

File Copy A

To: T. H. Huffman

From: D. C. Skokna
Date: August 22, 1991

Interoffice
Communication

Subject: ABERDEEN MONTHLY PROGRESS REPORT
JULY, 1991

VISTA

Safety

There were one first aid and one recordable injuries reported during July. The recordable case involved a vinyl operator who suffered a lacerated finger. On July 6, the plant's employees completed twelve years since the last lost time injury. At month's end, the plant's employees finished 4409 days (5,903,326 manhours) since the last lost time injury.

FY1991 Key Statistical Information

	<u>July</u>	<u>Y.T.D.</u>
PVC Production, MM Lbs.	24.3	382.0
Reactor Stream Factor, %	58.3	85.7
Resin Quality, % Prime	98.0	98.2
VCM Efficiency, Lbs./Lb.	1.0236	1.0244
Flexible Compound Production, MM Lbs.	5.6	47.9
Flexible Compound Quality, % Prime	95.0	97.0
Rigid Compound Production, MM Lbs.	3.2	45.6
Rigid Compound Quality, % Prime	98.3	99.2
Plasticizer Production, MM Lbs.	1.4	15.4
Plasticizer Quality, % Prime	87.2	84.2
Energy Use, (EUI, %)	< 14.5>	< 10.4>
Fixed Cost Variance, \$M	< 131.4>	< 183.8>
Variable Cost Efficiency Variance, \$M	< 1.5>	< 216.4>

Operations

The New Module conversion to VCSM control was successfully completed. Conversion began on July 5 and full rate production was achieved on July 26. While down for the conversion, turnaround work was also completed.

Product demand was strong in both compound departments. Rigid compound production was slowed due to close monitoring of product quality. A DOE was performed to determine the significant factors which affect PLENEX melt flow.

T. H. Huffman

8/22/91

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Costs

Fixed costs were \$131.4M unfavorable due primarily to payroll which was over budget due to the turnaround, VCSM startup, holiday pay, vacation, and benefits. MM&C costs were also higher than budget due to the turnaround.

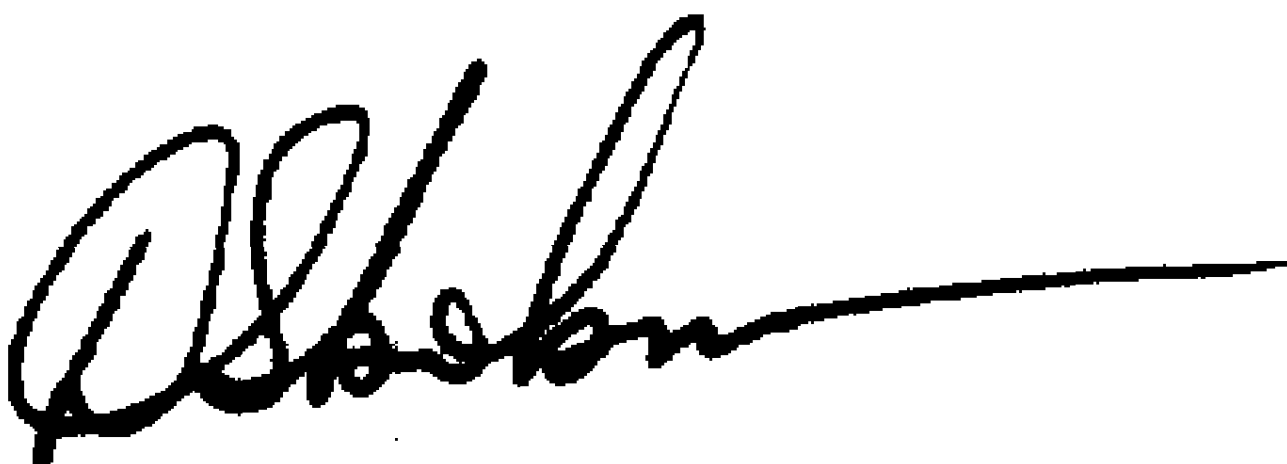
Variable costs overall were essentially at budget.

OMP

- The Vinyl "A" Shift Natural Team presented a project to management that will improve the safe access to rotary dryers.
- Compound "A" shift presented their compound dicer improvement project to management. This project reduces downtime caused by dicers and reduces dicer maintenance costs.

OASIS Update

The July closing required 357 manhours to complete. The problems that caused this excessive time requirement have been identified and corrective action has been started.



D. C. Skokna
Plant Superintendent

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SAFETY - B. L. Trego

	<u>July</u>	<u>Fiscal</u> <u>Y.T.D. 1991</u>	<u>Fiscal</u> <u>Y.T.D. 1990</u>
First Aid	1	12	14
OSHA Recordable	<u>1</u>	<u>7</u>	<u>4</u>
Total Injuries	2	19	18
Number of Restricted Workday Cases	0	4	3
Number of Lost Workday Cases	0	0	0

Injuries by Department

Vinyl Operations	1	3	0
Compound Operations	0	5	5
Maintenance	1	9	11
Laboratory	0	0	1
Receiving/Warehouse	0	0	0
Office	<u>0</u>	<u>2</u>	<u>1</u>
Totals	2	19	18

Injuries by Type

Cuts and Abrasions	2	6	7
Eye Injuries	0	1	1
Burns	0	3	3
Bruises	0	3	2
Strains/Sprains	0	3	1
Stings	0	0	2
Other	<u>0</u>	<u>3</u>	<u>2</u>
Totals	2	19	18

Non-Occupational Injuries

Lost Workday Cases	0	6	8
Days Lost	0	127	179

Contractor Injuries

First Aid Cases	0	4	--
Medical Treatment Cases	0	1	--
Lost Workday Cases	0	1	--

Safety Record

Last lost time injury - 7/5/79
Days since - 4,409
Employee hours since - 5,903,326

On July 31, 1991, the employees of the Aberdeen plant completed 4409 days with no lost time injury.

SAFETY - Continued

Topics for plant safety meetings during the month included: Inspection and Safe Use of Handtools, CPR, Hand Safety, and Hazardous Chemical Exposure Prevention.

The newly formed (as yet unnamed) safety organization in northeastern Mississippi started by our Safety Department is growing and already passing usable information and ideas on to one another. Over twenty members attend on a regular basis, including two customers (GenCorp and Southwire), one supplier (Kerr-McGee) and one competitor (North American Plastics).

A housekeeping program (Operation Clean Sweep) is slated to begin in early August. This is another program which will include all employees.

