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To: T. H. Huffman

From: D. C. Skokna
Date: August 27, 1990

Subject: ABERDEEN MONTHLY PROGRESS REPORT
~~AUGUST~~, 1990
July

Interoffice
Communication

VISTA

Safety

There was one first aid case reported in July. The plant received a Five Standard Star rating from the International Loss Control Institute as a result of the June audit. This is the highest rating that is available on a baseline audit.

On 7/5/90, the plant employees reached eleven years since the last lost time injury. At month's end, the plant completed 4044 days (5,381,143 manhours) since the last lost time injury.

<u>FY 1990 Key Statistical Information</u>	<u>July</u>	<u>Y.T.D.</u>
PVC Production, MM Lbs.	40.4	376.9
Reactor Stream Factor, %	90.7	88.6
Resin Quality, % Prime	98.3	97.4
VCM Efficiency, Lbs./Lb.	0.99805	1.0010
Flexible Compound Production, MM Lbs.	5.8	60.2
Flexible Compound Quality, % Prime	96.6	98.1
Rigid Compound Production, MM Lbs.	5.7	44.4
Rigid Compound Quality, % Prime	98.7	99.4
Plasticizer Production, MM Lbs.	1.1	14.7
Plasticizer Quality, % Prime	79.1	86.5
Energy Use, (EUI, %)	< 1.9>	< 7.1>
Fixed Cost Variance, \$M	33.4	248.6
Variable Cost Efficiency Variance, \$M	40.0	634.0

Operations

Operation in the resin unit was very smooth. Tie-ins for the cleanwall project were completed in the Old Module. An additional six railcars of low calcium 5305 were produced for Klockner.

Production was relatively low and finished inventories rose in the flexible compound unit. Line V operated ten days. PLENEX polymers development used fifty-five hours of Line I run time.

Costs

Variable costs were favorable primarily due to low VCM usage and a favorable product mix in the flexible compound unit, partially offset by an unfavorable product mix variance in the rigid compound unit.

T. H. Huffman

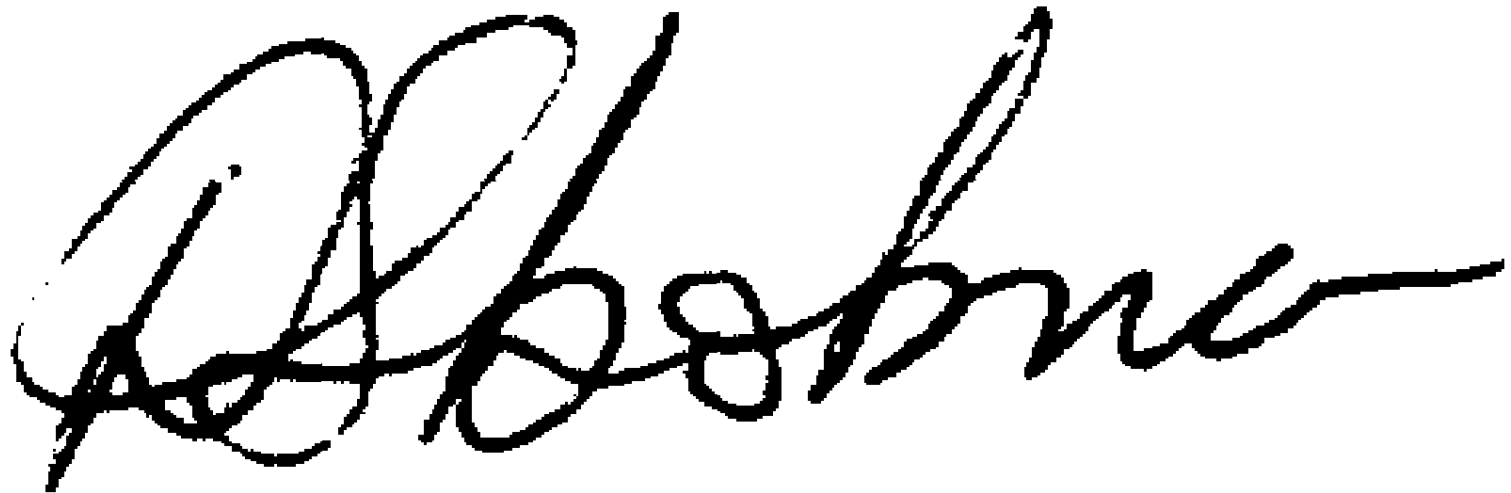
8/27/90

Aberdeen Monthly Progress Report - July, 1990

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OMP

1. All of the plant's natural teams met during July.
2. Bob Seymour visited Northern Electric.



D. C. Skokna
Plant Superintendent

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H. J. Hall X

Oklahoma City

H. D. Garrison X

LCVCM Plant

R. A. Conrad X

LCCP Plant

J. Friend X

LCLAB Plant

J. W. Ware X

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SAFETY - B. L. Trego

	<u>July</u>	<u>Fiscal Y.T.D. 1990</u>	<u>Fiscal Y.T.D. 1989</u>
-- First Aid	1	14	13
OSHA Recordable	<u>0</u>	<u>4</u>	<u>9</u>
Total Injuries	1	18	22
Number of Restricted Workday Cases	0	3	3
Number of Lost Workday Cases	0	0	0

Injuries by Department

Vinyl Operations	0	0	2
Compound Operations	0	5	4
Maintenance	1	11	13
Laboratory	0	1	1
Receiving/Warehouse	0	0	0
Office	<u>0</u>	<u>1</u>	<u>2</u>
Totals	1	18	22

Injuries by Type

Cuts and Abrasions	1	7	4
Eye Injuries	0	1	2
Burns	0	3	6
Bruises	0	2	4
Strains/Sprains	0	1	4
Stings	0	2	0
Other	<u>0</u>	<u>2</u>	<u>2</u>
Totals	1	18	22

Non-Occupational Injuries

Lost Workday Cases	1	8	2
Days Lost	42	179	42

Safety Record

Last lost time injury - 7/5/79
Days since - 4,044
Employee hours since - 5,381,143

On July 31, 1990, the employees of the Aberdeen plant completed 4044 days with no lost time injury.

