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To: T. H. Huffman

From: D. C. Skokna
Date: December 20, 1990

VISTA

Interoffice Communication

Subject: **ABERDEEN MONTHLY PROGRESS REPORT NOVEMBER, 1990**

Safety

There were six injuries reported during November; three of these were recordable cases. The recordable cases were a lower back strain suffered by a mechanic, a mechanic sprained an ankle, and a compound operator who fractured a finger. At month's end the plant's employees have worked 4,166 days (5,562,227 manhours) since the last lost time injury.

FY 1990 Key Statistical Information	November	Y.T.D.
PVC Production, MM Lbs.	42.6	83.5
Reactor Stream Factor, %	91.4	88.6
Resin Quality, % Prime	98.0	98.4
VCM Efficiency, Lbs./Lb.	1.0212	1.0217
Flexible Compound Production, MM Lbs.	5.5	11.0
Flexible Compound Quality, % Prime	96.9	96.9
Rigid Compound Production, MM Lbs.	5.2	10.3
Rigid Compound Quality, % Prime	99.9	99.6
Plasticizer Production, MM Lbs.	1.6	3.4
Plasticizer Quality, % Prime	88.1	90.1
Energy Use, (EUI, %)	< 3.3>	< 3.1>
Fixed Cost Variance, $M	4.0	< 3.1>
Variable Cost Efficiency Variance, $M	154.9	< 63.1>

Operations

November's PVC production set an all time monthly production record.

In the flexible compound unit, there was planned downtime on all lines to control inventories. A trial run of Vistel 9102 was completed on Line V. This material was produced for U-Brand, an injection molding fittings customer.

Costs

Fixed costs were essentially at budget.

Variable costs were favorable due to product mix in the compound departments and correction of October's variable costs.

QMP

- All of the plant's natural teams met during the month.
- The Warehouse Natural Team made their presentation to management. Their project, extending the roof over the loading dock, will improve safety and reduce product loss.
- FY1990 Gainsharing results were presented to all employees.

D. C. Skokna
Plant Superintendent

tjs

DISTRIBUTION		COVER LETTER	ENTIRE REPORT
Houston	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

	November	Fiscal Y.T.D. 1991	Fiscal Y.T.D. 1990
First Aid	3	5	4
OSHA Recordable	3	3	2
Total Injuries	6	8	6
Number of Restricted Workday Cases	3	3	1
Number of Lost Workday Cases	0	0	0
Injuries by Department			
Vinyl Operations	0	1	0
Compound Operations	2	2	1
Maintenance	3	4	4
Laboratory	0	0	0
Receiving/Warehouse	0	0	0
Office	1	1	1
Totals	6	8	6
Injuries by Type			
Cuts and Abrasions	1	3	0
Eye Injuries	0	0	1
Burns	0	0	1
Bruises	2	2	1
Strains/Sprains	2	2	0
Stings	0	0	1
Other	1	1	2
Totals	6	8	6
Non-Occupational Injuries			
Lost Workday Cases	0	2	0
Days Lost	14	38	59

Safety Record

Last lost time injury - 7/5/79
Days since - 4,166
Employee hours since - 5,562,227

On November 30, 1990, the employees of the Aberdeen plant completed 4166 days with no lost time injury.

Topics for the plant safety meetings during the month included: Earthquake Preparedness, Slipping/Tripping Hazards, and Contractor Safety.

Special emphasis was given to earthquake training and preparations this month due to predictions of an earthquake in early December.

SAFETY - Continued

Routine dosimetry results for the month were:

Chemical	< PEL		> PEL	
	Number	Percent	Number	Percent
VCM	79	98.75	1	1.25
Lead	9	100.0	0	0
Total Particulates	3	100.0	0	0

The single overexposure was with benefit of respiratory protection.

Monthly Injury Summary

Injury Class	Department	Description
RWC	Maintenance	Lower back strain
FA	Compound	Lower back bruise
RWC	Maintenance	Right ankle sprain
FA	Maintenance	Puncture of right palm
FA	Adm. Services	Left knee bruise
RWC	Compound	Fracture of left index finger

QUALITY MANAGEMENT PROCESS - T. J. Arbeiter

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

- The Senior Mechanical Engineer's Natural Team reviewed the proposed scope of their project to improve operations and maintenance involvement in capital projects.

- The Warehouse Natural Team made their presentation to management recommending the extension of the roof over the loading dock. The team's presentation detailed how their recommendation will improve safety and reduce product loss by keeping the loading dock dry.

- The Vinyl Operations Superintendent's Natural Team began RVCM Cpk improvement planning and data collection to reduce VCM switching costs.

- The Safety Supervisor's Natural Team continued work on their project to establish guidelines for Security Guard responses to unusual events.

Informational meetings were held for all plant personnel on November 8th and 12th to present 1990 Gainsharing results.

Presentations from Executive Management were held on November 28th and 29th. Many thanks to Jim Ball and John Weidner for taking the time to travel to Aberdeen and for fielding our questions.

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COST VARIANCES - D. C. Skokna

Variable Costs

Product	November 1990 Variance, $M Efficiency	Price	Total
PVC	$ 54.4	<$1522.9>	<$1468.4>
Flexible Compound	< 57.8>	< 97.1>	< 154.9>
Rigid Compound	113.5	< 144.5>	< 31.0>
Plasticizer	44.8	5.9	50.3
Total	$154.9	<$1758.6>	<$1604.0>

PVC: Favorable VCM use, utility consumption, packaging usage, and a favorable product mix were partially offset by producing less than budgeted amounts of offgrade resin. (NOTE: Offgrade production was 0.0208 pounds per pounds of PVC versus a 0.0232 standard. Because "debox" resin is credited at 26.0 cents per pound versus the 21.8 cents per pound standard cost of production, the plant was "penalized" $83.1M for making less than budgeted amounts of debox.)

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

Ridgid Compound: The favorable variance was essentially all due to product mix.

Plasticizer: Favorable raw material use (an offset of last month's unfavorable variance) was the primary reason for the November variance.

Price Variances

	Variance - $M
▪ VCM	<$1522.8>
▪ Resin to Ridgid Compound	< 147.1>
▪ Resin to Flexible Compound	< 91.5>
▪ Phthalic Anhydride	< 31.4>
▪ Color Concentrates	< 30.1>
▪ Natural Gas	< 15.6>
▪ Alfol 610	26.8
▪ 610P to Flexible Compound	28.0
▪ Other Price Variances	25.1
Total	<$1758.6>

COST VARIANCES - Continued

Fixed Cost Variances

	Variance - $M
▬ Payroll and Benefits	<$ 21.0>
▬ MM&C	61.5
▬ Miscellaneous	< 16.9>
▬ TI&D	< 17.7>
▬ Clearances	< 1.9>
Total	$ 4.0

Payroll and Benefits

The unfavorable variance was primarily due to the holidays.

M. M. & C.

This category was favorable due to less than budgeted activity.

Miscellaneous

- Outside Professional Services - $10.4M favorable
- Warehouse G/L - $26.2M unfavorable

The warehouse loss was due to the write-off of safety supplies, which will be put on a consignment basis. An offsetting credit will appear in December's fixed costs.

TI&D

Local taxes were budgeted too low.

