SAFETY - A. H. Sather

Occupational Injuries

Injuries Treated	1979 March	1979 Year-to-Date	1978 Year-to-Date
First Aid	0	6	12
Medical Cases	1	1	1
Lost Workday Cases (days)	1 (4)	1 (4)	0
Lost Time	0	0	0
Injuries By Department			
Vinyl Operations	1	4	5
Compound Operations	0	0	2
Maintenance	0	2	5
Laboratory	0	0	1
Receiving and Warehouse	0	0	0
Office	1	2	0
Injury Types			
Cuts and Abrasions	1	2	5
Eye Injuries	0	2	2
Burns	0	2	3
Bruises	0	2	3
Sprains & Strains	1	2	0
Other	0	0	0

Of the two doctor cases which occurred during the reporting period, one occurred while a compound utility was in a stable kneeling position during a propane fire training exercize. The resultant back muscle strain and subsequent light duty requirement was probably due to tension related overexertion as this was the injured's first fire training experience; the other injury (laceration and bruise) occurred when a vinyl operator caught his right thumb between a pipe wrench handle and a centrifuge gearbox housing while changing a shear pin.

As of March 31, 1979, the Plant operated 310,407 manhours or 237 days without a disabling injury.

On March 22, 1979, the Plant experienced its first medical case of 1979. This terminated a record of 166 days operating time without an injury which required medical treatment.

Plant Fire Training

All plant fire training was initiated early in the reporting period. Training was temporarily suspended in order that a program on lifting be developed and completed in the plant. Fire training will resume upon completion of the lifting training program. A total of 121 employees have received training.

Lead Standard

The plant progress with regards to the OSHA Standard on inorganic lead exposure continues per the plant's Compliance Plan. A sampling plan was developed and circulated for review and comment in early April. An AFE was submitted to upgrade the color weigh room and to improve the ventilation system per the recommendations of a ventilation consultant - John Kane, of Louisville, Kentucky.

Several provisions of this standard have been stayed by the U.S. Court of Appeals for the District of Columbia. Provisions which remain in effect include: Permissible Exposure Limit, Exposure Monitoring, Respiratory Protection, Protective Clothing and Equipment, Housekeeping, Industrial Hygiene Facilities and Practices (except renovation and/or construction of new facilities), Medical Surveillance and Removal, Training, Recordkeeping, and Observation of Monitoring.

VCM Compliance

Activities with regards to compliance include: Completion of Annual Medical Surveillance for all employees (including 138 blood lead tests), and routine personnel monitoring.

A total of sixty-seven (67) samples were taken with six (6) indicating exposures of 1.0 ppm or greater. The distribution of results and a brief explanation of overexposures is shown below.

Range (ppm)	Number	Percent
0.0 - 0.5	55	82.09
0.5 - 1.0	6	8.96
1.0 - 5.0	4	5.97
5.0+	2	2.98
	67	100.00

Of the six (6) overexposures, one occurred while a mechanic was working on a dryer centrifuge, one to a lead operator in the control room (see note below) and the four (4) remaining are under investigation. Two (2) of the employees whose overexposures are under investigation have indicated that they wore a respirator during the monitoring period.

Due to transcient contamination of fresh air to the control room by VCM, an electrically operated damper has been installed in the fresh air inlet duct. Whenever the Honeywell monitor senses VCM in the control room above 5 ppm, an alarm is activated and an operator manually operates the switch to close the damper.

VINYL - E. L. Kieschnick

March had 31 accounting days (Y.T.D. is 90 accounting days).

Production	Month	Y.T.D.	Standard
1. Total Production, MM #'s	26.3	69.9	
2. Production Rate, M #'s/C.D.	849	777	904
3. Charging, Rx B.A.'s/C.D.	22.1	19.8	
4. Total Charges	686	1781	
5. Reactor Stream Factor, %	90.8	85.5	
6. Drying Rates, Average #'s/Hr.	5698	5406	
7. Dryers, Stream Factor, %	88.7	85.5	

The vinyl department production increased from 22.4 MM lbs. in February to 26.3 MM lbs. in March. The increase in production is a result of increased productivity from the reactors due to items described below. The dryer performance continues to be good.

The increase in production is primarily a result of a reduction in chem wash and swirl frequency on the 5425 and the elimination of swirl in the production of 5385.

Reactor downtime was taken during the month to:

1. Brush the condensers on D-300, D-400, D-500, and D-600. The condenser was brushed on D-300 and D-500 while the reactors were down for a seal change and agitator gearbox repair, respectively.

2. Remove a coarse batch from D-600 reactor. The problem was traced to the suspending agent charge system and has been resolved.

Resin Quality Summary

Resin Type	Prime Pounds	"BC" Grade	"H" Grade	% of Total Production
5305	1,269,250	42,750		0.16
5385	21,262,707	74,250		0.28
5425	2,858,485	40,350		0.15
5465	496,620			
Sifter Overflow			274,660	1.04
TOTAL	25,887,062	157,350	274,660	1.63

Quality performance for the month of March was 98.37% customer grade with 0.59% "BC" and 1.04% "H" grade. Items completed during the month to improve quality were:

1. Installation of air filter in the air utilized to aerate the 5425 blend tank. This has improved the quality of air and removed a significant contamination source.

2. Modification of the dryer operation procedures limiting the maximum inlet temperature. This has not only lowered the contamination but has also reduced the dryer cleaning frequency.

3. Installation of an improved blend tank aeration system in the blend tanks utilized for 5305 production which will lower the residual VCM in the dried product.

The variable cost variance for the vinyl department was $49.9 M with $49.6 M due to price and $0.3 M due to efficiency. The major price variance was $64.0 M on VCM. The only major efficiency variances were ($40.0 M) on VCM and $18.7 M on combined initiators.

The raw material requirement for the month was 1.02981 pounds VCM/pound PVC versus a 1.01960 standard. Four coarse batches in the old module and a severe foaming problem from 742 reactor were the primary contributors. A modification to the suspending agent charge system in the old module will minimize the potential for coarse batches. The foaming from 742 is a result of shell side fouling on the 742 condenser which will be chemically cleaned the first week in April.

COMPOUND - C. R. Miller

March had 31 accounting days.

Compound Production	Month	#'s/Day	Y.T.D.
Line I, M Pounds	1,584	63	4,130
Line III, M Pounds	3,594	116	8,208
Total, M Pounds	5,178	167	12,338

Line I operated twenty-five days during the month at an average rate of 63 M pounds per day. Major items affecting productivity were number of product changes (20 products - 43 hours total), maintenance on the Banbury conveyor (12.4 hours) and a power outage on the control panel (10.4 hours). Production included new compounds 35031 for ITT Automative and 34431 Black for Pirelli Cable.

Line III operated thirty-one days averaging 116 M pounds per day. The only major item affecting productivity on Line III was the number of product changes (14 products - 28.2 hours).

Quality performance for flexible compound was 1.9% of which 76% was due to mill scrap. The remaining off-grade consisted of 24 M pounds of 18031 Clear Blue for gels and resin contamination. "BC" production for the month was 0.9%.

The raw material requirement for flexible compound was 1.00773 pounds raw materials/pound of compound versus a 1.01296 standard (Y.T.D. is 1.00789).

The variable cost variance for compound was $29.8 M with $16.3 M due to price and $13.5 M due to efficiency. The only major efficiency variance for the month was $19.9 M due to combined colors. The only major price variance was $27.9 M for Synpron 1438.

Dry Blend	Month	#'s/Day	Y.T.D.
Total Production, M Pounds	1,483	212	12,669

Dry Blend operated seven days during the month at an average rate of 212 M pounds per day. Dry Blend production was limited by dry blend sales and inventory control programs. Production during the month included the reprocessing of 41 M pounds of off-grade dry blend.

Quality performance for the month was 100% customer grade. Reworking of off-grade material at a 3% level continued through March.

The raw material requirement for dry blend was 1.00406 pounds raw materials/pound of dry blend versus a 1.00321 standard (Y.T.D. is 1.00301).

The variable cost variance for dry blend was ($38.6 M) with $2.5 M due to price and ($41.2 M) due to efficiency. Variance due to product mix was ($14.7 M). The large efficiency variance reported reflects an error in the end of the month area inventory. A correction will be made next month.