Routine dosimetry results for the month were:

<u>Chemical</u>	<u>< PEL</u>		<u>> PEL</u>	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
VCM	75	100.0	0	0
Lead	5	100.0	0	0
Total Particulates	1	100.0	0	0

Monthly Injury Summary

<u>Injury Class</u>	<u>Department</u>	<u>Description</u>
MT	Vinyl	Laceration of right index finger.
FA	Maintenance	Abrasion of left forearm.

QUALITY MANAGEMENT PROCESS - T. J. Arbeiter

All of the plant's natural teams met during July. Some of the team highlights for the month were:

- Vinyl A-shift made a presentation to Management on July 2. The team justified changes in the dryer inlet ladders that will reduce the safety risk of entering dryers.

Previously, portable ladders on wheels were used for dryer entry. Their design made dryer entry hazardous because the ladder could roll out from under a person as he/she was making the transition from ladder to dryer or vice versa. The individual also had to step over the side railing to enter a dryer.

The new ladders are designed expressly for dryer entry and should eliminate the safety hazards associated with the old ladders.

- Compound A-shift made a presentation to Management on July 16. The team presented the results of their project aimed at increasing dicer efficiency, quality and safety.

The team implemented several new procedures to accomplish their goal including: 1) Develop PM procedures for dicers, including a PM sheet for recording maintenance; 2) Developed a method for tracking the number of pounds diced between blade changes, and; 3) Developed a more detailed maintenance downtime sheet to show the major causes of dicer downtime.

The results of the team's efforts can be seen in the reduction in dicer downtime. Prior to the beginning of this project, Line I and Line III combined dicer downtime averaged just over twenty hours per month. Downtime for the period August, 1990 through March, 1991 averaged less than one hour per month.

- The Senior Process Engineer's Natural Team began planning their next project to improve time management skills for process engineers.
- The Synergy Team began listing barriers to effective QMP/Natural Team participation as perceived by plant employees.

COST VARIANCES - D. C. Skokna

Variable Costs

<u>Product</u>	<u>July, 1991 Variance, \$M</u>		
	<u>Efficiency</u>	<u>Price</u>	<u>Total</u>
PVC	\$ 1.3	\$851.5	\$852.8
Flexible Compound	22.9	< 89.0>	< 66.1>
Rigid Compound	63.0	40.6	103.6
Plasticizer	< 88.7>	< 38.5>	< 127.2>
Total	<\$ 1.5>	\$764.6	\$ 763.1

PVC

Variable costs were essentially at budget.

Compound and Plasticizer

Production models are being audited and errors are being corrected. These variances may be a result of OASIS models not being correct.

Major Price Variances:

	<u>Variance - \$M</u>
■ VCM	\$837.0
■ Resin to Rigid Compound	59.5
■ Resin to Flexible Compound	65.9
■ Natural Gas	29.3
■ Phthalic Anhydride	14.0
■ Pallets	< 15.4>
■ Electricity	< 15.8>
■ TiO ₂	< 19.6>
■ Alfol ^R Alcohols	< 58.2>
■ Plasticizer	<155.4>
■ Other Price Variances	<u>21.8</u>
Total	\$763.1

Fixed Cost Variances

	<u>Variance - \$M</u>
■ Payroll and Benefits	<\$116.9>
■ MM&C	< 33.6>
■ Miscellaneous	22.7
■ TI&D	< 2.8>
■ Clearances	< 0.8>
Total	<\$131.4>

Payroll and Benefits - Operating payroll was \$50.0M unfavorable due to the VCSM startup, turnaround, vacation and the holiday; benefits were \$55.5M unfavorable.

MM&C - Costs were above budget due to the New Module turnaround.

COST VARIANCES - Continued

Miscellaneous - Key variances were:

■ Operating Supplies	<\$34.6M>
■ Shipping Costs	10.4M
■ Warehouse Gain/Loss	28.2M

T.I.& D.

A \$96.1M charge was taken as a result of a State audit of our sales and use taxes. This total represents what the State has found for 1989 and an estimate of possible liability for 1990 and 1991. Also included are interest charges.

VINYL - J. D. Olson, D. E. Knittig

Safety

The Vinyl Department had no first aid case or OSHA recordable injuries during July.

The monthly safety meetings were open discussions with shutdown safety issues discussed and corrections made as needed.

General

1. VCSM conversion of the New Module was completed. The conversion began on July 5, and the first reactor was brought on-line on July 24. The New Module was up to full production rates on July 26.
2. OASIS was used in parallel to the budget process. All production models were changed to match Fiscal 1992 budget.
3. The recovery line in the Old Module was inspected and repaired. Line inspection revealed many pits and thinning areas requiring replacement.

	<u>July</u>	<u>YTD</u>
- Production, MM Lbs.	24.3	382.0
- Daily Rate, M Lbs./C.D.	783.9	1256.5
- Capacity Utilization Factor, %	61.5	98.5
- Total Reactor Charges	585.0	8951.0
- Charges/C.D.	18.9	29.6
- Reactor Stream Factor, %	58.3	85.7
- Rotary Dryer Stream Factor (#4-#8), %	71.1	90.3
- Fluid Bed Dryer Stream Factor, %	38.7	89.7
- Resin Quality, % Prime	98.0	98.2

Reactor Downtime

	<u>Hours</u>
■ Operational downtime (recovery scheduling conflicts, charge/rinse water conflicts, Q.C. data delays, and dump conflicts).	204.0
■ Maintenance downtime (hydroblast D-743 condenser, Old Module recovery line repairs, hydroblast D-700 condenser, VCSM conversion, and loss of steam due to a gas company compressor failure).	2899.0

VINYL - Continued

<u>Dryer Time</u>	<u>% of Total Downtime</u>
■ Operational downtime (centrifuge plugs, dryer cleaning, flameouts).	3.9
■ Maintenance downtime (dryer PM).	1.6
■ Reactor limited production.	94.6

Key Maintenance Work - Jimmy Autrey, Sherry Truitt

1. Maintenance completed various tasks during the New Unit shutdown.
2. Reactor 743 condenser was drilled and blasted to control contamination.
3. The large reactor seal was rebuilt for a spare. The seal had failed the end of June.
4. The new fluid bed dryer demister pads were installed during the turnaround. The old pads will be cleaned for spares.
5. All New Module instruments were checked and calibrated as required for the new DCS system during the shutdown.
6. The 15 kva cable from substation 101 to substation 102 was tested for high-potential loss during the New Module turnaround. Test results showed acceptable leakage. Also, the substation feeds were rewired so each substation can be isolated.
7. No major valves were replaced in the Vinyl unit in July.