The major topics for July safety meetings were CPR and Off-the-Job Safety.

SAFETY - Continued

The Vista Plant received a Five Standard Star Rating from the International Loss Control Institute as a result of its June safety audit. This is the highest rating the plant could receive with a baseline audit.

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	78	100.0	0	0.0
Lead	11	100.0	0	0.0
Total Particulates	4	100.0	0	0.0

Monthly Injury Summary

<u>Injury Class</u>	<u>Department</u>	<u>Description</u>
First Aid	Maintenance	Abrasions to abdomen and right forearm

QUALITY MANAGEMENT PROCESS - T. J. Arbeiter

100% of the plant's natural teams met during the month of July.

-- Bob Seymour made an MBWA visit to Northern Electric, Bay Springs, MS. He was accompanied by Mark Washington.

The Plant Manager's Natural Team began planning the third annual Quality Appreciation Day to be held during September.

The Plant Manager's Natural Team communication survey results are in. Our employees have told us the most important communication items are (in order):

1. Benefit Changes
2. Training and Education Available to Employees
3. Promotions, Advancements, Successful Bids
4. Customer Communications Regarding Product Quality or Service
5. Aberdeen Q-Scorecard

Their favored methods for receiving this information are (in order):

1. Bulletin Board
2. Newsletter
3. Calendar of Events
4. Safety Sign
5. Employee Meetings

The Plant Manager's Natural Team is now working on ways to measure the effectiveness of communication.

The Vinyl Operations Supervisor's Natural Team has set a goal for reducing pond resin. The plant averaged 200M pounds per month pond resin for the first nine months of FY90. The new goal for FY91 is 100M pounds per month. Achievement of this goal could increase cash flow by \$200,000 per year!

The Aberdeen plant Q-Scorecard as of July 31 was 10.65. Cost control, waste minimization, and safety continue as our highest scoring line items. Our improvement areas are natural team scores, Cpk calculation and linkage.

COST VARIANCES - D. C. Skokna

Variable Costs

<u>Product</u>	<u>July, 1990 Variance, \$M</u>		
	<u>Efficiency</u>	<u>Price</u>	<u>Total</u>
PVC	\$59.9	<\$394.2>	<\$334.3>
Flexible Compound	74.1	< 87.2>	< 13.1>
Rigid Compound	< 93.6>	< 104.0>	< 197.6>
Plasticizer	< 0.4>	3.6	< 3.2>
Total	\$40.0	<\$581.8>	<\$541.8>

PVC - \$59.9M Favorable

Favorable VCM usage and a favorable product mix were partially offset by variance due to off-grade.

Off-grade production was <0.0165> pounds per pound versus a standard off-grade production of <0.03719> - 56% below budget. However, lower than budget off-grade production results in a net negative efficiency variance because debbox resin is credited at 28.5¢ pounds versus its standard production cost of 21.3¢ per pound. In July, we were "penalized" \$71.5M due to this system quirk. Year-to-date the net negative efficiency variance due to reducing off-grade production by 33% is \$253M.

Flexible Compound - \$74.1M Favorable

Most of the variance is due to product mix.

Rigid Compound - \$93.6M Unfavorable

Most of the variance is due to product mix.

Plasticizer - \$0.4M Unfavorable

Price Variances - \$581.8M Unfavorable

	<u>\$M</u>
- VCM	<\$434.8>
- Resin to Rigid Compound	< 110.8>
- Resin to Flexible Compound	< 84.4>
- Phthalic Anhydride	< 22.3>
- Calcium Stearate	< 18.0>
- TiO ₂	11.2
- Alfol Alcohols	24.4
- Natural Gas	28.1
- All Other Prices Variances	24.8
Total	<\$581.8>

COST VARIANCES - Continued

Fixed Cost Variances - \$33.3M Favorable

	<u>\$M</u>
- Payroll and Benefits	<\$ 5.6>
- MM&C	72.0
- Miscellaneous	< 25.6>
- TI&D	< 5.0>
- Clearances	< 2.5>
Total	\$33.3

Payroll and Benefits

This category was essentially at budget.

M. M. & C.

Low activity and delay of scheduled resin unit turnarounds caused this category to be favorable.

Miscellaneous

- Moving, Home Assistance - \$24.2M Unfavorable.
- Operating Supplies - \$15.2M unfavorable (\$13M was mischarged and should be in Processing Supplies.)
- Packaging Supplies - \$31.0M Favorable.

VINYL - J. D. Olson, J. M. Vinoski

Safety

-- The Vinyl Department had no first aid or OSHA recordable injuries during the month of July.

The monthly safety meeting topic was "First Aid and C.P.R".

General

1. Work continued on the BUS-80 injection system with tie-ins completed in the Old Module during the month. Early dismantling of the chem wash system began with the removal of the backflush filters which will be used on another project.
2. Another six railcars of decalcified 5305 resin were shipped to Klockner. Calcium levels were three to four ppm, slightly higher than previous shipments. Causes for this rise will be determined prior to the August shipments.
3. The resin raw materials in the 744 account were valued at \$298.0M.