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

Safety

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

The monthly safety meeting topic was "Earthquake Awareness".

General

1. November resin production, at 42.6MM pounds, is an all-time Aberdeen monthly production record. This is even more significant considering the thirty-day month.

2. Steam stripping optimization work was completed in November. Residual VCM figures have shown dramatic improvement.

3. The resin raw materials in the 744 account were valued at $283.1M.

	Nov.	YTD
- Production, MM Lbs.	42.6	83.5
- Daily Rate, M Lbs./C.D.	1418.5	1368.8
- Capacity Utilization Factor, %	111.2	107.3
- Total Reactor Charges	981.0	1937.0
- Charges/C.D.	32.7	31.8
- Reactor Stream Factor, %	91.4	88.6
- Rotary Dryer Stream Factor (#4-#8), %	95.2	93.7
- Fluid Bed Dryer Stream Factor, %	95.3	95.8
- Resin Quality, % Prime	98.0	98.4

Reactor Downtime	Hours
- 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).	453.0
- Maintenance downtime (sewer valve removal on all reactors, Old Module VCM charge pump valve replacement, hydroblasting on D745, safety disc maintenance on D300, Old Module VCM charge line plugged, cleanwall system repairs, and miscellaneous valve and instrument repairs).	169.0

Dryer Downtime	% of Total Downtime
- Reactor limited production.	10.0
- Operational downtime (centrifuge plugs, dryer cleaning, and flameouts).	41.7
- Maintenance downtime (screw conveyor repairs, centrifuge and activator maintenance, and blower repairs).	48.3

VINYL - Continued

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

- One to three mechanics were kept working full time on steam tracing in the vinyl units.
- The centrate heat exchanger bundles were pulled and acid cleaned. All gaskets were replaced.
- The 903 recovery compressor was changed out due to wear.
- Reactor 745 was prepared for hydroblast to aid in contamination control.
- All sewer valves in the new unit were removed.
- The #4 cooling tower pump motor was repaired. Failure was due to bad windings.
- One major valve was changed in the vinyl unit.

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

Safety

The Compound Department had one OSHA recordable injury in November. A compound operator suffered a contusion and fracture of the distal portion of his left index finger while cleaning a piece of equipment.

The topic of the monthly safety meeting was "Earthquake Preparedness".

General

The three flexible compound lines and the dry blend unit were scheduled down for the two-day Thanksgiving holiday. The plasticizer unit operated all thirty days this month due to the continued strong external demand for plasticizer.

Line I roll mill cooling channels were acid-cleaned to increase heat transfer through the mill. This will facilitate the production of PLENEX polymers by preventing the buildup of heat on the roll mill surfaces which causes excessive sticking.

A production trial of VISTEL 9102 was completed November 7th on Line V. The material was produced for U-Brand, an injection molding fittings customer. This compound, if successful, would replace the 90172D dry blend we currently produce for U-Brand. Customer evaluation is scheduled for early December.

Compound Production	Operating Days	Production M (Lbs.) Month	Avg./Day	Fiscal Y.T.D.
Line I	27	1875	69	3830
Line III	28	3327	119	6717
Line V	9.5	265	28	413
Total		5467	195	10960
% Prime		96.9		96.9
Capacity Utilization Factor, %		67.9		68.7

Downtime	Hours
Line I	
- Product Changes	76
- Acid Cleaning Roll Mill	24
- PLENEX Polymers Production	22
- Probatcher Maintenance	13
- Quality Problems & Control	11
- Miscellaneous Maintenance	7

COMPOUND - Continued

Line III

- Product Changes	62
- Miscellaneous Maintenance	30
- Quality Problems & Control	7

Line V

- Product Changes	28
- Start Up\Shut Down	7
- Miscellaneous Maintenance	4
- Quality Problems & Control	3

	Operating Days	Production (M lbs.) Month	Avg./Day	Fiscal Y.T.D.
Rigid Compound	27	5205	193	10313
% Prime		99.9		99.6
Capacity Utilization Factor, %		88.3		87.3

Downtime	Hours
- Product Changes	51
- Miscellaneous Maintenance	42
- Quality Problems & Control	18
- Screener Maintenance	13

	Operating Days	Production (M lbs.) Month	Avg./Day	Fiscal Y.T.D.
Plasticizer	30	1577	53	3439
% Prime		88.1		90.1
Capacity Utilization Factor, %		83.8		91.3

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

- The "C" blender star valve was replaced due to wear.
- The high side of the #7 air compressor was reworked due to a worn cylinder.
- Vacuum jets on P-1 reactors #1 and #2 were pulled and cleaned because of calcium carbonate buildup.
- The spindle assembly on #5 dicer was changed out and the old one rebuilt.
- The Line III "A" feeder gearbox was changed out and the old one rebuilt.
- The motor on "D" blender was replaced and repaired. The motor had bad windings.
- The memory control card on the Line I Probatcher was replaced.

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

PROJECTS IN DEVELOPMENT - GENERAL

Plant Air Permit

An environmental consulting firm, Clements and Associates, has been hired to evaluate ways to address the risks calculated from the model of plant emissions done by Scott Environmental.

Plant engineering has obtained the EPA approved air dispersion model and local area meteorological data to evaluate concentrations of VCM emissions at and beyond plant boundaries. This model is being used to evaluate the effect of various emissions sources on the total plant emissions.

Compound Line V U-Brand Trial

Rigid Vistel 9102 pellets from the preliminary trial on Line V ran well when tested at U-Brand in early December. A longer Line V run is being planned for late December to make a 20,000-pound sample for U-Brand to trial. This trial run will allow the plant to get additional experience running 9102 on Line V and further evaluate the capacity of Line V to accurately weighup and compound the U-Brand material.

Vinyl Reactor Manifold Modifications

A design is being prepared to modify the bottom dump/charge manifold for reactors D400, D700 and all the New Module reactors. The elimination of the rinse-to-sewer step by the cleanwall project has resulted in an increase in hard particles for resin made in these reactors due to the holdup of resin in the bottom dump/charge manifold. Before the implementation of BUS-80, this resin was rinsed to the sewer, but now it is held up in the manifold and is flushed back into the reactor on the next charge to be double polymerized.

Ultraclean 5305 Resin

An outline was developed for Klockner concerning preliminary commitments they would need to make for us to successfully evaluate the manufacture of an Ultraclean 5305 resin. This commitment would need to include their providing samples of good and bad calendered sheets and resin, and provide lines of communication for feedback on trials.

HAZOPs at Aberdeen

HAZOPs were completed on the New Water Plant and Incinerator Replacement projects in November and early December. In both cases, several items were identified to improve safe operation of the projects.

