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To: T. H. Huffman

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

Subject: ABERDEEN MONTHLY PROGRESS REPORT
DECEMBER, 1990

VISTA

Interoffice
Communication

Safety

There was one recordable injury reported in December. The injury was suffered by a mechanic when his right forearm contacted an exposed steam tracer causing a second degree burn. As of December 31, 1990, the plant's employees have worked 4,197 days (5,600,536 manhours) since the last lost time injury.

FY1991 Key Statistical Information

	<u>December</u>	<u>Y.T.D.</u>
PVC Production, MM Lbs.	42.5	126.6
Reactor Stream Factor, %	90.9	89.4
Resin Quality, % Prime	99.1	98.6
VCM Efficiency, Lbs./Lb.	1.01422	1.02355
Flexible Compound Production, MM Lbs.	4.4	15.4
Flexible Compound Quality, % Prime	96.6	96.8
Rigid Compound Production, MM Lbs.	3.6	13.9
Rigid Compound Quality, % Prime	99.6	99.6
Plasticizer Production, MM Lbs.	1.8	5.2
Plasticizer Quality, % Prime	84.7	88.2
Energy Use, (EUI, %)	< 3.2>	< 3.1>
Fixed Cost Variance, \$M	< 21.4>	< 24.5>
Variable Cost Efficiency Variance, \$M	63.3	< 40.6>

Operations

Operations were smooth in the resin unit.

Some planned downtime was taken in the flexible and rigid compound units to reduce inventories. There were twenty-two hours of PLENEX polymers development on Line I. A second, longer Vistel 9102 run was made on Line V producing pellets for a trial at U-Brand.

Costs

Fixed costs were essentially at budget.

Variable costs were favorable primarily due to the product mix run in the rigid compound unit.

T. H. Huffman

01/22/91

Aberdeen Monthly Progress Report - December, 1990

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OMP

All of the plant's natural teams met during the month.



D. C. Skokna

Plant Superintendent

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DISTRIBUTIONCOVER LETTERENTIRE REPORTHouston

J. D. Burns X

R. T. Ferrell X

T. H. Huffman X

C. J. Matson X

D. F. Harman X

H. R. Flammer X

R. R. Smith X

B. J. Bean X

R. H. Gerlach X

R. D. Gamblin X

D. L. Cohen X

J. P. Stokes X

Austin

R. L. Poe X

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

Baltimore

L. R. Bauer X

Hammond

J. Pavao X

Blane

C. R. Miller X

Premiere

P. L. Foote X

Aberdeen RWS/DCS (File Copy), TJA, JBA, JEB, JME, SCH,
MRK, DAB, DAM, RBN, JEN, JDO, REP, BLT

SAFETY - B. L. Trego

	<u>December</u>	<u>Fiscal</u> <u>Y.T.D. 1991</u>	<u>Fiscal</u> <u>Y.T.D. 1990</u>
First Aid	0	5	5
OSHA Recordable	<u>1</u>	<u>4</u>	<u>2</u>
Total Injuries	1	9	7
Number of Restricted Workday Cases	0	3	1
Number of Lost Workday Cases	0	0	0

Injuries by Department

Vinyl Operations	0	1	0
Compound Operations	0	2	2
Maintenance	1	5	4
Laboratory	0	0	0
Receiving/Warehouse	0	0	0
Office	<u>0</u>	<u>1</u>	<u>1</u>
Totals	1	9	7

Injuries by Type

Cuts and Abrasions	0	3	1
Eye Injuries	0	0	1
Burns	1	1	1
Bruises	0	2	1
Strains/Sprains	0	2	0
Stings	0	0	1
Other	<u>0</u>	<u>1</u>	<u>2</u>
Totals	1	9	7

Non-Occupational Injuries

Lost Workday Cases	0	2	3
Days Lost	4	42	84

Safety Record

Last lost time injury - 7/5/79
Days since - 4,197
Employee hours since - 5,600,536

On December 31, 1990, the employees of the Aberdeen plant completed 4197 days with no lost time injury.

Topic for the plant safety meetings during the month was "Back Safety" presented by Ginny Belk, Plant Nurse.

SAFETY - Continued

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	71	100.0	0	0
Lead	10	100.0	0	0
Total Particulates	2	100.0	0	0

Monthly Injury Summary

<u>Injury Class</u>	<u>Department</u>	<u>Description</u>
MT	Maintenance	Second degree burn, right forearm

A maintenance mechanic came in contact with an exposed steam tracer causing a second degree burn on his right forearm.

QUALITY MANAGEMENT PROCESS - T. J. Arbeiter

All of the plant's natural teams met during the month of December. Many of the teams are in the process of brainstorming new team measures/projects.

- The Plant Manager's Natural Team chose as their next project the improvement of cash flow by a sustainable \$1MM per year.
- The Administrative Services Natural Team chose report reduction as their next project.
- The Senior Process Engineer's Natural Team continued development of their project to improve DOE knowledge and resources.

The plant's quality coordinator attended a DOE at LCCP the week of December 3. Thanks to Pete Markey and Dave Hollis for the opportunity.

The Aberdeen Plant conducted its first self-audit against ISO 9002. The quantified results were: Manual - 72%; Actual Practice - 85%.

The average natural team score for the first quarter of FY91 is 11.77.

The Aberdeen Q-Score as of December 31, 1990, is 5.2 - not including linkage (not available at the time of calculation).

COST VARIANCES - D. C. Skokna

Variable Costs

<u>Product</u>	<u>December 1990 Variance. \$M</u>		
	<u>Efficiency</u>	<u>Price</u>	<u>Total</u>
PVC	\$ 59.7	<\$1427.9>	<\$1480.2>
Flexible Compound	< 96.4>	< 123.4>	< 219.8>
Rigid Compound	135.1	< 117.3>	17.8
Plasticizer	< 35.1>	3.7	< 31.4>
Total	\$ 63.3	<\$1664.9>	<\$ 161.6>

PVC: The favorable variance is primarily due to a favorable product mix, offset some by producing 49% less off-grade (debox) resin than budgeted. Since debox is credited at a higher value than variable cost, the plant suffered a negative variance. In December, this "penalty" was \$16.4M.

Flexible Compound: The unfavorable variance was primarily due to product mix.

Rigid Compound: The favorable variance was due to product mix and favorable raw material consumption.

Plasticizer: This month's variance corrects an overstatement made in November.

Price Variances

	<u>Variance - \$M</u>
■ VCM	<\$1434.9>
■ Resin to Rigid Compound	< 105.9>
■ Resin to Flexible Compound	< 79.7>
■ Phthalic Anhydride	< 49.3>
■ 610P to Flexible Compound	< 15.5>
■ Alfol ^R 610	42.0
■ Other Price Variances	< 21.6>
Total	<\$1664.9>

Fixed Cost Variances

	<u>Variance - \$M</u>
■ Payroll and Benefits	<\$ 69.4>
■ MM&C	67.0
■ Miscellaneous	< 8.0>
■ TI&D	< 8.7>
■ Clearances	< 2.3>
Total	<\$ 21.4>

COST VARIANCES - Continued

Payroll and Benefits

Payroll costs were above budget due to the plant having three holidays in December.