	<u>July</u>	<u>YTD</u>
- Production, MM Lbs.	40.4	376.9
- Daily Rate, M Lbs./C.D.	1303.2	1239.8
- Capacity Utilization Factor, %	102.2	97.2
- Total Reactor Charges	935.0	8833.0
- Charges/C.D.	30.2	29.1
- Reactor Stream Factor, %	90.7	88.6
- Rotary Dryer Stream Factor (#4-#8), %	95.8	82.0
- Fluid Bed Dryer Stream Factor, %	97.1	92.8
- Resin Quality, % Prime	98.3	97.4

Reactor Downtime

	<u>Hours</u>
- Operational downtime (recovery scheduling conflicts, New Module rinse/charge water conflicts, waiting for Q.C. data before charging, O-ring leaks, no place to dump, rinsing chem wash tanks).	423.5
- Maintenance downtime (PVA ram valve repair on D744, cooling water line repair on D500, Old Module VCM charge pump seal replacement, installation of BUS-80 charge nozzle on D700, condenser drilling on D742 and D743, condenser drilling and hydroblasting on D745).	269.5

VINYL - Continued

<u>Dryer Downtime</u>	<u>% of Total Downtime</u>
- Reactor limited production.	23.4
- Operational downtime (centrifuge plugs, dryer cleaning, and flameouts).	56.8
- Maintenance downtime (activator and centrifuge maintenance, screw conveyor repairs).	19.8

Key Maintenance Work - J. B. Autrey, J. B. Hegwood

- Reactors 742, 743 and 745 were shut down during the month for condenser drilling because of cooling control problems.
- Number five dryer was shut down during the month for repairs to one of its Trunion rollers. The Trunion roller was replaced and the dryer was put back in service.
- Reactors 700 and 745 were shut down during the month for installation of new nozzles for the new BUS-80 system, during which time the annual safety disk replacement was performed on reactor 700.
- Number five centrifuge was shut down during the month for repairs. The thrust bearing cap failed, allowing the scroll to wear against the top flange plate. The Bird was removed and replaced with a spare. The damaged Bird is being repaired for a spare.
- Number five Bird centrifuge was shut down during the month for motor and starter replacement. The motor starter went to ground and burned out. The motor had to be replaced because of bad bearings and windings.
- There was one major valve changed out in the reactor area during the month.

COMPOUND - J. E. Nickerson, K. G. Akins

Safety

The Compound Department worked without injury in July. The topic of the monthly safety meetings was "Off-the-Job Safety".

General

Further formulation testing for PLENEX polymers consumed fifty-five hours on Line I. Line V operated just ten days in July to control inventories. Flexible compound inventories rose 338M pounds in July.

Rigid compound rates were up 1MM pounds over June. Screener maintenance and rescreening a railcar of product were responsible for fifty-seven hours of downtime.

Lower plasticizer rates in June reduced the amount of 610P available for shipment and internal usage. Due to processing problems and an attempt to maximize 610P shipments, inventories of byproduct intermediate grew significantly over the past two months. Therefore, in July, much more production time than normal was devoted to VRP/RAE production. Consequently, plasticizer rates were reduced. Only .88MM pounds of prime plasticizers were produced during July. It is expected most of VRP/RAE will be recovered by the middle of August.

<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	1832	61	19701
Line III	30	3647	122	34784
Line V	10	<u>319</u>	<u>32</u>	<u>5756</u>
Total		5798	215	60241
% Prime		96.6		98.1
Capacity Utilization Factor		.747		.771

Downtime

Hours

Line I

- Product Changes	109
- PLENEX Polymer Testing	55
- Miscellaneous Maintenance	19
- Quality Problems & Control	11

Line III

- Product Changes	99
- Quality Problems & Control	19
- Miscellaneous Maintenance	16

COMPOUND - Continued

Line V

- Product Changes 68
- Miscellaneous Maintenance 14
- Startup/Shutdown 13
- Werner & Pfleiderer Maintenance 9

	<u>Operating</u> <u>Days</u>	<u>Month</u>	<u>Production (M Lbs.)</u> <u>Avg./Day</u>	<u>Fiscal Y.T.D.</u>
Rigid Compound	31.0	5653	182	44360
% Prime		98.7		99.4
Capacity Utilization Factor		.946		.835

Downtime

Hours

- Product Changes 61
- Screener Maintenance &
Product Rescreening 57
- Miscellaneous Maintenance 33
- Quality Problems & Control 33

	<u>Operating</u> <u>Days</u>	<u>Month</u>	<u>Production (M Lbs.)</u> <u>Avg./Day</u>	<u>Fiscal Y.T.D.</u>
Plasticizer	31.0	1118	36	14718
% Prime		79.1		86.5
Capacity Utilization Factor		.470		.684

Key Maintenance Work - J. B. Autrey, J. B. Hegwood

- Plasticizer reactors R-1, R-2, R-3 and R-4 were shut down during the month for cleaning of their vacuum jets. The vacuum jets were cleaned because of an excessive calcium carbonate buildup.
- Plasticizer reactors R-3 and R-4 were shut down for repairs to their agitator shafts during the month. The shaft key that holds the agitator blades on is continually failing. Some modifications were made to the key to alleviate the problem.
- Line I and Line III were shut down during the month for repairs to their rotary steam joints. The rotary steam joints were replaced in both cases.

ENGINEERING - R. E. Polk, S. C. Hillman, M. R. Kane

PROJECTS IN DEVELOPMENT - GENERAL

5305 Decalcified Resin

The design and estimate have been completed for permanent ion exchange systems in each reactor module. The AFE for this project is being prepared.

Cleanwall Technology

The AFE has been approved and construction is being expedited. Startup of the system and operator training are expected to be completed in August.

Production Model Building

Production model building for OASIS continues. Debbie Tollison attended meetings in Houston to resolve issues about these models. Work is beginning on building customer specific models.

FY1991 Capital Budget

The First Fiscal Quarter 1991 Capital Budget was submitted to Houston on August 20. AFEs for all first quarter projects were included. The IRR for the total budget is 18%.

New Hire

Joe Ganc from Penn State will begin as a process engineer in early September.