ENGINEERING - R.E. POLK, S.C. HILLMAN, M.R. KANE

ABERDEEN CHEMICAL PLANT
APPROVED CAPITAL PROJECTS

AFE NUMBER	PROJECT DESCRIPTION	STATUS
A858	ALTERNATE NATURAL GAS PIPELINE	THE SYSTEM HAS BEEN STARTED UP AND IS OPERATIONAL. PUNCHLIST ITEMS ARE IN PROGRESS.
D818	VINYL VALVE UPGRADE	THE PROJECT WILL BE CLOSED TO FIELD CHARGES IN DECEMBER.
A519	PLANT ELECTRICAL UPGRADE	AN ALTERNATE FEEDER TO SUB-102 IS PLANNED FOR COMPLETION IN DECEMBER.
A649	VINYL CONTROL SYSTEM MODERNIZATION	MOD-300 EQUIPMENT SITE ACCEPTANCE TESTING IS IN PROGRESS.
A909	INERTS REMOVAL MODIFICATIONS	INSTALLATION IS COMPLETE EXCEPT FOR PUNCHLIST ITEMS.
D619	PROPANE STORAGE AREA DELUGE SYSTEM	INSTALLATION IS COMPLETE. THE PROJECT WILL BE CLOSED TO FIELD CHARGES IN DECEMBER.
D629	COMPOUND REBLEND TRANSFER SYSTEM	INSTALLATION IS COMPLETE EXCEPT FOR PUNCHLIST ITEMS. FIELD CLOSURE IS PLANNED FOR DECEMBER.
D749	LEAD HANDLING AND EXPOSURE REDUCTION	INSTALLATION IS IN PROGRESS WITH COMPLETION PLANNED FOR JANUARY.
D849	COMPOUND LINE 3 SEMI-BULK LEAD HANDLING	LONG LEAD ITEMS HAVE BEEN PLACED ON ORDER. PROJECT COMPLETION IS PLANNED FOR 2/91.
D859	COMPOUND SILO BRIDGE BREAKING	INSTALLATION IS COMPLETE EXCEPT FOR PUNCHLIST ITEMS.
D899	RAILCAR CLEANING RACK	DESIGN IS IN PROGRESS. PROJECT COMPLETION IS PLANNED FOR 2/90.
F669	COMPOUND LINE 5 HEATED PLASTICIZER	THE PROJECT IS COMPLETE AND OPERATIONAL. IT WILL BE CLOSED TO FIELD CHARGES IN DECEMBER.
F699	LOW MOLECULAR WEIGHT RESIN EXPANSION	INSTALLATION IS COMPLETE EXCEPT FOR PUNCHLIST ITEMS. THE SYSTEM HAS BEEN PLACED INTO OPERATION.
F779	DRYERS NO.4 & 5 CONTAMINATION REDUCTION	INSTALLATION IS SCHEDULED FOR COMPLETION IN DECEMBER.
G569	DRYBLEND DIV.VALVE AND CHUTE REPLACEMENT	INSTALLATION IS COMPLETE EXCEPT FOR PUNCHLIST ITEMS.
G659	NEW DRYER BAGHOUSES	THE ORIGINAL SCOPE OF WORK IS COMPLETE AND THE PROJECT WILL BE CLOSED TO FIELD CHARGES IN DECEMBER.
G819	VCM SIGHT GLASS REPLACEMENT	DESIGN IS IN PROGRESS. PROJECT COMPLETION IS PLANNED FOR JANUARY.
G839	PLANT WATER RECYCLE	DESIGN IS IN PROGRESS. PROJECT COMPLETION IS PLANNED FOR JANUARY.
A540	REDUCED FLAME & SMOKE COMPOUND PROJECT	INSTALLATION IS COMPLETE ON ALL DESIRED MODIFICATIONS TO DATE. FIELD CLOSURE IS PLANNED FOR DECEMBER.
D570	OLD MODULE RECOVERY SYSTEM ACCESS	DESIGN IS COMPLETE. INSTALLATION IS PLANNED FOR 7/91.
D580	RECOVERY VACUUM PUMP PRESSURE RELIEF	DESIGN IS COMPLETE. INSTALLATION IS PLANNED FOR 7/91.
D600	PLASTICIZER LOADING AND UNLOADING REVISIONS	DESIGN IS IN PROGRESS WITH COMPLETION PLANNED FOR FEBRUARY.
F590	DRYBLEND TRANSFER LINE ELBOWS	INSTALLATION IS COMPLETE. TESTING IS IN PROGRESS.
F650	5305 RESIDUAL VCM REDUCTION	CONSTRUCTION IS PLANNED TO BEGIN IN OCTOBER WITH COMPLETION IN JANUARY.
F660	DECALCIFIED WATER	DESIGN IS IN PROGRESS AND SCHEDULED FOR COMPLETION IN DECEMBER. 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	DESIGN IS IN PROGRESS WITH COMPLEITON PLANNED FOR OCTOBER. INSTALLATION IS PLANNED FOR NOVEMBER.
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 < $15M	ENGINEERING IS IN PROGRESS ON 38 PROJECTS.
H620	EAST INCINERATOR REPLACEMENT	DELIVERY OF THE INCINERATOR IS PLANNED FOR 5/91. PROJECT COMPLETION IS PLANNED FOR 7/91.
H501	MISCELLANEOUS CAPITAL PROJECTS < $15M	ENGINEERING IS IN PROGRESS ON 8 PROJECTS.

ENVIRONMENTAL - F. G. Jeanson

Water

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

The draft NPDES operating permit is expected in the first part of December from the State.

Waste

Shipments for the month included:

- One bulk load of separator oil to M&M Chemical in Gadsden, AL.
- One bulk shipment of floor sweepings to CWM in Lake Charles, LA.
- One bulk shipment of lead bags to CWM in Emelle, AL.
- One drum shipment of stabilizer spill to TES in LaPorte, TX.

RCRA/TC training was completed for the compound and maintenance personnel. All of the engineering personnel also attended these training sessions.

Superfund

The remedial investigation (RI) continued this month. The deep wells were drilled and some sampling was completed. The remaining samples will be taken in December. Results from the samples should be received in January. The final report is scheduled to be complete the first part of February.

Air

The State approved 480MM pounds of PVC production for this year. They did not see anything in our permit that would limit us. Our previous operating permit application had stated 460MM pounds as capacity.

Miscellaneous

I attended the Mississippi Manufacturers Association Environmental Committee Meeting in Jackson. Five applications have been submitted to locate hazardous waste treatment facilities in Mississippi.

Two shipments of pond #2 resin were made this month as a trial with Sun Polymers/Royal Plastics. If the material is acceptable, they plan to recover the full 20MM pounds during 1991.

ENERGY CONSERVATION - J. R. Ganc

	November, 1990	Fiscal Y.T.D.
I. Energy Conservation Data		
A. Unadjusted EUI	<2.8%>	< 2.8%>
B. Adjusted EUI	<3.3%>	< 3.1%>
C. BTU/Lb. Product	2558.8	2577.8
D. Total Energy Consumption MMM BTU	139.76	274.39

II. Plant Energy Conservation Program

A. Maintenance

There were thirty energy related items completed in November, 1990. Twenty-eight of these items were steam leak repairs. The remaining two were steam trap repairs.

III. Boiler Operation

Boiler	Combustion Efficiency % November, 90	Fiscal Y.T.D.
No. 1	82.9%	82.9%
No. 2	83.0%	83.0%
No. 3	82.8%	82.8%

Boilers #1 and #2 were operated fifteen days during the month.

HUMAN RESOURCE REPORT

November, 1990

Personnel - J. E. Beall

Employment

None

Promotions/Transfers

None

RETIREMENTS

J. C. Lockhart - 25 years

TERMINATIONS/RESIGNATIONS

None

TO/FROM LEAVE OF ABSENCE

James O. Howell - Compound Department - Military Leave of Absence to Persian Gulf.

