

Full Copy

To: T. H. Huffman

From: D. C. Skokna
Date: November 17, 1988

VISTA

Interoffice
CommunicationSubject: ABERDEEN MONTHLY PROGRESS REPORT
OCTOBER, 1988Safety

There were two first aid cases reported during the month. As of 10/31, the plant's employees have worked 3,406 days or 4,453,381 manhours since the last lost time injury.

Key Statistical InformationMonth and Y.T.D.

PVC Production, MM Lbs.	37.0
Reactor Stream Factor, %	91.4
Resin Quality, % Prime	95.9
VCM Efficiency, Lbs./Lb	1.017
Flexible Compound Production, MM Lbs.	6.7
Flexible Compound Quality, % Prime	92.9
Rigid Compound Production, MM Lbs.	5.6
Rigid Compound Quality, % Prime	99.9
Plasticizer Production, MM Lbs.	1.8
Plasticizer Quality, % Prime	93.8
Energy Use (EUI %)	0.6
Fixed Cost Variance, \$M	(\$ 17.8)
Variable Cost Variance, \$M	\$402.5
Variable Cost Price Variance, \$M	\$491.1
Variable Cost Efficiency Variance, \$M	(\$ 88.6)

Costs

Fixed costs were essentially at budget.

Variable costs were \$88.6M unfavorable due to above budget use of VCM and calcium stearate in PVC production, and correction of prior month's inventories for raw materials used in the Compound Department.

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QMP

- The plant celebrated everyone's efforts in the quality process with "Quality Appreciation Day". A Manager's award was presented to each team that had made a presentation to management. The event was well attended.
- Thirteen employees attended the "Excellence in Mississippi" conference held in Jackson. Attendees, which included other State businesses, exchanged ideas on quality improvement.
- Three stabilizer suppliers were surveyed by a purchasing, manufacturing and R&D team.



D. C. Skokna
Plant Superintendent

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<u>ABERDEEN:</u>	RWS/DCS (FILE COPY), PJK, JEN, DMH, TEL, JEB, VEM, HGC, JEL, REP, RBN, BLT			

SAFETY - B. L. Trego

<u>Occupational Injuries</u>	<u>October</u>	<u>Fiscal Y.T.D. 1989</u>	<u>Fiscal Y.T.D 1988</u>
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First Aid	2	2	2
OSHA Recordable	<u>0</u>	<u>0</u>	<u>0</u>
Total Injuries	2	2	2

Number of Restricted Workday Cases	0	0	0
Number of Lost Workday Cases	0	0	0

Injuries by Department

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

Injuries by Type

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

Non-Occupational Injuries

Lost Workday Cases	0	0	1
Days Lost	0	0	14

Safety Record

Last lost time injury 7/5/79
 Days since - 3,406
 Manhours since - 4,453,381

On October 31, 1988, the employees at the Aberdeen Plant completed 3,406 days with no lost time injury.

Topics for the plant safety meetings during the month included: Chemical Hazards, Annual Fire Training, VCM/Lead/Asbestos/Noise Compliance Training, and Maintenance Weekly Safety and Job Reviews.

A new safety shoe policy was implemented on October 1, 1988, which improved the benefits for all employees. There was an increase in allotment amount as well as the number of approved styles.

SAFETY - Continued

Routine dosimetry for the month were as follows:

<u>Chemical</u>	< PEL		> PEL	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
VCM	71	97.3	2	2.7
Lead	10	100.0	0	0.0
Total Particulates	3	100.0	0	0.0

Both of the VCM overexposures were with benefit of respiratory protection.

Monthly Injury Summary

<u>Injury Class</u>	<u>Department</u>	<u>Description</u>
FA	Maintenance	Muscle strain, lower abdomen.
FA	Maintenance	Laceration of third, right finger.

QUALITY DEVELOPMENT - D. W. HollisGeneral Plant

- 1) The Aberdeen plant celebrated everyone's efforts in the quality process with Quality Appreciation Day. A Manager's Quality Award was presented to each team that had completed the management presentation of their solutions. Approximately 120 employees turned out for the event.
- 2) The Aberdeen quality efforts were evaluated using the Ford Q-101 guidelines. The Aberdeen rating was 106 versus 140 expected by Ford for average. The main item contributing to this lower score was documentation of the quality systems. The Ford guidelines are being reviewed for setting 1989 goals.
- 3) The Excellence in Mississippi conference in Jackson was attended by thirteen people for the Vinyl, Compound, Laboratory, Engineering, Administrative Services, and Quality Development Departments. This conference showed the quality efforts of other companies in Mississippi and can be used to generate ideas for use in Aberdeen.
- 4) Purchasing, Manufacturing and R&D personnel performed quality surveys on three tin stabilizer suppliers. Morton-Thiokol and Witco had well developed quality programs with M&T in the early development stages. Morton-Thiokol had a strong research department which will help in developing a partnership with a supplier.
- 5) Dave Hollis and Bob Schettek of Purchasing attended an AMA Vendor Quality Assurance seminar. This seminar concentrated on why you should form partnerships with suppliers and how to evaluate suppliers to pick the best one for a partnership.
- 6) Dave Hollis attended the first meeting of the RCA Team. Goals for the team were discussed and will be finalized at the next meeting. Other members of the team are Jim Rogers (leader), Dave Morgan, Cynthia Simien, and Tom O'Brien.
- 7) The Plant Manager's Natural Team met twice in October. Items discussed were the team's goals of reducing QMP barriers and how to make more time available for the QMP process. Also discussed was the SPC and Team Management training needed and schedules of classes.

Administrative Services

- 1) Natural teams met four times this month. Discussions included:
 - a. Fiscal 1988 goal results and fiscal 1989 goal setting.
 - b. Timecard errors
 - c. AFE tagging
 - d. Time management and barriers to QMP

QUALITY DEVELOPMENT - ContinuedAdministrative Services - continued

- 2) Three project team meetings were held:
 - a. Spare parts inventory - 2
 - b. Lead abatement - 1
- 3) Mike Swierc met with two major suppliers to discuss quality issues:
 - a. Gulf Coast Marine - pipes/valves/fittings
 - b. Southern Electric - electrical
- 4) The warehouse was operated sixteen months without a mis-shipment. During this period, 2560 orders/84,591,516 pounds were shipped.

Compound

- 1) The Dry Blend Improvement Team met and set priorities on what they would like to accomplish. The Product Change Team has completed its goals.
- 2) Operators on Line I began charting actual resin usage per blender. This will aid us in determining the accuracy of the Probatcher weigh-up.
- 3) Hammered-finish transfer lines were installed from the Line 1 Sweco to the bagging hopper and to the boxing hopper. These new lines are expected to reduce streamers in the final product produced on Line I.

Lab

- 1) The Dry Blend portion of the Compound/Dry blend database was completed this month by D. S. Cox. All in-process compound and dry blend data is now being stored on disk and simultaneously sent to the production units.
- 2) B. J. Harrison completed two SQC analyses of Dayton Extruded Plastics' 269-151 White 145 runs which demonstrated that the Univox control system has reduced the variability of dry blend production.

Mechanical

There are three active project teams in the Mechanical Department. The topic of the Mechanical Superintendent's Natural Team was 1988 goal results and 1989 goals. A departmental meeting was held for all salaried employees to review 1988 performance and set 1989 goals. All completed project teams participated in the QAD activities.

QUALITY DEVELOPMENT - ContinuedVinyl

- 1) The department's natural team met twice during the month to coordinate day-to-day operations, brainstorm barriers to QMP, discuss employee involvement teams and the Quality Implementation Plan.
- 2) Four employee activity teams met during the month: The 5265/5305 Contamination Team met with R&D personnel to detail their findings. The V-11 Dustbusters met with the Department Head to review their progress and request funding to complete modifications on one of the screeners. The modified screener will be used to prove that the recommendations will improve the screener and justify further expenditures. A team of operators from "C" shift met with PED-Houston to design the hose hook-up station which will be a part of the Low Molecular Weight Expansion Project. The Plasticizer Loading/Unloading team met with Process Engineering to review their recommendations for inclusion in a capital project being considered for the tank farm.
- 3) The Operations Superintendent and Engineer met with the KQIT (Klockner Quality Improvement Team) in the continuing effort to define and eliminate the problems of contamination and "wavy" film at Klockner.
- 4) Personnel from UTC-Automotive (5415 customer) visited the plant during October. The visit included a detailed plant tour and process description.