ABERDEEN CHEMICAL PLANT
APPROVED CAPITAL PROJECTS

AFE NUMBER	PROJECT DESCRIPTION	STATUS
AB50	ALTERNATE NATURAL GAS PIPELINE	THE SYSTEM HAS BEEN STARTED UP AND IS OPERATIONAL. PUNCHLIST ITEMS ARE IN PROGRESS.
B010	VINYL VALVE UPGRADE	INSTALLATION IS IN PROGRESS AND PLANNED FOR COMPLETION IN OCTOBER.
A519	PLANT ELECTRICAL UPGRADE	CONSTRUCTION IS 99% COMPLETE AND IN PROGRESS. PROJECT COMPLETION IS PLANNED FOR AUGUST.
A649	VINYL CONTROL SYSTEM MODERNIZATION	ENGINEERING IS IN PROGRESS. CONTROL ROOM CONSTRUCTION IS IN PROGRESS WITH COMPLETION PLANNED FOR SEPTEMBER.
A909	INERTS REMOVAL MODIFICATIONS	CONSTRUCTION IS IN PROGRESS WITH COMPLETION SCHEDULED FOR NOVEMBER.
B619	PROPANE STORAGE AREA DELUGE SYSTEM	INSTALLATION IS COMPLETE. THE PROJECT WILL BE CLOSED TO FIELD CHARGES IN SEPTEMBER.
B629	COMPOUND REWIND TRANSFER SYSTEM	INSTALLATION IS COMPLETE EXCEPT FOR PUNCHLIST ITEMS.
B749	LEAD HANDLING AND EXPOSURE REDUCTION	INSTALLATION IS IN PROGRESS WITH COMPLETION PLANNED FOR NOVEMBER.
B849	COMPOUND LINE 3 SEMI-BULK LEAD HANDLING	LONG LEAD ITEMS HAVE BEEN PLACED ON ORDER. PROJECT COMPLETION IS PLANNED FOR 10/90.
B859	COMPOUND SILO BRIDGE BREAKING	LONG LEAD ITEMS HAVE BEEN PLACED ON ORDER. COMPLETION IS PLANNED FOR 10/90.
B899	RAILCAR CLEANING RACK	DESIGN IS IN PROGRESS. PROJECT COMPLETION IS PLANNED FOR 11/90.
F669	COMPOUND LINE 5 HEATED PLASTICIZER	THE PROJECT IS COMPLETE AND OPERATIONAL. IT WILL BE CLOSED TO FIELD CHARGES IN AUGUST.
F699	LOW MOLECULAR WEIGHT RESIN EXPANSION	INSTALLATION IS IN PROGRESS WITH COMPLETION PLANNED FOR AUGUST.
F779	DRYERS NO. 4 & 5 CONTAMINATION REDUCTION	INSTALLATION IS SCHEDULED FOR COMPLETION IN NOVEMBER.
G569	DRYBLEND DIV. VALVE AND CHUTE REPLACEMENT	DESIGN IS IN PROGRESS. PROJECT COMPLETION IS PLANNED FOR SEPTEMBER.
B659	NEW DRYER BAGHOUSES	THE ORIGINAL SCOPE OF WORK IS COMPLETE AND THE PROJECT WILL BE CLOSED TO FIELD CHARGES IN SEPTEMBER.
G719	COMPOUND SEWER REVISIONS	INSTALLATION IS IN PROGRESS WITH COMPLETION IN JULY.
G759	WASTE OIL REDUCTION	PUNCHLIST ITEMS ARE IN PROGRESS WITH COMPLETION PLANNED FOR SEPTEMBER.
G819	VCH SIGHT GLASS REPLACEMENT	DESIGN IS IN PROGRESS. PROJECT COMPLETION IS PLANNED FOR SEPTEMBER.
G839	PLANT WATER RECYCLE	DESIGN IS IN PROGRESS. PROJECT COMPLETION IS PLANNED FOR OCTOBER.
H769	PLANT DIVERTER VALVE REPLACEMENT	THIS PROJECT WILL BE CLOSED TO FIELD CHARGES IN SEPTEMBER.
H799	HIGHWAY 25 LAND PURCHASE	AFE CANCELLED.
A540	REDUCED FLAME & SMOKE COMPOUND PROJECT	INSTALLATION IS COMPLETE ON ALL DESIRED MODIFICATIONS TO DATE.
B600	PLASTICIZER LOADING AND UNLOADING REVISIONS	DESIGN IS IN PROGRESS WITH COMPLETION PLANNED FOR OCTOBER.
F590	DRYBLEND TRANSFER LINE ELBOWS	PRE-FABRICATION WORK IS IN PROGRESS. INSTALLATION IS PLANNED FOR COMPLETION IN SEPTEMBER.
G560	TC SPILL CONTAINMENT	INSTALLATION IS IN PROGRESS WITH COMPLETION PLANNED FOR LATE AUGUST.
G610	TC COMPLIANCE PROJECT	INSTALLATION IS IN PROGRESS WITH COMPLETION PLANNED FOR LATE AUGUST.
H500	PLANT WATER SYSTEM	ENGINEERING IS IN PROGRESS. PROJECT COMPLETION IS PLANNED FOR MID-1991.
H510	WEST INCINERATOR REPLACEMENT	DELIVERY OF THE INCINERATOR IS PLANNED FOR 2/91. PROJECT COMPLETION IS PLANNED FOR 5/91.
H520	MISCELLANEOUS CAPITAL PROJECTS < \$15K	ENGINEERING IS IN PROGRESS ON 32 PROJECTS.
L530	FURNITURE AND OFFICE EQUIPMENT	EQUIPMENT IS ON ORDER.

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ENVIRONMENTAL - F. G. Jeanson

Water

-- All wastewater discharge parameters were met for the month of July.

A bioassay test was set up for the first week in August.

Waste

Waste shipments for the month included:

- One bulk load of floor sweep was shipped to CWM in Lake Charles, LA.

A federal appeals court ruled Alabama's law banning hazardous waste shipments to CWM's Emelle landfill is an unconstitutional restriction of interstate commerce. We still cannot ship hazardous waste to Alabama until final appeals have been made.

This ruling would apparently mean the end of a similar law passed by the Louisiana legislature.

An evaluation was made of sending hazardous waste to an alternate site in Ohio and Oklahoma.

