

VINYL - P. E. Markey/M. L. Nathan

### Safety

The Vinyl and Yard Departments operated without an injury during January.

The topic of the monthly shift safety meeting was "1983 Vinyl/Yard Department Safety Performance and 1984 Safety Goals".

### Production

### January

|                                       |        |
|---------------------------------------|--------|
| 1. Production, MM Lbs.                | 32.8   |
| 2. Daily Production Rate, M Lbs./C.D. | 1057.5 |
| 3. Total Charges                      | 855.0  |
| 4. Charges, Reactor Batches/C.D.      | 27.6   |
| 5. Reactor Stream Factor              | 88.2   |
| 6. Dryer Rate, Average Lbs./Hr.       | 6349.0 |
| 7. Dryer Stream Factor                | 77.1   |
| 8. Accounting Days                    | 31.0   |

### Production

Vinyl Department production for January was 32.8MM pounds which was 98.5% of the budgeted production volume and 96.5% of the Business Area's targeted production level of 34.0MM pounds.

### Reactors

1. A condenser cleaning on D-500 resulted in a stream factor penalty of 0.44%.
2. Downtime for replacement of agitator seal ~~and mechanical seals~~ on 743 reactor resulted in a stream factor penalty of 0.95%.
3. Replacement of 742 and 745 agitator seals resulted in a stream factor penalty of 0.52%.
4. Five valve changeouts and maintenance on reactor valves resulted in a stream factor penalty of 0.82%.
5. A reactor jacket weld on 743 reactor resulted in a stream factor penalty of 0.15%.
6. Downtime for jacket repair and removal of polymer buildup on 700 reactor resulted in a stream factor penalty of 0.94%.

VINYL - ContinuedReactors - continued

7. Downtime for work on D-700 rinse sprayhead resulted in a stream factor penalty of 0.24%.
8. Routine safety disc changeouts on 742 and 745 reactors resulted in a stream factor penalty of 0.23%.
9. Downtime to repair both recovery compressors in the old reactor module resulted in a stream factor penalty of 1.2%.
10. Downtime in the old reactor module to repair a ruptured firewater line resulted in a stream factor penalty of 0.27%.
11. Downtime in the new reactor module to repair a section of ruptured inert vent header piping resulted in a stream factor penalty of 0.44%.
12. Downtime due to recovery system scheduling conflicts resulted in a stream factor penalty of 2.0%.
13. Downtime due to no place to dump slurry resulted in a stream factor penalty of 0.94%.

Dryers

1. Production was essentially reactor limited in January. Dryers were shut down when possible for energy conservation purposes. The associated stream factor penalty was 16.7%.
2. Routine dryer cleaning resulted in a stream factor penalty of 1.19%.
3. Dryer centrifuge pluggage resulted in a stream factor penalty of 1.87%.
4. Downtime due to bottlenecks in the sifter and pneumatic transfer systems resulted in a stream factor penalty of 0.60%.
5. Downtime due to dryer burner flameouts resulted in a stream factor penalty of 0.37%.
6. Maintenance on various dryer items including centrifuges, exhausters, activators, sifters, etc. resulted in a stream factor penalty of 2.66%.

VINYL - Continued

| <u>Resin Type</u> | <u>Prime</u> | <u>"BC"</u> | <u>"H"</u> | <u>% of Total<br/>Production</u> | <u>Budget Prime<br/>Product Mix %</u> |
|-------------------|--------------|-------------|------------|----------------------------------|---------------------------------------|
| 5265              | 25,098       | -           | -          | 0.1                              | 7.5                                   |
| 5305              | 4,597,779    | 7,500       | -          | 14.1                             | 11.2                                  |
| 5385              | 17,628,388   | 15,750      | -          | 53.8                             | 62.0                                  |
| 5425              | 6,435,914    | -           | -          | 19.6                             | 13.8                                  |
| 5465              | 3,973,680    | -           | -          | 12.1                             | 5.5                                   |
| Sifter Overflow   | -            | -           | 102,505    | 0.3                              | -                                     |
| Pond Resin        | -            | -           | ( 2,700)   | -                                | -                                     |
| TOTAL             | 32,660,859   | 23,250      | 99,805     | 100.0                            | 100.0                                 |

Quality performance for April was 99.63% customer grade with 0.07% "BC" production and 0.3% "H" grade.

A total of four railcars were shipped as "B" grade during the month which represented 2.6% of the one hundred fifty-two total resin hopper cars shipped.

| <u>Ship Date</u> | <u>Car No.</u> | <u>Customer</u> | <u>Product</u>           | <u>Reason</u> |
|------------------|----------------|-----------------|--------------------------|---------------|
| 1/10             | CONX 45258     | Vulcan          | Resifted Sifter Overflow | Quality       |
| 1/11             | PLWX 44291     | Wexford         | Resifted Sifter Overflow | Quality       |
| 1/13             | CONX 45879     | Vulcan          | Resifted Sifter Overflow | Quality       |
| 1/16             | PLWX 44258     | Wexford         | Resifted Sifter Overflow | Quality       |

The vinyl area received twenty-four short lead time emergency type orders comprising 8.8% of the 272 Aberdeen resin shipments in January.

Monthly Variable Cost Performance

Variable costs for the month were favorable \$2.4MM with \$2.395MM due to price and \$5.0M due to efficiency. Resin variable cost for the month was 19.85¢/lb. vs. the budgeted 27.19¢/lb.

The \$2.395MM favorable price variance was primarily attributed to lower than budgeted pricing for VCM, \$2.3MM; and lower than budgeted pricing in the utilities area, \$67.2M.

The \$4.6M favorable efficiency variance can be attributed to favorable variances of \$3.3M in VCM efficiency, and \$61.6M due to lower than budgeted off-grade production. An unfavorable variance of (\$36.2M) in the utilities area related to cold weather operation offset the favorable variances. VCM efficiency for the month was 1.00815 lbs. VCM/lb. PVC versus the budgeted 1.00860 lbs./VCM PVC.

VINYL - ContinuedEnergy Performance/Progress

1. Plant energy consumption for the month was 2950 BTU/lb.
2. A total of thirty-five steam leaks and seven air leaks were repaired during January. In addition, fourteen steam traps were repaired or replaced.

General

1. Packaging for the month totaled 536,205 pounds.
2. Resin raw material in the 744 account totaled \$223M at month end.
3. Production of 5425 and 5465 was hampered during the month by contamination from the reactors. The probable cause was related to freezing weather when reactors were kept warm with steam injection to the jacket and chem washed frequently. The contamination problem was cleared up the week ending 1/10/84.
4. Research personnel were on hand supporting troubleshooting activities on a gel/fisheye problem with 5385 in the old module. The probable cause was linked to dirty reactors as a result of diminished chem wash strength.
5. As part of the department's continuing training program, personnel from several shifts attended an in-plant instrumentation seminar by Jim Brown of MED. The remaining shifts were scheduled to attend the seminar in early February.