M. M. & C.

There was less than budgeted activity.

Miscellaneous

■ All items were near budgeted levels.

TI&D

Underbudgeting "ad-valorem" taxes caused the unfavorable variance.

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

Safety

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

The monthly safety meeting topic was "Lifting Techniques".

General

1. Production of 5415 resin was temporarily switched from the New Module to the Old Module to improve hard particle results. The regular New Module dump header configuration is the suspected cause of high hard particles in resin made in reactors D741 through D744. Modifications to the header are planned for February.
2. A site acceptance test was performed on the computer control equipment by Vista and Aberdeen personnel as part of the VCSM Project. The equipment was accepted as delivered and programming work is underway.
3. The resin raw materials in the 744 account were valued at \$282.3M.

	<u>Dec.</u>	<u>YTD</u>
- Production, MM Lbs.	42.5	126.6
- Daily Rate, M Lbs./C.D.	1370.4	1376.5
- Capacity Utilization Factor, %	107.4	107.9
- Total Reactor Charges	989.0	2926.0
- Charges/C.D.	31.9	31.8
- Reactor Stream Factor, %	90.9	89.4
- Rotary Dryer Stream Factor (#4-#8), %	93.7	93.7
- Fluid Bed Dryer Stream Factor, %	96.2	95.9
- Resin Quality, % Prime	99.1	98.6

Reactor Downtime

	<u>Hours</u>
- Operational downtime (recovery scheduling conflicts, New Module rinse/charge water conflicts, Q.C. data delays, O-ring leaks, dump conflicts).	434.0
- Maintenance downtime (D600 agitator shaft replacement, D500 gearbox replacement, unplugging of D500 lip seal flush, D700 hydroblasting and condenser drilling, D500 seal change, D500 condenser lid gasket replacement, D700 seal change, Old Module charge line repair, cleaning BUS-80 nozzles).	240.0

VINYL - Continued

<u>Dryer Downtime</u>	<u>% of Total Downtime</u>
- Operational downtime (centrifuge plugs, dryer cleaning, flameouts).	38.7
- Maintenance downtime (screw valve and centrifuge repair, sparge pipe replacement, exhauster, screw feeder, screener maintenance).	42.0

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

- Reactor seals on 700 and 500 were changed due to plugged throttle bushing flush.
- The top condenser gasket on reactor 500 was replaced because the old gasket was leaking.
- The agitator shaft on reactor 600 broke and was replaced.
- A crack was discovered in the false bottom of reactor 500. The crack was repaired.
- Reactor 745 was hydroblasted because of contamination problems.
- The gearbox on reactor 500 was pulled out of service to be repaired on PM schedule.
- The recovery compressor was changed out due to wear.
- A motor on #5 Bird was replaced. The old motor's windings and bearings were damaged.

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

Safety

The Compound Department had no OSHA recordable injuries in December. The topic of the monthly safety meeting was "Back Injuries".

General

The three flexible compound lines and the dry blend unit were scheduled down for the three-day Christmas holiday. As other opportunities arose, downtime was scheduled to control costs and/or inventories. The plasticizer unit operated all thirty-one days this month due to the continued strong external demand for plasticizer.

Following the successful trial of VISTEL 9102 samples at U-Brand, a longer production run to produce compound for a 10M-pound order and to further evaluate Line V capabilities was completed December. More customer feedback as well as NSF approval is expected in January.

Several shifts were taken to reprocess some compartments of AT&T's 34862 GRY546 compound on Line III. The compound had been offgraded due to hard particles not detected during initial production but found in railcar samples prior to shipping.

<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	28	1605	57	5435
Line III	28	2778	99	9495
Line V	9.5	<u>36</u>	<u>4</u>	<u>449</u>
Total		4419	158	15379
% Prime		96.6		96.8
Capacity Utilization Factor		54.9		64.1

Downtime

Hours

Line I

- Product Changes	67
- PLENEX Polymers Production	22
- Miscellaneous Maintenance	22

Line III

- Product Changes	57
- Quality Problems & Control	25
- Miscellaneous Maintenance	20

Line V

- Quality Problems & Control	20
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COMPOUND - Continued

- Product Changes 19
- Miscellaneous Maintenance 15

	<u>Operating Days</u>	<u>Production (M lbs.)</u>		
		<u>Month</u>	<u>Avg./Day</u>	<u>Fiscal Y.T.D.</u>
Rigid Compound	20	3617	181	13930
% Prime		99.6		99.6
Capacity Utilization Factor		60.8		78.5

Downtime

Hours

- Product Changes 42
- Miscellaneous Maintenance 29
- Quality Problems & Control 14
- Screener Maintenance 10

	<u>Operating Days</u>	<u>Production (M lbs.)</u>		
		<u>Month</u>	<u>Avg./Day</u>	<u>Fiscal Y.T.D.</u>
Plasticizer	31	1761	57	5200
% Prime		84.7		88.2
Capacity Utilization Factor		93.5		92.0

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

- PM work was completed on the #1, #2 and #5 dicers.

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

PROJECTS IN DEVELOPMENT - GENERAL

VCSM

The Taylor DCS system is in place and site acceptance has been completed. Configuration and system checkout are on schedule. The first phase of operator training is being conducted in January. An open house for the new control room will be held the week of January 21.

Plant Air Permit

Preparation is being made to meet with the Mississippi Department of Environmental Quality in early February to discuss our air permit application. Data from air dispersion modeling done at the plant and information furnished by Clements International Company are being compiled for this meeting. Clements International Company is in the process of reviewing the VCM unit risk factor with the EPA in Washington to determine the possibility of getting the EPA to re-evaluate the unit risk factor given to the State.

Compound Line V Rigid Pellets for U-Brand

A second trial run was made in December to further evaluate Line V equipment's ability to make Vistel 9102 in full production. Although some mechanical problems were experienced with the micro-ingredient conveyor, the line ran well overall.

U-Brand has run into problems using Vistel 9102 rigid pellets made on compound Line V during the initial trial in November. R&D is evaluating formula changes to address these problems.

Dry Blend Screener Replacement

Test runs to date have shown that double screening of profile products can be effective in reducing oversize particles below the spec of 0.1% on the 40 mesh. Design work is being completed to provide reliable double screening. Most likely, the project will provide replacement of the Gump screeners with Kason screeners.

Wastewater Test Run

Centrate water is being recycled to the cooling towers replacing fresh make-up water. The impact of reduced hydraulic loading on the ponds is unclear due to pH excursions during the test which resulted in killing bugs. The major organic loading source, T-460, is being monitored closely to ensure complete reaction of the major BOD constituent.