COST VARIANCES - D. C. SkoknaVariable Costs

<u>Product</u>	<u>October, 1988 Variances - \$M</u>		
	<u>Efficiency</u>	<u>Price</u>	<u>Total</u>
PVC	(\$61.7)	\$358.1	\$296.4
Flexible Compound	(\$65.7)	40.0	(25.7)
Rigid Compound	34.7	27.4	62.1
Plasticizer	4.1	65.6	69.7
Total	(\$88.6)	\$491.1	\$402.5

PVC Variances - \$61.7M unfavorable.

VCM consumption was above budget but within the control limits. Stearate consumption was well above budgeted levels due to test runs and controlling static while producing 5385 and 5415 resins.

Flexible Compound - \$65.7M unfavorable.

Correction of the September DDP consumption resulted in a \$57M unfavorable October variance.

Rigid Compound - \$34.7M Favorable

Correction of the September tin stabilizer consumption caused a \$34.8M favorable October variance.

Price Variances

	<u>\$M</u>
VCM	\$391.2
Natural Gas	43.9
610P	52.6
Alfol 610	58.2
All Other Price Variances	(54.8)
	<u>\$491.1</u>

Fixed Cost Variances

	<u>\$M</u>
Payroll & Benefits	\$0
M. M. & C.	(52.7)
Miscellaneous	41.1
T. I. & D.	(21.1)
Clearances	14.9
Total	<u>(\$17.8)</u>

COST VARIANCES - continued

M.M. & C. costs were above budget due to the purchase of a set of Wellex blades (\$17.6M), recovery system compressor parts (\$23.3M), and other parts used in the flexible compound unit. Costs for the quarter should be near budget.

Miscellaneous costs were below budget as several "Outside Professional Services" expenditures did not occur.

Taxes were above budget because of the FICA tax on the recently awarded 5% bonus.

OPERATIONS AND MECHANICAL DEPARTMENTS - T. Lyon, P. Rober, J. NickersonOPERATIONS/MECHANICAL SAFETY

There were two injuries to Mechanical Department employees requiring first aid. One General Mechanic suffered an abdominal muscle strain while moving some heavy equipment, and a second General Mechanic suffered a minor laceration to a finger while handling a gearbox pinion shaft.

The Vinyl, Yard and Compound Departments worked without injury in October.

The topics of the Mechanical Department's October safety meetings were VCM and Chemical Wash Piping Specifications, and Reactor Bolted Joint Specifications.

Annual fire training and health training were conducted in October. These training sessions will extend into November. Fire training includes both fire extinguisher and fire hose hands-on training.

VINYL - P. J. Kober, C. J. McDonald

GENERAL

1. An Isonox 132 kill 5305 railcar was made for testing at Hoechst Celanese.
2. 5415 was produced in the old module in reactor D600 this month.
3. A power outage caused high hard particles for a week. VCM receivers had to be recovered and cleaned.

October

Production, MM lbs	38.6
Daily Production Rate, Mlbs/c.d.	1245
Total Reactor Charges	906
Charges, Reactor Batches/c.d.	29.2
Reactor Stream Factor, %	91.4
Average Dryer Rate, M lbs/hr.	73.0
Resin Quality, % Prime	95.9

Reactor Downtime

Hours

- Operational downtime (recovery scheduling conflicts, power failure, downtime to rinse chem wash tanks, new module rinse water/charge conflicts, waiting on particle size data before charging, no place to dump, loss of steam and air pressure, recovery receivers full, the local power company switching our power supply, and false charging 5415 ingredients in D600 preparing to produce 5415.)	490.3
- Maintenance downtime (D300 agitator seal change, D300 agitator gearbox replacement, put new condenser on D400, repaired D700 jacket, revised D745 temperature controller, installed new "smart" temperature controller on D700, old module recovery line leak repairs, Modicon revisions, D600 agitator lip seal repairs, and miscellaneous instruments and valves.)	149.2

Total Downtime 639.5

Dryer Downtime

% of Total Downtime

- Reactor limited production	83.2
- Operational downtime (centrifuge plugging, dryer cleaning, activator transfer problems, checking dust collector socks for leaks, flame-outs, checking sifter screens, dust collector back-ups and a power failure).	11.0

VINYL - ContinuedDryer Downtime% of Total Downtime

- Maintenance downtime (change socks on dryers #8, #5, #7, #4, change screens and repair sifter on fluid bed, repair #6 gas valve, repair Star valve on dryers #5 and #8, repair #6 exhaustor, 5415 slurry feed pump, air sweep maintenance on dryers #7 and #5, and various activator and centrifuge repairs). 5.8

Key Maintenance WorkReactor Area

- The 903 recovery compressor in the New Reactor Unit was rebuilt and installed. The new compressor was rebuilt using a new stainless steel body section, spare cones and a spare rotor. The new stainless steel body is being used in order to improve the life of the recovery compressors.
- The 904 recovery compressor in the New Reactor Unit was pulled, and inspected. This compressor was badly worn and most major parts were unusable. A usable compressor was built from several new parts. A new cast iron body was used along with new stainless steel cones and rotor.
- The reactor agitator seal for D-300 reactor was changed out due to an excessive oil leak that was caused by a bearing failure on the gearbox agitator seal shaft.
- The D-300 reactor gearbox was pulled out for inspection due to a high noise and vibration level. The gearbox was found to have a bad bearing on the output shaft. The gearbox was disassembled and rebuilt using stocked parts. All bearings, seals and gaskets were replaced. The gears were in good condition and they were reinstalled.
- The North and South recovery condensers in the Old Reactor Unit and the East and West recovery condensers in the New Reactor Unit were chemically cleaned due to a fouling problem caused by a power outage.
- The cooling water tower pump for 500 and 600 cooling water towers was removed and sent out for repairs due to excessive wear and then reinstalled.
- There were six major valves which were changed out in the Old Reactor Unit and New Reactor Unit during the month due to leaks.

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COMPOUND - J. E. Nickerson, J. B. Autrey

General

An experimental product, Chisso E23023 Black, was produced on Line V.
Another experimental run of this product is scheduled for late November.

<u>Flexible Compound</u>	<u>Operating Days</u>	<u>Production (M Pounds)</u>		
		<u>Month</u>	<u>Average Operating Day Rate</u>	<u>Fiscal Y.T.D.</u>
Line I	31	2296	74	2296
Line III	31	3788	122	3788
Line V	21.5	810	38	810
Total		6894		6894

DowntimeHoursLine I

- Product Changes	78
- Miscellaneous Maintenance	16
- Transfer Problems and Limitations	15
- Dicer Problems	13
- New Transfer Line Installation	11
- Quality Problems and Control	5

Line III

- Product Changes	87
- Raw Material Availability	10
- Transfer Problems and Limitations	9
- Dicer Problems	8
- Steam Repair on Mill	8
- Take-off Conveyor Maintenance	8
- Quality Problems and Control	6
- Pull Roller Maintenance	6
- Miscellaneous Maintenance	5

Line V

- W&P Maintenance	58
- Product Changes	46
- Quality Problems and Control	14

<u>Rigid Compound</u>	<u>Operating Days</u>	<u>Production - M lbs</u>		
		<u>Month</u>	<u>Avg./Day</u>	<u>YTD</u>
Dry Blend Unit	31	5638	182	5638

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COMPOUND - continued

<u>Downtime</u>	<u>Hours</u>
- Product Changes	36
- Quality Problems and Control	34
- Welex Problems and Maintenance	34
- Transfer Problems and Limitations	31
- Miscellaneous Maintenance	8
- Screener Problems and Maintenance	6
- Raw Material Unavailability	6
- Univox Problems	5

<u>Operating Days</u>		<u>Production - M lbs.</u>		
		<u>Month</u>	<u>Avg./Day</u>	<u>YTD</u>
Plasticizer	30	1867	62	1867

Key Maintenance Work

- A major overhaul of #2 Welex in Dry Blend was completed. The bowls drive shaft sheave had deteriorated to a point where the shaft and sheave required replacement. All bearings and seals were replaced on the main shaft and the jack shaft. The main shaft and the jack shaft assemblies were also replaced.
- A modified gump screener bowl was installed. The modification is a project to upgrade the pressure rating of the screener bowl.
- The heating/cooling coils in both R-3 and R-4 plasticizer reactors developed leaks and were repaired.

UTILITIES

- Number 1 and Number 2 boilers were shutdown for annual inspection, during which time the relief valves were tested, safety systems were inspected, and the firebox/water systems were inspected. The fuel/air ratios were also adjusted to improve the combustion efficiency of the boilers.
- Number 2 boiler was shutdown for repairs. The front and back walls were removed from the boiler and the refractory, pressure wall and the outer skin were replaced.
- The dewpoint for the Deltech air dryer was improved from a -40°C to -90°C and the plant air pressure to the Vinyl unit was boosted by running one Reciprocating Joy compressor in conjunction with the West Joy Centrifugal compressor. The wiring to the boiler house alarms for the Deltech was also repaired. These repairs and changes were made as part of winterization for the air dryer area.
- The intercoolers, aftercoolers and jackets for #8 and #9 Reciprocating Joy air compressors were acid treated as part of winterization of the air dryer area.
- The West walk-in catalyst freezer was shutdown due to a problem in the freon system. The freon system had some debris in it and the oil pump was bad. The repairs were made and the freezer was put back in service.

