cc: H. L. Hubbard - Res-2
J. E. Crouch - Anniston
W. B. Dunlap - "
C. Allen - "
P. G. Benignus - KXOK-3

December 17, 1954

Mr. Ralph A. Ruscetta
General Electric Company
Capacitor Department
Hudson Falls, New York

Dear Ralph:

Aroclor 5460-1260 Mixture

I hope we have the correct mixture now for your potting compound. Today I have sent you a three pound sample of the laboratory mixture made of 1 part Aroclor 5460 and 2 parts Aroclor 1260.

Plant products were used and our usual cleaning techniques were used on all beakers, filtering equipment and dielectric cell. When first prepared some solid particles could be seen in the mixture and the volume resistivity was only $25 \times 10^9$ ohm-cm.

After stirring with 0.1% attapulgus earth for one hour, the Aroclor mix was filtered through a heated Buchner funnel. The volume resistivity of the filtered product was well above $5000 \times 10^9$ ohm-cm at 100°C. and 500 volts D.C.

I believe the plant could easily produce a blend that will meet your specification of $200 \times 10^9$ ohm-cm minimum resistivity at 100°C.

The sample I made has a softening point of 46°C. (ASTM E-28: Ball and Ring method). This is close to your suggested property of a flow point of 45-47°C. No trouble was encountered in pouring the product at 100°C.

Since the softening point is easy to run and should give a good indication of the consistency of the material, I suggest that this property be used as the control. The limit on the specifications should preferably be at least a 5 degree range.

The use of Aroclor 1260 will mean that the plant must heat the Aroclor to 150-160°C. before filtering in order to get

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easy filtration. Otherwise, I see no difference in using Aroclor 1260 over Aroclor 1254 as far as our operation is concerned.

We enjoyed the visit of each of the G. E. men last week and mayoe something new can come out of our meeting.

Merry Christmas to you and your associates.

Yours very truly,

A. M. Ellenburg
Research Department

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