COMPOUND - J.E. Nickerson, M. R. Kane

Safety

The Compound Department had no OSHA recordable injuries in July.

General

Orders remain tight on all production lines. Close monitoring of dry blend product quality has caused higher than normal downtime and slower than normal rates.

A DOE was performed to determine the significant factors which affect the melt flow of PLENEX. The results showed that a low stock temperature and short blender residence time will yield higher melt flow. Ted Nickerson visited Dekoron with the RFS team.

<u>Compound Production</u>	<u>Operating Days</u>	<u>Production M (Lbs.)</u>		
		<u>Month</u>	<u>Avg./Day</u>	<u>Fiscal Y.T.D.</u>
Line I	30	1865	62	16391
Line III	29	3111	105	28274
Line V	14	<u>599</u>	<u>43</u>	<u>3282</u>
Total		5574	186	47944
% Prime		95.0		97.0
Capacity Utilization Factor		69.2		61.5

Downtime

Hours

Line I

- Product Changes	81
- Miscellaneous Maintenance	43
- One Dicer Offline	36

Line III

- Product Changes	54
- Miscellaneous Maintenance	42
- One Dicer Offline	16

Line V

- Product Changes	33
- Miscellaneous Maintenance	9

COMPOUND - Continued

	<u>Operating Days</u>	<u>Production (M Lbs.)</u>		
		<u>Month</u>	<u>Avg./Day</u>	<u>Fiscal Y.T.D.</u>
Rigid Compound	30	3179	106	45556
% Prime		98.33		99.2
Capacity Utilization Factor		47.9		74.7

Downtime

Hours

- Product Changes	59
- Miscellaneous Maintenance	49
- Quality Problems & Control	45

	<u>Operating Days</u>	<u>Production (M Lbs.)</u>		
		<u>Month</u>	<u>Avg./Day</u>	<u>Fiscal Y.T.D.</u>
Plasticizer	27	1381	51	15407
% Prime		87.2		84.2
Capacity Utilization Factor		63.9		77.9

Key Maintenance Work - J. B. Autrey, S. A. Truitt

There were no major items this month.

A

ENGINEERING - S. C. Hillman, M. L. Carter

PROJECTS IN DEVELOPMENT - GENERAL

Vinyl Reactor Enclosed Dump System

An enclosed dump system will potentially eliminate the evacuation step of the reaction cycle by preventing air from entering the reactor during dump and rinse. Piping and equipment modifications are being made to allow testing of a temporary system in October.

Dry Blend Oversize Problems

The dry blend area is continuing to have problems with percent oversize particles in the screened products for several sensitive customers. The 3FQ91 Dry Blend Screener Replacement Project is scheduled to be installed in October, but additional improvements appear to be necessary. Plant engineering is investigating alternatives to further reduce oversize due to linescale and agglomeration of particles.

Pond 2 Reclaim

A detailed list has been prepared of potential cost items associated with the removal of resin in old waste treatment Pond 2. This list is being forwarded to Vista Environmental to be considered in any contract arrangements with Conoco for Pond 2 cleanup by Vista.

MSA Catalyst Test in P-1

MSA catalyst is a potential replacement for pTSA in plasticizer production. MSA may improve cycle time and reduce environmental loading to the wastewater treatment ponds. A month long trial beginning in mid-August is being coordinated with Operations to pin down cycle time and environmental benefits. An initial four-batch test run by PED in July showed no adverse quality or operational effects.

ABERDEEN CHEMICAL PLANT
APPROVED CAPITAL PROJECTS

ENGINEERING - M.L. CARTER, S.C. HILLMAN

NUMBER	PROJECT DESCRIPTION	STATUS
A519	PLANT ELECTRICAL UPGRADE	A NEW 15 KV 600 AMP SERVICE TO SUB 101 WAS INSTALLED IN JULY.
A649	VINYL CONTROL SYSTEM MODERNIZATION	N.M. CONVERSION WAS MADE IN JULY T/A - O.M. CONVERSION SCHEDULED FOR SEPT
A909	INERTS REMOVAL MODIFICATIONS	PROJECT IS OPERATIONAL, TARGETED FIELD CLOSURE AUGUST FY 91
C591	DRYBLEND SAMPLE LINE	PROJECT WAS APPROVED IN JULY FY 91
D511	VCM UNLOADING MODIFICATIONS	DESIGN PACKAGE IS IN PROGRESS, MATERIALS HAVE BEEN PLACED ON ORDER
D550	RAILCAR ACCESS PLATFORMS	PUNCHLIST NEAR COMPLETION, TARGETED TO BE PLACED IN OPERATION AUG FY 91.
D570	OLD MODULE RECOVERY SYSTEM ACCESS	DESIGN IS COMPLETE, INSTALLATION PLANNED FOR OLD MODULE OUTAGE IN SEPT
D580	RECOVERY VACUUM PUMP PRESSURE REL.	N.M. WORK WAS COMPLETED JULY T/A - O.M. WORK PLANNED FOR SEPT T/A
D600	PLASTICIZER LOADING. & UNLOADING. MOD.	PUNCHLIST NEAR COMPLETION, TARGETED OPERATION AUG FY 91
D749	LEAD HANDLING AND EXPOSURE REDUCTION	PROCESS ENGINEERING IS MONITORING MODIFICATIONS.
D849	COMPOUND LINE 3 SEMI-BULK LEAD HANDLING	MODIFICATIONS HAVE BEEN MADE, A TEST RUN IS SCHEDULED FOR AUGUST FY 91.
D859	COMPOUND SILO BRIDGE BREAKING	COMPLETED, PROJECT WILL BE CLOSED TO FIELD CHARGES IN AUG FY 91
D899	RAILCAR CLEANING RACK	PUNCHLIST ITEMS REMAIN, TARGETED FOR OPERATIONS AUG. FY 91
F551	DRY BLEND SCREENER REPLACEMENT	SCREENERS ON ORDER, MECH. DESIGN 98% COMPLETE ELECTRICAL 85% COMPLETE
F650	5305 RESIDUAL VCM REDUCTION	PROJECT WILL BE CLOSED TO FIELD CHARGES IN AUG. FY 91.
F660	DECALCIFIED WATER	NEW FILTERS ON ORDER TARGETED COMPLETION FOR 4TH QTR. FY 91
F779	DRYERS NO.4 & 5 CONTAMINATION REDUCTION	PROJECT WILL BE CLOSED TO FIELD CHARGES IN AUG. FY 91
G560	TC SPILL CONTAINMENT	PROJECT WILL BE CLOSED TO FIELD CHARGES IN AUG. FY 91.
G561	WASTEWATER INFLUENT EQUALIZATION	CONSTRUCTION IS IN PROGRESS, TARGETED OPERATIONAL MID SEPT. FY 91
G610	TC COMPLIANCE PROJECT	TARGETED TO BE CLOSED TO FIELD CHARGES 4TH QTR. FY 91
G630	REACTOR SLURRY STRIPPING OPTIMIZATION	WORK WAS COMPLETED DURING RX OUTAGE IN JULY, TARGETED TO CLOSE IN 4TH QTR
G659	NEW DRYER BAGHOUSES	PROJECT IS BEING MONITORED, MODIFICATION OF MEMBRANE BACKING IS SCHEDULED
G839	PLANT WATER RECYCLE	PROJECT WILL BE CLOSED TO FIELD CHARGES AUG. FY 91
H500	PLANT WATER SYSTEM	ENG. IN PROGRESS, CIVIL AND SITE CONSTRUCTION IN PROGRESS
H501	MISCELLANEOUS CAPITAL PROJECTS < \$15M	32 PROJECTS APPROVED, 16 COMPLETED, ENG. IS IN PROGRESS ON 16 PROJECTS.
H510	WEST INCINERATOR REPLACEMENT	INCINERATOR DELIVERED. PROJECT COMPLETION TARGETED FOR 9/91
H531	BOILER FEEDWATER TANK REPLACEMENT	NEW TANK HAS BEEN INSTALLED, MINOR ITEMS REMAINING
H541	PVC GEARBOX REPLACEMENT	THE NEW GEARBOX IS SCHEDULED TO ARRIVE IN THE PLANT MID AUGUST.
H571	D-745 RX DRIVE SHAFT REPL	CURRENTLY WORKING WITH VENDORS ON PRICING
H581	SPARE LARGE RX AGITATOR MOTOR	CURRENTLY WORKING WITH VENDORS ON PRICING
H601	GAS CHROMATOGRAPH UPGRADE	PROJECT WAS APPROVED IN JULY FY 91
H620	EAST INCINERATOR REPLACEMENT	INCINERATOR DELIVERED. PROJECT COMPLETION PLANNED FOR 10/91.