ABERDEEN CHEMICAL PLANT
APPROVED CAPITAL PROJECTS

A/E NUMBER	PROJECT DESCRIPTION	STATUS
A050	ALTERNATE NATURAL GAS PIPELINE	THE PROJECT WILL BE CLOSED TO FIELD CHARGES IN JANUARY.
B010	VINYL VALVE UPGRADE	CLOSED TO FIELD CHARGES.
A519	PLANT ELECTRICAL UPGRADE	INSTALLATION OF THE ALTERNATE FEEDER IS IN PROGRESS AND PLANNED FOR COMPLETION IN JANUARY.
A649	VINYL CONTROL SYSTEM MODERNIZATION	THE DCS EQUIPMENT IS ON SITE. CONFIGURATION PROGRAMMING IS IN PROGRESS.
A909	INERTS REMOVAL MODIFICATIONS	INSTALLATION IS COMPLETE EXCEPT FOR PUNCHLIST ITEMS.
B619	PROPANE STORAGE AREA BELINE SYSTEM	CLOSED TO FIELD CHARGES.
B629	COMPOUND RELEASER TRANSFER SYSTEM	INSTALLATION IS COMPLETE EXCEPT FOR PUNCHLIST ITEMS. FIELD CLOSURE IS PLANNED FOR FEBRUARY.
B749	LEAD HANDLING AND EXPOSURE REDUCTION	INSTALLATION IS IN PROGRESS WITH COMPLETION PLANNED FOR JANUARY.
B049	COMPOUND LINE 3 BENT-BULK LEAD HANDLING	LONG-LEAD ITEMS HAVE BEEN PLACED ON ORDER. PROJECT COMPLETION IS PLANNED FOR 2/91.
B059	COMPOUND SILD BRIDGE BREAKING	INSTALLATION IS COMPLETE EXCEPT FOR PUNCHLIST ITEMS.
B099	RAILCAR CLEANING RACK	DESIGN IS IN PROGRESS. PROJECT COMPLETION IS PLANNED FOR FEBRUARY.
F669	COMPOUND LINE 5 HEATED PLASTICIZER	CLOSED TO FIELD CHARGES.
F699	LOW MOLECULAR WEIGHT THERM EXPANSION	INSTALLATION IS COMPLETE EXCEPT FOR PUNCHLIST ITEMS. THE SYSTEM HAS BEEN PLACED INTO OPERATION.
F779	DRYERS NO. 4 & 5 CONTAMINATION REDUCTION	THE PROJECT WILL BE CLOSED TO FIELD CHARGES IN JANUARY.
G569	DRYBLEND DIV. VALVE AND KNUFE REPLACEMENT	CLOSED TO FIELD CHARGES.
G659	NEW DRYER BARRIAGES	THE ORIGINAL SCOPE OF WORK IS COMPLETE AND THE PROJECT WILL BE CLOSED TO FIELD CHARGES IN FEBRUARY.
G019	VCR SIGHT GLASS REPLACEMENT	DESIGN IS IN PROGRESS. PROJECT COMPLETION IS PLANNED FOR JANUARY.
G039	PLANT WATER RECYCLE	DESIGN IS IN PROGRESS. PROJECT COMPLETION IS PLANNED FOR JANUARY.
A540	REDUCED FLAME & SMOKE COMPOUND PROJECT	CLOSED TO FIELD CHARGES.
B570	OLD MODULE RECOVERY SYSTEM ACCESS	DESIGN IS COMPLETE. INSTALLATION IS PLANNED FOR 7/91.
B500	RECOVERY VACUUM PUMP PRESSURE RELIEF	DESIGN IS COMPLETE. INSTALLATION IS PLANNED FOR 7/91.
B600	PLASTICIZER LOADING AND UNLOADING REVISIONS	DESIGN IS IN PROGRESS WITH COMPLETION PLANNED FOR FEBRUARY.
F590	DRYBLEND TRANSFER LINE ELBOUS	CLOSED TO FIELD CHARGES.
F630	S305 RESIDUAL VCN REDUCTION	CONSTRUCTION IS IN PROGRESS WITH COMPLETION PLANNED FOR FEBRUARY.
F660	DECAICIFIED WATER	DESIGN IS IN PROGRESS AND SCHEDULED FOR COMPLETION IN JANUARY. LONG LEAD ITEMS ARE ON ORDER.
G560	TC SPILL CONTAINMENT	INSTALLATION IS COMPLETE EXCEPT FOR PUNCHLIST ITEMS.
G610	TC COMPLIANCE PROJECT	INSTALLATION IS COMPLETE EXCEPT FOR PUNCHLIST ITEMS.
G630	REACTOR SLURRY STRIPPING OPTIMIZATION	INSTALLATION IS COMPLETE AND THE SYSTEM OPERATIONAL. FIELD CLOSURE IS PLANNED FOR FEBRUARY.
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 3/91. PROJECT COMPLETION IS PLANNED FOR 5/91.
H520	MISCELLANEOUS CAPITAL PROJECTS < \$150	CLOSED TO FIELD CHARGES.
H620	EAST INCINERATOR REPLACEMENT	DELIVERY OF THE INCINERATOR IS PLANNED FOR 5/91. PROJECT COMPLETION IS PLANNED FOR 7/91.
H501	MISCELLANEOUS CAPITAL PROJECTS < \$150	ENGINEERING IS IN PROGRESS ON 8 PROJECTS.

ENVIRONMENTAL - F. G. Jeanson**Water**

All wastewater discharge parameters were met for the month of December.

The draft NPDES operating permit was received from the State. Many permit limits were reduced from our existing permit limits. A meeting was held with the State to discuss the changes from our existing permit limits. Negotiation with the State resulted in some higher limits and additional testing on our part to determine whether the stricter limits are justified. The State will issue a revised draft permit in January.

Superfund

The remedial investigation (RI) on-site work was completed. All samples have been taken. Results from the samples should be received in January. The final report on the RI will be issued to the State in February.

Some investigation was also started on the site containing the buried drums. Three holes were dug where the geophysical survey showed the drums to be located. No drums were found in these three areas. DERS is evaluating plans on how to proceed with the remediation of this site from this information.

Waste

- No hazardous waste shipments during the month.
- A new compactor was installed for disposal of lead bags.
- I attended a waste minimization conference sponsored by the Mississippi DEQ and the Mississippi Technical Assurance Program.

Air

The NESHAPS quarterly report was issued during the month. The annual 200 valve survey and incinerator feed line inspection was also completed during the month.

After investigation into the unit risk factor for VCM by our contractor, discrepancies were found in the data that supports the higher (new) unit risk factor. These discrepancies are being pursued with EPA in Washington.

Miscellaneous

The semi-annual SPCC Plan Survey was completed during the month.

An offer of \$45M was received for our resin reclaim dryer. Potential buyers will be in the plant next month to look at the dryer.