ENGINEERING - R. E. Polk, R. B. Newton, S. C. Hillman

PROJECTS IN DEVELOPMENT

Coker Water Test Run

The water treatment unit has been placed into operation. Two reactor batches have been charged with Coker water. Evaluation of the resin and slurry samples is still underway.

Klockner Contamination Team

A team of one plant engineer and two R&D personnel has been formed to identify ways to alleviate contamination problems with 5305 resin.

Alternate Natural Gas Pipe Line

Two meetings were held at the plant to review the proposed contract between Vista and Gulf Fuels, Inc.

Lead Handling Process Improvements

A status report concerning the various lead handling improvement projects was issued and reviewed with plant management. A meeting involving Operations, R&D, and plant engineering was held to plan encapsulated lead testing.

ENGINEERING - R.E. POLK, R.B. NEWTON, S.G. HILLMAN

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ABERDEEN CHEMICAL PLANT

APPROVED CAPITAL PROJECTS

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WFE NUMBER	PROJECT DESCRIPTION	STATUS
FTB6/FE57	RESIN QUALITY IMPROVEMENT PROJECTS	THE SA MODULE IS OPERATIONAL WITH MINOR DEBUSSING AND PUNCHLIST ITEMS IN PROGRESS.
H636	CRITICAL SPARE EQUIPMENT	DELIVERY OF THE REMAINING ITEMS ARE EXPECTED IN DECEMBER.
D667	PROPANE TANK FARM REMOTE OPERATED VALVES	FINAL PROCESS TIE-INS ARE PLANNED FOR COMPLETION IN NOVEMBER.
B677	PA FLUF CONTAINMENT	CONSTRUCTION IS COMPLETE. START-UP AND DEBUSSING IS IN PROGRESS.
H608	DYELEND ORBITRAN REPLACEMENT	THE PROJECT IS OPERATIONAL AND HAS BEEN CLOSED TO FIELD CHARGES.
A538	REACTOR CONDENSER REVISIONS	THE PROJECT IS COMPLETE AND HAS BEEN CLOSED TO FIELD CHARGES.
A568	S415 PRODUCTION IN THE OLD MODULE	THE FLUID BED AIR FILTER WAS INSTALLED DURING THE NEW MODULE OUTAGE.
A578	ADDITIONAL S415 BLEND TANK CAPACITY	THE PROJECT IS COMPLETE AND HAS BEEN CLOSED TO FIELD CHARGES.
H698	ROOF UPGRADE PHASE 131	INSTALLATION IS IN PROGRESS ON THE V-11 RECOVERY ROTOF. COMPLETION IS PLANNED FOR EARLY NOVEMBER.
A708	COKE WATER ACQUIFIER TEST WELL	INSTALLATION OF THE TEST WELL IS COMPLETE. THE PROJECT WILL BE CLOSED TO FIELD CHARGES IN NOVEMBER.
A718	PLANT AIR SYSTEM MODIFICATIONS	ENGINEERING IS IN PROGRESS AND SCHEDULED FOR COMPLETION IN NOVEMBER.
A728	RECOVERY SYSTEM COMPRESSOR	THE COMPRESSOR IS ON ORDER AND DUE IN DECEMBER.
H808	500 SERIES SILD VALVES	ENGINEERING IS COMPLETE AND MATERIALS HAVE BEEN PLACED ON ORDER.
C558	DRY CALCIUM STEARATE ADDITION SYSTEM	CONSTRUCTION IS IN PROGRESS AND SCHEDULED FOR COMPLETION IN NOVEMBER.
D738	PLASTICIZER REACTOR CONDENSER	THE CONDENSER IS ON ORDER AND SCHEDULED FOR DELIVERY IN DECEMBER.
C748	RESIN RAILCAR CLEANING SYSTEM	DESIGN IS IN PROGRESS AND SCHEDULED FOR COMPLETION IN MID-NOVEMBER.
C788	VINYL HYDROBLASTING UNIT	THE EQUIPMENT HAS BEEN PLACED ON ORDER.
C798	RECOVERY SYSTEM PRESSURE CONTROL	ENGINEERING IS IN PROGRESS AND SCHEDULED FOR COMPLETION IN NOVEMBER.
D618	VINYL VALVE LIMIT SWITCHES PHASE 131	INSTALLATION IS IN PROGRESS AND SCHEDULED FOR COMPLETION BY EARLY DECEMBER.
D638	8011ENHOUSE VCC REPLACEMENT	INSTALLATION IS COMPLETE EXCEPT FOR DEMOLITION AND PUNCHLIST ITEMS.
D648	D-745 3ME ADDITION SYSTEM MODIFICATIONS	INSTALLATION IS COMPLETE EXCEPT FOR THE 1/2 PORTION. THIS PLANNED FOR COMPLETION IN NOVEMBER.
D668	OXYGEN MONITORS	CONSTRUCTION IS IN PROGRESS AND PLANNED FOR COMPLETION IN NOVEMBER.
D818	VINYL VALVE UPGRADE	ENGINEERING IS SCHEDULED TO BEGIN IN NOVEMBER.
F868	SOYA EPOXY ELECTRIC TRACING	CONSTRUCTION IS IN PROGRESS.
F588	D-700/745 TEMPERATURE CONTROL REVISIONS	STARTUP AND OPERATOR TRAINING IS IN PROGRESS.
F598	LINE 1 SCREENER	THIS PROJECT IS COMPLETE AND CLOSED TO FIELD CHARGES.
B688	PLASTICIZER EDUCTOR COOLING WATER RECYCLE	BASIS OF BEDS PREPARATION IS IN PROGRESS.
G768	WATER TREATMENT ACID PIKE REPLACEMENT	ENGINEERING IS IN PROGRESS AND SCHEDULED FOR COMPLETION IN NOVEMBER.
B828	VINYL RECEIVER PIPING UPGRADE	ENGINEERING IS SCHEDULED TO BEGIN IN DECEMBER.
B848	IMPROVED POND AERATION	ENGINEERING IS IN PROGRESS AND SCHEDULED FOR COMPLETION IN DECEMBER.
H838	NEW PLANT FORK TRUCKS	THE FORK TRUCKS HAVE BEEN PLACED ON ORDER.
L528	FURNITURE AND OFFICE EQUIPMENT	ALL ITEMS HAVE BEEN PLACED ON ORDER.
L778	FRONT OFFICE EXPANSION	ENGINEERING IS COMPLETE. CONSTRUCTION IS PLANNED TO BEGIN IN NOVEMBER.
H518	MISCELLANEOUS CAPITAL PROJECTS < \$15M	CONSTRUCTION IS IN PROGRESS ON REMAINING PROJECTS.
H509	MISCELLANEOUS CAPITAL PROJECTS < \$15M	PROJECTS ARE BEING SUBMITTED FOR APPROVAL.
A519	PLANT ELECTRICAL UPGRADE	ENGINEERING IS SCHEDULED TO BEGIN IN NOVEMBER.

VAB.0001190716

ENVIRONMENTAL - F. G. JeansonWater

An excursion occurred on October 31, 1988, when we discharged 34.4 pounds of Ammonia to James Creek. Our daily limit is 27.9 pounds per day. This incident was reported to the State.

All other wastewater discharge parameters were within NPDES limits.

Air

Bobby Whitaker with the Mississippi Department of Natural Resources visited the plant to do an inspection of air emission sources. The inspection is done annually and he found no violations at our plant.

A contractor was commissioned to do a bagging study that would result in reduced fugitive emission calculation factors. These factors are used to determine VCM fugitive emissions that we are required to report under SARA Section 313. By doing this bagging study, VCM fugitive emissions can be reduced by one-third. The bagging study is scheduled for the week of December 5.

Waste Management

October waste shipments included:

- One load of floor sweepings to Chem Waste.
- Two loads of separator oil to Stauffer.
- One load of culls to Sun Polymers.
- One load of stabilizer spill and plasticizer filter cake to Chem Waste.

Two samples were sent to Chem Waste to be re-certified: API solids and PA spill material.

Miscellaneous

Attended Ammerman Media Training.

Attended Hazardous Waste in Mississippi Seminar.