Plasticizer	Month	#'s/Day	Y.T.D.
Total Plasticizer, M Pounds	936	62	2,971

The plasticizer unit operated fifteen days during the month at an average of 62 M pounds per day. Plasticizer production consisted of DOP, 610-P and TOTM plasticizers. VRP production for the month was 84 M pounds.

The raw material requirement for plasticizer was 1.11616 pounds raw materials/ pound of plasticizer versus a 1.10482 standard (Y.T.D. is 1.13240).

The variable cost for plasticizer was $1.2 M with ($1.6 M) due to the price and $2.8 M due to efficiency. The only major price variance was ($10.3 M) for phthalic anhydride. There were no major efficiency variances for the month.

MECHANICAL - S. J. Vincent

Vinyl - Area I

The large reactor condensers that were cleaned this month were all in the old module. They were D-300, D-400, D-500 twice, and D-600. Some of the other work completed in the old module follows. All rupture discs were replaced and the relief valves tested on D-300, 400, 500, and 600. The chem wash spray heads for D-400, 500, and 600 were removed and cleaned. The reactor seal on D-300 reactor failed and had to be repaired. Several reactor valves were replaced on D-400 and D-500 reactors. The valves replaced were the condenser valve, the recovery valve, the evacuation valve, the main dump valve, and the VCM charge valve on D-400 and then on D-500 the chem wash valves to the reactor and the condenser valve were replaced. The fresh VCM receivers level device was calibrated. The control instrumentation for D-500 was calibrated and they were calibrated twice on D-600. There was a coarse batch in D-600 reactor at the end of the month with a significant accumulation of resin in the reactor. Extensive work was required to prepare, clean, and place this reactor back in service.

There were no large reactor condensers cleaned in the new module. The rupture discs were replaced and the relief valve was pressure tested on 741 reactor. The chem wash spray head for 744 was removed and cleaned. The evacuation, recovery, and catalyst valves were replaced on 741 reactor. The evacuation and recovery valves were replaced on 744 reactor. A major problem developed with the new unit seal oil system. The flow could not be maintained through the filters with the gear pumps subsequently overheating and failing. The seal oil system was bypassed and service water was placed on all the seals on March 19. Several panel lights were repaired in the control room. The Sweco exhaust fan motor was removed and repaired.

The vinyl dryers continue to operate satisfactorily after the installation of the new anti-chatter devices. The rotating assembly and gearbox were replaced on number two dryer. The units removed on changeout were rebuilt. The exhauster drive motor was replaced on number two dryer, also. Two dryers were given PM checks. The trunion roller and bearings were replaced on number four. A new process sampler was also installed on number four dryer sifter. Electric power was installed on a new vibrator for number six chute. The motor on one of the small blend tanks was repaired. Several silo level indicators and blend tank level transmitters were repaired and calibrated. The torque controllers on two dryers were calibrated. A safety guard rail was installed on the roof around the collectors in the V-10 dryer building. The installation of the day collector handrails was completed for all dryers.

One of the emission recovery system compressors was rebuilt with a new shaft and mechanical seals. Mechanical seals were replaced on three recovery compressors. One of the old module vacuum pumps was dismantled and cleaned. Motors were removed and repaired on one vacuum pump and two compressors in old recovery system. Two of the 490 Corken compressors were rebuilt. The mechanical seals were replaced in both of the VCM transfer pumps at the tank farm. The suction screens were pulled and cleaned twice on both VCM charge pumps in the old module. The mechanical seals were also replaced in the old

unit RVCM pump and one of the slurry pumps. All the valves going into the "A" vacuum pump were replaced to try to define continuing problems in this recovery system.

Both of the recovery condensers in the old unit were cleaned. A new drain bypass line was installed in the emission recovery system. The knockout drums and receivers were opened to remove resin restrictions. Numerous rupture discs continue to be replaced throughout the unit. A three way control valve was replaced on the incinerator. All Honeywell monitoring points were checked and verified.

Compound, Dry Blend, Plasticizer, and Storage Silos - Area II

The cooling water piping to the Line III product blower was revised. The top roller on the Line III scrap conveyor was replaced. The mechanical joints on the two laboratory mills had to be rebuilt. The dump valve on one of the line I blenders was repaired. A steam leak list was developed for compound and the leaks corrected. The motor on one of the dicers was removed and repaired.

The service water piping to the dry blend basement was rerouted. The service elevator controls were relocated for the installation of the new access ramp for raw materials. The dry blend basement sump pump was rebuilt. A vacuum cleaning connection was installed on the screener deck. A new stub shaft was installed on the drive end of one of the blenders. During the dry blend shutdown, five motors were also pulled and repaired.

The two plasticizer blowers were rebuilt. The mechanical seal was replaced in the phthalic anhydride transfer pump. The catch tank was revised to hold filter socks. The rupture disc was replaced on one of the reactors. The inert gas generator installation was completed. An air purging system was installed on the alcohol unloading lines. A coil leak in one of the reactors was also repaired.

A new water line was installed to the truck scale. The fresh air piping to the VCM unloading rack was revised. An engine was replaced in one of the plant fork trucks. The new silo sampler was installed on one of the truck loading resin silos. Several painting projects were completed. The manway covers were repaired on three large silos. One knife valve was repaired.

Utilities

The air dryer heater elements were replaced in one of the V-10 air dryers. One of the rental diesel air compressors was returned to the supplier. An air filter was installed on the air supply to one of the large blend tanks.

All the plant air receiver relief valves were tested and also the relief valve on the water softeners. A new water meter was installed on one of the main city supply lines to the plant. The air conditioning and refrigeration program, the history and equipment vibration program, and the lubrication program are continuing. A sonic testing device is being used to develop data for a leak detection program primarily for process valves.

Nineteen valves were rebuilt for the vinyl unit. Several tools were repaired. Several bicycle repairs were completed. The installation of the new steam fired vaporizers is continuing with an estimate of completion in April.

New cable and a new motor were installed on the polishing pond aerator. Number six air compressor motor was removed and repaired. One of the water valves in the boiler system was rebuilt.

Planning

The planners work involved processing 42 invoice registers and processing 31 invoices for payment. Planning work and material was ordered for 31 separate projects. The change over of all backlog work to the new Maintenance Management System was completed. Supervisory coverage was also provided by the planner.

Miscellaneous

There were 520 maintenance, 23 revision, no safety, and 68 service to operations work orders received during the month. The following is a breakdown of maintenance work orders by priority:

	Number	Percent
E	262	50
A	160	31
B	9	2
C	56	11
Shift Mechanic	33	6
TOTAL	520	100

During this reporting period 625 maintenance, 36 revision, 4 safety, and 91 service to operations work orders were completed. 30.5% of the time was spent on non-scheduled work.

Preliminary work has been completed for implementation of the MMS at Aberdeen. Supervisory meetings were conducted to familiarize employees with the program. The official changeover to MMS will occur on April 1, 1979.

PERSONNEL - J. L. Carter

EMPLOYMENT

During March there were two temporary new hires, Debra Lindsey, Steno Clerk and Clyde Rhea, Temporary Contractor Guard.

TO/FROM LEAVE OF ABSENCE

None.

TRANSFER/PROMOTION

None.

RETIREMENTS

None.

TERMINATIONS.

Two hourly employees, Willie C. Burley, Painter-Insulator-Carpenter "A", and Percy Carothers, General Helper.

DEATH/DISABILITY

None.

OTHER - CASUAL LABOR

There was one (1) casual labor employee on payroll during this month. Total hours worked were 55.75.

Aberdeen, Mississippi

March 1979
MONTHLY PERSONNEL REPORT

Salaried Employees	72*	Minority Employees #	
Hourly Employees	161	Salaried	3 4%
Total Employees	233*	Hourly	63 39%
Employees (Hourly)		Total	66 28%
New Employees	-0-	Hourly Min. Hired	-0-
		% Min. Hired	-0-
Terminations	2	Hourly Min. Term.	-2-
		% Min. Term.	100%

DEPARTMENTS	PAR	# EMPLOYEES	MIN. EMP.	% MIN.	NEW HIRES	YTD	TERM.	YTD	TURNOVER	YTD
Warehouse	9	9	2	22%	0	0	0	0	0	0
Gen. Plant	10	11	5	45%	0	0	1	3	9%	27%
Maintenance	46	45	7	15%	0	0	1	1	2%	2%
Laboratory	22	22	3	14	0	0	0	0	0	0
Compound	38	38	30	79%	0	0	0	0	0	0
Vinyl	32	32	13	41	0	0	0	0	0	0
Plasticizer	4	4	3	75	0	0	0	0	0	0

Number of Applicants:

Month 3 Year to Date 3

APPLICANT BREAKDOWN:

Minority -0- % Minority -0-

Female 2 % Female 66.6%

Hires (Hourly) :

Month -0- Year to Date -0-

Terminations (Hourly) :

Month 2 Year to Date 4

Overall Turnover .6%

Projected Annual Turnover 13%

*Includes one Co-Op Student and two other temporary employees.