ENVIRONMENTAL - K. G. Akins

Water

Confirmatory tests for the bioassay testing that we did not pass in June failed to confirm the presence of any toxicity in our wastewater.

During software testing of the new vinyl distributed control system on July 20, 1991, a wastewater bypass occurred. A cooling tower basin overflowed during testing with emergency cooling water. The overflow contained approximately a 50-50 mixture of cooling tower water and water from wastewater treatment pond #5. The MDEQ was notified.

Recent problems with low pH in the wastewater treatment system have necessitated modification of operating procedures for our incinerators. Control system modifications to limit the amount of time the incinerators are in high fire will stabilize pH by balancing hydrochloric acid production throughout the day from VCM incineration.

Superfund

DuPont Environmental Remediation Services completed resampling of the groundwaters, soils, and sediments as recommended in their site assessment. Preliminary results should be available near the end of August.

Negotiations continue with Conoco on the reclamation of resin from Pond 2. Royal has tentatively agreed to Conoco's counteroffer of 4.5 cts./lb. U.S. funds for the Pond 2 resin. Conoco and Vista are now working out the details of how the material will be dried using Aberdeen's existing pond resin reclaim equipment and cost accounting.

Bids for remediation of the buried drum site were due in Houston on August 2, 1991. Remediation vendors were presenting work plans August 12th - 13th. Work is expected to begin in September.

General

The MDEQ approved our proposal to use a reactor as a batch water stripper. This will allow us to keep four New Module reactors running with the fifth acting as the stripper during the Old Module shutdown in September. The batch water strippers are located in the Old Module and will be switched over to the new control system during the shutdown.

ENVIRONMENTAL - Continued

General - continued

Work continues with AT&T on recycling of PVC scrap from their wire and cable operation in Omaha. The next step is to get several gaylords of the scrap to Aberdeen for testing. If an acceptable product can be made from the scrap alone or blended with MSP80, bulk shipments of scrap would be possible. This testing will be done on Line I.

I attended a Hazardous Materials Transportation course July 15th - 19th. This course included instruction on the new HM-181 regulations that will significantly impact transportation and packaging of hazardous materials and wastes beginning in 1992.

Waste

Waste shipments during the month included:

- Bulk shipment of floor sweepings to Chemical Waste Management in Emelle, AL.
- Bulk shipment of waste oil to Fisher Industrial Service in Gadsden, AL.
- Thirteen boxes of VCM filter cartridges and three drums of stabilizer spill to TES in LaPorte, TX.

ENERGY CONSERVATION - J. R. Ganc

	<u>July. 1991</u>	<u>Fiscal Y.T.D.</u>
I. <u>Energy Conservation Data</u>		
A. Unadjusted EUI	< 15.2%>	< 11.1%>
B. Adjusted EUI	< 14.5%>	< 10.4%>
C. BTU/Lb. Product	2782.6	2767.8
D. Total Energy Consumption MMM BTU	96.0	1352.0

II. Boiler Operation

<u>Boiler</u>	<u>Combustion Efficiency %</u>	
	<u>July. 1991</u>	<u>Fiscal Y.T.D.</u>
No. 1	83.3%	83.1%
No. 2	83.4%	83.4%
No. 3	82.9%	82.8%

Boiler #1 operated twenty-four days during the month.

Boiler #2 operated twenty-five days during the month.

HUMAN RESOURCE REPORT

JULY, 1991

Personnel - J. E. Beall

Employment

None

Promotions/Transfers

Erik Smith - Process Engineer, PED - Houston, transferred to Aberdeen as a Process Engineer.

Theron Reed Mackay - Process Engineer, Aberdeen promoted to Lead Process Engineer, Aberdeen.

Rendell B. Newton - Chief Process Engineer, Aberdeen, transferred and promoted to Chief Process Engineer, Lake Charles.

Larry E. Frye - Maintenance Helper, Maintenance Department, promoted to General Mechanic "B".

RETIREMENTS

Charles L. Smith - Maintenance Supervisor - Maintenance Department.

Paul D. Cook - Compound Operator - Compound Department.

TERMINATIONS/RESIGNATIONS

None.

TO/FROM LEAVE OF ABSENCE

None.