ENERGY CONSERVATION - D. A. MooreI. Energy Conservation Data

	<u>October, 1988</u>	<u>Fiscal YTD</u>
(1) Unadjusted EU1 %	0.60%	0.60%
(1) Adjusted EU1 %	20.03%	20.03%
BTU/Lb.	2409	2409
Total Energy Consumption MMM BTU	127.6	127.6

Note: This corresponds to an unadjusted CMA reduction of 42.6% and an adjusted CMA reduction of 53.8%.

II. Plant Energy Conservation ProgramMaintenance

There were seventeen energy related items completed in October. Fifteen of these items were steam leak repairs. The remaining two were steam trap repairs.

III. Boiler Operation

<u>Boilers</u>	<u>Combustion Efficiency %</u>	
	<u>Oct., 1988</u>	<u>Oct., 1987</u>
No. 1	83.7 ⁽²⁾	83.7 ⁽³⁾
No. 2	83.6 ⁽¹⁾	83.6 ⁽⁴⁾
No. 3	83.3	83.3

Note: (1) Boiler number two was operated eight days during the month.

(2) Boiler number one was operated twenty-three days during the month.

(3) Boiler number one was operated thirteen days during the month.

(4) Boiler number two was operated eighteen days during the month.

HUMAN RESOURCE REPORT

PERSONNEL - J. E. Beall

EMPLOYMENT

James M. Edwards, Jr., Rehire

PROMOTIONS/TRANSFERS

William Caldwell promoted from General Helper to Lab Trainee.

Richard Pace promoted from General Helper to Lab Trainee.

RETIREMENTS

None

TERMINATIONS/RESIGNATIONS

Robert E. Lee, Jr.

TO/FROM LEAVE OF ABSENCE

None

Aberdeen, Mississippi

OCTOBER, 1988
MONTHLY PERSONNEL REPORT

Salaried Employees 75*
Hourly Employees 171
Total Employees 246

Minority Employees #, %
Salaried 7 9%
Hourly 67 39%
Total 74 30%

Employees (Hourly)

New Employees 0
Terminations 0

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>16</u>	<u>7</u>	<u>44</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
n. Plant	<u>13</u>	<u>14</u>	<u>7</u>	<u>50</u>	<u>0</u>	<u>10</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Maintenance	<u>41</u>	<u>39</u>	<u>10</u>	<u>25</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>4</u>	<u>17</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Compound	<u>40</u>	<u>40</u>	<u>27</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 35

APPLICANT BREAKDOWN:

Minority 0 % Minority 0
Female 0 % Female 0

Hires (Hourly):

Month 0 Year to Date 10

Terminations (Hourly):

Month 1 Year to Date 5

Overall Turnover .6%

Projected Annual Turnover 3.5%

* Includes 2 Co-op Engineers.

OVERTIME AND ABSENTEEISM

Department	Straight Time Hours Worked	Overtime Hours Worked		Overtime as a % Of Straight Time	Absence Hours Lost	Absence as a % of Straight Time	
		Controllable(1)	Non-Controllable(2)			Sickness	Other Total F.Y.I.D.
WAREHOUSE	1325.50	84.75	-----	6.39	11	.00	.83 .83
YARD	1272.00	87.50	-----	6.88	12	.94	.00 .94
MAINTENANCE	4716.50	1027.00	-----	21.77	220	3.54	1.12 4.66 4.66
LAB	3544.25	483.75	-----	13.65	30	.00	.85 .85
COMPOUND	7288.25	416.25	-----	5.71	88	.99	.22 1.21 1.21
VINYL	5699.75	802.75	-----	14.08	235	3.49	.63 4.12 4.12
PLASTICIZER	723.00	57.00	-----	7.88	81	11.20	.00 11.20 11.20
UTILITY BOILER	600.00	86.75	-----	14.46	12	.00	.02 .02 .02
GENERAL PLANT	432.00	13.25	-----	1.78	0	.00	.00 .00 .00
TOTAL	25801.25	3057.00	-----	11.85	689	2.06	.61 2.67 2.67

(1) Controllable Overtime - all overtime excluding overtime due to working regular hours on a holiday and working the sixth day in operations.

(2) Non-Controllable Overtime - that overtime due to working regular hours on a holiday and working regular hours on the sixth day in operations.

ADMINISTRATIVE SERVICES - J. E. LittleSafety

There were no safety instances this month. Safety meetings included dock safety and the importance of reporting near-miss accidents.

Personnel/Training

New Hire: Amy Vernon was hired to replace Linda Michels - promoted.

Resignation: Robert E. Lee - Storekeeper

Jack Little attended the Excellence in Mississippi conference October 7, 1988.

Tommy Cummings was selected as our SPC expert while Pat Wells was nominated for facilitator training.

Cost Savings

Savings due to competitive bidding were \$6822 and savings due to discounts were \$1594 during October.

Contract for the new AT&T switch was executed 10/31/88.

LABORATORY - H. G. ColemanA. Safety

The Lab operated injury-free this month. J. R. Williams led the monthly safety meeting by presenting a film entitled "Chemical Safety and Health Hazards".

B. Customer RelationsCustomer Contacts

10/12 - Alsco, a resin customer and toll producer of dry blend, visited Aberdeen to discuss dry blend quality control and to see our facilities.

10/20 - UTC Automotive was hosted on a routine customer visit.

10/27 - H. G. Coleman visited Hoechst to discuss resin Q.C. and their new raw material specifications.

Requests for Corrective Action

<u>Date</u>	<u>Customer</u>	<u>Product</u>	<u>Reason</u>
10/14	U-Brand Upper Sandusky, OH	90172D	Aluminum bar in product.
10/03	Prestolite Wire Sidney, NE	852 Natural	Fines and streamers; cross-cont.

STATUS: Remade product; watched closely for defects.

RESOLVEDCustomer Problem Reports

10/07	Vinyl Building Products Oakland, NJ	290-61 WHT 121	Sticking/burning.
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STATUS: Product being reformulated.

10/07	Silverline Plainfield, NJ	376-6 WHT 141	Clumps; inconsis- tent processing.
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STATUS: PRS to re-issue formula with less lubricant.

LABORATORY - ContinuedB. Customer Relations - cont.Customer Problems Reports - cont.

<u>Date</u>	<u>Customer</u>	<u>Product</u>	<u>Reason</u>
10/14	<u>Macklanburg-Duncan</u> Oklahoma City, OK	5415	Reduction (15%) in productivity.
<u>STATUS:</u> Could find nothing abnormal; PRS running planetary gear dry times.			
10/17	<u>Product Specialties</u> New Albany, IN	5415	Extruder processing problems.
<u>STATUS:</u> Problem due to customer's new equipment or using wrong resin (5385 application).			
10/18	<u>Flexible Technologies</u> Abbeville, SC	17121 WC	Contamination (large particulates).
<u>STATUS:</u> Recurrence of earlier problem with same lot; all bad material now isolated. <u>RESOLVED</u>			
10/19	<u>Central Plastics</u> McPherson, KS	17462 WHT	Cross-contamination; hard particles; surging.
<u>STATUS:</u> Cross-contamination and hard particle spikes missed by regular Q.C.			
10/19	<u>Klockner</u> Gordonsville, VA	5305	Contamination.
<u>STATUS:</u> Railcar sent to D.C. Moulding. Klockner team working on contamination problem.			
10/21	<u>Thermal Industries</u> Pittsburgh, PA	RP-100 WHT 142	Color match - WHT 141 versus WHT 142.
<u>STATUS:</u> Brian Harrison to visit customer to discuss color needs.			
10/28	<u>Polytex</u> Pittsburgh, PA	317-166 WHT 144	Clumps; cannot unload railcar.
<u>STATUS:</u> Similar to two other complaints about mid-September dry blend production; suspect raw material problem.			
10/31	<u>Dayton Extruded Plastics</u> Dayton, OH	269-151 WHT 145	Clumps; build-up in receivers.
<u>STATUS:</u> See above.			
10/31	<u>Tepex</u> Elk Grove Village, IL	18031 CB50	Discoloration of floor material.
<u>STATUS:</u> PRS is investigating.			

LAB - Continued

A

Customer Relations - ContinuedWaivers Issued

<u>Customer</u>	<u>Product</u>	<u>Reason</u>	<u>No.</u>
Essex	5415	Bulk Density and Particle Size	1 R/C
Essex	5415	Particle Size	1 R/C
Grinnell	5265	Bulk Density	2 R/C
Intex	5305	Bulk Density	1 R/C
Nibco	5265	Bulk Density	1 R/C
Tenex	5385	Bulk Density	1 R/C
United Tech	5415	Particle Size	1 R/C

C. RVCN SummaryRVCN 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 RVCN during the month of October, 1988.

	<u>Reactor Slurries</u>	<u>Dryer</u>	
		<u>5265</u>	<u>5305</u>
Number of Samples	904	29	78
Average, RVCN	127	0.4	0.4

RVCN of Shipment Samples

The following is a summary of the residual VCM analysis of shipment samples for the month of October, 1988.

