

FOSECO, INC.

INTER-COMPANY AND INTER-DEPARTMENTAL CORRESPONDENCE

TO: Distribution Below

FROM: C. H. FitzGerald -
Quality Control - SHPD

DATE: May 9, 1973

SUBJECT: Non-Asbestos Task Force
Critique of Production
Test - Tuesday, 5/8/73

Activity: 5/8/73, 1st shift, K-4, EP 5273C (a 5273 type recipe using no bentonite and resin flocculated with M5366.)

1. Started at 8:10 a.m. Could not form good edge detail, surface texture very poor. Began to have dewater problems.
2. Reduced fibreglass content - no improvement.
3. Replaced diatomite (1790) with vermiculite to improve suspension. No improvement-- formed boards began to delayer, still not dewatering properly.
4. Added bentonite via pulper - no improvement.
5. Dewater valve diaphragm was found to be defective and replaced. Forming problem not corrected.
6. Drained blow tank and holding-- solids had settled out. Solids were not segregated components but rather dewatered recipe slurry.
7. A recipe of 5273C with 10% slag wool was made. Slight improvement in forming.
8. System drained and fresh 5273 tried again. Still no improvement. Incomplete forming around sprue; insufficiently dewatered material delayers: when tool opens, one-half adhering to the top tool and one-half to the bottom tool.
9. Stop test at 1:00 p.m. Manufacturing to return to P-31.
10. Same problem present after pumping over P-31. Finally drained entire system and used pure P-31. Still having same type of delayering and malforming around sprue.
11. Replaced defective vacuum hose at 3:30. Forming started to improve, however still not getting good formation around sprue.
12. Still trying to run P-31. By 6:30 p.m. began to form good piece on right side cavity, not on left. By 8:00 p.m. began to form good pieces and continued so through remainder of 2nd and 3rd shift.

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Individual Remarks:

- AS 1. Settling of solids is unexplained by any laboratory evidence. Lab samples sat from Thursday to Tuesday with no densification of suspended solids.
- JCM 1. Problems encountered not totally due to slurry since we had problems with P-31 when trying to start up.
2. Should not have made recipe changes so quickly during early stage of test before equipment was proved out.
- WH 1. Slurry system responsible for forming difficulties.
(a) Fines still passing through screen plugging tool.
(b) Every non-asbestos run shows hours of down time trying to go back to P-31.
(c) 7 hours of running P-31 unplugged the tooling.
- GHF 1. There must be a significant difference in the behaviour of these slurries in a K-4 delivery system versus a lab Ertel apparatus or Mark III machine. The violent aeration and agitation experienced during form and blowback needs to be duplicated on a laboratory scale. I feel that this is necessary in order to reconcile our inability to transfer lab recipes to production equipment with any degree of reproducibility.

Recommended Action to be Taken:

- AS - EA 1. A recipe of 5273B (15% solids) replacing pearlite with diatomite
& JCM should be tested at the next opportunity.
- RTC 2. K-4 upper and lower tools need to be removed and examined by RTC and steam cleaned if necessary before next experimental run.

GHF:mir:193

Distribution:

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