

Inter-office Memo

TENNECO CHEMICALS, INC.

To	R. D. Richards	At	Burlington	Date	March 6, 1969
From	E. J. Hourihan	At	Burlington	Copy to	P. F. Albanese C. H. Brower H. B. Carr J. C. Fisher E. L. Kanyok G. I. Rozand P. R. Scarito C. G. Thompson M. W. Williams
Subject	Process Control of 1716, 1732, and 1742				

Process Engineering and Quality Control has recognized and reported to you:

1. Recent extreme variation in 1732 and 1742 rheology.
2. Recent extreme variation in additive (tridecanol and VP-631) levels as indicated on bagging lot sheets.

As a result of our discussion today, March 6, 1969, I want to formalize my recommendation to you that: every effort be made immediately to reduce the surge capacity in the bagger hopper for any bagging machine used in the manufacture of the above products. The current surge capacity (800 lbs.) represents a $\pm 40\%$ error in accuracy of measurement of additives; per Technical Report 101, dated October 24, 1968 by C. H. Brower, if we experience this variation with VP-631 only it will manifest itself in a brookfield variation of 20 poise which encompasses the total range allowable under our existing grading specifications.

Our old bagger surge hopper incurred only a $\pm 10\%$ error because of its lower capacity (200 lbs.). At the time of the plant design meetings Process Engineering highlighted two items with regard to the additive/bagging process step:

1. We had not been successful in our search for a better additive control system so it was recommended that the new plant design duplicate the old (merchan belt feeder).
2. The additive system, when properly maintained and operated, was capable of control which was more accurate than the $\pm 10\%$ measuring error brought about by either a full or empty bagger hopper.

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A measurement of process control has been completely forfeited by increasing the size of the hoppers to 800 lbs. and nothing has been gained in its place. The "high level controller" should be lowered to control at 200 lbs. maximum as a starter.

Another important point with regard to our modified resins is the venting of the bagger surge hopper. Currently an unknown amount of resin which has already been modified with alcohol and VP-631 is being vented from the bagger hopper back to the primary collector. This resin passes thru the additive system again where it is further modified by alcohol and VP-631; the effect is an ever increasing or pyramiding one and can be a poor practice from the standpoint of process control, product quality and raw material costs. It is important that we obtain a measure of this recycle rate and I am recommending, as before, that the "sweeps hopper" be used for this purpose.

E. J. Hourihan
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EJH/rjl