<u>Product</u>	<u>5265</u>	<u>5305</u>	<u>5385</u>	<u>5415</u>	<u>5465</u>	<u>Dry Blend</u>	<u>Pond</u>	<u>Debox</u>
No. of Samples	42	129	40	59	0	42	14	24
Average RVCN, ppm	0.1	0.2	0.2	0.1		0.1	0.5	0.1

D. Resin Process Capabilities

	<u>5265</u>	<u>5305</u>	<u>5385</u>	<u>5415</u>
Bulk Density	0.75	0.50	1.46	0.44
Inherent Viscosity	0.31	0.81	0.25	0.47
"L" Color Value	5.75	3.93	4.33	4.44
"A" Color Value	6.33	4.00	—	—

LAB - Continued

A

D. Resin Process Capabilities - continued

	<u>5265</u>	<u>5305</u>	<u>5385</u>	<u>5415</u>
"A" Color Value	6.33	4.00	—	—
"B" Color Value	1.67	0.89	2.00	2.67
% on Pan (vs. 2% max.)	1.52	1.52	1.78	4.00 (0.67)
% thru 140M	0.36	0.58	1.00	1.98
Drytime	—	—	0.67	1.67
Mets I.R. (vs. 95% of Control)	—	—	—	0.86 (0.32)
Hard Particles (% 10)	—	—	15.8	10.3

E. Compound Quality Summary

	<u>Adjustments</u> <u>M Lbs. (%)</u>	<u>Rejections</u> <u>M Lbs. (%)</u>
Hardness	64.0 (0.95)	7.6 (0.11)
Color/Clarity	— —	18.0 (0.27)
Hard Particles	— —	187.7 (2.79)
Heat Stability	— —	10.5 (0.16)
Contamination	— —	15.5 (0.23)
Dispersion	— —	82.8 (1.23)
Dicing	— —	4.2 (0.06)
Streamers	— —	1.5 (0.02)
Gels	— —	3.0 (0.04)
Total	64.0 (0.95)	330.8 (4.92)

F. Dry Blend Quality Summary

	<u>Rejections</u> <u>M Lbs. (%)</u>
Color	7.8 (0.14)
Torque	3.9 (0.07)
Color/Torque	3.9 (0.07)
TOTAL	15.6 (0.28)

G. Compound SPC Test Results

	<u>n</u>	<u>X</u>	<u>3</u>
38401 - Hardness	60	80.4	0.80
Specific Gravity	59	1.379	0.006
Hard Particles (20")	57	23.5	4.6
35031 - Hardness	59	49.9	0.59
Specific Gravity	59	1.375	0.009
Hard Particles (2")	59	5.2	2.5
Mill Temperature	58	327.3	7.3
Oven Temperature	All readings 204°C		

LABORATORY - continuedH. 5415 Control Resin Test Results

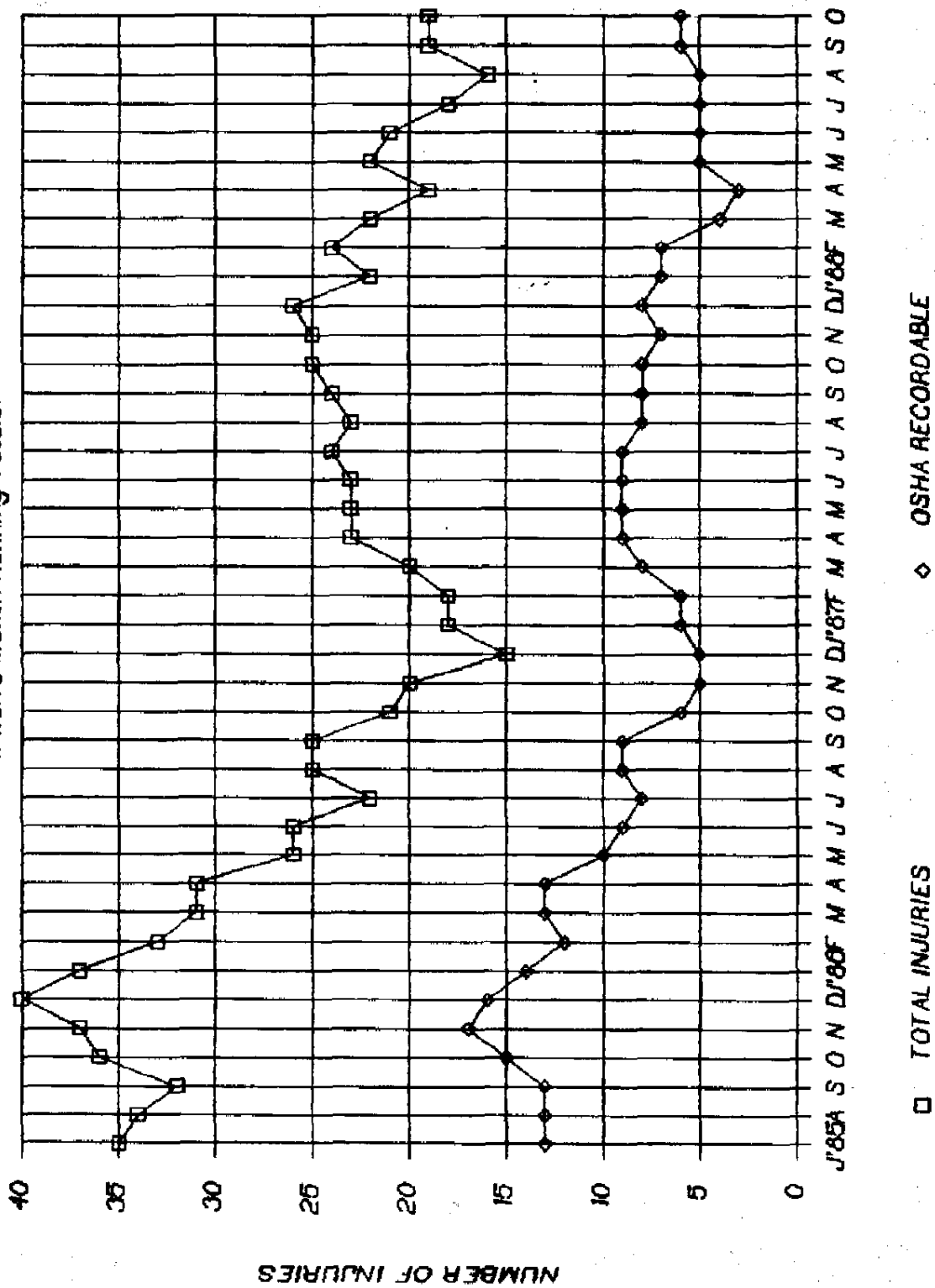
	<u>n</u>	<u>X</u>	<u>3</u>
Moisture	62	0.164	0.030
Dry Time	31	5.05	0.35
Particle Size - 60M	62	1.41	0.55
- 80M	62	28.08	3.12
- 100M	62	33.90	1.39
- 120M	62	22.10	1.83
- 140M	62	7.79	0.99
- 200M	62	5.43	1.56
Pan	62	1.29	0.39
Bulk Density	31	0.5044	0.0055
Color - L	31	100.60	0.345
A	31	-0.16	.353
B	31	2.25	.80
Flow Time	30	7.52	0.90
Hard Particles, 7 Min.	62	5.06	2.27
Inherent Viscosity	30	1.014	0.014

H. Miscellaneous

1. H. G. Coleman and B. P. Sizemore attended the Excellence in Mississippi conference on 10/7.
2. H. G. Coleman and M. Tallie gave Lab tours during the Educators Open House.
3. H. G. Coleman attended the Scientific and Computing Automation Show in Philadelphia on October 26. A demonstration of LabVantage, one of the software packages recommended by EDS for the Lab database, was witnessed.
4. B. J. Harrison completed dry blend and compound color matches during the month.
5. B. J. Harrison attended the SPC color and appearance division regional technical conference in Newport, Rhode Island, on 10/3-4/88.

ABERDEEN CHEMICAL PLANT INJURIES

(Twelve Month Running Totals)



A

SHIPMENTS BY PRODUCT - M LBS.