Superfund

An order was received from the State this month to do a remedial investigation of our Superfund sites. The order requires a submittal of a remedial investigation plan to the State within thirty days of the effective date of the order (7/17/90). Conoco has DuPont Environmental Remediation Services (DERS) preparing this plan. DERS expects to have the final issue the first part of August.

A meeting will be set up in August with the State to review the remedial investigation (RI) plan.

Arrangements for Vista to pay a portion of the RI plan were negotiated.

DERS was also commissioned to write up comments on the original report issued by NUS. These comments were completed, reviewed by Conoco and Vista, and will be sent out early in August.

Air

A construction permit was received from the State for the VCSM project which includes a vinyl production increase of 40MM pounds. Our new maximum production when the VCSM project is complete is 500MM pounds.

Additional modeling will also be completed. Scott Environmental will do two additional dispersion model test cases with lower overall plant VCM emissions. These cases will be completed in August.

ENVIRONMENTAL - Continued

Miscellaneous

I attended a third, third landban seminar held by the CMA.

The 1991 waste hauling budget was completed this month.

The semi-annual SPCC plan survey was completed.

ENERGY CONSERVATION - D. A. Moore

July, 1990

Fiscal Y.T.D.

I. Energy Conservation Data

A. Unadjusted EUI	<1.5%>	< 6.9%>
B. Adjusted EUI	<1.9%>	< 7.1%>
C. BTU/Lb. Product	2498.0	2625.0
D. Total Energy Consumption MMM BTU	132.43	1314.36

II. Plant Energy Conservation Program

A. Maintenance

There were eleven energy related items completed in July, 1990. Ten of these items were steam leak repairs. The remaining one was steam trap repairs.

III. Boiler Operation

<u>Boiler</u>	<u>Combustion Efficiency %</u>	
	<u>July, 90</u>	<u>Fiscal Y.T.D.</u>
No. 1	(1)	83.4%
No. 2	83.2%	83.3%
No. 3	82.9%	83.0%

(1) Boiler number one was not operated during the month.

HUMAN RESOURCE REPORT

JULY, 1990

Personnel - J. E. Beall

Employment

Promotions/Transfers

Donald Barclay - transferred from Supply and Transportation-Houston to Director of Administrative Services-Aberdeen.

Jack Little - transferred from Director of Administrative Services-Aberdeen to Director of Administrative Services-Lake Charles.

Don Whatley - from Compound Operator back to Utility (Jerry Jenkins came back to Compound Dept.).

Larry Frye - bid from P-1 Operator to Maintenance Helper.

RETIREMENTS

None

TERMINATIONS/RESIGNATIONS

Bobby Ward - terminated.

TO/FROM LEAVE OF ABSENCE

None

Aberdeen, Mississippi

JULY, 1990
MONTHLY PERSONNEL REPORT

Salaried Employees 80 *

Hourly Employees 171

Total Employees 251

Employees (Hourly)

New Employees 0

Terminations 1

Minority Employees #, %

Salaried 8 10%

Hourly 65 38%

Total 72 29%

Hourly Min. Hired 0

% Min. Hired 0

Hourly Min. Term. 0

% Min. Term. 0

DEPARTMENTS	PAR	# EMPLOYEES	MIN. EMP.	% MIN.	NEW HIRES	YTD	TERM.	YTD	TURNOVER	YTD
Warehouse	<u>16</u>	<u>15</u>	<u>8</u>	<u>53</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
en. Plant	<u>13</u>	<u>16</u>	<u>5</u>	<u>31</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Maintenance	<u>41</u>	<u>41</u>	<u>10</u>	<u>24</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Laboratory	<u>24</u>	<u>24</u>	<u>5</u>	<u>22</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Compound	<u>40</u>	<u>38</u>	<u>26</u>	<u>67</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Vinyl	<u>33</u>	<u>33</u>	<u>10</u>	<u>30</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Plasticizer	<u>5</u>	<u>5</u>	<u>2</u>	<u>40</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

Number of Applicants:

Month 0 Year to Date 0

APPLICANT BREAKDOWN:

% Minority 0 % Minority 0

Female 0 % Female 0

Hires (Hourly):

Month 0 Year to Date 0

Terminations (Hourly):

Month 1 Year to Date 1

Overall Turnover .6%

Projected Annual Turnover 1%

* This total includes 2 Co-op students and
2 Summer Process Engineers.

DEPARTMENTAL HOURS ANALYSIS REPORT
DISTRIBUTION LIST RWS, JFC, JVV, DEPARTMENT HEADS, FILE
7/ 2/90 THRU 7/29/90

JULY, 1990

DEPT	STR TIME HRS WKWD	OVERTIME HOURS		OVERTIME AS A % OF STR TIME	ABSENCE HRS LOST	ABSENCE AS A % OF STRAIGHT TIME			YEAR-TO- DATE	VACATION HOURS
		OVERTIME NONCONTROL	OVERTIME HOURS CONTROL			SICKNESS	OTHER PAID	NONPAID	TOTAL	
YARD	1116.00	24.00	223.50	22.18	300.00	15.05	11.83	0.00	26.88	180.00
UTILITY	600.00	24.00	96.50	20.08	24.00	4.00	0.00	0.00	4.00	48.00
MAINTENANCE	4774.00	16.00	489.25	10.58	154.50	0.17	2.01	1.06	3.24	672.00
QC LAB	2475.50	72.00	274.25	13.99	144.50	2.42	3.39	0.02	5.84	256.00
JANITORS	224.00	0.00	12.25	5.47	1.00	0.00	0.00	0.45	0.45	88.00
WAREHOUSE	951.50	0.00	73.25	7.70	160.50	16.82	0.00	0.05	16.87	128.00
STORES	184.00	0.00	2.25	1.22	8.00	0.00	0.00	4.35	4.35	120.00
DEVELOPMENT LAB	780.75	13.00	64.00	9.86	24.25	0.00	0.00	3.11	3.11	136.00
DRY BLEND	876.00	24.00	140.75	18.81	0.00	0.00	0.00	0.00	0.00	128.00
COMPOUND	5488.00	24.00	577.25	10.96	200.00	0.87	1.97	0.80	3.64	612.00
VINYL	5290.50	150.50	939.00	20.59	489.50	6.35	1.84	1.06	9.25	340.00
PLASTICIZER	672.00	24.00	110.25	19.98	4.60	0.00	0.00	0.60	0.60	148.00
GENERAL HELPERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL PLANT	23432.25	371.50	3002.50	14.40	1510.25	3.43	2.21	0.81	6.45	3.84 2856.00