ABERDEEN PLANT**MONTHLY PERSONNEL REPORT****JULY, 1991**

EMPLOYMENT		NEW HIRES		MO	YTD
Salaried	74	Salaried/Transfer		0	0
Hourly	165	Hourly		0	0
Temporary	3	Temporary		0	3
SUB TOTAL	242	TOTAL		0	3
L.O.A.	0				
TOTAL	242				

DEPARTMENTS	#EMPLOYEES	M	F	%M	%F	DEPARTMENT TURNOVER		ANN. %
						MO.	YTD	
WAREHOUSE	15	9	0	60%	0	0	0	0
GENERAL PLANT	11	5	0	45%	0	0	1	15%
MAINTENANCE	39	8	0	20.5%	0	0	0	0
LABORATORY	24	5	2	20.8%	8.3%	0	0	0
COMPOUND	38	23	1	59%	2.6%	1	3	13.5%
VINYL	33	10	1	30%	3.0%	0	0	0
PLASTICIZER	5	2	0	40%	0	0	0	0
SUB TOTAL	165	62	4	37.6%	2.4%			
SALARIED	74	7	18	9.5%	24.3%			

APPLICATIONS	No.	%	PLANT TURNOVER	No	%
Month	0	0	Hourly Month	1	1.1%
YTD	0	0	YTD	4	4.2%
Minority	0	0	Salaried Month	1	2.3%
Female	0	0	YTD	6	13.9%

DEPARTMENTAL SUMMARY HOURS REPORT
----- MONTHLY -----

Department	Overtime			Paid Absences							Total Abs % of S/T	Vacation
	Total S/T Hr	Total Hour	% of S/T	Holiday Worked Hr	Holiday hr Not worked	Non Paid Hours	Absence % of S/T	Jury Duty	National Guard	Death in Family		
YARD	1384.00	308.25	25.74	48.00	80.00	0.00	0.00	0.00	0.00	0.00	0.00	292
UTILITY	756.00	111.75	17.96	24.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	84
MAINTENANCE	5588.50	1242.00	22.76	30.00	272.00	113.75	2.04	0.00	40.00	24.00	6.76	832
QC LAB	3223.25	281.50	11.71	96.00	176.00	55.50	1.72	0.00	72.00	0.00	3.96	432
JANITORS	296.00	3.75	1.27	0.00	16.00	8.00	2.70	0.00	0.00	0.00	2.70	88
WAREHOUSE	1108.00	135.75	12.25	0.00	56.00	.75	.07	0.00	0.00	0.00	.07	256
STORES	324.50	12.50	3.85	0.00	16.00	11.50	3.54	0.00	0.00	0.00	3.54	56
DEVELOPMENT LAB	869.00	33.25	5.78	17.00	40.00	4.00	.46	0.00	0.00	0.00	.46	120
DRY BLEND	1164.00	217.75	21.80	36.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	96
COMPOUND	6524.75	984.00	18.58	228.00	356.00	28.75	.44	0.00	36.00	0.00	3.57	824
VINYL	6657.50	1363.75	23.67	212.00	356.00	256.75	3.86	0.00	48.00	0.00	7.64	668
PLASTICIZER	769.25	85.00	11.05	0.00	40.00	50.75	6.60	0.00	0.00	24.00	9.72	164
Total Plant =====>	28664.75	4779.25	19.08	691.00	1500.00	529.75	1.85	0.00	196.00	48.00	4.69	3912

Pay Period ending August 4, 1991

DEPARTMENTAL SUMMARY HOURS REPORT
----- YEAR TO DATE -----Pay Period ending August 6, 1991

ADMINISTRATIVE SERVICES - D. A. Barclay

Safety

There were no reportable safety instances this month.

Quality

All natural teams met in July.

OASIS Progress

We are still experiencing problems with monthly closing of the OASIS system. A great deal of work still needs to be done on the models. Although July closing was smoother than June's, 357 manhours were required for closing in July.

Statistics

<u>Processed</u>	<u>Month</u>	<u>Y.T.D.</u>
Processed Invoices	986	9159
Working Fund Checks Written	16	127
Cost Savings Through Bid Process	\$1354	\$23418
Raw Material Purchase Orders Issued	122	881
MRO/AFE Purchase Orders Issued	175	1750
Spare Parts Purchase Orders Issued	200	1766

Packaged Finished Goods Ending Inventory

	<u>June. 1991</u>	<u>July. 1991</u>	<u>(Decrease) /Increase</u>	<u>% Change</u>
Compound "A" Grade	3,905,357	3,580,700	<324,657>	< 8%>
PLENEX	127,883	96,292	< 31,591>	< 25%>
Compound Off-Grade (BC)	317,385	329,086	11,701	3%
Compound Off-Grade (H)	111,174	151,348	40,174	36%
Millscrap	43,765	187,278	143,513	328%
Dry Blend "A" Grade	587,556	509,092	< 78,464>	< 13%>
Dry Blend Offgrade	254,608	244,754	< 9,854>	< 3%>
Resin Type I	620,950	485,306	<135,644>	< 22%>
Resin Type "BC"	100	100	0	0
Vacuum Dust	<u>233,883</u>	<u>161,533</u>	<u>< 72,350></u>	<u>< 31%></u>
Total Packaged Warehouse	6,202,661	5,745,489	<457,172>	< 7%>

ADMINISTRATIVE SERVICES - Continued

Bulk Finished Goods Ending Inventory

	<u>June. 1991</u>	<u>July. 1991</u>	<u>(Decrease)</u> <u>/Increase</u>	<u>%</u> <u>Change</u>
Compound "A" Grade	1,039,762	752,156	< 287,606>	<28%>
Compound Offgrade	177,500	177,500	0	--
Dry Blend "A" Grade	3,222,540	2,850,600	< 371,940>	<11%>
Dry Blend Offgrade	1,157,610	1,112,560	< 45,050>	< 4%>
Resin "A" Grade	16,353,509	10,450,500	<5,903,009>	<36%>
Resin Offgrade	<u>1,982,050</u>	<u>1,385,100</u>	<u>< 596,950></u>	<u><30%></u>
Total	23,932,971	16,728,416	<7,204,555>	<30%>