DTH 000043682

OVERTIME AND ABSENTEEISM

March 1979

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	1650.00	207.25	32.00	14.5%	-0-	-0-	-0-	-0-	.37%
Maintenance	7622.75	836.00	-0-	11%	32	100%	-0-	.4%	.8%
Laboratory	3973.00	283.75	127.75	10%	296	100%	-0-	7%	3.3%
Compound	7714.50	236.75	272.00	6.6%	96	100%	-0-	1%	2.2%
Vinyl	6912.75	671.75	-0-	10%	120	100%	-0-	1.7%	1.6%
Plasticizer	744.50	20.00	-0-	2.7%	-0-	-0-	-0-	-0-	.4%
Utility Boiler House	756.25	59.25	40.00	13%	-0-	-0-	-0-	-0-	-0-
General Plant	1112.00	103.00	-0-	9.3%	8	100%	-0-	.7%	.27%
Total	30485.75	2417.75	471.75	9.5%	552	100%	-0-	1.8%	1.6%

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 - J. R. McCrimon

A. Specialty Compound Line

The plant is continuing to work with Crawford and Russell and CED on the mechanical design of the project. Construction began on March 20, 1979. Current estimated mechanical completion date is September 15, 1979.

B. Fire Water Revisions - Phase I

Mechanical Engineering for the project is continuing. A request for engineering services from Texas Automatic Sprinkler Co. is being prepared.

C. Propane Vaporizer Replacement

Mechanical installation of the project was begun in late February. Project completion is still scheduled for mid April.

D. Plasticizer Exposure Abatement

Mechanical Engineering is continuing.

E. Charge Water Heating Improvement

Installation is underway and completion is scheduled for the end of April.

F. Silo High Level Alarms

A prototype was installed on silo 479 and tested. Problems with the Ronan alarm panel in the control room are being investigated.

G. Plant Dryer Debottlenecking

1. Centrifuge Slurry Feed Control

The new one inch control valves have been installed on all the dryers except Dryer No. 7.

2. Remote Dryer Lighting

Equipment has been ordered. Mechanical Engineering is continuing. Projected completion is projected for the end of July.

3. V-10 Transfer System

Mechanical Engineering is proceeding on the mechanical design for this project. Equipment is on order. Project completion is scheduled for the end of July.

H. Silo Isolation Valves

The valves for this project are on order.

I. Plant Yield Study

The use of the continuous sampler to determine the amount of resin in the effluent to the plant waste treatment system is continuing.

J. Automatic Plasticizer Weighup System

The process design for this project has been modified to incorporate changes in the sequencing operation. The need for these changes are necessary to better define tie-ins to the existing system. Panel delivery is scheduled for the end of July.

K. OMS Addition System

The process design for an automatic OMS addition system for the new module was completed and reviewed. A cost estimate will be made for the project.

L. Emission Recovery System

A process design for the installation of an additional vacuum pump and to improve liquid control in the system was prepared. A definitive estimate is being prepared by the Mechanical Engineering Group.

M. Plant Air System

A process design for an additional air compressor is being prepared.

ENVIRONMENTAL HEALTH - J. R. McCrimon

I. Particulates

The exhausts from two of the resin dryers were sampled for particulates.

The rental vacuum cleanup system has been evaluated and found to work well. A purchase order was issued for the unit. Engineering is underway to add options to the unit.

II. Water

BOD and COD levels were within NPDES permit limitations in March. An application for renewal of our current NPDES permit was submitted and storm water runoff sources were included.

PED personnel were in the plant to run a source sampling program to define flow rates and loadings from the various areas of the plant. This data will be used to determine the effect of increased plasticizer production and resin expansion on the plant waste water treatment system.

Methods of eliminating the pond irritant are being investigated. Aerators operated 24 hours per day most of this period.

III. Vinyl Chloride

PED personnel were in the plant to discuss methods to improve EPA compliance.

The plant received a "show cause" notice from the EPA concerning the two VCM releases from D-300 reactor which occurred in February.

A control room isolation damper was installed in the fresh air duct to the vinyl control room.

In-plant emission testing and leak checking are continuing as specified in the Compliance Manual.

The EPA semi annual report was submitted as required by the regulation. Efforts have been intensified to come closer to compliance 100% of the time.

The Engineering and Work Practice Control Plan was updated and reissued.

IV. General

A permit to construct the specialty compound line was granted by the state and construction is in progress.

TABLE I

WATER COMPLIANCE WITH

NPDES PERMIT PARAMETERS

	Flow	BOD		COD		Sus. Solids		Diss.	
	GPM	PPM	LB./DY.	PPM	LB./DY.	PPM	LB./DY.	O^2	ph
Jan. - Ave.	788	26	246	63	589	19	170	6.9-7.3	7.5-8.2
Max.	948	37	307	94	781	31	279		
Feb. - Ave.	756	30	272	73	656	27	241	6.9-7.9	7.7-8.0
Max.	773	43	380	95	840	34	315		
Mar. - Ave.	669	17	134	61	490	26	214	6.9-7.6	7.3-7.9
Max.	760	24	184	81	621	45	367		
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 112.1 MMM BTU's. The energy consumption per pound of product increased from 3265 BTU/lb. to 3308 BTU/lb. in March.

II. Plant Energy Conservation Program

A. Steam Leaks

18 of 22 reported steam leaks were repaired during March.

B. Charge Water Heating Improvements

Mechanical design is continuing. Installation of equipment will begin in April.

C. Boiler Burner Replacement

Fabrication and testing of burner units by the vendor was completed in March with shipment pending.

ENERGY CONSERVATION DATA

ITEM	1978 March	1979 March
Production, MM Lbs.		
Resin	19.3	26.3
Dry Blend	3.5	1.5
Compound	2.9	5.2
Plasticizer	0.5	0.9
TOTAL	26.2	33.9
Natural Gas		
Consumption, MSCF	47758	61659
Conversion, BTU/SCF	1020	1020
Energy Consumption, MMM BTU	48.713	62.892
Electricity		
Consumption, MM KWH	4.262	4.9248
Conversion, BTU/KWH	10000	10000
Energy Consumption, MMM BTU	42.620	49.248
Propane		
Consumption, M Gal.	6.60	0
Conversion, BTU/Gal.	92000	92000
Energy Consumption, MMM BTU	0.607	0
Total		
Energy Consumption, MMM BTU	91.940	112.140
Energy Consumption , BTU/Lb.	3509	3308

Boiler Operating Data

	Avg. Stack Temp.		Avg. % Excess Air	
	1978	1979	1978	1979
No. 1	389	425	115	100
No. 2	412	406	105	110
No. 3	428	452	61	115

MECHANICAL ENGINEERING - J. A. Dixon

AFE's Submitted, Approved, and Closed

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

AFE No.	Title	Authorized
9539	Laboratory Equipment	$31,000
9549	Safety Equipment	$15,000

There were no AFE's closed to field charges or completion reports issued in March.

Design

Bid packages were prepared for insulation on the Propane Vaporizer Project and underground conduit for the Dryer Operation Improvement Project.

Silo isolation valves are on order. All major equipment for the Dryer Operation Improvement Project is on order.

Contracts were let for the concrete work for the Plasticizer Chemical Exposure Abatement and New Compound Line Projects.

Design work is in progress on the following projects: Dryer Operation Improvement, Resin Silo Debottlenecking, Plasticizer Chemical Exposure Abatement, Fire Protection Improvements, Vinyl Communications System and Office Expansion.