TOTAL PLANT HOURS FOR JURY DUTY..... 0.00
TOTAL PLANT HOURS FOR NATIONAL GUARD/RESERVE DUTY..... 477.50
TOTAL PLANT HOURS FOR DEATH IN FAMILY..... 40.00

ABERNETHY CHEMICAL PLANT
 DEPARTMENT HOURS ANALYSIS REPORT
 DISTRIBUTION LIST RMS, JFC, JUV, DEPARTMENT HEADS, FILE
 10/ 2/89 THRU 7/29/90

FY 1990 Y-T-D

DEPT	STR TIME HRS WRKD	OVERTIME HOURS		OVERTIME AS A % OF STR TIME	ABSENCE HRS LOS	ABSENCE AS A % OF STRAIGHT TIME			YEAR-TO- DATE	VACATION HOURS
		NONCONTROL	CONTROL			SICKNESS	PAID	OTHER NONPAID		
YARD	12884.00	348.00	1752.75	16.31	718.50	3.73	1.30	0.55	5.58	1268.00
UTILITY	6350.25	216.00	1144.00	21.42	277.75	4.35	0.00	0.03	4.37	644.00
MAINTENANCE	53385.00	355.75	7445.25	14.61	2317.50	2.77	0.58	0.98	4.34	5536.00
QC LAB	28876.50	588.00	2176.00	9.57	923.60	1.25	1.04	0.91	3.20	1908.00
JANITORS	3267.00	0.00	110.75	3.39	22.00	0.00	0.49	0.18	0.67	336.00
WAREHOUSE	10349.75	0.00	739.50	7.15	1476.75	13.64	0.23	0.39	14.27	912.00
STORES	2952.00	0.00	68.75	2.33	49.00	0.27	0.00	1.39	1.66	316.00
DEVELOPMENT LAB	8964.00	108.50	753.50	9.62	61.25	0.27	0.00	0.42	0.68	1064.00
DRY BLEND	9954.75	132.00	894.25	10.31	141.75	0.12	0.96	0.34	1.42	624.00
COMPOUND	62113.50	676.00	6395.50	11.38	2760.25	2.93	0.86	0.65	4.44	3564.00
VINYL	62575.75	1754.50	6486.50	13.17	1374.75	0.90	0.45	0.85	2.20	3764.00
PLASTICIZER	7751.25	132.00	453.50	7.55	227.00	1.55	0.00	1.38	2.93	776.00
GENERAL HELPERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL PLANT	269424	4310.75	28420.25	12.15	10349.50	2.43	0.64	0.77	3.84	20712.00

TOTAL PLANT HOURS FOR JURY DUTY 108.00
 TOTAL PLANT HOURS FOR NATIONAL GUARD/RESERVE DUTY 1025.50
 TOTAL PLANT HOURS FOR DEATH IN FAMILY 596.00

ADMINISTRATIVE SERVICES - D. A. Barclay

Safety

-- There were no safety instances for the month of July.

Cost Savings

Savings due to competitive bidding were \$5,243 for July.

Savings due to prompt payment discounts were \$1,768 for July.

Training

New OASIS coding was taught to all personnel.

ABERDEEN CHEMICAL PLANT
SHIPPING ANALYSIS
JULY 1990

A

-SHIPMENTS BY PRODUCTS-	MONTH			YTD		
	PUBLIC	IPT/ITC	EXCH/TOLL	PUBLIC	IPT/ITC	EXCH/TOLL
RESIN-BULK	21,749,640	9,443,990	174,000	202,053,562	94,115,000	2,130,400
RESIN-PACKAGED	326,385	130,500	0	2,984,885	2,026,250	0
FLEXIBLE COMPOUND-BULK	919,940	1,159,500	0	14,273,840	10,813,130	0
FLEXIBLE COMPOUND-PACKAGED	3,253,143	127,601	0	31,337,343	1,495,271	0
NEW BUSINESS	13,883	0	0	69,973	0	0
RIGID COMPOUND-BULK	3,656,470	1,046,150	0	30,598,190	9,201,500	0
RIGID COMPOUND-PACKAGED	108,191	0	0	2,034,309	268,723	0
TOLLING - BULK	0	0	855,700	0	0	7,139,890
TOLLING - PACKAGED	0	0	36,300	0	0	164,565
PLASTICIZER	260,160	0	212,020	1,564,440	2,275,010	1,683,830
TOTAL	30,287,812	11,907,741	1,278,020	284,916,542	119,394,884	11,118,685

-SHIPMENTS BY MODE-

BULK:	RAILCAR	CUSTOMER PICKUP	COMMON CARRIER	TOTAL
JULY				
RESIN	161	19	40	220
FLEXIBLE COMPOUND	10	0	5	15
RIGID COMPOUND	29	1	8	38
PLASTICIZER	0	0	12	12
TOTAL JULY	200	20	65	285

YTD				
RESIN	1,482	262	569	2,313
FLEXIBLE COMPOUND	123	11	44	178
RIGID COMPOUND	236	17	149	402
PLASTICIZER	21	0	45	66
TOTAL YTD	1,862	290	807	2,959

PACKAGED:	CUSTOMER PICKUP	COMMON CARRIER	TOFC	CONTAINER	AIR/UPS	TOTAL
JULY						
RESIN	0	16	0	0	5	21
FLEXIBLE COMPOUND	25	76	0	0	9	110
RIGID COMPOUND	3	9	0	0	1	13
PLASTICIZER	0	0	0	0	0	0
TOTAL JULY	28	101	0	0	15	144

YTD						
RESIN	30	128	0	0	69	227
FLEXIBLE COMPOUND	226	722	5	0	52	1,005
RIGID COMPOUND	17	82	0	1	2	102
PLASTICIZER	0	3	0	0	1	4
TOTAL YTD	273	935	5	1	124	1,338

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LABORATORY - J. M. Edwards, Jr.

