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Initiation of Production VP-631 Batches

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As we discussed earlier today, VP-631 batches run at Burlington at times do not initiate and at other times initiate only after a prolonged induction period. Our experience with the last three batches was as follows:

1. Charged 3/25/69 - After 13 hours at reaction temperature there was no pressure drop so we increased reaction temperature 4°F to 122°F for 2-1/2 hours; returned set point to 118°F and added 2-1/4 lbs. of initiator. After 4-1/2 hours there was still no pressure drop so the batch was recovered.
2. Charged 3/27/69 - Ran three hours at reaction temperature (118°F) with no pressure drop then set temperature up 10°F to 128°F; two hours later we got the pressure drop and started the continuous monomer add. This batch yielded relatively unstable latex.
3. Charged 4/2/69 - Formulated with 17.5 lbs. catalyst and 121°F versus standard 15 lbs. catalyst and 118°F. After 9 hours at temperature we got the pressure drop to 85 psig; the batch was then recovered since we did not want latex for drying.

Samples of MVC and NH_4OH (used to convert the DEM 80 to the ammonium salt for this last batch) have been forwarded to you with a sample transmittal. The DEM 80 used in this last batch was sent to you on March 24, 1969 identified as Drum #4. With these ingredients would you please run bottle polymerizations in an effort to determine if one of our raw materials was responsible for the excessively long induction period. If you let the NH_4OH sample settle, a rust like sediment forms; could this be contributing to our problem? Please submit a portion of this sample to Application and Evaluation for iron determination. Also, I am holding one gallon of the D.M. water used in this last batch in the event you have any second thoughts about including it in your bottle study.

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EJH/rjl