ABERDEEN CHEMICAL PLANT
SHIPPING ANALYSIS
July 1991

-SHIPMENTS BY PRODUCTS-	MONTH			YTD		
	PUBLIC	IPT/ITC	EXCH/TOLL	PUBLIC	IPT/ITC	EXCH/TOLL
RESIN-BULK	17,894,178	9,496,940	0	193,326,672	123,960,630	1,777,400
RESIN-PACKAGED	384,680	253,150	0	2,681,996	2,056,100	0
FLEXIBLE COMPOUND-BULK	170,420	2,151,500	0	6,428,885	13,116,840	0
FLEXIBLE COMPOUND-PACKAGED	3,129,121	0	0	30,312,666	832,470	0
NEW BUSINESS	15,483	0	0	127,559	0	0
RIGID COMPOUND-BULK	1,795,590	1,155,800	0	31,884,830	6,275,600	0
RIGID COMPOUND-PACKAGED	584,613	80,600	0	3,794,262	780,356	0
RIGID COMPOUND-PELLETS	38,022	0	0	38,022	0	0
TOLLING - BULK	0	0	0	0	0	1,401,960
TOLLING - PACKAGED	0	0	0	0	0	33,600
PLASTICIZER	40,440	464,240	0	819,590	1,944,770	3,838,010
TOTAL	24,052,547	13,802,230	0	269,414,482	148,966,766	7,050,970

-SHIPMENTS BY MODE-
BULK:

	RAILCAR	CUSTOMER PICKUP	COMMON CARRIER	TOTAL
JULY				
RESIN	124	25	28	177
FLEXIBLE COMPOUND	13	0	6	19
RIGID COMPOUND	13	1	22	36
PLASTICIZER	2	0	4	6
TOTAL JULY	152	26	60	238

YTD				
RESIN	1,558	390	386	2,334
FLEXIBLE COMPOUND	103	0	44	147
RIGID COMPOUND	210	27	121	358
PLASTICIZER	23	29	31	83
TOTAL YTD	1,894	446	582	2,922

PACKAGED:	CUSTOMER PICKUP	COMMON CARRIER	TOFC	AIR/UPS	AIR/UPS	TOTAL
JULY						
RESIN	3	20	0	0	2	25
FLEXIBLE COMPOUND	24	78	0	0	5	107
RIGID COMPOUND	1	20	0	0	0	21
PLASTICIZER	0	0	0	0	0	0
TOTAL JUNE	28	118	0	0	7	153

YTD						
RESIN	32	133	0	0	52	217
FLEXIBLE COMPOUND	246	743	0	0	81	1,070
RIGID COMPOUND	9	146	0	0	4	159
PLASTICIZER	0	3	0	0	0	3
TOTAL YTD	287	1,025	0	0	137	1,449

CC: DAB,TLC,AEV,JRF

VAB.0001189626

08/01/91

ECR
PRODUCT RETURNS
JULY 1991

DATE	CUSTOMER	LOCATION	PRODUCT	RESOURCE	DESCRIPTION	BLEND #	CONT.	LBS	CR #	SHIPPED	ORDER #	INVOICE #	DISPOSITION/REMARKS
07/22/91	CERRO MAC	AL, HARTSELLE	CHPD	10370	2153 NAT	10920	BOXES	19,387	02006	07/12/91	0000565-000		QUALITY PROBLEMS
								Sub					
								19,387					
07/29/91	ITT	TX, BROWNSVILLE	CHPD	10525	35031 NAT	11105	BOXES	1,469	02007	07/09/91	0000535-000		SHIPPED 378-143 BLU170 IN ERROR
								Sub					
								1,469					
07/17/91	VISTA/8IDS	DE, WILMINGTON	RESIN	10780	5265	6ACX73411 BULK		181,900	01395	07/11/91	0000544-000		EXCESS INVENTORY AT TERMINAL
07/17/91	VISTA/8IDS	DE, WILMINGTON	RESIN	10780	5265	PLWX44269 BULK		177,250	01396	07/11/91	0000544-001		EXCESS INVENTORY AT TERMINAL
								Sub					
								339,150					
07/17/91	VISTA: DYNA BULK	IL, WILLOW SPRG	RESIN	10790	5385	UTCX46570 BULK		196,800	01397	07/16/91	0000559-000		BACK TO PLANT FOR TRX SHPT
								Sub					
								196,800					
								Sub					
								576,806					

VAB.0001189627

LABORATORY - J. M. Edwards

A. Safety

There were no safety incidents in the Laboratory during July. The monthly safety meeting was "CPR Recertification" taught by Ginny Belk.

B. Customer Contacts

Jim Edwards and Ted Nickerson visited Dekoron in Aurora, Ohio for technical and product availability discussions. The meeting was very productive.

C. Customer O.C. Problem Reports and CNR's

7/01 I. U. S. A., Laredo, TX

The customer complained of rough surface on PVC coated wire made with 34643 compound. The lumps under the surface were analyzed at Austin R&D. The lumps were unpigmented PVC compound.

7/01 AT&T, Phoenix, AZ

The customer complained that an order for 34862 GRY 546 for 10,500 pounds was shorted; only 9,158 pounds were shipped.

7/05 Cabalec, DuQuoin, IL

The customer complained that the Vista MSDS sheet for compound lists the lead and chromium contents in excess of what 38611 compound actually contains. This causes problems when complying with SARA 313 emission reporting.

7/09 D&A Technologies, Mt. Pleasant, TN

The customer complained that an order for 48451 Black compound was shipped five days late.

7/15 Northwire, Osceola, WI

The customer complained that box #15 of lot 31H12 of 38601 Black compound contained wood chips in the pellets.

LABORATORY - Continued

C. Customer O.C. Problem Reports and CNR's - Continued

7/15 D&A Technologies, Mt. Pleasant, TN

The customer complained of gray contamination in 48451 Black. The gray contamination was long, four-inch wide strips of line streamers.

7/15 Contuctors Monterey, Mexico

The customer suspects wide variation in 5415 molecular weight. Control charts were sent showing S.Q.C. of 5415 inherent viscosity.

7/16 Vinylume, Youngstown, OH

The customer prefers to have the three-board type of pallet used instead of the four-board type.

7/18 Fornatech, Stow, OH

The customer complained of poor fusion, blue-white contamination and white streaking in RP-91 brown window profiles.

7/11 Cablec, DuQuoin, IL

The customer complained that the weights on boxes of 58 and 59 of 38611 compound did not have the corresponding weights on the bill of lading. They were billed for more material than was shipped.

7/29 Fornatech, Stove, Ohio

The customer complained that the last bulk truck of RP-91 had four-inch white clumps of line scale plugging their transfer line.