OCT. 1988

FISCAL
YEAR-TO-DATE

RESIN	26,871	26,871
PLASTICIZER	452	452
DRYBLEND	4,731	4,731
COMPOUND	7,729	7,729
TOTAL	39,783	39,783

NUMBER OF SHIPMENTS BY MODE:

	RAILCAR	VISTA BULK	TRUCK VAN	TRAILER ON A FLAT CAR	COMMON CARRIER	CUSTOMER PICK-UP	CONTAINER	TOTAL
RESIN-Bulk	112	51			2	89		254
Package			5		7	7		19
Export								
PLAST.-Bulk	2	2						4
Package					1			1
DRYBLEND-Bulk	21	3				6		30
Package			9		13			22
Export								
COMPOUND-Bulk	17	3						20
Package			48		38	39		125
Export								
TOTAL OCT	152	59	62		61	141		475

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SAMPLE SHIPMENTS

OCTOBER 1988

RESIN

<u>Ship Date</u>	<u>Product</u>	<u>Amount</u>	<u>Customer</u>
10/18/88	5385	50 lbs.	Quaker Color
10/20/88	5415	50 lbs.	Ferro Corporation

COMPOUND

<u>Ship Date</u>	<u>Product</u>	<u>Amount</u>	<u>Customer</u>
10/04/88	46851 BLK	100 lbs.	Donnelly Corp.
10/04/88	18031 WAT CL	5 lbs.	VISTA - Ponca City
10/10/88	18961 WHT 366	1 plaque	ITW Corp
10/10/88	17462 NAT 17461 WHT	2250 lbs. 50 lbs.	Weed Corporation
10/11/88	34311 NAT	1500 lbs.	AHR Cable
10/13/88	46851 BLK	100 lbs.	Donnelly Corp.
10/25/88	17462 NAT 18162 NAT 18031 WAT CL	50 lbs. 50 lbs. 50 lbs.	Prototype Plastics Extrusion Co., Inc.
10/24/88	17462 BLK 17462 GRY 545	800 lbs. 200 lbs.	Athens Plastics, Inc.
10/28/88	16851 NAT 15072 NAT	100 lbs. 100 lbs.	Central Plastics Inc.
10/28/88	46851 BLK	100 lbs.	Vista - Ponca City
10/31/88	46851 BLK	100 lbs.	Lord Corporation

OTHER

<u>Ship Date</u>	<u>Product</u>	<u>Amount</u>	<u>Customer</u>
10/04/88	Soya Epoxy T-831 Stabilizer	5 gal. 1 gal.	VISTA - Ponca City
10/06/88	Amer. 3492-T1	25 lbs.	VISTA - Ponca City
10/07/88	610P Plast. Calcium Stearate	5 gal. ½ gal.	VISTA - Ok. City

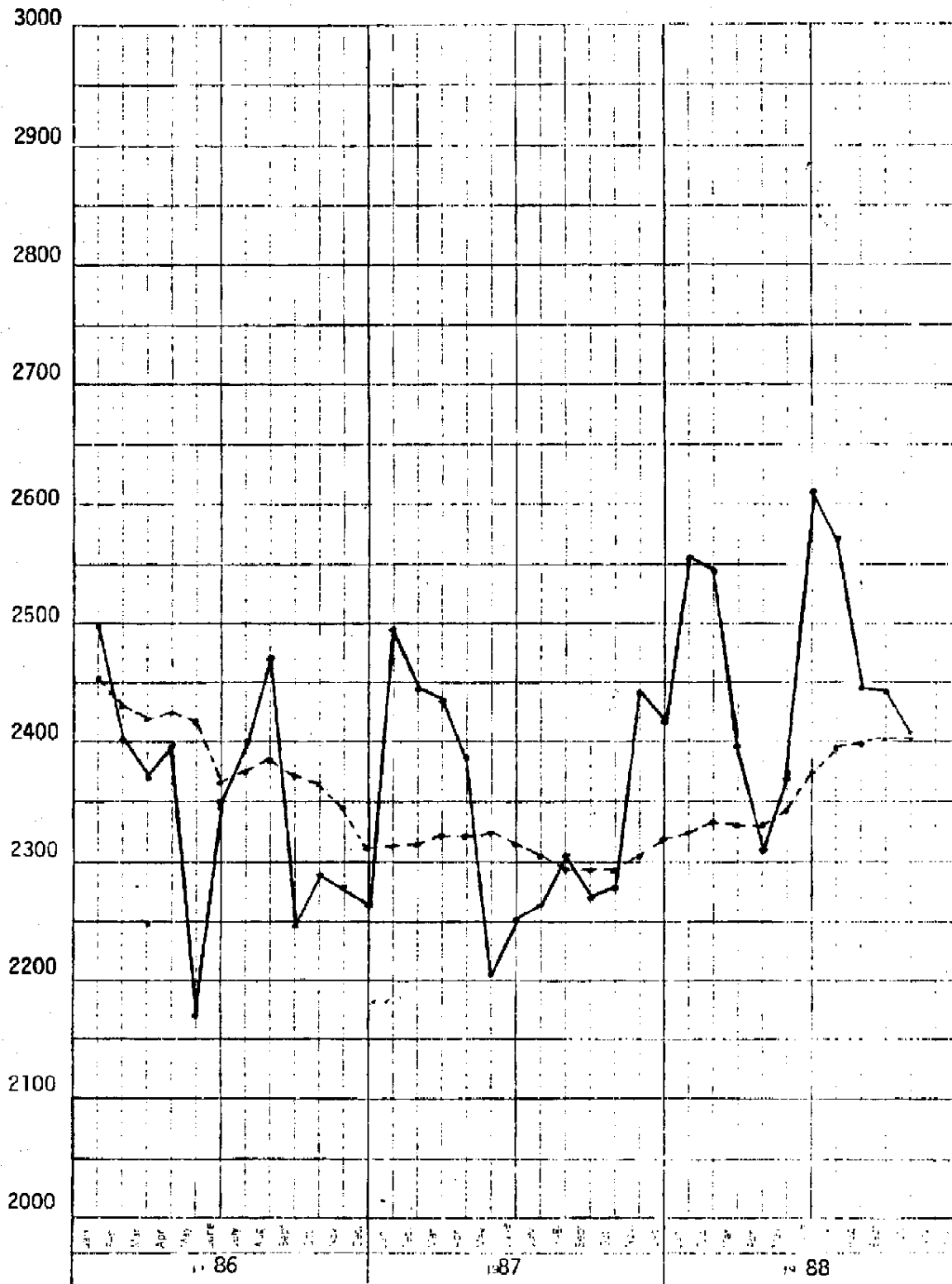
ENERGY USAGE

A

46 3290

BTU/LB.

