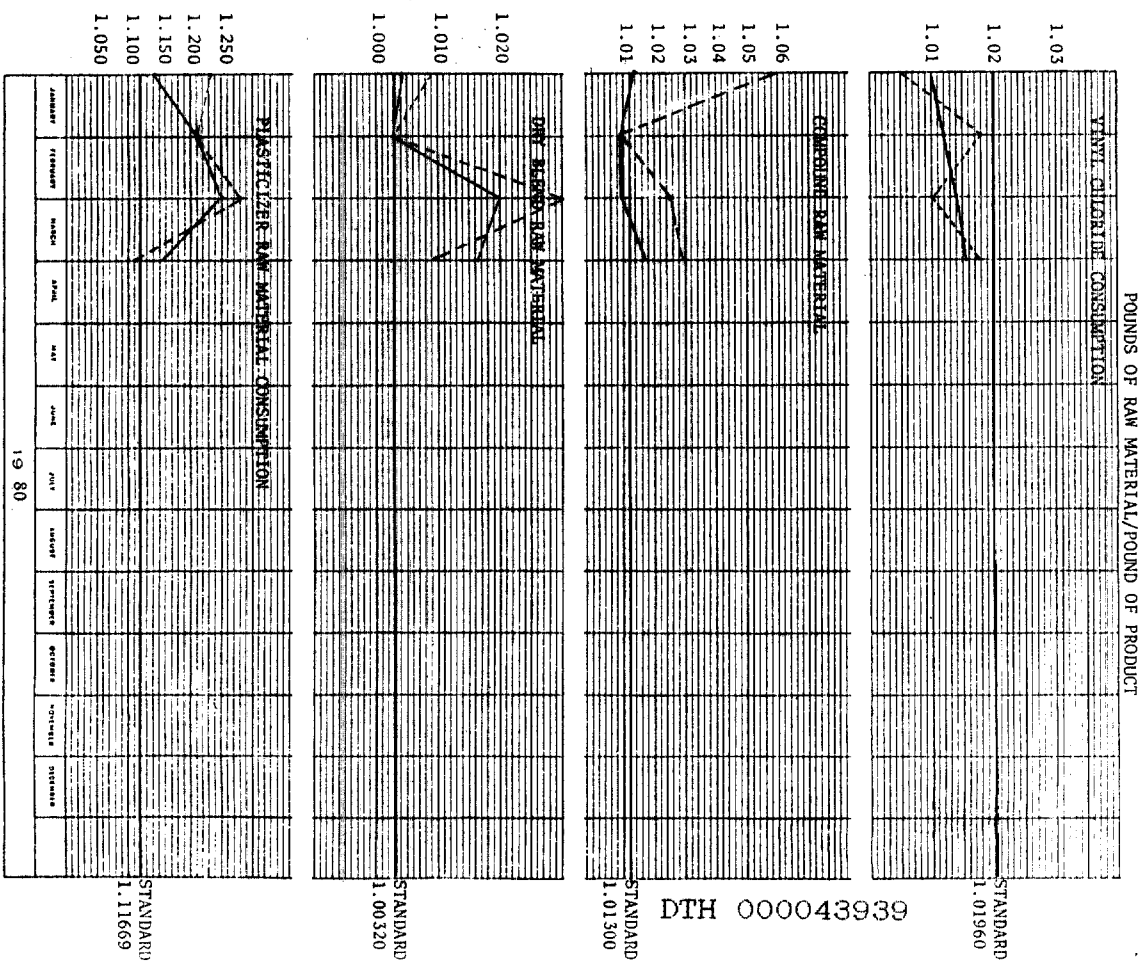
ABERDEEN PLANT INVENTORIES

1980



ABERDEEN PLANT EFFICIENCY

1980



DTH 000043939

----- MONTHLY
 _____ CUMULATIVE