Construction

1. The Inert Gas Generator Project is complete and ready for startup by the manufacturer's representative.

2. The new fork lift ramp is complete.

3. Installation of an electrically operated damper in the control room fresh air system is complete.

4. Installation of the Plant Emergency Siren System is complete.

5. Installation of the Gaitronics Communication System is complete.

6. The API separator was cleaned during the period.

7. The Phthalic Anhydride rail spur extension is complete.

8. The railroad bed was repaired on the west spur.

9. Work on the following projects is in progress: Dryer Noise Abatement, Propane Vaporizer Replacement, Dry Blend Silo Alarms, Emergency Lighting System, Charge Water Heating Improvements, Offsite Electrical and Piping for the New Compound Line.

(1) Thru February, 1979 Actual Accounting
(2) Thru March, 1979

ABERDEEN AUTHORIZATIONS REPORT

AUTH. NO.	CAPITAL DESCRIPTION	DATE APPROVED	AUTH. AFE 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
9126	PVC Reactor Capacity Replacement	7/8/76	8,577,000	8,130,704	8,189,896	8,189,896	387,104	12/78	3/79	Closed to field charges.
9276	Relief Valve Vent Containment	12/10/76	39,000	34,499	34,499	34,499	4,501	12/78	3/79	Closed to field charges.
9286	Additional Slurry Blend Tank	12/7/76	290,000	282,546	285,823	285,823	4,078	12/78	4/79	Closed to field charges.
9057	Vent Gas Incineration	4/1/77	275,000	275,876	275,876	275,876	(876)	12/78	4/79	Closed to field charges.
9087	Resin Silo Aeration	5/16/77	280,000	242,054	242,336	242,336	37,664	12/78	3/79	Closed to field charges.
9147	Phthalic Anhydride Exposure Reduction	6/30/77	45,000	40,290	44,039	44,039	961	11/78	2/79	Closed to field charges.
9187	Emergency Reactor Vent Control	9/29/77	33,000	26,331	33,136	33,136	(136)	4/79	6/79	Installation complete.
9197	Dryer Area Noise Abatement	9/29/77	45,000	25,004	32,629	45,000	0	6/79	9/79	Installation proceeding.
9227	Plant Emergency Lighting System	10/10/77	65,000	46,056	46,122	65,000	0	6/79	9/79	Installation proceeding.
9237	Heated Plasticizer Addition System	10/11/77	37,000	7,628	8,057	37,000	0	9/79	12/79	Installation proceeding.
9247	Farrell Mixer Feeders	11/21/77	47,000	17,599	20,730	47,000	0	6/79	9/79	Conveyors to be installed.
9257	Resin Transfer Debottlenecking	11/16/77	56,000	28,756	43,147	56,000	0	7/79	10/79	Dust collectors purchased.
9267	Dry Blend Production Expansion	11/23/77	200,000	180,159	197,877	200,000	0	4/79	7/79	Installation complete.
9277	Truck Loading Safety Revisions	11/28/77	16,000	2,495	4,009	16,000	0	6/79	9/79	Installation proceeding.
9287	Plasticizer Yield Improvement Test	12/5/77	6,000	3,544	3,544	6,000	0	4/79	6/79	One test complete.
9297	Automatic Plasticizer-Stabilizer Weighup System	12/14/77	60,000	873	43,718	60,000	0	9/79	12/79	Design in progress.
9307	Compound Project Conveying Lines	12/14/77	50,000	20,942	22,211	50,000	0	6/79	9/79	Installation proceeding.
9018	Critical Spare Equipment	1/31/78	63,000	60,855	63,502	63,502	(502)	12/78	3/79	Closed to field charges.
9028	Misc. Items Under $10,000	1/31/78	50,000	30,510	48,422	48,422	1,578	12/78	3/79	Closed to field charges.
9038	Maintenance Equipment	2/3/78	18,000	18,213	17,899	17,899	101	12/78	3/79	Closed to field charges.
9048	Resin Moisture Analyzers	2/24/78	17,000	13,148	13,148	17,000	0	4/79	7/79	Analyzers in service.
9058	Laboratory Equipment	2/24/78	50,000	48,617	48,659	48,659	1,341	10/78	2/79	Closed to field charges.
9078	Misc. Projects Under $10,000	2/24/78	166,000	138,545	158,943	158,943	7,057	12/78	3/79	Closed to field charges.
9088	Replacement Inert Gas Generator	3/28/78	44,000	29,668	39,870	44,000	0	4/79	7/79	Installation proceeding.
9098	New Compound Line	4/17/78	2,050,000	737,710	1,422,669	2,050,000	0	12/79	3/80	Offsites electrical being installed. Most material on order.
9108	Boiler Burner Replacement	5/12/78	170,000	1,183	166,789	170,000	0	6/79	9/79	Burners shipped.
9138	Plant Guardhouse Improvement	8/14/78	19,000	18,540	18,540	18,540	460	11/78	3/79	Closed to field charges.
9148	Plasticizer Chemical Exposure Abatement	8/21/78	152,000	2,670	92,298	152,000	0	7/79	10/79	Site work in progress.
9158	Fire Protection Improvements-Phase I	9/19/78	176,000	0	15,194	176,000	0	9/79	12/79	Engineering in progress by CED.
9168	Misc. Projects Under $10,000	9/21/78	59,000	36,927	52,770	52,770	6,230	12/78	3/79	Closed to field charges.
9178	Propane Vaporizer Replacement	9/21/78	175,000	8,411	105,306	175,000	0	9/79	12/79	Installation proceeding.
9188	Railcar Resin Heel Cleanup System	10/12/78	55,000	3,643	41,523	55,000	0	5/79	8/79	Fabrication of Satellite hopper in progress.
9198	Debottlenecking - Centrifuge Anti-Chatter Devices	11/7/78	70,000	19,374	63,122	70,000	0	4/79	7/79	Equipment being installed.
9208	Spare Recovery Vacuum Pump	12/5/78	14,000	0	14,633	14,000	0	8/79	11/79	Vacuum pump on order.
9218	Charge Water Heating Improvement	12/8/79	32,000	3,263	31,152	32,000	0	5/79	8/79	Installation proceeding.
9228	Dry Blend Silo Alarms	12/13/78	25,000	331	4,201	25,000	0	5/79	8/79	Prototype installed.
9248	Silo Isolation Valves	12/14/78	25,000	0	15,589	25,000	0	7/79	10/79	Valves purchased.
9258	Dryer Operation Improvements	12/14/78	315,000	0	74,703	315,000	0	10/79	1/80	Engineering and purchasing in progress.
9529	Miscellaneous Projects Under $10,000	2/15/79	125,000	0	59,183	125,000	0	12/79	3/80	Twenty-two projects approved.

(1) Thru February, 1979 Actual Accounting
(2) Thru March, 1979

ABERDEEN AUTHORIZATIONS REPORT

AUTH. NO.	EXPENSE DESCRIPTION	DATE APPROVED	AUTH. AFE 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
9238	Compound Line I Roof Collapse	12/13/78	44,000	0	0	44,000	0	4/79	7/79	Insurance claim being filed.

LABORATORY - R. B. Martin

CUSTOMER COMPLAINTS

Customer	Product	Type Complaint	No.	Status
Resin				
Rehau	5385	Wet Resin	ARP-030579	Report by ELK
Compound				
Tenex	18031	Processing	ACP-021579	Report by CRM
Tenex	19041	Color Streaks	ACP-021479	Report by RBM
Tenex	15041	Off-Color	ACP-021679	Report by RBM
Croft	17461	Processing	ACP-021479	Report by RBM
Emico	14551	Off-Color	ACP-020279	Report by RBM
Tenex	18031	Gassing	ACP-032179	Report by RBM
Louisiana Wire & Cable	34641	Cold Bend Test	ACP-022879	Under Investigation