14.2 3 YEARS BY MONTHS X 100 DIVISIONS
KJIFFEL & ESSER CO. AND USA



—— Monthly
----- 12-Month Moving Average

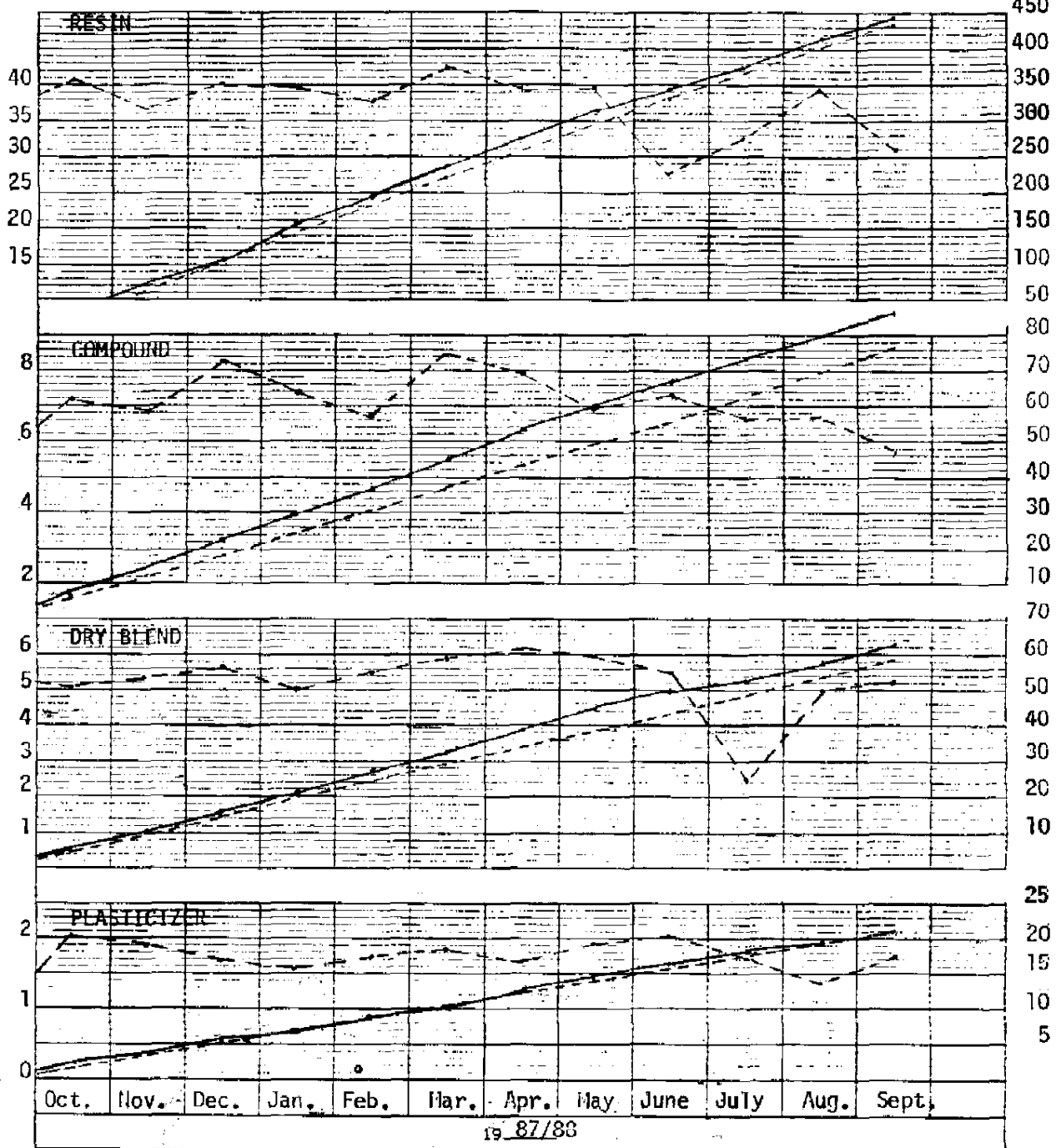
Monthly Reports

1/88 9/88

(Binder Title)