ENERGY CONSERVATION - J. R. Ganc

December, 1990

Fiscal Y.T.D.

I. Energy Conservation Data

A. Unadjusted EUI	<4.2%>	< 3.3%>
B. Adjusted EUI	<3.2%>	< 3.1%>
C. BTU/Lb. Product	2656.7	2603.8
D. Total Energy Consumption MMM BTU	138.68	413.07

II. Boiler Operation

<u>Boiler</u>	<u>Combustion Efficiency %</u> <u>December, 90</u>	<u>Fiscal Y.T.D.</u>
No. 1	83.0%	82.9%
No. 2	-----	83.0%
No. 3	82.7%	82.8%

Boiler #2 was not operated during the month.

HUMAN RESOURCE REPORT**DECEMBER, 1990****Personnel** - J. E. Beall**Employment**

None

Promotions/Transfers

Curley Payne - Maintenance Department - Employee bid from General Mechanic "A" to Lead Warehouse Worker (replaced JCL).

David Moore - Process Engineer - Transferred to Lake Charles VCM plant as Process Engineer.

RETIREMENTS

None

TERMINATIONS/RESIGNATIONS

Michael Schneider - Engineering Co-op Student - Returned to school.

TO/FROM LEAVE OF ABSENCE

Coleman Haynes - Compound Department - Military Leave of Absence to Persian Gulf.

Robert Hamilton - Compound Department - Military Leave of Absence to Persian Gulf.

Charles Reed - Compound Department - Military Leave of Absence to Persian Gulf.

James Gray - Laboratory - Military Leave of Absence to Persian Gulf.

ABERDEEN PLANT**MONTHLY PERSONNEL REPORT****DECEMBER, 1990**

EMPLOYMENT			NEW HIRES		MO	YTD
Salaried	76		Salaried/Transfer		0	6
Hourly	166		Hourly		0	0
Temporary	1		Temporary		0	6
TOTAL	243		TOTAL		0	12

DEPARTMENTS	#EMPLOYEES	M	F	%M	%F	DEPARTMENT TURNOVER		%
						MO.	YTD	
WAREHOUSE	15	9	0	60%	0	1	2	13.3%
GENERAL PLANT	12	5	0	42%	0	0	4	33.3%
MAINTENANCE	40	7	0	18%	0	1	2	5.0%
LABORATORY	23	6	2	26%	8.3%	0	1	4.3%
COMPOUND	38	22	1	58%	2.4%	0	1	2.6%
VINYL	33	10	1	30%	3.0%	0	1	3.0%
PLASTICIZER	5	2	0	40%	0	0	1	20.0%
SUB TOTAL	166	61	4	37%	2.4%			
SALARIED	76	6	18	7.9%	23.7%			

APPLICATIONS	NO	%	PLANT TURNOVER	NO	%
Month	0	0	Hourly Month	0	0
YTD	0	0	YTD	2	1.2%
Minority	0	0	Salaried Month	1	1.3%
Female	0	0	YTD	6	7.9%

ABERDEEN CHEMICAL PLANT
 DEPARTMENTAL HOURS ANALYSIS REPORT
 DISTRIBUTION LIST RUS, JFC, JUV, DEPARTMENT HEADS, FILE
 12/ 3/90 THRU 12/30/90

December, 1990

DEPT	STR TIME HRS WKD	OVERTIME HOURS		OVERTIME AS A % OF STR TIME	ABSENCE HRS LOST	ABSENCE AS A % OF STRAIGHT TIME			YEAR-TO- DATE	VACATION HOURS
		OVERTIME HOURS NONCONTROL	OVERTIME HOURS CONTROL			SICKNESS	PAID	OTHER NONPAID		
YARD	1145.00	84.00	247.25	28.93	5.50	0.00	0.00	0.48	0.48	208.00
UTILITY	636.00	72.00	41.75	17.89	0.00	0.00	0.00	0.00	0.00	44.00
MAINTENANCE	4304.00	24.00	406.25	11.86	168.00	2.79	0.19	0.93	3.90	752.00
QC LAB	2574.50	144.00	100.50	9.50	37.50	0.00	0.93	0.52	1.46	252.00
JANITORS	232.00	0.00	6.75	2.91	0.00	0.00	0.00	0.00	0.00	44.00
WAREHOUSE	715.50	0.00	90.50	12.65	8.50	0.00	0.00	1.19	1.19	288.00
STORES	253.25	0.00	0.00	0.00	2.75	0.00	0.00	1.09	1.09	40.00
DEVELOPMENT LAB	714.50	52.00	67.75	16.76	3.50	0.00	0.00	0.49	0.49	200.00
DRY BLEND	616.00	0.00	116.50	18.91	0.00	0.00	0.00	0.00	0.00	192.00
COMPOUND	4761.00	48.00	738.50	16.52	231.00	3.61	0.76	0.48	4.85	672.00
VINYL	5247.00	504.00	935.00	27.43	314.00	4.57	0.46	0.95	5.98	700.00
PLASTICIZER	732.00	72.00	49.50	16.60	0.00	0.00	0.00	0.00	0.00	80.00
GENERAL HELPERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL PLANT	21930.75	1000.00	2880.25	17.69	770.75	2.43	0.42	0.67	3.51	3472.00

TOTAL PLANT HOURS FOR JURY DUTY..... 8.00
 TOTAL PLANT HOURS FOR NATIONAL GUARD/RESERVE DUTY..... 36.00
 TOTAL PLANT HOURS FOR DEATH IN FAMILY..... 48.00

ABERDEEN CHEMICAL PLANT
DEPARTMENTAL HOURS ANALYSIS REPORT
DISTRIBUTION LIST RMS, JFC, JYU, DEPARTMENT HEADS, FILE
10/ 1/90 THRU 12/30/90

FISCAL YEAR 1991

DEPT	STR TIME HRS WKD	OVERTIME HOURS		OVERTIME AS A % OF STR TIME	ABSENCE HRS LOST	ABSENCE AS A % OF STRAIGHT TIME				YEAR-TO- DATE	VACATION HOURS
		OVERTIME HOURS NONCONTROL	OVERTIME HOURS CONTROL			SICKNESS	PAID	NONPAID	TOTAL		
YARD	3825.00	108.00	661.00	20.10	32.25	0.00	0.00	0.84	0.84	0.70	544.00
UTILITY	2028.00	120.00	206.75	16.11	0.00	0.00	0.00	0.00	0.00	0.00	100.00
MAINTENANCE	15466.00	56.00	1567.75	10.50	399.75	0.98	0.18	1.43	2.58	2.84	2192.00
QC LAB	8827.00	240.00	290.75	6.01	113.00	0.00	0.27	1.01	1.28	1.20	648.00
JANITORS	790.25	0.00	36.75	4.65	25.75	0.00	2.02	1.23	3.26	3.26	164.00
WAREHOUSE	2848.00	0.00	266.50	9.36	216.50	6.46	0.00	1.14	7.60	7.60	608.00
STORES	912.75	0.00	5.50	0.60	7.25	0.00	0.00	0.79	0.79	0.79	80.00
DEVELOPMENT LAB	2666.00	84.00	209.50	11.01	8.50	0.00	0.00	0.32	0.32	0.32	376.00
DRY BLEND	2632.00	0.00	357.50	13.58	0.00	0.00	0.00	0.00	0.00	0.00	408.00
COMPOUND	17053.50	72.00	1710.75	10.50	794.50	3.19	0.20	1.19	4.66	4.67	1356.00
VINYL	17697.25	856.00	3126.25	22.50	1160.75	5.36	0.14	1.07	6.56	6.56	1776.00
PLASTICIZER	2465.75	108.00	131.75	9.72	26.25	0.49	0.00	0.58	1.06	1.06	192.00
GENERAL HELPERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL PLANT	77211.50	1644.00	8578.75	13.24	2704.50	2.38	0.18	1.04	3.61	3.65	8524.00

