Mr. Weaver

Mr Barker ? 12/28

December 27, 1944

Dr. Jenkins

OFF COLOR AROCLOR 5460

The variety of colors obtained in the Aroclor 5460 other than the clear yellow color seems to be due to the presence of small particles of iron compounds. Recommendations that certain precautions be taken in the distillation operation were reported to you in my letter of December 14, 1944, regarding the Dade Brothers, Inc. complaint.

It is necessary now to obtain some history on future lots of Aroclor 5460 in order to set up a method to prevent any off grade Aroclor from being passed at the laboratory. This will eventually mean changing the color specifications.

A comparison of the NPA colors and the Lovibond scale shows that some reddish color is present in a 2.0 NPA color. If the desire is not to have any red or orange Aroclor the color limit of 2.0 NPA will have to be lowered. It cannot be decreased to 1.5 NPA because the Aroclor is a darker yellow than 1.5 NPA.

Therefore it appears necessary to change to a better method of comparing colors. The wide range between 1.5 NPA and 2.0 NPA can be covered very effectively by the Lovibond color glasses. The limits on color could be established at some point above 1.5 NPA using only yellow glasses, maybe 20 yellow Lovibond. Some history will need to be developed on this before the color limits are established.

In my opinion the Analytical Laboratory should buy a Lovibond Tintometer and the necessary color glasses and compile the history while running future samples. We can do this work however, if you think we should.

The color due to iron in the potassium thiocyanate test might prove to be a good index of color but the Lovibond comparison is better in my opinion. The Aroclor samples will be in the molten state while color comparisons are being made.

Your comments and opinion on the work to be done will be appreciated.

A. M. Ellenburg

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