A. Safety - There were no safety incidents in the Laboratory during July. The monthly safety meeting topic was "Off-the-Job Safety Training" taught by Jerald Uptain.

B. Customer Contacts - There were two customer contacts during July.

Richard Williams accompanied Eric Ingram and Ken Walker to Flexible Technologies in Abbeville, South Carolina. They successfully trialed two cadmium-free compound formulations without having to make significant changes to their equipment.

Jim Edwards and Richard Williams accompanied Mark Eramo to Hi-Tech Cable in Starkville to follow up on a quality complaint. They pointed out two occurrences this year when they saw I.R. values on the finished wires drop to an uncomfortable level. Austin and Aberdeen are working to regain Hi-Tech's confidence in our resin and Q.C. testing.

C. Customer Q. C. Problem Reports

7/03 Exxon, Houston, TX

Exxon reported that a tank car (NATX 78222) shipment of 610P plasticizer was very cloudy. The plant made three process changes and the lab started checking in-process samples for clarity to prevent recurrences.

7/11 Vytron Corporation, Loudon, TX

Vytron reported stronger than normal odor from 17462 NAT 50516 causing workers to get ill. It is suspected that high alcohol concentration in VRP plasticizer caused the unusually strong odor. In-process alcohol content testing of all plasticizer batches was started to prevent recurrences.

7/18 Exxon, Argo, Illinois

Exxon reported high suspended solids content in a bulk truck of 610P plasticizer. Another process change was made to prevent recurrences and a decision was made to put temporary dedicated supervision in the plasticizer plant and retrain the operating staff.

7/24 Uniroyal, Inc., Mishawaka, IN

Uniroyal reported seeing wet clumps in the top of a 5385 truck shipment. The truck was returned. Condensation from warm resin had collected at the top of the compartment and dripped down on the resin causing the clumps.

LABORATORY - Continued

D. Requests for Corrective Action

There were no requests for corrective action during the month of July.

E. Product Waivers

<u>Customer</u>	<u>Product</u>	<u>Reason</u>	<u>No.</u>
Dayton Extruded Plastics	RP-151 WHT 145	Color	1 R/C
Exxon	610P	Clarity	1 H/T

F. 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, 1990.

	<u>Reactor Slurries</u>	<u>Drier</u> <u>5265</u>	<u>5305</u>
Number of Samples	930	24	65
Average RVCM, ppm	137	0.227	0.221

RVCM of Shipment Samples

The following is a summary of the residual VCM analysis of shipment samples for the month of July, 1990.

<u>Product</u>	<u>Number of Samples</u>	<u>Average RVCM. ppm</u>
5265	27	0.088
5305	87	0.090
5385	74	0.201
5395	8	0.060
5415	50	0.048
Dry Blend	58	0.042
Debox	4	1.657
Pond	0	

LABORATORY - Continued

G. Resin Process Capabilities (based on dryer "regulars")

	<u>5265</u>	<u>5305</u>	<u>5385</u>	<u>5395</u>	<u>5415</u>
Bulk Density	1.67	1.20	1.31	1.03	1.14
Inherent Viscosity	0.92	2.33	0.85	1.19	1.04
(vs. 0.715 - 0.744)	----	1.22	----		
L Color	4.93	1.83	2.47	13.67	4.56
A Color	2.22	4.17	----		
B Color	1.67	2.67	2.50	5.67	6.33
% on Pan	0.96	0.70	0.96	0.95	2.67
(vs. 2%, max.)	----	----	----	----	0.17
% thru 140 Mesh	0.52	0.63	1.40	0.72	3.56
Drytime	----	----	1.67	1.67	1.67
Mets I.R.	----	----	----	2.02	3.87
(vs. 95% of control)	----	----	----	----	1.81
Hard Particles, (% > 10)	----	----	12.6	0	0
Average particle size, microns	140	138	161	145	172

H. Flexible Compound Quality Summary

	<u>Adjustments</u>		<u>Rejections</u>	
	<u>M Lbs.</u>	<u>(%)</u>	<u>M Lbs.</u>	<u>(%)</u>
Hardness	5.0	<0.09>	----	----
Color	----	----	40.9	<0.72>
Hard Particles	----	----	7.1	<0.13>
Contamination	----	----	26.4	<0.47>
Dicing	----	----	15.6	<0.28>
Cross Contamination	----	----	11.2	<0.20>
Streamers	----	----	5.4	<0.10>
	5.0	<0.09>	106.6	<1.89>

I. Rigid Compound Quality Summary

	<u>Rejections</u>	
	<u>M Lbs.</u>	<u>(%)</u>
Torque Rheometry	12.7	<0.23>
Color	4.7	<0.08>
Color & 40 Mesh	34.5	<0.62>
Total	51.9	<0.93>

J. Miscellaneous

1. The old Instron tensile tester, donated to Mississippi State University, was installed and calibrated. Dave Cox and Bobby Jenkins trained three teachers on its use and how to maintain it.

LABORATORY - Continued

J. Miscellaneous - continued

2. A database file (in Symphony) was started to store incoming raw material analyses. This is part of the new process of checking raw material shipment certificates of analysis against Vista specifications before unloading.
3. Jim Edwards attended an all-week seminar in flexible compound technology in Austin R&D.
4. All lab personnel were certified in "Basic Life Support" by the American Heart Association Cardiopulmonary Resuscitation and Emergency Cardiac Care. This was a four-hour course taught by Ginny Belk.
- 5 All six laboratory natural teams met once during the month of July.