TOTAL PLANT HOURS FOR JURY DUTY..... 11.25
TOTAL PLANT HOURS FOR NATIONAL GUARD/RESERVE DUTY..... 48.00
TOTAL PLANT HOURS FOR DEATH IN FAMILY..... 80.00

ADMINISTRATIVE/PURCHASING PROGRESS REPORT
DECEMBER 1990
JANUARY 10, 1991

Safety

There were no reportable safety instances this month. A "walk-thru" safety audit was performed in the storeroom, raw materials, and finished goods warehouses in December.

Quality

All five natural teams met in December. The stores natural team is expected to complete their project and make a management presentation in January.

Statistics

	<u>Month</u>	<u>YTD</u>
Processed invoices	1,082	3,132
Working fund checks written	7	39
Cost savings through bid process	\$4,576	\$9,985

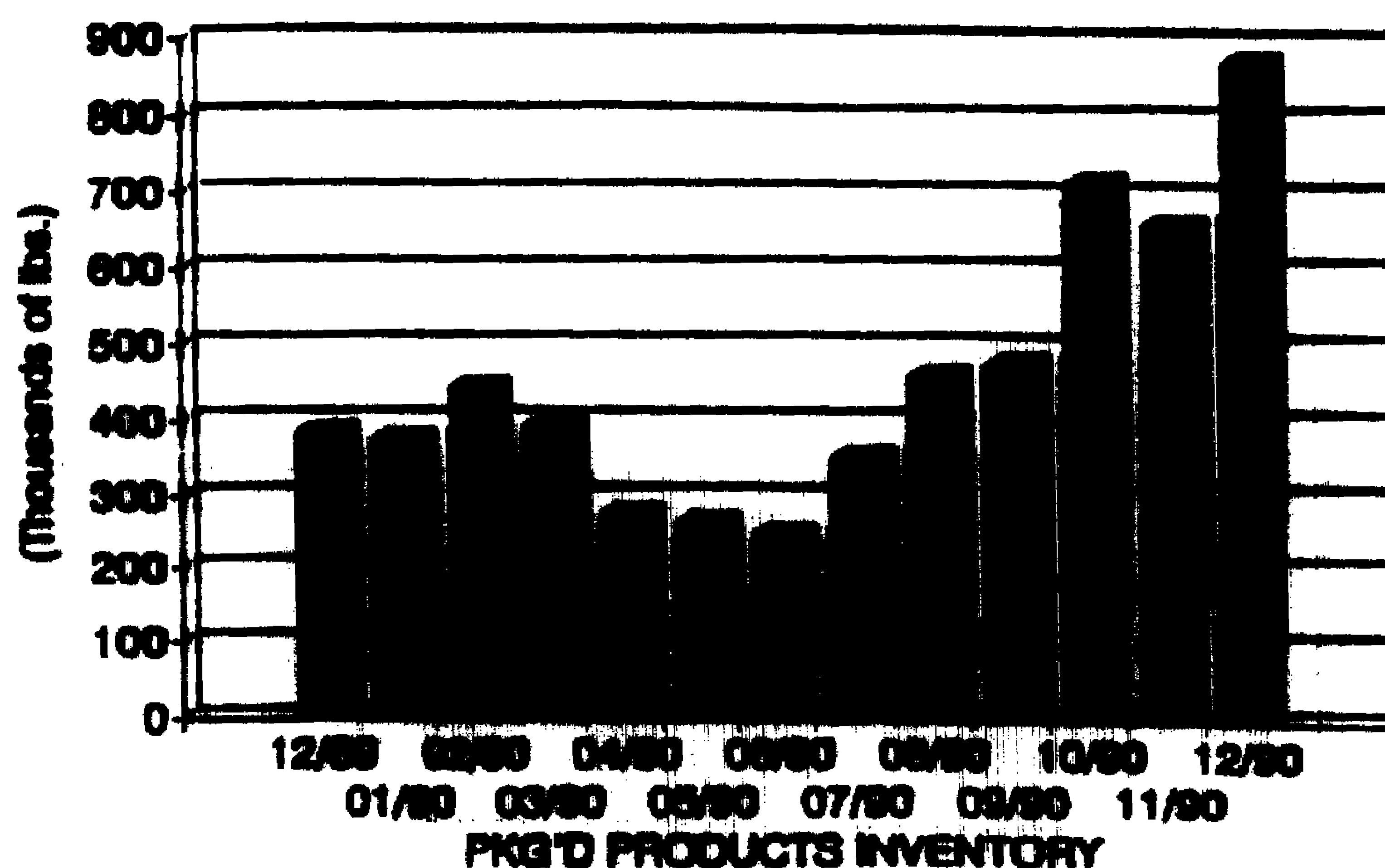
Packaged Finished Goods Ending Inventory

	<u>NOVEMBER 90</u>	<u>DECEMBER 90</u>	<u>(DECREASE)</u> <u>/INCREASE</u>
Compound A grade	4,183,774	4,455,814	272,040
Compound Offgrade (BC)	573,177	745,902	172,725
Compound Offgrade (H)	64,755	68,255	3,500
Compound MSP - 90	89,576	0	(89,576)
Millscrap(*)	165,786	93,101	(72,685)
Dryblend A grade	453,257	468,404	15,147
Dryblend Offgrade	21,199	58,662	37,463
Resin Type I	644,320	482,270	(162,050)
Resin Type "BC"	36,950	36,950	0
Vacuum Dust	<u>301,903</u>	<u>311,279</u>	<u>9,376</u>
Total Packaged Warehouse	<u>6,534,697</u>	<u>6,720,637</u>	<u>185,940</u>

NOTE:

(*) INCLUDES PLENEX MILLSCRAP
AND CLEANOUT.