ABE[illegible]EN CHEMICAL PLANT
DEPARTM[illegible]AL HOURS ANALYSIS REPORT
DISTRIBUTION LIST RWS, JFC, JVU, DEPARTMENT HEADS, FILE
11/ 5/90 THRU 12/ 2/90

NOVEMBER, 1990

DEPT	STR TIME HRS WRKD	OVERTIME HOURS		OVERTIME AS A % OF STR TIME	ABSENCE HRS LOST	ABSENCE AS A % OF STRAIGHT TIME					VACATION HOURS
		OVERTIME NONCONTROL	HOURS CONTROL			SICKNESS	OTHER PAID	NONPAID	TOTAL	YEAR-TO-DATE	
YARD	1164.00	24.00	187.00	18.13	2.75	0.00	0.00	0.24	0.24	1.00	188.00
UTILITY	636.00	48.00	54.75	16.16	0.00	0.00	0.00	0.00	0.00	0.00	52.00
MAINTENANCE	4611.50	32.00	358.00	8.46	125.50	0.69	0.07	1.96	2.72	2.08	696.00
QC LAB	2698.25	96.00	58.50	5.73	25.75	0.00	0.00	0.95	0.95	1.21	216.00
JANITORS	168.00	0.00	19.75	11.76	16.00	0.00	9.52	0.00	9.52	4.61	120.00
WAREHOUSE	816.00	0.00	78.50	9.62	16.50	0.00	0.00	2.02	2.02	9.75	240.00
STORES	264.00	0.00	2.50	0.95	0.00	0.00	0.00	0.00	0.00	0.68	40.00
DEVELOPMENT LAB	791.75	32.00	64.50	12.19	0.25	0.00	0.00	0.03	0.03	0.26	136.00
DRY BLEND	816.00	0.00	131.25	16.08	0.00	0.00	0.00	0.00	0.00	0.00	140.00
COMPOUND	5260.50	24.00	488.25	9.74	263.50	4.11	0.23	0.67	5.01	4.60	244.00
VINYL	5444.75	352.00	967.50	24.23	395.25	6.39	0.00	0.87	7.26	6.78	484.00
PLASTICIZER	708.00	36.00	43.25	11.19	0.00	0.00	0.00	0.00	0.00	1.51	112.00
GENERAL HELPERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
TOTAL PLANT	23378.75	644.00	2453.75	13.25	845.50	2.55	0.13	0.93	3.62	3.64	2668.00

TOTAL PLANT HOURS FOR JURY DUTY..... 3.25
TOTAL PLANT HOURS FOR NATIONAL GUARD/RESERVE DUTY..... 12.00
TOTAL PLANT HOURS FOR DEATH IN FAMILY..... 16.00

A B E R)E N C H E M I C A L P L A N T
DEPARTME. AL HOURS ANALYSIS REPORT
DISTRIBUTION LIST RWS, JFC, JVU, DEPARTMENT HEADS, FILE
10/ 1/90 THRU 12/ 2/90

FISCAL YEAR 1991

DEPT	STR TIME HRS WRKD	OVERTIME HOURS		OVERTIME AS A % OF STR TIME	ABSENCE HRS LOST	ABSENCE AS A % OF STRAIGHT TIME					
		OVERTIME HOURS NONCONTROL	CONTROL			SICKNESS	OTHER PAID	NONPAID	TOTAL	YEAR-TO-DATE	VACATION HOURS
YARD	2680.00	24.00	413.75	16.33	26.75	0.00	0.00	1.00	1.00	1.00	336.00
UTILITY	1392.00	48.00	165.00	15.30	0.00	0.00	0.00	0.00	0.00	0.00	136.00
MAINTENANCE	11162.00	32.00	1081.50	9.98	231.75	0.29	0.17	1.62	2.08	2.08	1440.00
QC LAB	6252.50	96.00	190.25	4.58	75.50	0.00	0.00	1.21	1.21	1.21	396.00
JANITORS	558.25	0.00	30.00	5.37	25.75	0.00	2.87	1.75	4.61	4.61	120.00
WAREHOUSE	2132.50	0.00	176.00	8.25	208.00	8.63	0.00	1.13	9.75	9.75	320.00
STORES	659.50	0.00	5.50	0.83	4.50	0.00	0.00	0.68	0.68	0.68	40.00
DEVELOPMENT LAB	1951.50	32.00	141.75	8.90	5.00	0.00	0.00	0.26	0.26	0.26	176.00
DRY BLEND	2016.00	0.00	241.00	11.95	0.00	0.00	0.00	0.00	0.00	0.00	216.00
COMPOUND	12292.50	24.00	980.25	8.17	563.50	3.03	0.10	1.46	4.58	4.60	684.00
VINYL	12450.25	352.00	2191.25	20.43	810.75	5.40	0.00	1.11	6.51	6.78	1076.00
PLASTICIZER	1733.75	36.00	82.25	6.82	26.25	0.69	0.00	0.82	1.51	1.51	112.00
GENERAL HELPERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
TOTAL PLANT	55280.75	644.00	5698.50	11.47	1977.75	2.30	0.09	1.19	3.58	3.64	5052.00

TOTAL PLANT HOURS FOR JURY DUTY..... 3.25
TOTAL PLANT HOURS FOR NATIONAL GUARD/RESERVE DUTY..... 12.00
TOTAL PLANT HOURS FOR DEATH IN FAMILY..... 32.00

VAB.0001189895

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ABERDEEN PLANT

MONTHLY PERSONNEL REPORT

NOVEMBER, 1990

EMPLOYMENT		NEW HIRES	MO	YTD
Salaried	77	Salaried/Transfer	0	6
Hourly	170	Hourly	0	0
Temporary	2	Temporary	0	6
TOTAL	249	TOTAL	0	12

DEPARTMENTS	#EMPLOYEES	M	F	%M	%F	DEPARTMENT TURNOVER MO.	YTD	%
WAREHOUSE	14	8	0	53%	0	1	1	.08%
GENERAL PLANT	12	5	0	42%	0	0	4	36.4%
MAINTENANCE	41	9	0	22%	0	0	1	2.7%
LABORATORY	24	6	2	25%	8.3%	0	1	4.5%
COMPOUND	41	25	1	61%	2.4%	0	1	2.7%
VINYL	33	10	1	30%	3.0%	0	1	3.3%
PLASTICIZER	5	2	0	40%	0	0	1	21.8%
SUB TOTAL	170	65	4	38%	2.4%			
SALARIED	77	6	18	7.8%	23.4%			

APPLICATIONS	NO	%	PLANT TURNOVER	No	%
Month	0	0	Hourly Month	1	.06%
YTD	0	0	YTD	2	1.3%
Minority	0	0	Salaried Month	1	1.4%
Female	0	0	YTD	5	7.1%

VAB.0001189896

ADMINISTRATIVE SERVICES - D. A. Barclay

Safety

There were no reportable safety instances this month. I attended an earthquake preparedness on November 27, conducted by Bruce Trego. On November 29, Don Barclay and Mike Swierc reviewed communications setup in the guardhouse (disaster preparedness).

Quality

On November 15, the Warehouse Natural Team made a management presentation on the shipping dock safety problem.