WAIVERS RECEIVED

Date	Identification	Product	Customer	Reason	By
3-1	T-2351	5305	Carlon	Residual VCM	W. Howell
3-1	CONX-45706	34431 Gry547	Kaiser	Mixed Color, Fines	CLS
3-1	Bags 00517/00518	5305	Export	Residual VCM	GGD
3-1	PLCX-43216	5385 III	Simpson	Particle Size	RDJ
3-1	PTLX-41644	5425	Uniroyal	Contamination	GGD
3-2	PTLX-42022	5305	Carlon	Residual VCM	GGD
3-2	Bags 00519	5305	Export	Residual VCM	GGD
3-2	T-2811	5385 III	World of Plastics	Particle Size	GGD
3-2	T-2479	5305	Carlon	Residual VCM	GGD
3-2	T-2321	5305	LCP	Residual VCM	Customer/GGD
3-5	T-2320	5465	Industrial Plast.	Dry Time	GGD
3-12	PLCX-42680	5425	Uniroyal	Contamination, No-flow static	GGD
3-18	T-2809	5425	Athol	Contamination	RBM
3-19	T-2320	5305	Hatco	Residual VCM	GGD
3-19	CONX-45291	5385 III	Tridyn	No-flow static	ELK
3-21	Bags 00518	5305	Uniroyal	Residual VCM	GGD
3-22	Miller Truck	VRP	Heritage	Color	GGD
3-22	PLCX-43011	5425	Southwire	Contamination	GGD
3-26	T-2809	5305	Carlon	Residual VCM	GGD
3-27	CONX-45268	5385 III	Charlotte Pipe	Color "b" value	GGD
3-27	T-2811	5305	Carlon	Residual VCM	RBM
3-27	PTLX-41836	80273G	Can-Tex	Fusion Torque	RBM
3-28	PLCX-43231	5385	Charlotte Pipe	Particle Size	RDJ
3-28	PTLX-41855	80273G	Central Foundry	Fusion Time, Torque Stability Time	HJH/GGD
3-28	T-2481	5305	Celanese Piping	Residual VCM	Customer/WH
3-29	T-2810	5305	Uniroyal	Residual VCM	RBM
3-30	PLCX-43081	5385	Simpson	Particle Size	RDJ
	Total 27				

QUALITY CONTROL TESTING

Resin - 612 regular samples, 2716 other in-process resin samples. Bulk resin shipments total 210 (106 railcars, 104 trucks)

Dry Blend - 147 blenders produced with 92 blenders tested. Adjustment rate for all dry blend was 3.4%. There were 184 other dry blend in-process samples. Bulk shipments total 25 (railcars 4, trucks 21)

Compound - 826 blenders produced and tested. 233 other in-process samples were received. Adjustment rate for blenders was 1.6%. Bulk shipments total 37 (railcars 16, trucks 21)

Residual VCM in Shipments

A total of 131 shipment samples were tested for RVCM in March. A summary of these results is below:

Product	5385	5425	5305	Dry Blend
Average ppm VCM	1.1	0.4	12.3	0.9
Number of samples	88	10	30	3

Resin Heat Stability

Fifty-five (55) blends of various resin types were tested for over heat stability.

5385	22 Blends
5425	20 Blends
5305	8 Blends
5465	5 Blends

Heat stability of all types were good.

Raw Material Testing

Fifty (50) lots of plant raw materials were tested. One shipment of Tribase lead stabilizer was rejected for poor dispersion quality.

Harwick VCP-5217 black powder color concentrate was approved as a replacement for the Harwick 90-PC-02 black paste color concentrate.

PRODUCT DEVELOPMENT AND SERVICE

Date Shipped	Quantity	Product	Customer	By
3-14	50 lbs.	17461 Black	Donnelly Mirror, Inc.	CJM
3-14	50 lbs.	14431 CLBL 50	Atcoflex, Inc.	CJM
3-14	50 lbs.	15041 CLBL 50	Atcoflex, Inc.	CJM
3-21	50 lbs.	5305	Vinatex England	AMP
3-21	50 lbs.	5385 I	Vinatex England	AMP
3-21	50 lbs.	5425	Vinatex England	AMP
3-21	50 lbs.	5465	Vinatex England	AMP
3-30	50 lbs.	5385 I	M & T Chemicals	HJH

COMPOUND DEVELOPMENT AND SERVICE

Special Compound Testing

Specification tests were run on 7 lots of compound for Western Electric - 5 lots of 34861 Gray 546 and 2 lots of 36861 Natural.

Dry Blend

Quality control standards were prepared for KGM-3400-172C, a new experimental dry blend.

Customer Complaints

A United Cable (Louisiana Wire and Cable) complaint that 34641 did not pass the cold bend test was investigated. A brittle point test indicated that the shipment was typical of this compound and should have passed the cold bend test when coated on wire.

Croft Metals complained that 17461 3A01 gave extrusion problems. The material performed satisfactorily in the laboratory extruder.

A Tenex complaint concerning 18031 Clear Blue 50 claimed gas bubbles and poor profile surface were present in their extruded product. Laboratory extruded strips showed many gel-like imperfections; however, the surface was not rough and no gas bubbles could be seen.

SPECIAL PROJECTS

RVCM in Slurries

A total of 635 batches out of a possible 672 produced were tested for RVCM. The overall average for the month was 212 ppm VCM with only 1 day exceeding the 400 ppm limit. This month, March, is the best with respect to RVCM since the new reactors were put into service.

Residual Vinyl Chloride in 5305 Drier Samples

A total of 34 samples of 5305 from the drier were tested for RVCM. The overall average was 18 ppm VCM.

EPA-Reactor Opening Study

As part of the reactor opening study and related EPA testing the following samples were analyzed:

Slurries for RVCM	140 samples
Waste Water for RVCM	42 samples
Reactor Opening Air Bag for VCM	51 samples
Incinerator Air Bags for VCM	6 samples

SPECIAL PROJECTS (CONTINUED)

Yield Test Run

In support of the Yield Test Run percent solids were measured on 12 total waste water composites 9 blowdown tank samples.

Waste Treatment Study

In support of the waste water program conducted by engineering in Ponca a total of 84 samples were tested for COD, Ph, and percent solids. In addition 7 samples were tested for BOD by an outside laboratory.

ORDER ENTRY AND TRANSPORTATION WAREHOUSE - J. C. Coffman & J. E. Mays

Shipment By Product - M Lbs.	March	Year-to-Date
Resin	15,709	48,378
Plasticizer	83	333
Dry Blend	4,906	13,110
Compound	5,222	13,292
TOTAL	25,920	75,113

Number of Shipments by Mode

	R/C	O.T.	C.C.	C.O.T.	TOFC	CPU	TOTAL
Resin - Bulk	75	85	11				171
- Package		7	7		8	4	26
- Export - Aberdeen	1	2					3
Plasticizer - Bulk						2	2
Dry Blend - Bulk	19	9				13	41
- Package		2				5	7
Compound - Bulk	15	22					37
- Package		16	3	2		25	46
Export - Package		2					2
	110	145	21	2	8	49	335
Back Hauls for March		14					14

Number of Shipments by Month - Y.T.D.

	R/C	O.T.	C.C.	C.O.T.	TOFC	CPU	TOTAL
January	103	166	12	7	7	56	351
February	101	119	10	0	3	36	269
March	110	145	21	2	8	49	335

Material Handling Report	M/Lbs.	T/L
Packaged Resin From Production	1,823	45
Packaged Compound, Dry Blend From Prod.	1,579	39
Transferred From Main to Prairie	567	14
Transferred From Prairie to Prairie	932	23
Reverse Transfer Resin to Plant	567	14
Reverse Transfer Compound to Plant	121	3
Shipment From Warehouses	3,281	81
Special Packaging	162	4
Transferred From Prairie to Main	405	10
	9,437	233

CONOCO TRANSPORTATION

ABERDEEN WAREHOUSE

LOCATION		TOTAL M SQ. FT.	CONTENTS		ESTIMATED MM POUNDS ON FLOOR	OPEN	TOTAL
MAIN-East		48	Compounds	3.1			
			Dry Blend	1.0			
			Export Resin	.2			
			Conoco Resin	.7	5.0	4.5	9.5
Prairie	12-1	12			.	1.5	1.5
	12-2	22	Compound	1.5			
			Dry Blend	.1	1.6	1.9	3.5
	12-3	21	Comp O.G.	.2			
			Raw Materials	.2			
			Conoco Resin	.	.4	3.1	3.5
	12-4	22	Conoco Resin	.5			
			Resin O.G.	2.2	2.7	.8	3.5
	12-5	21	Mill Scraps	.			
			Cmpd O. G.	.6			
			Dry Blend O. G.	.5			
			Sifter Overflow	.2			
			Resin O. G.	.	1.3	1.2	2.5
	12-6	21	Conoco		.	3.5	3.5
	12-7	21	Conoco	.	.	3.5	3.5
	12-8	21	Conoco		.	3.5	3.5
			Total on Hand		11.0	23.5	34.5
			Chrysler Resin		(-2.0)		
Total		20.9	Total Conoco		9.0		