FLEXIBLE & RIGID OFF-GRADE
DEC.'89 THRU DEC.'90



ABERDEEN CHEMICAL PLANT
SHIPPING ANALYSIS
DECEMBER 1990

-SHIPMENTS BY PRODUCTS-	MONTH			YTD		
	PUBLIC	IPT/ITC	EXCH/TOLL	PUBLIC	IPT/ITC	EXCH/TOLL
RESIN-BULK	13,614,610	20,018,730	526,200	58,170,660	41,772,110	715,900
RESIN-PACKAGED	68,920	201,550	0	421,896	667,700	0
FLEXIBLE COMPOUND-BULK	106,740	905,850	0	1,583,170	4,132,050	0
FLEXIBLE COMPOUND-PACKAGED	2,221,526	333,907	0	7,820,640	420,144	0
NEW BUSINESS	1,550	0	0	18,323	0	0
RIGID COMPOUND-BULK	3,661,280	813,050	0	8,897,760	1,505,000	0
RIGID COMPOUND-PACKAGED	213,255	221,506	0	848,115	512,706	0
TOLLING - BULK	0	0	0	0	0	1,401,960
TOLLING - PACKAGED	0	0	0	0	0	33,600
PLASTICIZER	214,960	174,100	533,330	555,380	336,750	1,613,110
TOTAL	20,102,841	22,668,693	1,059,530	78,315,944	49,346,460	3,764,570

-SHIPMENTS BY MODE-

BULK:	RAILCAR	CUSTOMER PICKUP	COMMON CARRIER	TOTAL
1 DECEMBER:				
RESIN	176	25	22	223
FLEXIBLE COMPOUND	6	0	2	8
RIGID COMPOUND	26	1	5	32
PLASTICIZER	3	4	5	12
TOTAL DECEMBER	211	30	34	275

1 YTD:				
RESIN	513	95	89	697
FLEXIBLE COMPOUND	33	0	5	38
RIGID COMPOUND	63	4	36	103
PLASTICIZER	4	29	15	48
TOTAL YTD	613	128	145	886

PACKAGED:	CUSTOMER PICKUP	COMMON CARRIER	TOFC	CONTAINER	AIR/UPS	TOTAL
1 DECEMBER:						
RESIN	2	10	0	0	3	15
FLEXIBLE COMPOUND	18	55	0	0	5	78
RIGID COMPOUND	0	13	0	0	1	14
PLASTICIZER	0	0	0	0	0	0
TOTAL DECEMBER	20	78	0	0	9	107

1 YTD:						
RESIN	9	35	0	0	8	52
FLEXIBLE COMPOUND	52	209	0	0	33	294
RIGID COMPOUND	2	44	0	0	2	48
PLASTICIZER	0	0	0	0	0	0
TOTAL YTD	63	288	0	0	43	394

01/02/91

ABERDEEN CHEMICAL PLANT

PRODUCT MS

NOVEMBER 1990

DATE	CUSTOMER	LOCATION	PRODUCT	CODE	DESCRIPTION	BLENDE	CONT.	LBS	CR #	SHIPPED	ORDER #	INVOICE #	DISPOSITION/REMARKS
12/03/90	NORTHWIRE	MI, OSCEOLA	CMPD	1346-00	38552 NAT	30Y17	BOXES	1,439	01361	09/17/90	887810-002	2205178	HARD PARTICLES-STAGING AREA
12/03/90	NORTHWIRE	MI, OSCEOLA	CMPD	1346-00	38552 NAT	30Y17	BOXES	805	01361	10/29/90	892794-007	2211392	HARD PARTICLES-STAGING AREA
12/03/90	NORTHWIRE	MI, OSCEOLA	CMPD	1306-00	34551 NAT	30Y15	BOXES	2,807	01361	10/29/90	892794-007	2211382	HARD PARTICLES-STAGING AREA
12/03/90	VISTA-AT&T	AZ, PHOENIX	CMPD	1345-14	34862 GRY546	VIPX41392	BULK	12,750	01327	09/10/90	851014-023	2204548	RETURNED IN ERROR-THOUGHT CAR EMPTY
								Sum	17,801				
12/04/90	EAGLE PLASTICS	NE, HASTINGS	DB	1410-10	802736 WHT110	VIPX45797	BULK	38,850	01326	10/12/90	824607-229	2210148	LONG FUSION
								Sum	38,850				
12/05/90	UNITED TECH	MI, PLAINWELL	RESIN	1842-00	5415	VIPX45871	BULK	175,350	01325	11/30/90	883959-013	2215552	I.V. PROBLEMS-HELD AT DEPOT-BACK TO
								Sum	175,350				
12/13/90	VISTA-AT&T	NE, WECO	CMPD	1345-14	34862 GRY546	VIPX45745	BULK	188,600	01328	10/02/90	811067-218	2207434	GLOWING PELLETS/HARD PARTICLES-FROM
								Sum	188,600				
12/21/90	WEXFORD-HAYWOOD	TN, BROWNSVILLE	CMPD	1794-01	MSP-60	T-5858	BOXES	23,617	01363	12/19/90	896407-002	2219196	REFUSED BY CUST-SHIPPED TO KEARNEY,
12/21/90	WEXFORD-HAYWOOD	TN, BROWNSVILLE	CMPD	1794-00	MILLSCRAP	T-5858	BOXES	17,865	01363	12/19/90	896407-002	2219196	REFUSED BY CUST-SHIPPED TO KEARNEY,
								Sum	41,482				
12/27/90	GROUP DEKKO/PVC CMPD	IN, KENDALLVILLE	RESIN	1842-10	5415	RAIL	BULK	42,240	01354	?	?	?	CUSTOMER REJECTED-HARD PARTICLES-IN
12/27/90	GROUP DEKKO/PVC CMPD	IN, KENDALLVILLE	RESIN	1842-10	5415	RAIL	BULK	38,620	01354	?	?	?	CUSTOMER REJECTED-HARD PARTICLES-IN
12/27/90	WEXFORD-HAYWOOD	TN, BROWNSVILLE	CMPD	1794-00	MILLSCRAP		BOXES	9,189	01362	12/20/90	888032-010	2218992	CUSTOMER REJECTED
								Sum	90,049				
12/28/90	WEXFORD-BRYANT PLAST MO,	GAINESVILLE	DB	1499-00	RP-207 WHT110	PREMIERE	BOXES	23,495	01364	09/21/90	895516-001	2206246	CUSTOMER REFUSED MAT.-SHIPPED 23305
								Sum	23,495				
								Sum	575,627				

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LABORATORY - J. M. Edwards, Jr.

A. Safety

There were no safety incidents in the Laboratory during December. The monthly safety meeting topic was "Back Strain Prevention" taught by Ginny Belk, Plant Nurse.

B. Customer Contacts

Jim Edwards accompanied Rendell Newton, Mike Kane and Mark Eramo to Southwire in Starkville, MS. A presentation was made to the Starkville staff in support of the Mets I.R. test. Evidence was given to improve the credibility of the test results as perceived by the Starkville staff.

