

QUALITY MANAGEMENT PROCESS - J. M. Edwards

- Dan Plummer trained fifteen employees to be Internal Auditors. The eight-hour class was a requirement to be ISO Certified Internal Auditors.
- The first edition of the Quality System Manual (Plant Tier I Document) was issued and approved.
- The following Quality System Procedures (Tier II) were issued and approved in May:
 1. Non-Conforming Product Procedure
 2. Contract Review Procedure
 3. Purchased Product Specification Procedure
 4. Quality System Procedure Forms
- The Raw Material Specification Books were completed for Vinyl and Plasticizer.
- Natural Team Activity
 1. The Plant Manager's Natural Team members participated in taking the computer/video interactive training on "Hearing Conservation" for the purpose of evaluating applicability to other training.
 2. The Compound "A" Shift Natural Team's newly picked project is to upgrade the color weigh room staging area.
 3. The Compound "C" Shift Natural Team is working on a project to reduce powder and oil leaks on the lines.
 4. The Compound "D" Shift Natural Team is working on a project to reduce the amount of plasticizer left in drums.
 5. The Operations Superintendent Natural Team is working to reduce the BC compound inventory by reworking more.
 6. The Lab "A", "B", and "C" Shift Natural Teams are working on a project to reduce slurry turnaround times.
 7. The Lab "D" Shift Team is working on a project to improve the process of cleaning the Lab two roll mills.
 8. The Chief Process Engineer and Senior Process Engineer's Natural Teams discussed department organization and re-engineering.

COST VARIANCES - S. J. Vincent**Variable Costs**

<u>Product</u>	<u>May, 1994 Variance, \$M</u>		
	<u>Efficiency</u>	<u>Price</u>	<u>Total</u>
PVC	148.8	<439.2>	<290.4>
Flexible Compound	< 1.7>	5.7	4.0
Plasticizer	<u>10.1</u>	<u>92.4</u>	<u>102.5</u>
Total	157.2	<341.1>	<183.9>

PVC Resin

The favorable efficiency variance for PVC was due to favorable variances for high off-grade production - \$132.2M and utilities - \$45.6M.

Flexible Compound and Plasticizer

The efficiency variance in Compound was close to budget. The favorable price variance was impacted due to resin and plasticizer prices.

The favorable efficiency variance in Plasticizer is due to rates. The favorable price variance is due to favorable Phthalic Anhydride and 610 Alcohol prices.

Major Price Variances

	<u>Variance - \$M</u>
- VCM	<547.0>
- Plasticizer to Compound	103.6
- Resin to Compound	<u>38.3</u>
	<405.1>

VINYL - J. D. Olson, W. S. Carroll**Safety**

The Vinyl Department had no injuries in May.

The monthly safety meetings were held on shift.

General

1. May production was 47.8MM pounds of which 46.2MM pounds was prime grade resin. Percent asset utilization was 90.9%.

VINYL - Continued**General - continued**

	<u>May</u>	<u>YTD</u>
- Production, MM Lbs.	47.8	453.1
- Reactor Stream Factor, %	94.2	87.4
- Resin Quality, % Prime	96.8	96.1
- VCM Efficiency, Lbs./Lb.	1.0289	1.0438
- Daily Rate, M Lbs./C.D.	1540.0	1352.0
- Capacity Utilization Factor, %	107.1	94.1
- Total Reactor Charges	1092	1041.3
- Charges/C.D.	35.2	31.1
- Rotary Dryer Stream Factor (#4-#8), %	89.9	90.0
- Fluid Bed Dryer Stream Factor, %	97.5	89.0

Reactor Downtime**Hours**

- Operational downtime (recovery scheduling conflicts - 380).	380.0
- Mechanical downtime (miscellaneous maintenance items).	50.0

Dryer Downtime**Hours**

- Operational downtime (cleaning, product changes, and centrifuge plugs).	67.0
- Mechanical downtime	70.0
- Reactor limited production.	376.0

COMPOUND - E. T. Stouder**Safety**

The Compound Department had no OSHA recordable injuries during May.

General

Orders for Lines I, III, and V continue to be very strong. Production volumes were impacted negatively in May due to extended maintenance downtime on Line III. In addition, Line V had a two-day mini-turnaround in preparation for AT&T production on this line.

The approval process for AT&T compounds is continuing with the approvals for the Omaha facility complete. Due to the new contract with AT&T, a significant number of customers will be shifted to Mansfield and Jeffersontown starting in June due to capacity constraints at Aberdeen.