Statistics

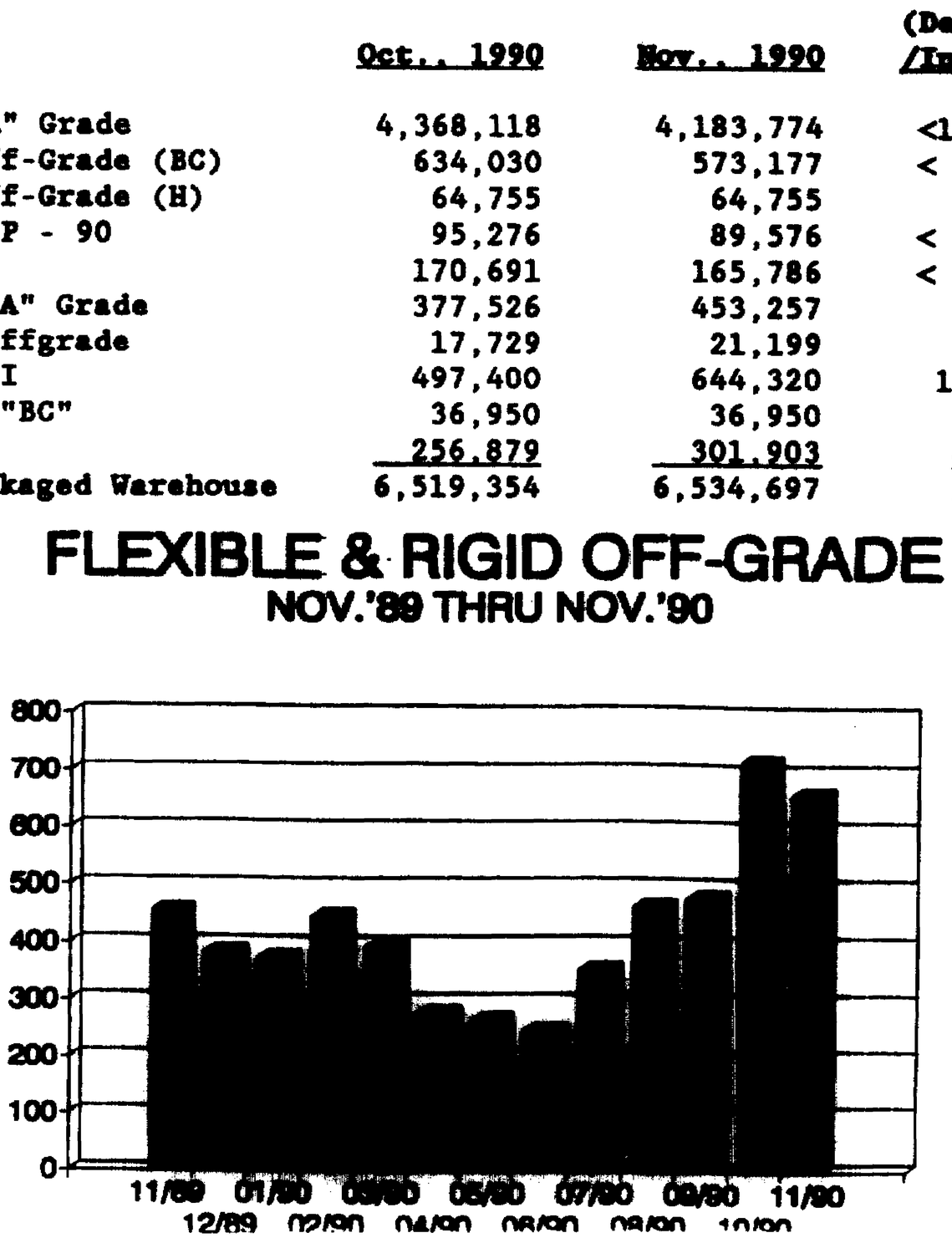
Processed	Month	Y.T.D.
Processed Invoices	1105	2050
Working Fund Checks Written	17	32
Cost Savings Through Bid Process	$2293	$5409

Cost Savings

Negotiated cost savings of $17M due to placing existing safety stock supplies on a consignment basis.

Packaged Finished Goods Ending Inventory

	Oct., 1990	Nov., 1990	(Decrease) /Increase
Compound "A" Grade	4,368,118	4,183,774	<184,344>
Compound Off-Grade (BC)	634,030	573,177	< 60,853>
Compound Off-Grade (H)	64,755	64,755	0
Compound MSP - 90	95,276	89,576	< 5,700>
Millscrap	170,691	165,786	< 4,905>
Dry Blend "A" Grade	377,526	453,257	75,731
Dry Blend Offgrade	17,729	21,199	3,470
Resin Type I	497,400	644,320	146,920
Resin Type "BC"	36,950	36,950	0
Vacuum Dust	256,879	301,903	45,024
Total Packaged Warehouse	6,519,354	6,534,697	15,343



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ABERDEEN CHEMICAL PLANT
SHIPPING ANALYSIS
NOVEMBER 1990

-SHIPMENTS BY PRODUCTS-	MONTH			YTD		
	PUBLIC	IPT/ITC	EXCH/TOLL	PUBLIC	IPT/ITC	EXCH/TOLL
RESIN-BULK	17,884,260	14,986,210	0	44,556,050	21,753,380	189,700
RESIN-PACKAGED	163,214	181,000	0	352,976	466,150	0
FLEXIBLE COMPOUND-BULK	728,700	1,277,450	0	1,476,430	3,226,200	0
FLEXIBLE COMPOUND-PACKAGED	2,980,165	2,200	0	5,599,114	86,237	0
NEW BUSINESS	5,950	0	0	16,773	0	0
RIGID COMPOUND-BULK	2,079,970	705,050	0	5,236,480	691,950	0
RIGID COMPOUND-PACKAGED	211,501	291,200	0	634,860	291,200	0
TOLLING - BULK	0	0	0	0	0	1,401,960
TOLLING - PACKAGED	0	0	33,600	0	0	33,600
PLASTICIZER	168,380	0	516,640	340,420	162,650	1,079,780
TOTAL	24,222,140	17,443,110	550,240	58,213,103	26,677,767	2,705,040

-SHIPMENTS BY MODE-

BULK:

NOVEMBER	RAILCAR	CUSTOMER PICKUP	COMMON CARRIER	TOTAL
RESIN	175	24	17	216
FLEXIBLE COMPOUND	11	0	1	12
RIGID COMPOUND	14	3	10	27
PLASTICIZER	0	12	3	15
TOTAL NOVEMBER	200	39	31	270
YTD				
RESIN	337	70	67	474
FLEXIBLE COMPOUND	27	0	3	30
RIGID COMPOUND	37	3	31	71
PLASTICIZER	1	25	10	36
TOTAL YTD	402	98	111	611

PACKAGED:

NOVEMBER	CUSTOMER PICKUP	COMMON CARRIER	TOFC	CONTAINER	AIR/UPS	TOTAL
RESIN	3	8	0	0	3	14
FLEXIBLE COMPOUND	21	82	0	0	14	117
RIGID COMPOUND	1	17	0	0	1	19
PLASTICIZER	0	0	0	0	0	0
TOTAL NOVEMBER	25	107	0	0	18	150
YTD						
RESIN	7	25	0	0	5	37
FLEXIBLE COMPOUND	34	154	0	0	28	216
RIGID COMPOUND	2	31	0	0	1	34
PLASTICIZER	0	0	0	0	0	0
TOTAL YTD	43	210	0	0	34	287

