

MONSANTO CHEMICAL COMPANY

Inter-Office Correspondence

From LOCATION : Organic Research

cc : P. E. Heisler - WGK

DATE : July 17, 1962

R. C. Smith - WGK

E. O. Martin - WGK

SUBJECT : PYDRAUL A-200, LOW TEMPERATURE VISCOSITY SPECIFICATION

L. R. Stark - RES - 2

J. F. Quinn - RES - 1

REFERENCE :

R. Davis - B-2-S

TO : Mr. E. E. Martin
W. G. Krummrich Plant

The establishment of a low temperature viscosity specification of 800 cs. at 50°F was intended to be tentative until such time as experience would dictate either alteration of the numerical value or establishment of a current specification. I will agree with your observation that the 800 cs. value is not entirely realistic and will recommend that it tentatively be set at 850 cs. at 50°F to be reviewed at some point in the future.

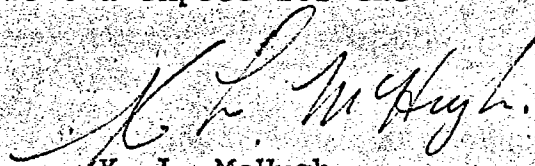
By an examination of your data obtained on batches recently produced, I feel that this 850 value can be considered quite realistic. A statistical analysis of the data in your report G192 shows a mean value for 7 batches of 782 with estimated 95% limits of 699 to 874. If, however, we omit the 855 value, we obtain a mean of 770 with estimated 95% limits of 732 to 811. Consequently, if we assume that batch #214 is actually too viscous at low temperature to satisfactorily perform in its intended application, we then find the other six batches falling well below the proposed 850 cs limit.

Since we are still attempting to describe the parameters of this low temperature viscosity specification, it might be helpful if you could continue, for a brief period of time, to determine the pour point of the newer batches of A200 for comparison with the low temperature viscosities. This would be most helpful in our final interpretation.

I might point out that we do not use log-log plots for extrapolation or interpolation of viscosity data. We use ASTM charts which are specifically designed for developing temperature viscosity relationships and are much more easily read than the log-log paper. If you so desire, we could make copies of these charts available to you.

DSW 329677

I believe our course of action at this time is to continue on until we can get a large enough sampling of the production batches to make a more knowledgeable estimation of the predicted range which we can expect for the finished product.



K. L. McHugh

KLM/cbb

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