COMPOUND - Continued

<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	31	2009	65	20039
Line III	31	3217	104	39900
Line V	29	1483	51	12874
Total		6709	220	72813
% Prime		96.91		96.56
Capacity Utilization Factor		92.38		90.68

DowntimeHoursLine I

- Product Changes	88
- Miscellaneous Maintenance	18
- Quality	12

Line III

- Product Changes	56
- Miscellaneous Maintenance	140
- Quality	9

Line V

- Product Changes	23
- Miscellaneous Maintenance	56
- Quality	21

	<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	15894
% Prime		84.15		82.73
Capacity Utilization Factor		78.12		75.33

ENGINEERING - J. E. Nickerson, T. R. Mackay, R. H. SneedPROJECTS IN DEVELOPMENT - GENERALEXPRESSProject Scope Work

Design revisions were complete for all designs except the dryer area.

ENGINEERING - Continued**EXPRESS - continued**Dryer

The contract with UHDE is still going through comments and changes. UHDE is starting engineering but waiting for the contract to be signed before setting a completion date. The rest of the dryer design outside the UHDE boundary limits will be completed in early June.

A process hazard analysis and Class "A" design review were completed for the dryer portion of EXPRESS outside the limits of UHDE's design.

OSHA Process SafetyProcedures

All procedures for the Old Module are complete. Procedures for New Module and SA Module are in the review process. Work has started on writing procedures for the boilers and the plant propane system.

HAZOPS

All portions of the Old Module HAZOP have been completed. The HAZOP Report is now being written. The report is scheduled to be issued in mid-June.

MOCAs

The new policies were approved and became effective 5/9/94.

Increased Reactor Charge Temperature

5385 charge temperatures have been increased from 115° F. to 125°F. Further increases may be possible after evaluation of the New Module heatup loop and associated DCS programming.

RVCM Reduction Efforts

The "Hot Air to Blend Tanks" Class "A" design has been reviewed by the Plant and submitted with the first quarter budget. A portion of the project was installed on miscellaneous capital for testing purposes. The testing is complete and the results are favorable.

ENGINEERING - Continued**Plant Wet Air and Instrument Air**

Class "A" design was completed and is ready for plant review. Work on the final specification package has begun.

Honeywell GC Electronics Upgrade

The tank farm GC was upgraded. A complete check-out of all the system monitors is planned by I&E in June.

Silo Level Instrumentation Improvement

Class "A" design was completed and estimated for the first quarter.

Iron Settling Pond Water Recycle

The final Class "A" design for recycling water from the water plant's iron settling ponds is complete. This project will reduce the amount of water going to the plant's wastewater treatment ponds by 100 gpm.

Iron Sludge Disposal Revisions

We are waiting for Gravity Flow Systems, Inc. to get a test sludge dewatering unit available to send to Aberdeen. Once here, test runs will be conducted using iron sludge from the water plant. We expect to get the test system in late June.

Cascade Boiler Blowdown

A miscellaneous capital request was issued in May to cascade blowdown from the on-line boilers to the boiler that is not operating. This design is necessary to preserve both boilers 1 and 2 when they are not operating and to allow for faster startup of the boilers. Startup is scheduled for late July.

PA Modification

The Class "A" design to improve the safety of PA handling in the Plant is complete and estimated.

P-1 Reactor Header Modifications

A Class "A" design to connect the plasticizer reactors' heating and cooling coils is being developed from the existing preliminary design. The Class "A" design will be complete in June.

ENGINEERING - Continued**Boiler 4 Addition Project**

A representative from Coen Burners visited the Plant in May to make adjustments to the burner. These adjustments reduced the rumbling problems and the boiler was accepted. Steam carry-over testing was also completed in May with acceptable results.

Boiler Blowdown Heat Recovery

Mechanical design work was started in May for this project. This project will recover heat from boiler blowdown and use it to pre-heat boiler feedwater. A request for scope change was issued to add conductivity controlled blowdown from boilers 1 and 2. This will save an additional \$10M per year in natural gas. Startup is scheduled for July.

ENVIRONMENTAL - K. G. Akins**Water**

The third of three monthly bioassays required by the MDEQ was conducted in May. This test did not indicate possible toxicity as did the tests in March and April. These additional tests were required based on inconclusive testing done in December.

All information has been submitted to the MDEQ. The MDEQ will review and decide if a Toxicity Identification Evaluation (TIE) is warranted.

All other wastewater discharge parameters were within permitted limits.

Waste

- A bulk shipment of floor sweepings to Chemical Waste Management in Emelle, Alabama.

KEY ENVIRONMENTAL COMPLIANCE DATA

	<u>MONTH</u>	<u>FYTD</u>
Stormwater Outfall Excursions	0	1
Wastewater Outfall Excursions	0	3
Reportable NESHAP Excursions	0	0
Reportable non-NESHAP Air Excursions	0	0
CERCLA/SARA Reportable Incidents	0	0
Other Reportable Incidents	0	0
Citations and NOV's Received	0	0