Off-Grade In Storage

Material	M/Lbs.	T/L
Sifter Overflow	200	5
Resin "BC"	1,108	27
Resin "H"	1,142	28
Mill Scraps	41	1
Compound "B"	1,111	27
Compound "H"	140	4
Dry Blend "O.G."	375	9
TOTAL	4,117	101

Chrysler Storage

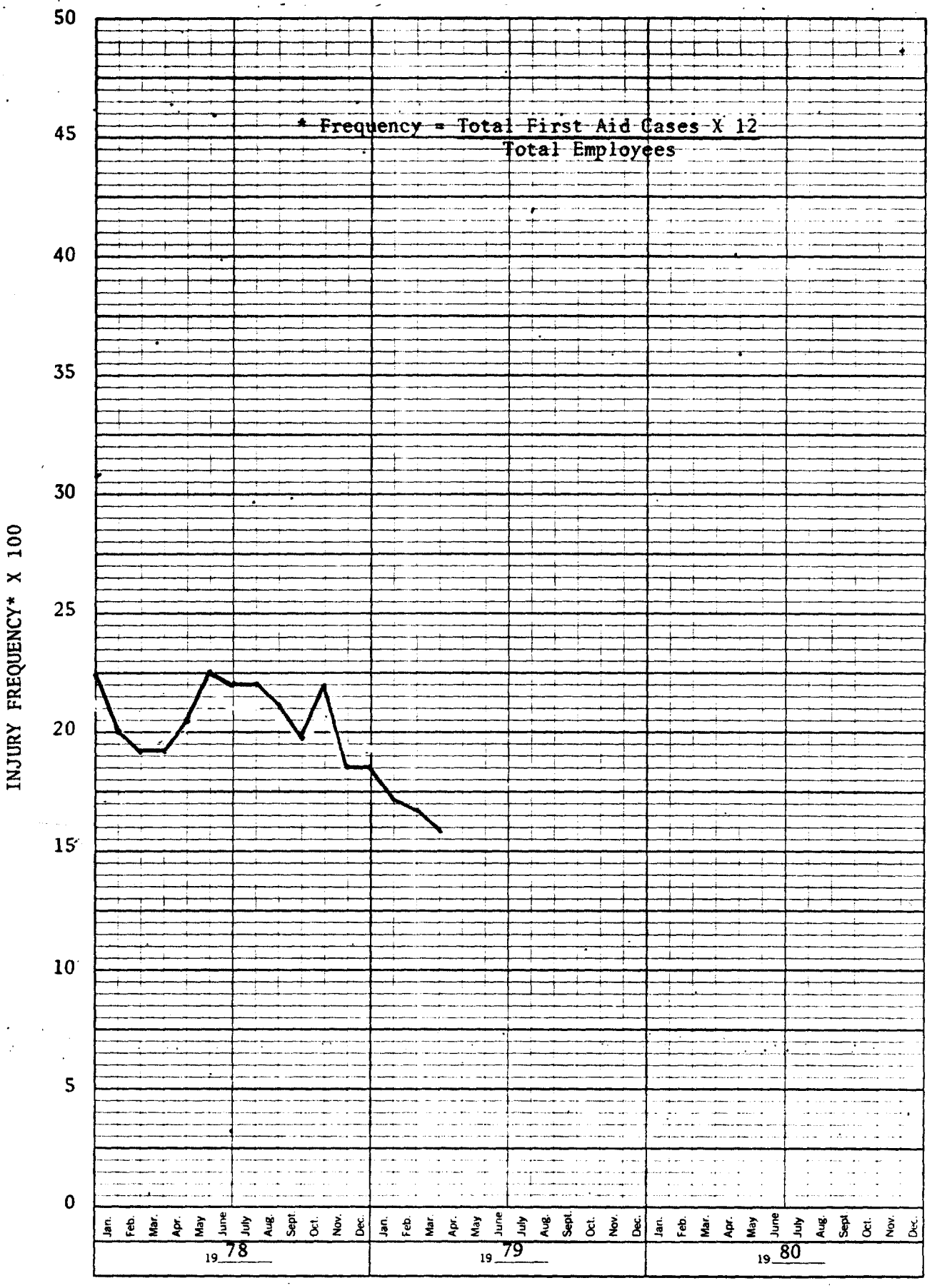
Balance, March	2,291	56
Transferred during month	337	8
TOTAL	1,954	48

D. F. Operation

It now appears that our inventory has reached a low level and we are shipping approximately what production is producing. We presently have 4 empty storage warehouses available for future storage. Plans are to have a fifth warehouse empty next month by regrouping some products together.