LABORATORY - Continued

D. Product Waivers

<u>Customer</u>	<u>Product</u>	<u>Reason</u>	<u>No.</u>
Available Plastics	80273G WHT 110	Torque Rheometry	2 H/T
Columbia Plastics	5385	Static Flow	1 H/T
Hayes Dockside	5385	Particle Size	1 R/C
Marley Moulding	5305	Metal	1 R/C
Uniroyal	5385	Particle Size	1 H/T

E. RVCM Summary

RVCM of In-Process Samples

The following is a summary of residual VCM results on in-process samples. None of the reactor daily averages exceeded 400 ppm RVCM during the month of July, 1991.

	<u>Reactor Slurries</u>	<u>Drier</u>	
		<u>5265</u>	<u>5305</u>
Number of Samples	583	29	69
Average RVCM, ppm	49	0.245	0.154

RVCM of Shipment Samples

The following is a summary of the residual VCM analysis of shipment samples for the month of July, 1991.

<u>Product</u>	<u>Number of Samples</u>	<u>Average RVCM, ppm</u>
5265	48	0.054
5305	89	0.072
5325	0	
5385	35	0.084
5395	0	
5415	23	0.045
Debox	13	0.117
Pond	0	
Dry Blend	5	0.025

LABORATORY - Continued**F. Resin Process Capabilities (based on dryer "regulars")**

	<u>5265</u>	<u>5305</u>	<u>5385</u>	<u>5395</u>	<u>5415</u>
Bulk Density	0.89	0.70	1.07	3.73	0.70
Inherent Viscosity	1.33	0.72	0.40	0.28	0.50
(vs. 0.64 - 0.67)	0.54	----	----	----	----
(vs. 0.715 - 0.744)	----	0.36	----	----	----
"L" Color	5.17	2.50	2.50	12.33	4.11
"a" Color	7.67	4.17	----	----	----
"b" Color	6.67	6.33	2.00	53.33	2.83
% on Pan	5.11	0.86	1.41	2.89	1.48
(vs. 2% max.)	----	----	----	----	1.11
% thru 140	3.25	0.87	1.78	2.28	2.23
Mets I.R.	----	----	----	0	5.91
(vs. 95% of Control)	----	----	----	----	3.23
Hard Particles, (% > 10)	----	----	7.6	0	2.8
Average Particle Size, Microns	161	81	168	140	176

G. Flexible Compound Quality Summary

	<u>Adjustments</u>		<u>Rejections</u>	
	<u>M Lbs.</u>	<u>%</u>	<u>M Lbs.</u>	<u>(%)</u>
Color	70.0	<1.23>	20.5	<0.36>
Hard Particles			130.0	<2.29>
Dicing			9.4	<0.17>
Cross Contamination			3.2	<0.06>
Moisture			3.6	<0.06>
Totals	70.0	<1.23>	166.7	<2.94>

H. Rigid Compound Quality Summary

	<u>Rejections</u>	
	<u>M Lbs.</u>	<u>(%)</u>
Torque Rheometry and Color	3.6	<0.09>
40 Mesh	15.6	<0.37>
Moisture	3.9	<0.09>
Total	23.1	<0.55>

I. Miscellaneous

1. All natural teams met once during the month.
2. Software is still being revised to communicate Q.C. data to the new vinyl computer data base.
3. Assistance was given to Administrative Services to help prepare the annual plant budget software.

SAMPLE SHIPMENTS

JULY 1991

RESIN

<u>Ship Date</u>	<u>Product</u>	<u>Amount</u>	<u>Customer</u>
7/03/91	5385	400 lbs.	QUILMES (Argentina)
7/05/91	5416	20 lbs.	Dayton Extruded Plastics
7/10/91	5415	5 lbs.	Wexford International
7/15/91	5385	50 lbs.	TUBOFLEX
	5415	50 lbs.	
7/15/91	5415	150 lbs.	CONDUCTORES LATINCASA
7/16/91	5416	50 lbs.	Blane Polymers
7/17/91	5465	50 lbs.	Essex Group
7/19/91	5265	10 lbs.	C. E. Shepherd
	5305	10 lbs.	
7/24/91	5465	50 lbs.	Intex Plastics
7/25/91	5385	100 lbs.	Vista Chemical Far East
7/25/91	5385	100 lbs.	Eri Extrusion

COMPOUND

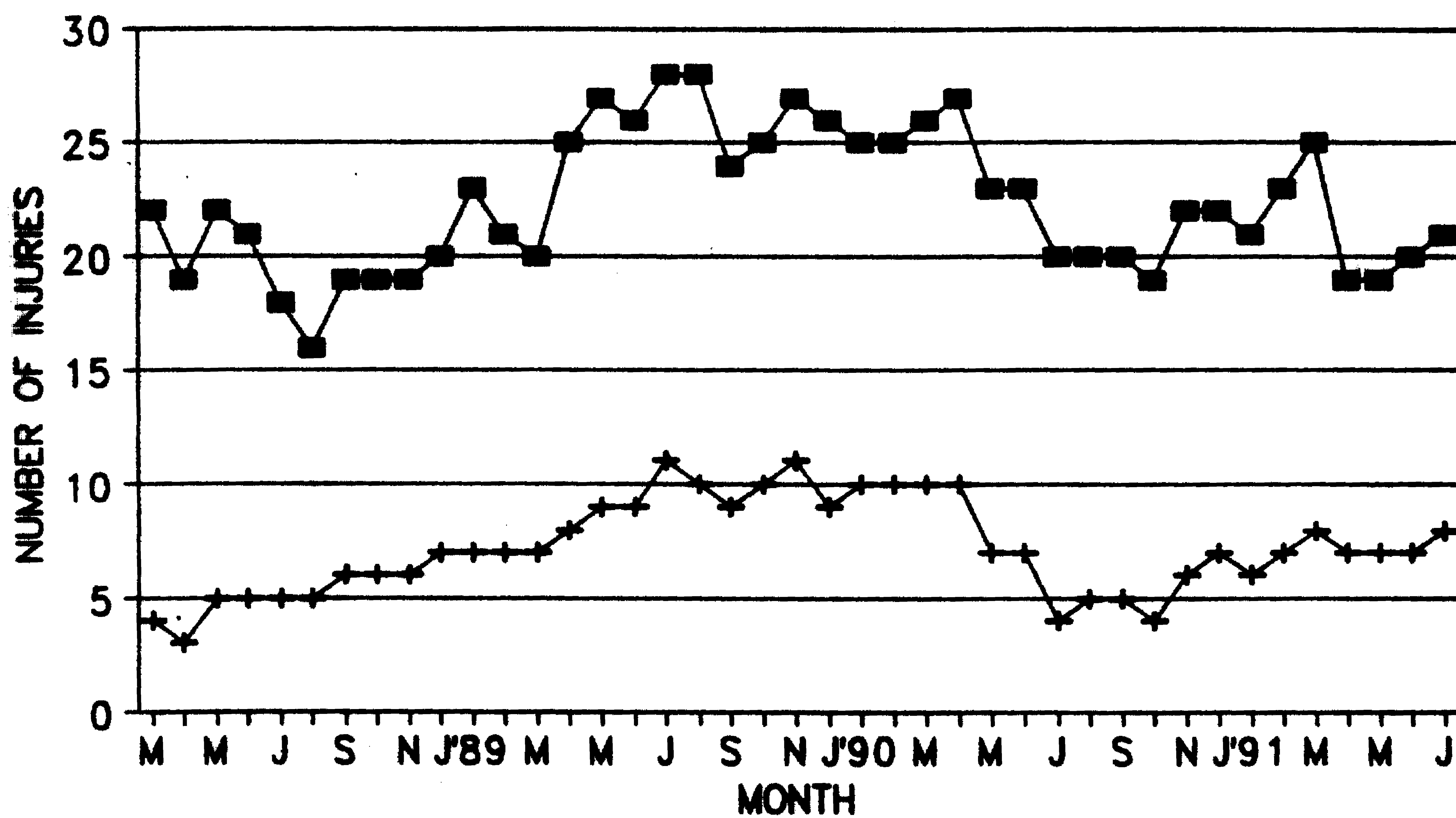
<u>Ship Date</u>	<u>Product</u>	<u>Amount</u>	<u>Customer</u>
7/05/91	35851 NAT	50 lbs.	Wirekraft
7/05/91	35851 NAT	500 lbs.	Dixie Wire Company
7/05/91	462-34A BLK	1478 lbs.	LOF Tech.
7/05/91	419-50-C NAT 02	10 lbs.	FIOS E CABOS PLASTICOS
	419-50-A NAT 02	10 lbs.	(Brazil)
7/11/91	48562 BLK	100 lbs.	Omega Plastics
7/12/91	419-73-A	50 lbs.	Vista - Austin R&D
7/19/91	57462 NAT	200 lbs.	Flexible Technologies