PRODUC RETURNS
NOVEMBER 1990

DATE	CUSTOMER	LOCATION	PRODUCT	CODE	DESCRIPTION	BLEND #	CONT.		LBS	CR #	SHIPPED	ORDER #	INVOICE #	DISPOSITION/REMARKS
11/02/90	VISTA: CHEM LEAMAN	PA, TAYLOR	DB	1609-05	RP-461 WHT110	VIPX45263	BULK		27,300	01320	08/31/90	893404-001	2202972	OFF SPEC-RET'D IN FPAX890173
								Sum	27,300					
11/05/90	E I DUPONT	DE, WILMINGTON	RESIN	1822-00	5305	04644	BAGS		400	01359	10/22/90	896506-002	2210648	BA ORDERED WRONG PRODUCT CODE
								Sum	400					
11/07/90	VISTA: CHEM LEAMAN	PA, TAYLOR	DB	1603-10	RP-421 WHT110	PTLX41009	BULK		118,300	01321	08/20/90	877894-026	2201928	OFF SPEC-RET'D IN CAR SHIPPED
								Sum	118,300					
11/09/90	IPC CORINTH	MS, CORINTH	RESIN	1849-11	5385-1 CAL	GACX73400	BULK		176,650	01322	11/05/90	803882-170	2214648	QTY CONCERNS FOR IPC-SHIP GOLD BOND
								Sum	176,650					
11/24/90	DAYTON EXTRUDED	OH, MIAMISBURG	DB	1629-19	RP-151 WHT145	VIPX45718	BULK		48,300	01323	10/15/90	877548-052	2210146	FAILED QC TESTING
11/24/90	TINES FIBER	VA, CHATHAM	CMPD	1335-01	38525 BLK	VIPX45780	BULK		169,400	01324	?	?	?	FROM SILOS-OFF SPEC MATERIAL
								Sum	217,700					
11/30/90	CENTRAL PLASTICS	KS, MCPHERSON	CMPD	1123-06	17462 WHT	50Y20	BOXES		3,006	01360	11/07/90	897660-001	2212962	HIGH HARD PARTICLES-SHIPPED 3200#
								Sum	3,006					
								Sum	543,356					

LABORATORY - J. M. Edwards, Jr.

A. Safety

There were no safety incidents in the Laboratory during November. The monthly safety meeting topic was "Earthquake Preparedness".

B. Customer Contacts

Jim Edwards accompanied John Olson to Southwire in Carrollton, GA for Vendor Appreciation Day.

Carolyn Vaughan, Jill Tompkins and Jeffery Schense with United Technologies Automotive made an audit of the Aberdeen Plant. The audit included accounting, shipping and receiving, production, quality control and other quality processes in the plant.

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

11/01 Dayton Extruded Plastics, Springboro, OH

Dayton reported finding 0.13% oversized material (>40 mesh) in "A" compartment of RP-151 WHT 145 railcar VIPX 45718. Aberdeen Process Engineering, Quality Control, R&D Technical Services Lab and Production are all working to reduce line and blender scale formation in dry blend.

11/06 AT&T Technologies, Omaha, NE

The customer reported significant degradation of product in one compartment of 34862 GRY 546 compound in railcar VIPX 45745. Samples of the problem material were sent to Aberdeen and Austin for analysis. The samples showed some glowing pellets under an ultraviolet light. The glowing pellets were analyzed in Austin as fused and degraded resin sandwiched to the compound pellets. Production will respond to the complaint.

11/20 Eagle Plastics, Hastings, NE

The customer reported a problem with contamination in a car of 5385. Contamination resembled the black nylon seals used for the railcar hatches. The samples sent to Aberdeen from Eagle were confirmed to be Vista's seals. All Vista Yard Operators were told about the problem and Eagle personnel were warned about the possibility of the seals springing into the car when the hatches are forced open.

11/29 Woodgrain Mouldings, Waco, TX

The customer reported that the second truck of 5265 in a two-truck order processed with considerable difficulty. Retains show both trucks were 5265 with similar physical properties. The certificate of analysis of the second truck was reported on a 5305 form which added to the suspicion that something was different about the second truck.

11/30 Uniroyal Chemicals, Plainsville, OH

The customer reported that shipping information was not faxed from Aberdeen to Uniroyal on a 5305 railcar PLCX 43415. Arrangements were made to have fax instructions typed on the bill of lading so that this would not be forgotten again.

D. Product Waivers

Customer	Product	Reason	No.
Chelsea	RP-169 WHT 144	Long stability	1 R/C

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 November, 1990.

	Reactor Slurries	Drier 5265	Drier 5305
Number of Samples	980	25	68
Average RVCM, ppm	124	0.721	0.416

LABORATORY - Continued

RVCM of Shipment Samples

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

Product	Number of Samples	Average RVCM, ppm
5265	24	0.456
5305	98	0.093
5325	1	0.093
5385	67	0.356
5395	12	0.426
5415	63	0.066
Dry Blend	46	0.051
Debox	12	0.504
Pond	8	10.963

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

	5265	5305	5385	5395	5415
Bulk Density	1.33	0.90	1.31	1.36	1.11
Inherent Viscosity	1.06	1.44	0.72	0.08	0.59
(vs. 0.715 - 0.744)	----	0.72	----		
L Color	5.58	2.07	3.33	5.67	2.92
A Color	8.33	9.00	----		
B Color	3.33	3.33	2.00	4.33	6.00
% on Pan	0.78	1.89	1.89	1.72	4.22
(vs. 2%, max.)	----	----	----	----	0.89
% thru 140 Mesh	0.31	0.59	1.72	0.88	4.33
Mets I.R.	----	----	----	3.04	1.56
(vs. 95% of control)	----	----	----	----	0.81
Hard Particles, (% > 10)	----	----	19.1	8.8	8.1
Average particle size, microns	137	138	166	147	172

G. **Flexible Compound Quality Summary**

	Adjustments M Lbs.	(%)	Rejections M Lbs.	(%)
Hardness	63.0	<0.91>	----	----
Specific Gravity	317.0	<4.59>		
Color	----	----	25.9	<0.38>
Hard Particles	----	----	188.5	<2.73>
Heat Stability	----	----	6.0	<0.09>
Contamination	----	----	14.7	<0.21>
Dispersion	----	----	10.5	<0.15>
Dicing	----	----	3.2	<0.05>
Cross Contamination	----	----	20.7	<0.30>
Streamers			1.0	<0.01>
Total	380.0	<5.50>	270.5	<3.92>

LABORATORY - Continued

H. **Rigid Compound Quality Summary**

	Rejections M Lbs.	(%)
Color	2.5	<0.29>
Total	2.5	<0.29>

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. All laboratory testing equipment was entered into the VMS preventative maintenance schedule. Now all lab equipment is on a schedule for recalibration. This was necessary to complete recommendation by AT&T to become a "Certified Quality Vendor".