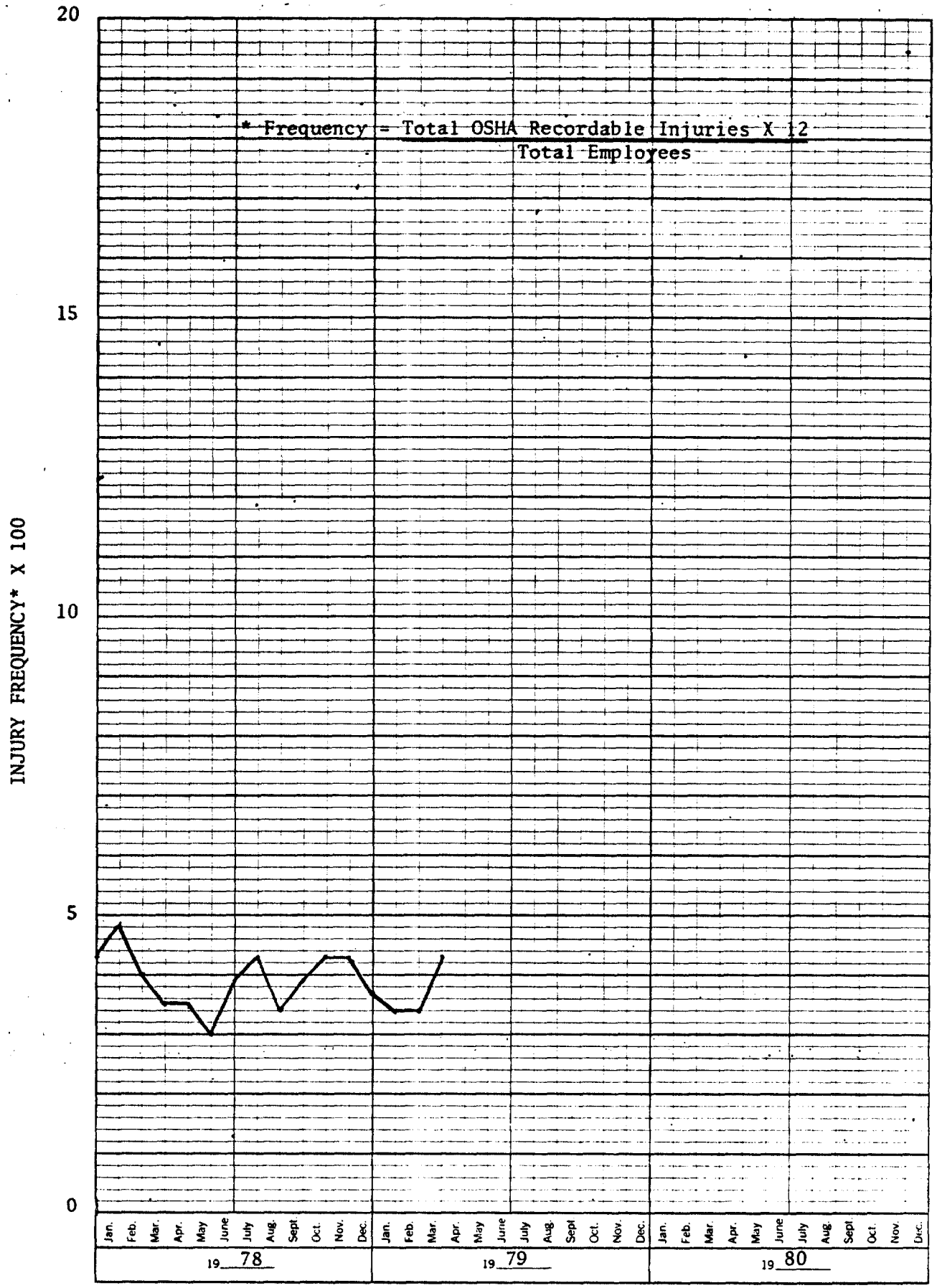
ABERDEEN FIRST-AID CASES

12 MONTHS MOVING AVERAGE

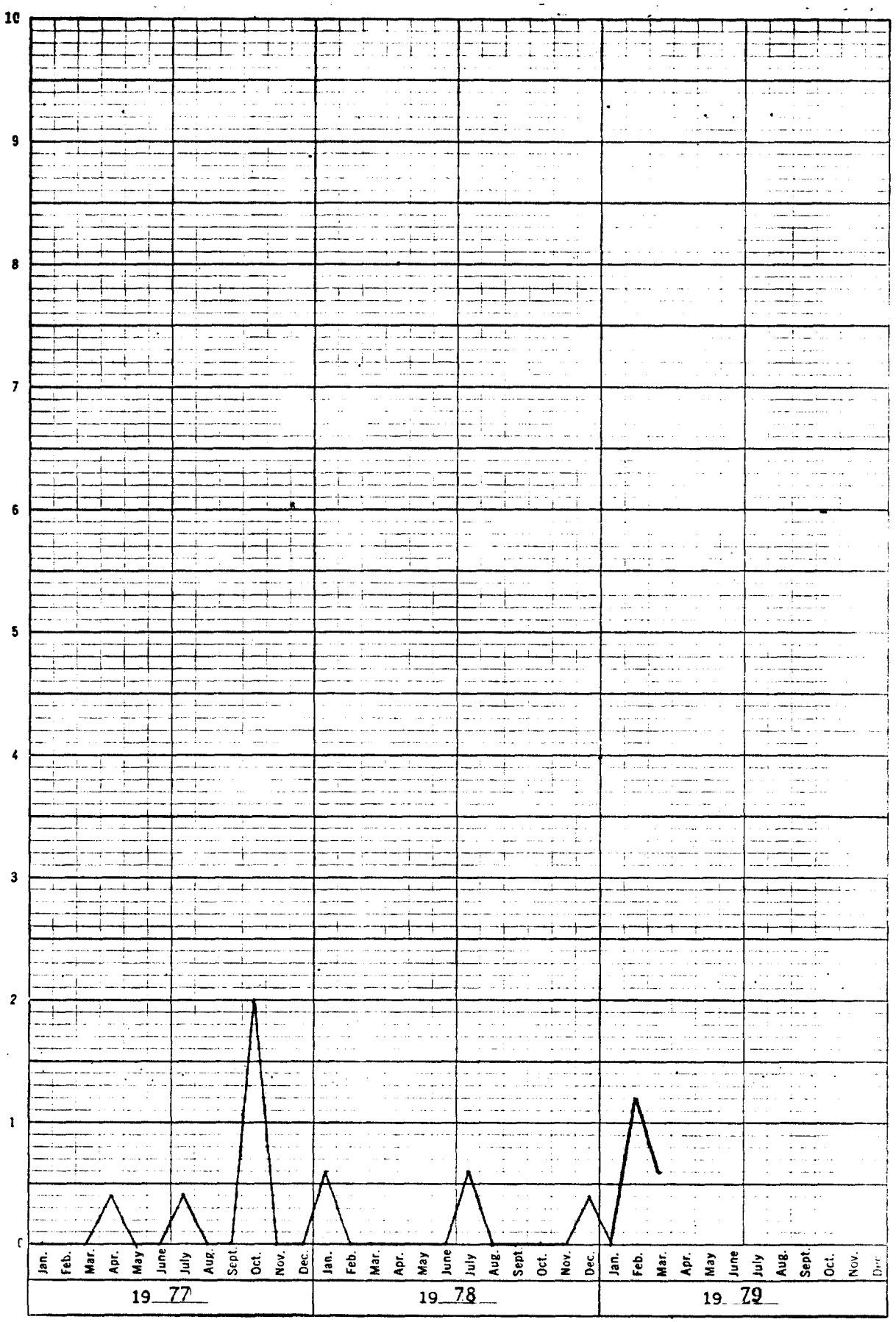


ABERDEEN OSHA RECORDABLE INJURIES

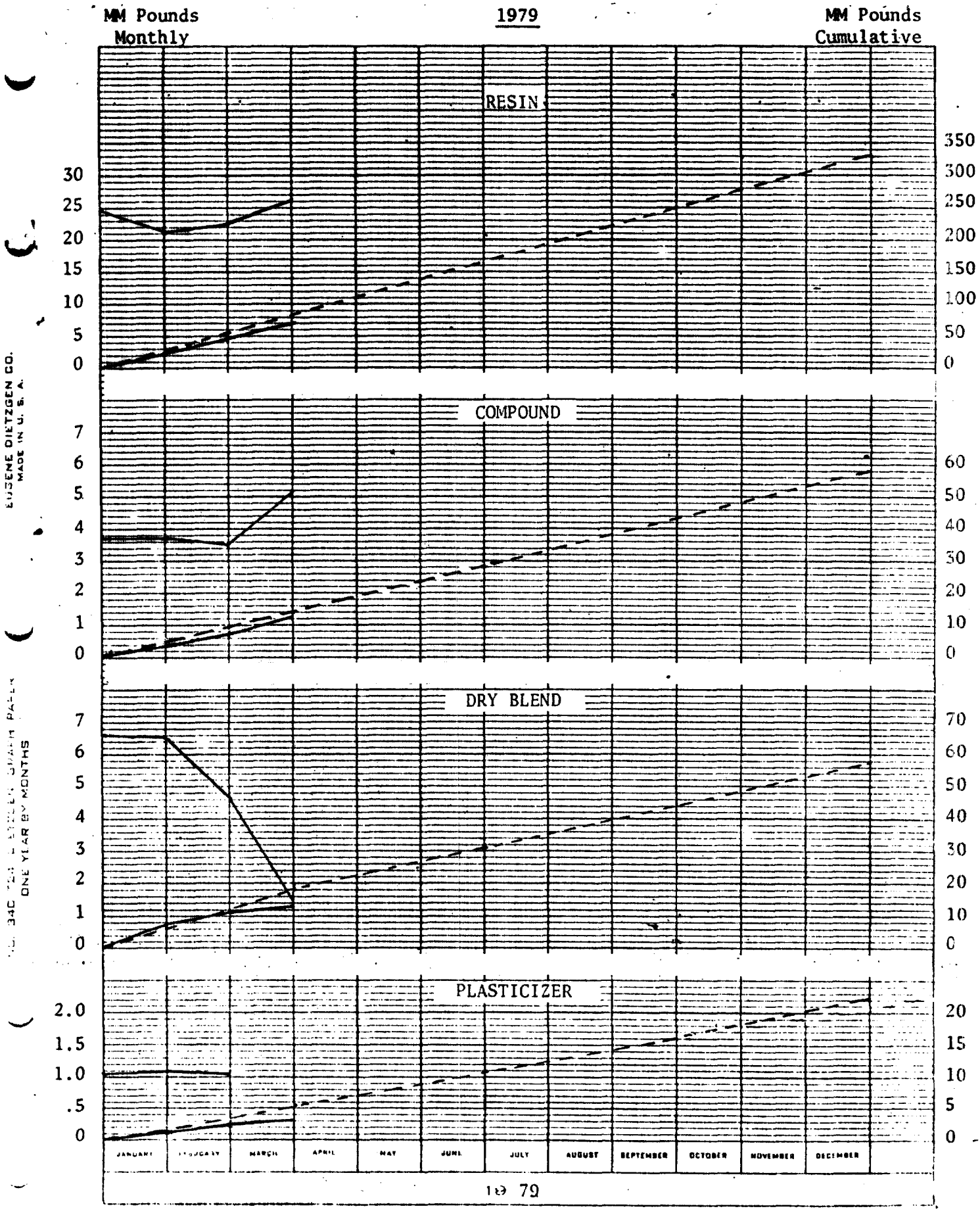
12 MONTH MOVING AVERAGE



MONTHLY HOURLY TURNOVER



ABERDEEN PLANT PRODUCTION



EUGENE DIETZGEN CO. MADE IN U. S. A.

