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Monomer Quality Monitoring

This will bring you up to date on our plans for sampling monomer. In our recent phone conversation, we discussed setting up permanent sampling facilities and regular sampling to correlate with resin quality for the next month for the homopolymer and copolymer plants. Since then, I talked with Herb Carr and Fred Kessler concerning their ability to test the samples. They can handle four daily samples in about two weeks. Standardization of the gas chromatograph is the hold up. A "standard sample" must be prepared and programmed so that reliable comparisons can be made. Fred is keeping me posted as to the progress so that sampling can begin as soon as possible.

I have written a maintenance order to install permanent sampling stations at the Cume filters of the virgin and recovered MVC inlet lines in No. 2 and No. 3 plants. This should be completed by Tuesday. Then, the utility operators can take daily samples without problems.

In the meantime, we will be sampling to determine the best sampling spot yet yield the least number of samples per day. I will forward the results of the test to you.

In different conversations with people around Burlington, I have become aware of some problems that occur in the plant which happen one day and not another, or in one reactor and not another. In other words, although nothing has been intentionally changed, large differences in reaction kinetics or resin properties will occur. One possible answer is stratification of the monomer in the MVC storage tanks; no one has proven this. However, there is no mixing or recycle equipment on the storage tanks. Also, the concentration of impurities is very low and concentration gradients are weak, such that internal mixing is extremely slow. As soon as Quality Control can analyze the samples, we are going to sample the storage tanks for stratification by means of using the liquid level dip tube. If drastic stratification is indicated from the tests, perhaps sufficient justification can be generated to install a recirculation unit on each of the storage tanks.

This would be a tremendous aid to me in my monomer investigation because a sample from a well mixed tank is randomly representative.

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GWL/rjl