SAMPLE SHIPMENTS

NOVEMBER 90

RESIN

Ship Date	Product	Amount	Customer
11/02/90	5415	50 lbs.	Rubbermaid Commercial Products
11/05/90	Pond Resin	100 lbs.	IGNACIO ALCOCER VEGA
11/06/90	5225	10 lbs.	Royalite Thermoplastics Div. Polycast Technology Corp.
11/20/90	Pond Resin	50 lbs.	TRANSWORLD INDUSTRIES
11/28/90	5385	100 lbs.	Henkel Corp.
11/29/90	Pond Resin	50 lbs.	PANIMEX (CHILE)

COMPOUND

Ship Date	Product	Amount	Customer
11/01/90	38551 BLK	50 lbs.	Northwire Inc.
11/01/90	34642 NAT	100 lbs.	Polychem
11/01/90	38931 WHT 810	100 lbs.	Hemisphere Plastics
11/01/90	38525 BLK OG 34862 GRY 546 OG	200 lbs. 200 lbs.	Polychem
11/06/90	35031 NAT	100 lbs.	Prestolite Wire Corp.
11/08/90	35851 NAT	200 lbs.	INDUSTRIA DE COBRE DEL SUR
11/12/90	27251 WHT 366 OG	50 lbs.	Gentry Management
11/12/90	461-147 NAT	2000 lbs.	Southwire Company
11/16/90	34501 BLK	1500 lbs.	Complex Corporation
11/19/90	16841 NAT (OG) 17462 GRY (OG) 18162 GRY (OG) 48451 BLK (OG)	50 lbs. 50 lbs. 50 lbs. 50 lbs.	Prototype Plastic Extrusion Co.,Inc.
11/20/90	16851 CB 50 48562 BLK	50 lbs. 50 lbs.	Vista - Austin

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COMPOUND (Cont)

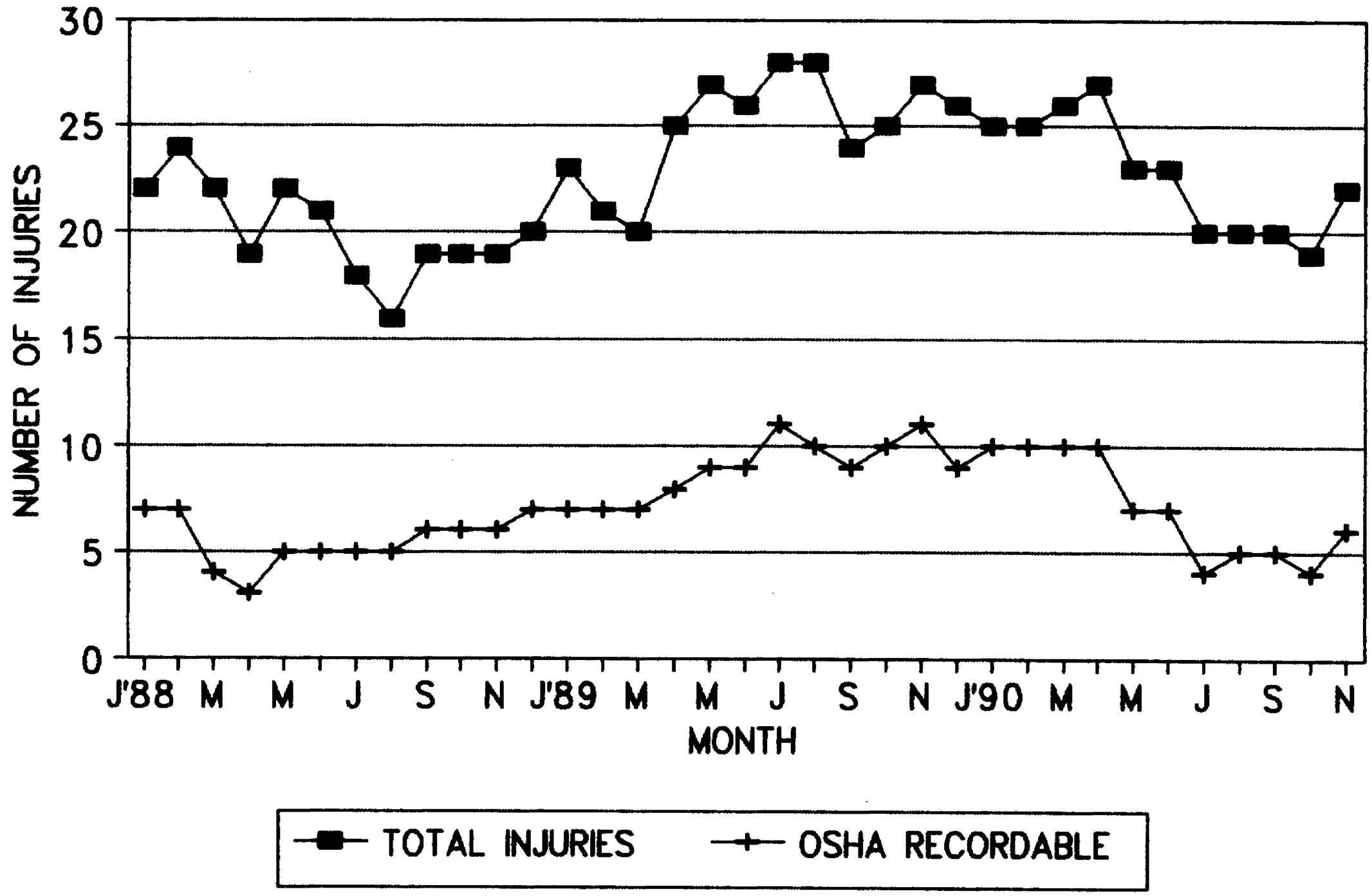
Ship Date	Product	Amount	Customer
11/21/90	48451 BLK	50 lbs.	I T W
	48562 BLK	50 lbs.	
11/27/90	48451 BLK	50 lbs.	Vista - Austin
	48562 BLK	50 lbs.	

DRYBLEND

Ship Date	Product	Amount	Customer
11/08/90	RP-91 WHT 110	1300 lbs.	Available Plastics
11/15/90	RP-28 WHT 122 (OG)	1360 lbs.	Western Ag. Sales Co. Inc.
11/21/90	426-90 WHT 110	50 lbs.	IFER DOMINICANA C. A.