340 TEN LINEAR GRAPH PAPER ONE YEAR BY MONTHS

DTH 000043703

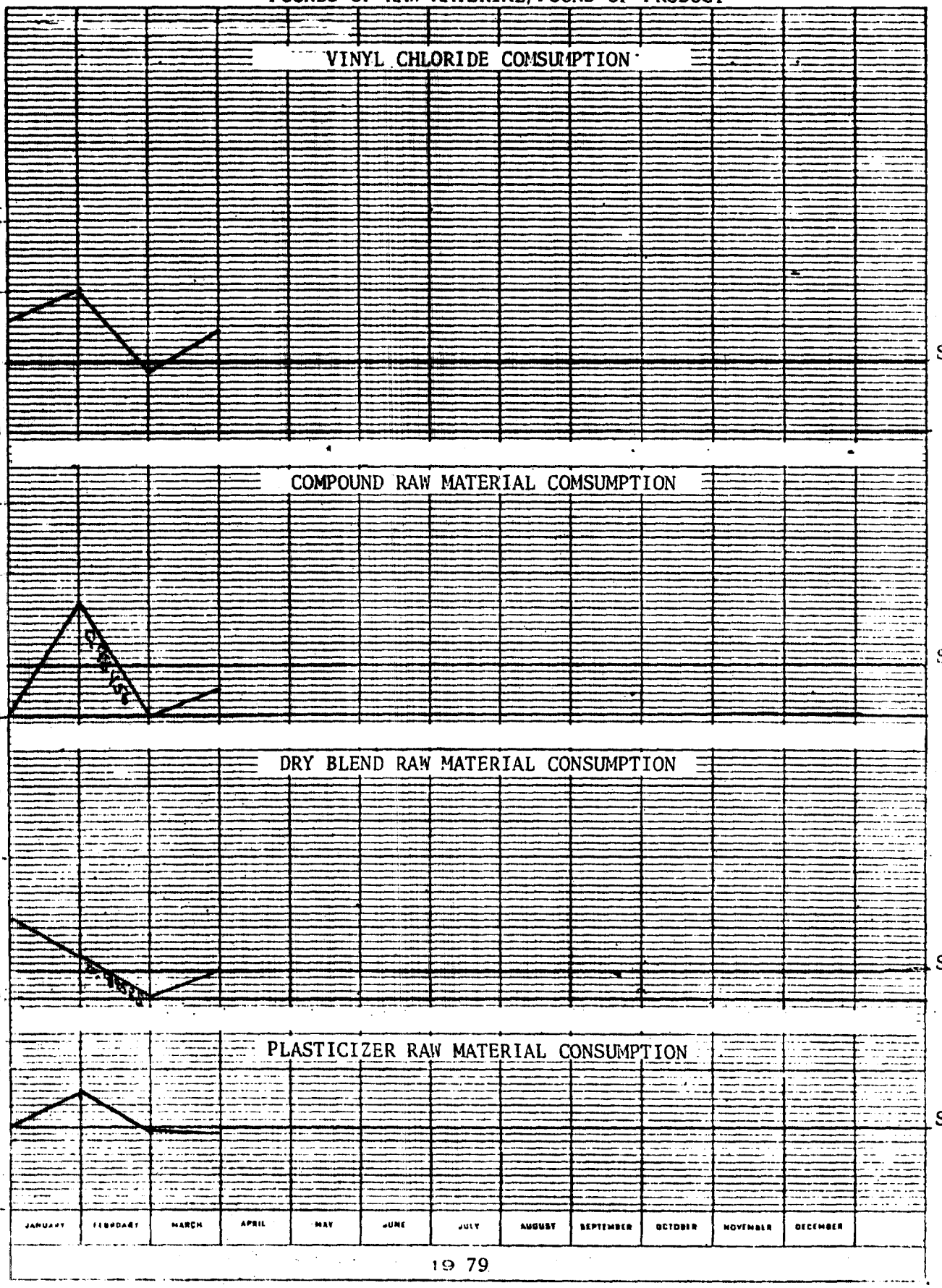
BUDGET ----------

ACTUAL _____

ABERDEEN PLANT EFFICIENCY

1979

POUNDS OF RAW MATERIAL/POUND OF PRODUCT



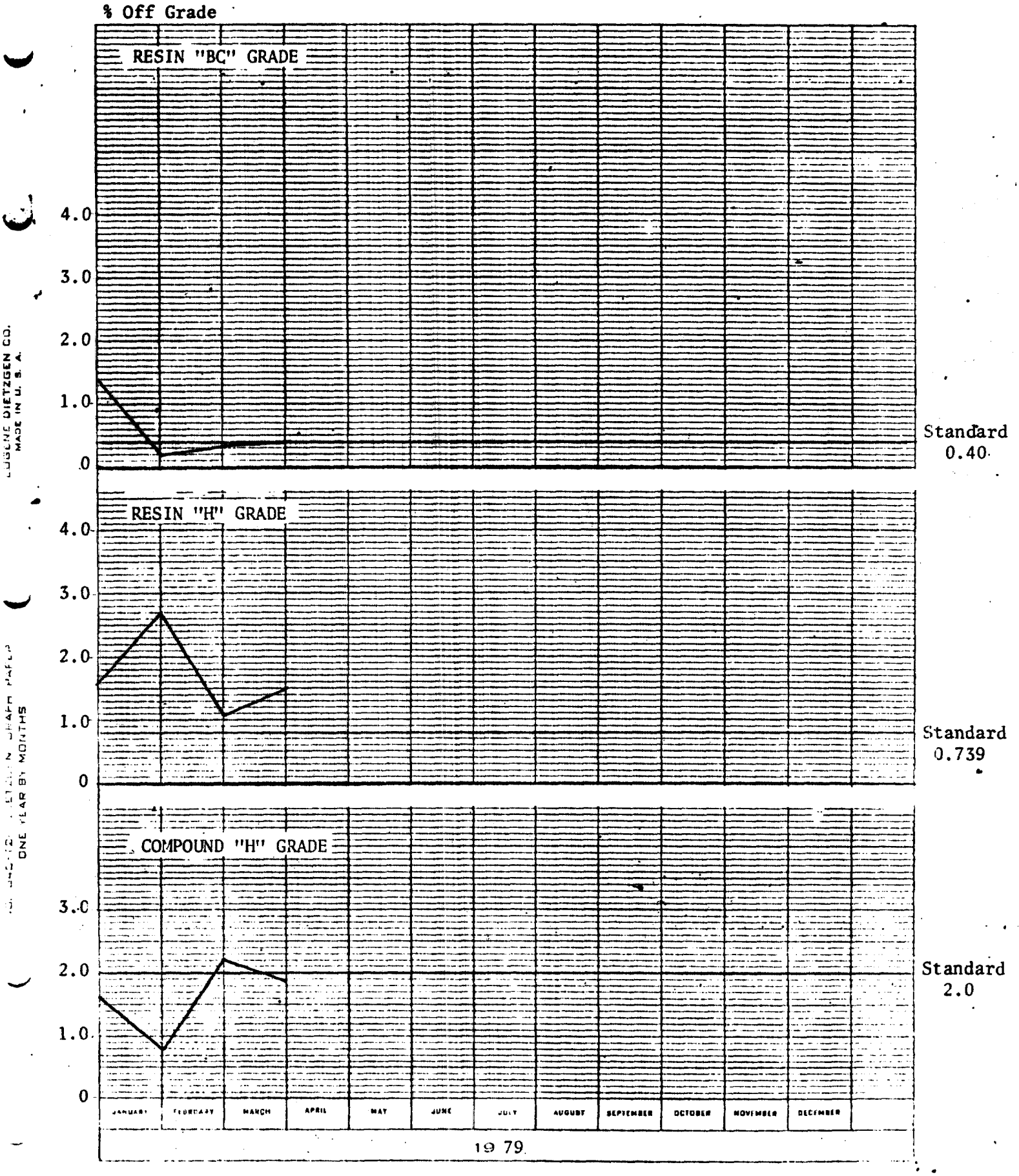
EUGENE DIETZGEN CO.
MADE IN U. S. A.

NO. 340-124 DIETZGEN GRAPH PAPER
ONE YEAR BY MONTHS

DTH 000043704

ABERDEEN PLANT QUALITY PERFORMANCE

1979



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ABERDEEN PLANT INVENTORIES

1979