SAMPLE SHIPMENTS

JULY 1990

RESIN

Ship Date	Product	Amount	Customer
7/10/90	5265	300 lbs.	ETS HISHAM ZABIAN
7/10/90	5305	50 lbs.	E. I. DuPont
7/13/90	5385	50 lbs.	Rintec Corporation
	5415	50 lbs.	
7/16/90	5465	50 lbs.	Capitol Wire & Cable
7/20/90	5265	5 lbs.	Azrock Industries
	5305	5 lbs.	
	5385	5 lbs.	
7/20/90	5305	2 lbs.	NATIONAL PLASTIC AND BUILDING MATERIAL INDUSTRIES

COMPOUND

Ship Date	Product	Amount	Customer
7/06/90	461-119A WHT	1500 lbs.	Central Plastics, Inc.
	461-119B BLK	1500 lbs.	
7/09/90	34642 NAT	100 lbs.	CONDUCEN
7/11/90	461-120A WAT CL	1300 lbs.	Flexible Technologies
	461-120B WAT CL	1500 lbs.	
7/25/90	27251 BLK	100 lbs.	Philatron International
7/30/90	18031 WAT CL	100 lbs.	Fiberchem Inc.

DRYBLEND

Ship Date	Product	Amount	Customer
7/24/90	RP-151 WHT 145	2 X 2 lbs.	Dayton Extruded Plastics
7/27/90	RP-151 WHT 145	2 X 2 lbs.	Dayton Extruded Plastics
7/31/90	378-143 BLU 170	100 lbs.	Pyramid Plastics

PLASTICIZER

Ship Date

Product

Amount

Customer

7/20/90

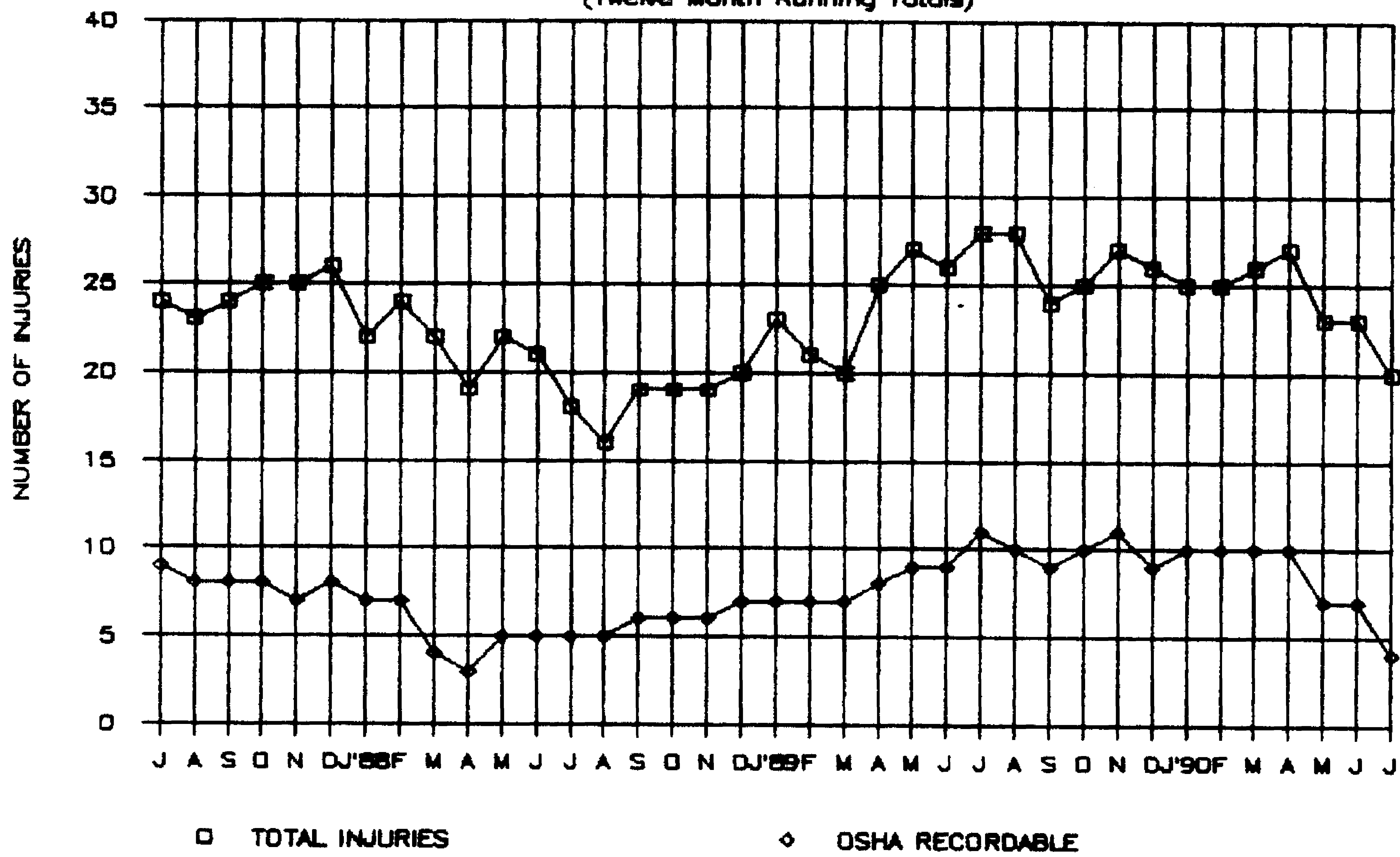
VRP

1 gal.

Plasticolor Inc.

ABERDEEN CHEMICAL PLANT INJURIES

(Twelve Month Running Totals)



ABERDEEN ENERGY CONSUMPTION