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

12/17 Deckerville Plastics. Deckerville. MI

The customer reported having quality problems with two boxes of 48562 compound in their injection molding process. Chemical analysis of the compound showed TOTM plasticizer was used instead of DIDP.

12/12 Group Dekko. Kendallville. IN

The customer reported having heat stability problems with two railcars of 5415 resin. The car numbers were 41161 and 73412. R&D in Austin is investigating the complaint.

12/16 American Mirrex. New Castle. DE

John Blum with American Mirrex reported a change in fusion characteristics in a shipment of 5305. American Mirrex lab showed the Vista sample took longer to fuse and longer to reach equilibrium. The suspect material was one of three railcars. R&D in Austin is analyzing the samples.

D. Product Waivers

<u>Customer</u>	<u>Product</u>	<u>Reason</u>	<u>No.</u>
Central Plastics	17462 WHT	Heat Stability	7 Boxes
Tandy Cable	34431 BLK	Hard Particles	1 H/T

LABORATORY - Continued**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 December, 1990.

	Reactor <u>Slurries</u>	<u>5265</u>	<u>Drier</u> <u>5305</u>
Number of Samples	990	11	85
Average RVCM, ppm	79	0.151	0.286

RVCM of Shipment Samples

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

<u>Product</u>	<u>Number of Samples</u>	<u>Average RVCM. ppm</u>
5265	10	0.091
5305	113	0.138
5325	0	-----
5385	99	0.360
5395	21	0.048
5415	48	0.068
Dry Blend	15	0.042
Debox	8	0.979
Pond	0	-----

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	1.40	0.83	1.23	0.94	0.86
Inherent Viscosity	3.56	1.53	0.75	0.67	0.69
(vs. 0.715 - 0.744)	----	0.87	----		
L Color	7.56	2.58	3.44	5.83	4.00
A Color	8.00	9.33	----		
B Color	3.00	3.17	1.17	2.50	2.83
% on Pan	2.27	1.38	1.38	2.00	2.47
(vs. 2%, max.)	----	----	----	----	0.47
% thru 140 Mesh	0.55	0.72	1.22	1.57	3.09
Mets I.R.	----	----	----	2.05	2.29
(vs. 95% of control)					1.07
Hard Particles, (% > 10)	----	----	48.3	0	4.8
Average particle size, microns	128	135	159	150	163

LABORATORY - Continued

G. Flexible Compound Quality Summary

	<u>Adjustments</u>		<u>Rejections</u>	
	<u>M Lbs.</u>	<u>(%)</u>	<u>M Lbs.</u>	<u>(%)</u>
Hardness	21.4	<0.44>	4.9	<0.10>
Color	----	----	6.0	<0.12>
Hard Particles	----	----	178.1	<3.65>
Heat Stability	----	----	4.8	<0.10>
Contamination	----	----	4.5	<0.09>
Dicing	----	----	3.2	<0.07>
Cross Contamination	----	----	<u>1.5</u>	<u><0.03></u>
Total	21.4	<0.44>	203.0	<4.33>

H. Rigid Compound Quality Summary

	<u>Rejections</u>	
	<u>M Lbs.</u>	<u>(%)</u>
Color	12.2	<0.34>
Cross Contamination	23.8	<0.66>
Mischarge	<u>9.6</u>	<u><0.27></u>
Total	45.6	<1.27>

I. Miscellaneous

1. All six natural teams met during the month.
2. Dave Cox spent most of his time preparing a database program on PC to create the plant IPA report.
3. The I. V. analyzer failed during the Christmas holidays. Samples sent to Oklahoma City for analysis were delayed three days. The instrument was repaired in the meantime and the retains were run instead. The reliability of this instrument is still decreasing.

SAMPLE SHIPMENTS

DECEMBER 90

RESIN

<u>Ship Date</u>	<u>Product</u>	<u>Amount</u>	<u>Customer</u>
12/07/90	5415	5 lbs.	D. K. Enterprises
12/10/90	5385	1 kg.	HELM AG (GERMANY)
12/10/90	5385	7500 lbs.	Dayton Extruded Plastics
12/12/90	5305	5 lbs.	Henkel Corporation
	5415	5 lbs.	
12/12/90	Pond	100 lbs.	PANICHEM S. A.
12/14/90	5385	200 lbs.	M O AIR INTERNATIONAL
12/28/90	5265	50 lbs.	CABLEC
	5385	50 lbs.	

COMPOUND

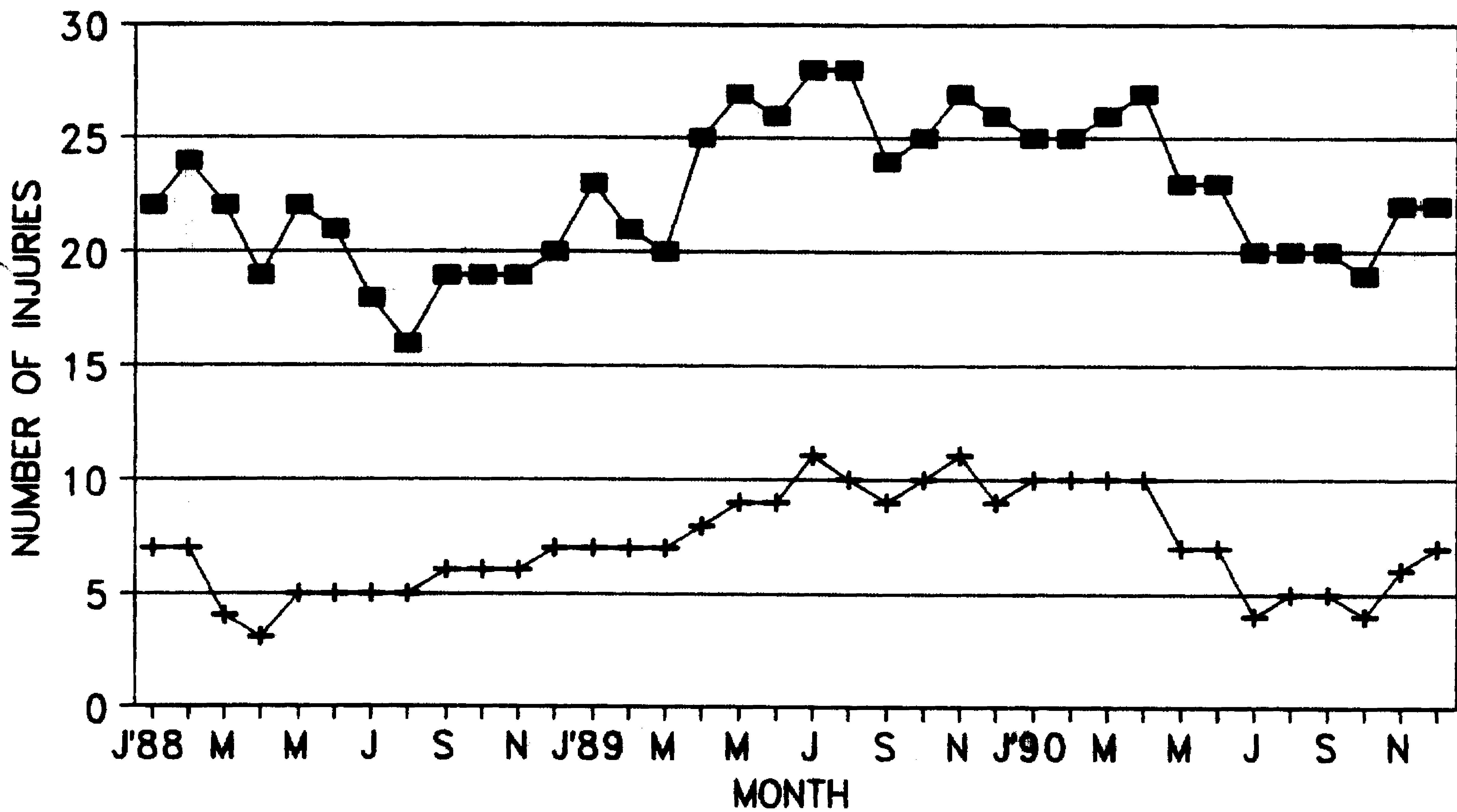
<u>Ship Date</u>	<u>Product</u>	<u>Amount</u>	<u>Customer</u>
12/03/90	34862 GRY 546 OG	100 lbs.	Carol E. Chatham
12/07/90	27251 WHT 366 OG	50 lbs.	Gentry Management
12/11/90	34862 GRY 546 OG	300 lbs.	Carol E. Chatham
12/12/90	45541 NAT	1000 lbs.	DE ACERO
12/18/90	35451 NAT	200 lbs.	EXPORT c/o HAYES DOCKSIDE
	38631 NAT 085	200 lbs.	
	38552 NAT	200 lbs.	
12/21/90	18031 WAT CL(OG)	20 lbs.	Reko Company
	18031 WAT CL(OG)	20 lbs.	
	461-120A	20 lbs.	
12/28/90	35031 NAT 03	500 lbs.	Dixie Wire Company
	2153A NAT 03	1000 lbs.	
12/28/90	38525 NAT 02	200 lbs.	Tandy Wire