MISC.

<u>Ship Date</u>	<u>Product</u>	<u>Amount</u>	<u>Customer</u>
7/03/91	Vent Dust	2 gals.	RFC Plastics

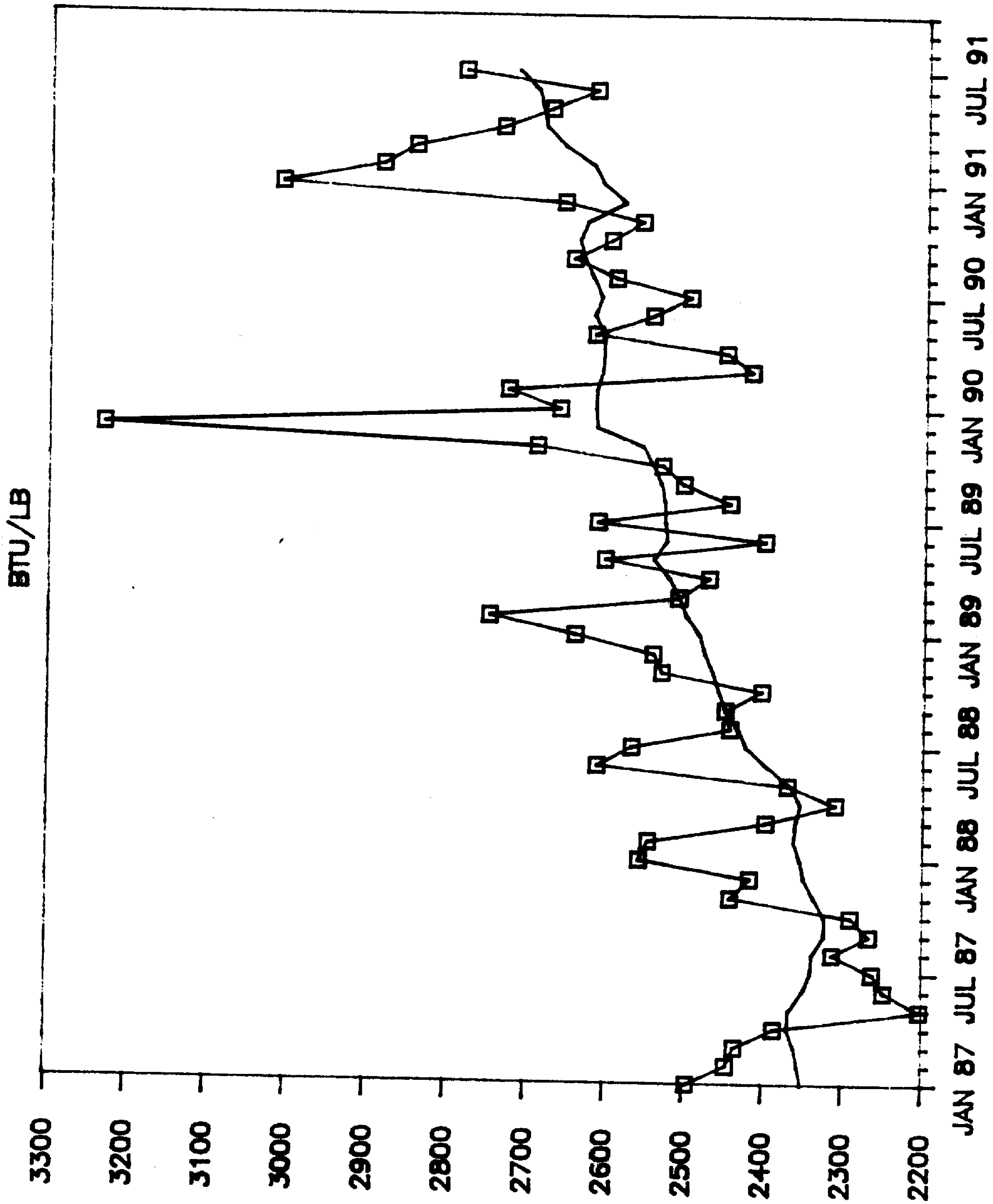
ABERDEEN CHEMICAL PLANT INJURIES

(Twelve Month Running Totals)



—■— TOTAL INJURIES —+— OSHA RECORDABLE

ABERDEEN ENERGY CONSUMPTION



MONTHLY
 12 MONTH AVERAGE