ABERDEEN PLANT PRODUCTION

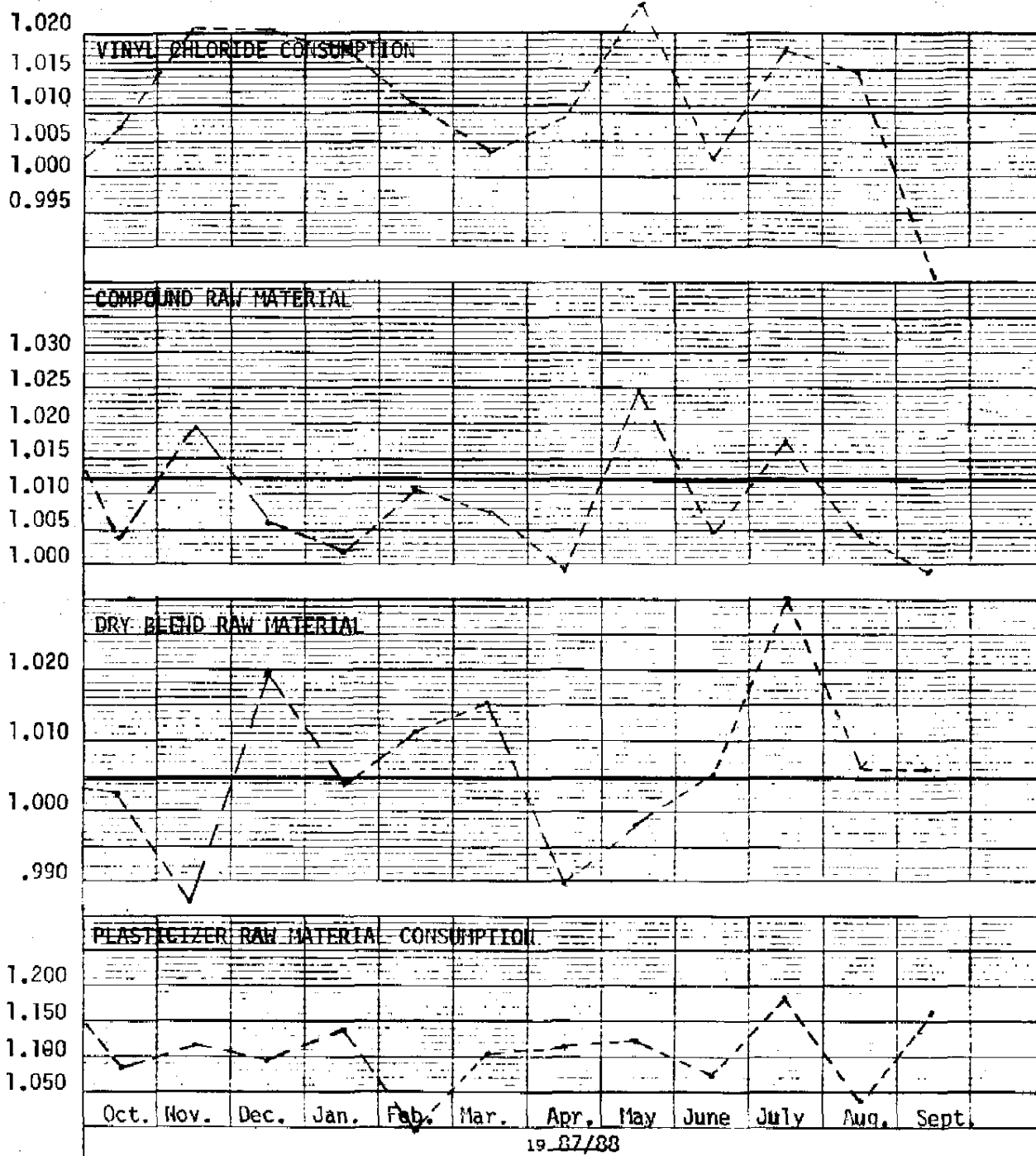
10/01/87 - 09/30/88

MM POUNDS
MONTHLYMM POUNDS
CUMULATIVE

ABERDEEN PLANT EFFICIENCY

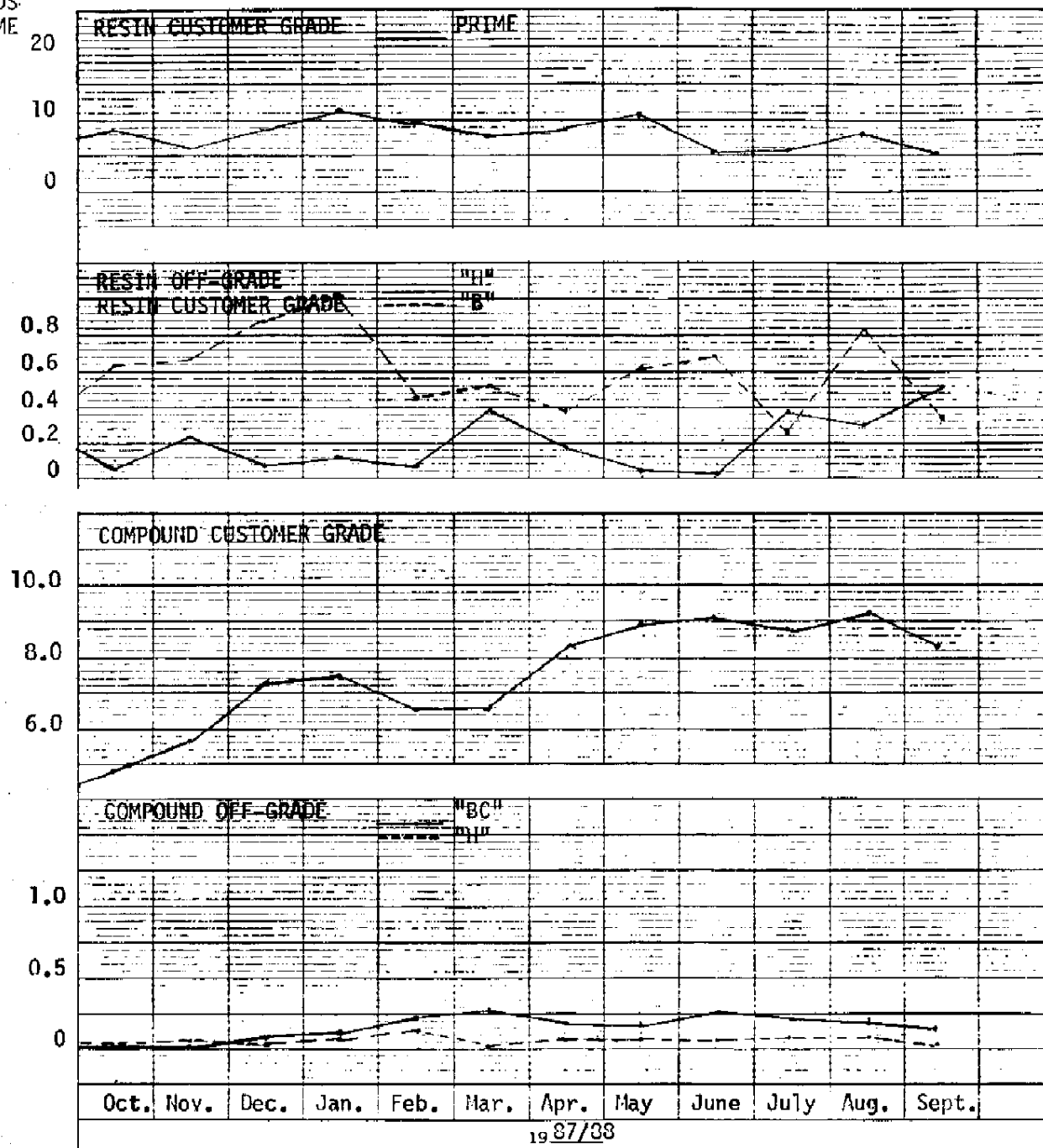
10/01/87 - 09/30/88

POUNDS OF RAW MATERIAL/POUNDS OF PRODUCT



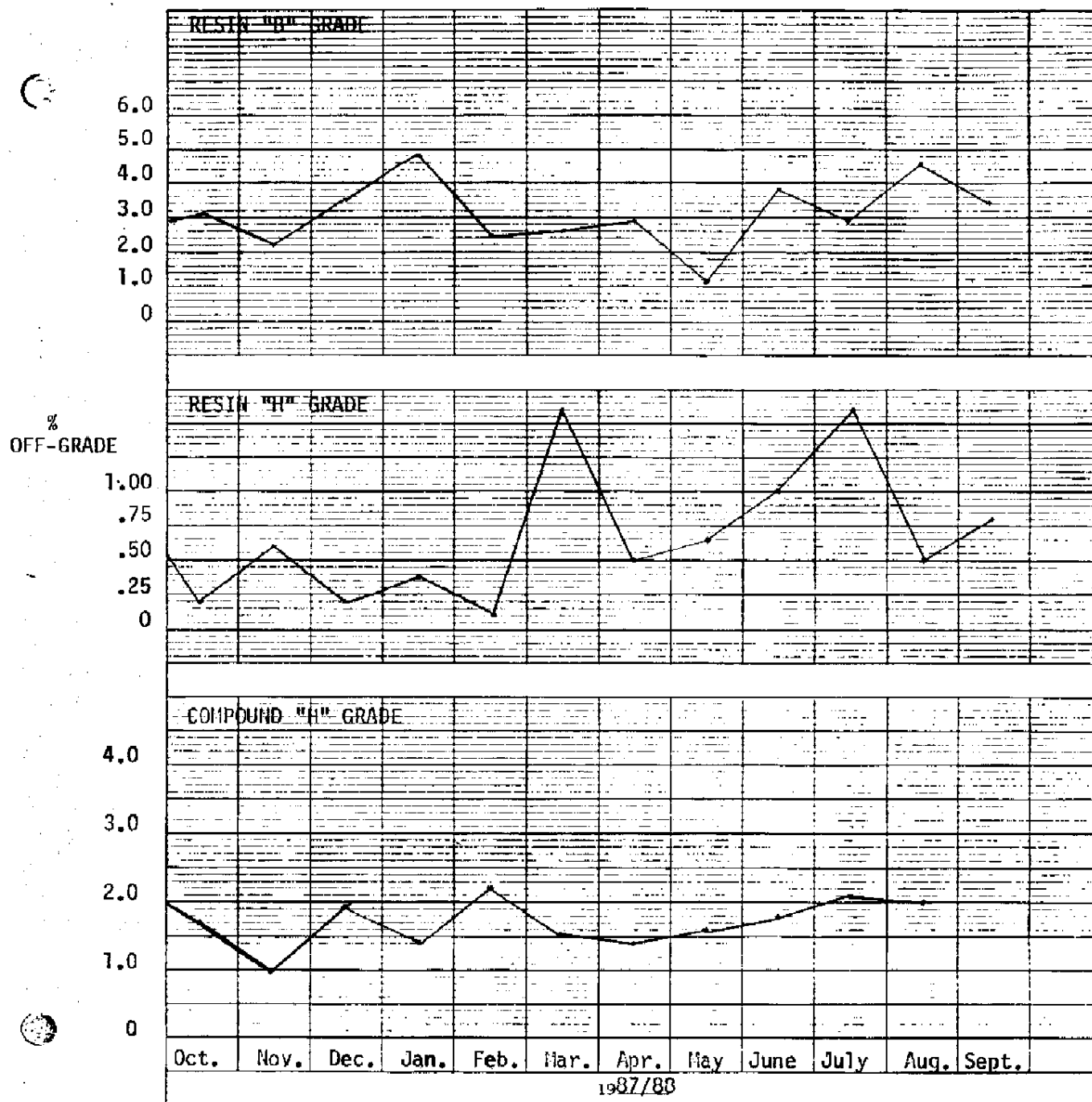
ABERDEEN PLANT INVENTORIES

10/01/87 - 09/30/88

MM
POUNDS
PRIME

ABERDEEN PLANT QUALITY PERFORMANCE

10/01/87 - 09/30/88



<u>DISTRIBUTION</u>		<u>COVER LETTER</u>	<u>ENTIRE REPORT</u>	<u>COVER LETTER AND QIP</u> A
<u>HOUSTON:</u>	J. D. BURNS	X		
	R. E. LERKUEHL		X	
	R. T. FERRELL	X		
	T. H. HUFFMAN		X	
	R. E. SWANTKOWSKI		X	
	D. F. HARMAN		X	
	H. R. FLAMMER		X	
	R. R. SMITH		X	
	K. J. EGGERS		X	
	D. H. SANDERS		X	
<u>PONCA CITY:</u>	S. E. MCGUIRE		X	
	R. L. POE	X		
	H. J. HALL		X	
	C. M. STARKS		X	
<u>OKLAHOMA CITY:</u>	H. G. GARRISON		X	
<u>LAKE CHARLES VOM PLANT</u>	R. A. CONRAD		X	
<u>LAKE CHARLES CHEMICAL PLANT:</u>	J. FRIEND		Safety Section and X	
<u>LAKE CHARLES LAB PLANT:</u>	J. W. WARE	X		
<u>BALTIMORE:</u>	L. R. BAUER	X		
<u>HAMMIND:</u>	J. B. MAHER	X		
<u>BLANE POLYMERS:</u>	C. R. MILLER		X	
<u>PREMIERE POLYMERS:</u>	P. L. FOOTE		X	
<u>ABERDEEN:</u>	RWS/DCS (FILE COPY), GWT, RJK, DWH, TFL, KLF, JEB, VEM, HGC, JEL, REP, RBN			

SAFETY - K. L. Fogg, J. V. Uptain

<u>Occupational Injuries</u>	<u>June</u>	<u>Fiscal Y.T.D. 1988</u>	<u>Fiscal Y.T.D 1987</u>
First Aid:	1	8	8
OSHA Recordable	0	3	6
Total Injuries	<u>1</u>	<u>11</u>	<u>14</u>
Number of Restricted Workday Cases	0	0	2
Number of Lost Workday Cases	0	0	0

Injuries by Department

Vinyl Operations	1	2	2
Compound Operations	0	2	1
Maintenance	0	6	8
Laboratory	0	1	1
Receiving/Warehouse	0	0	2
Office	0	0	0
Totals	<u>1</u>	<u>11</u>	<u>14</u>

Injuries by Type

Cuts and Abrasions	0	4	7
Eye Injuries	0	0	2
Burns	1	4	1
Bruises	0	2	1
Strains/Sprains	0	0	3
Stings	0	0	0
Other	0	1	0
Totals	<u>1</u>	<u>11</u>	<u>14</u>

Non-Occupational Injuries

Lost Workday Cases	1	10	4
Days Lost	13	125	28

Safety Record

Last lost time injury 7/5/79
 Days since - 3,283
 Manhours since - 4,274,987

On June 30, 1988, the employees of the Aberdeen plant completed 3,283 days with no lost time injury.

One injury requiring first aid treatment was reported.

Respiratory protection training was completed for those people requiring that training.

The Central Safety Committee met in June.

The Local Emergency Planning Committee for Monroe County met in June. A video tape and pamphlet for SARA 313 communications was completed.