DRYBLEND

<u>Ship Date</u>	<u>Product</u>	<u>Amount</u>	<u>Customer</u>
12/12/90	426-90 WHT 110	50 lbs.	IFER DOMINICANA
12/16/90	489-75A WHT 123	1300 lbs.	Premier Polymers
12/31/90	489-79A WHT 111	1300 lbs.	Montage

ABERDEEN CHEMICAL PLANT INJURIES

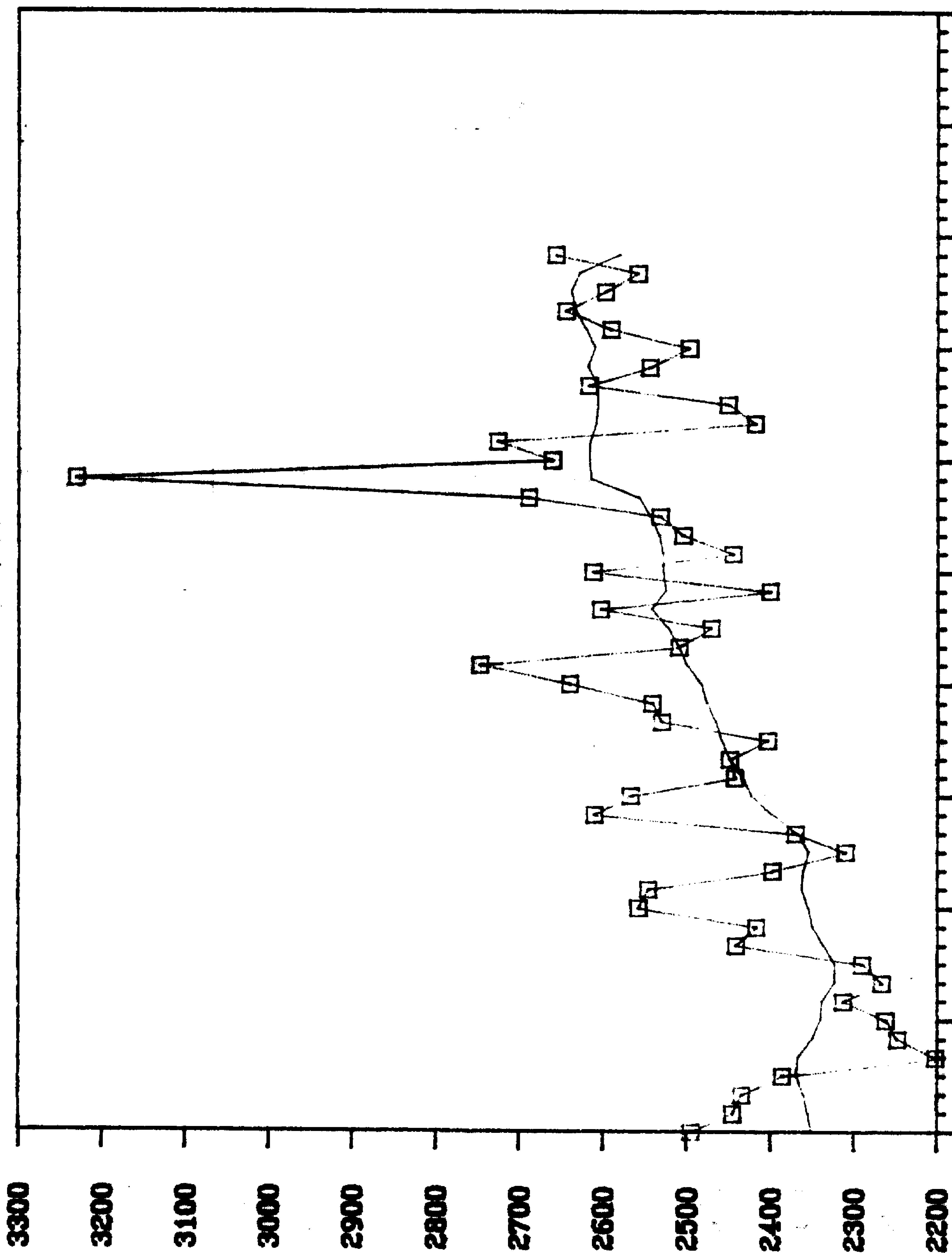
(Twelve Month Running Totals)



—■— TOTAL INJURIES —+— OSHA RECORDABLE

ABERDEEN ENERGY CONSUMPTION

BTU/LB



JAN 87 JUL 87 JAN 88 JUL 88 JAN 89 JUL 89 JAN 90 ERR ERR

MONTH
 □ MONTHLY — 12 MONTH AVERAGE

BTU/LB