ABERDEEN CHEMICAL PLANT INJURIES

(Twelve Month Running Totals)



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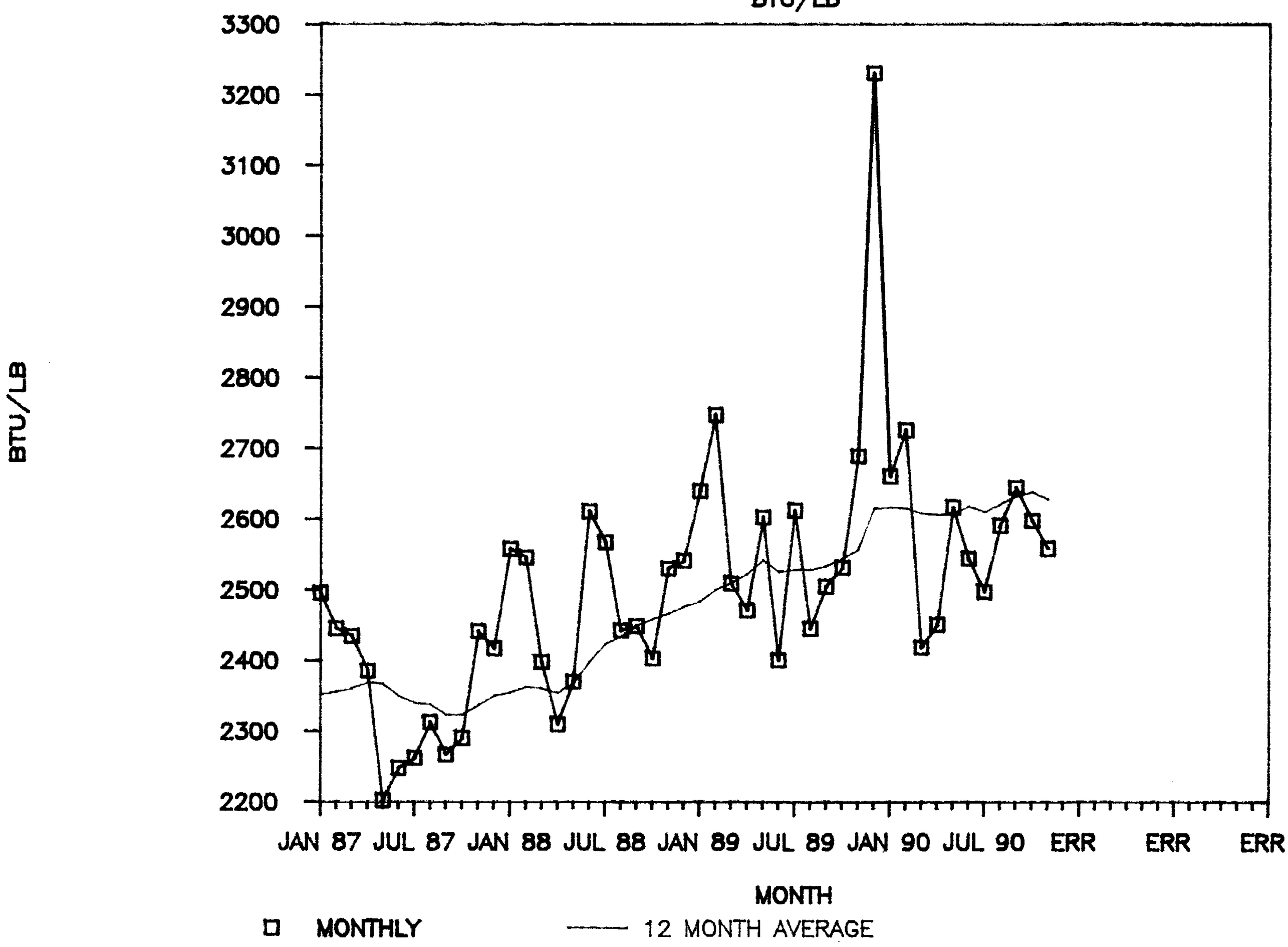
ABERDEEN ENERGY CONSUMPTION



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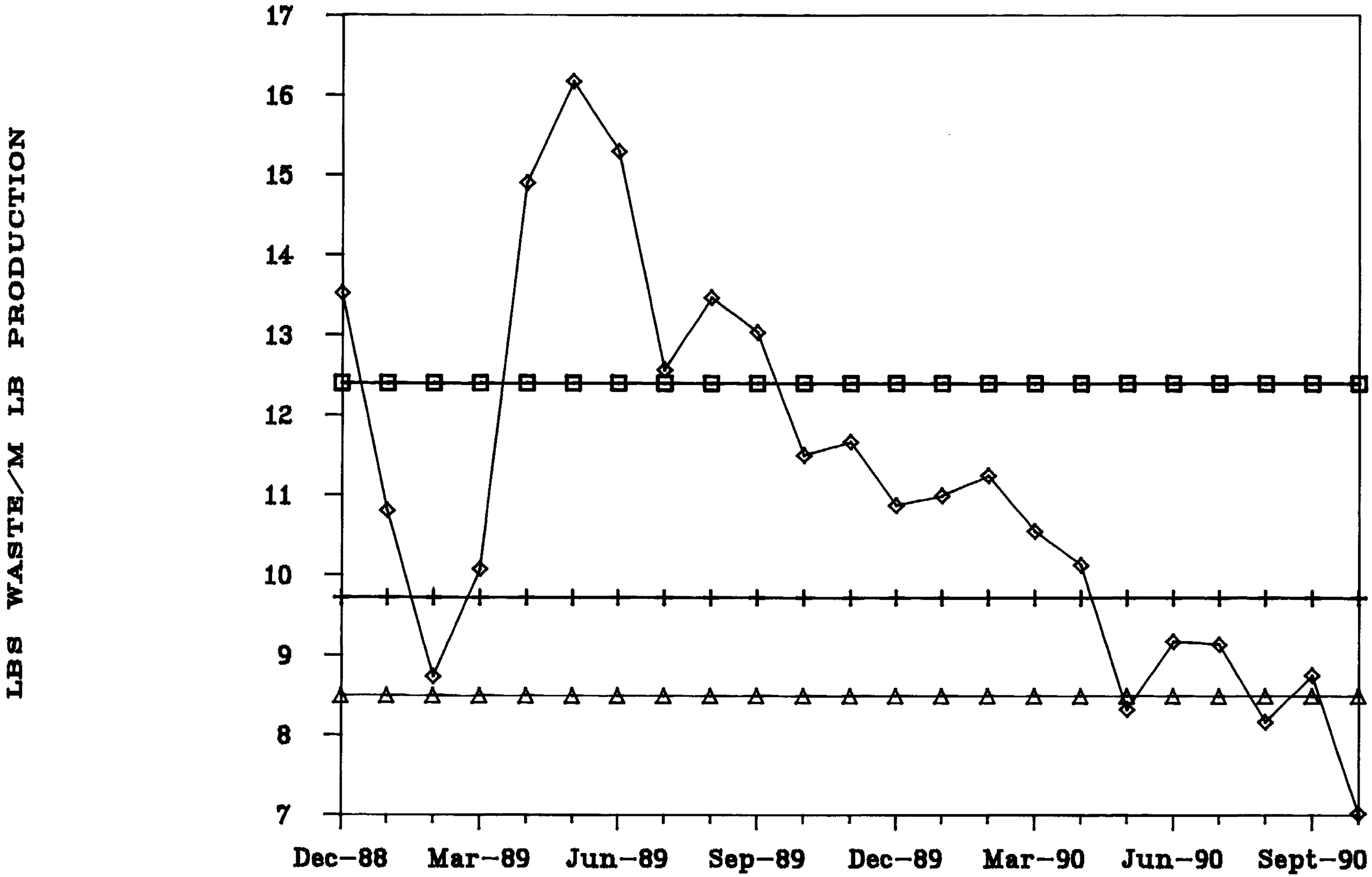
WASTE PRODUCTION VS GOAL -- 89 & 90

ALL WASTES EXCEPT WASTEWATER



□ 1988 AVG. + 1990 AVG.

◇ 3 MO. ROLLING AVG. △ 1991 GOAL

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