Monsanto

COMPANY CONFIDENTIAL

FROM (NAME & LOCATION) W. C. Engman - WGK

DATE : October 20, 1970

SUBJECT : MINUTES OF MEETING HELD 10/15/70 - AROCLOR QUALITY

REFERENCE

cc: Messrs. B. W. Corlew
D. W. Jackson
W. A. Krull
J. R. Kuster

TO : Those Present:

Messrs. J. R. Savage - G.O.
W. R. Richard - G.O.
Q. E. Thompson - G.O.
R. W. Weiss - G.O.
R. H. Munch - S. 2nd St.
D. C. Armstrong
R. M. Blowers
H. J. Horner
D. J. Roth
R. M. McCutchan
J. E. Blanchard
W. C. Engman

This meeting was held to discuss Aroclor quality, electrical properties measurement and laboratory space available for a clean room and for Fluids Research personnel.

Quality

A quality problem exists with Monsanto Aroclor produced at each of the four plants when compared with competition in Japan. The problem is degradation of the power factor when the Aroclor is exposed to heat for an extended period.

The test is exposure at 210°C for 100 hours and power factor measurement at 100°C and 60 Hz.

Data for the various plant materials.

	Power Factor (Tan. δ)	
	Start	100 Hrs.
Monsanto Japan (MMK)	0.0003	0.01 - 0.1
England	0.001	0.5 0.01
WGK	0.0005	0.1 - 0.03
Anniston	0.0005	0.01 - 0.03
Kanegafuchi (Japanese Competitor)	0.003	0.01

It was decided that WGK should undertake a study to determine the parameters which affect power factor stability. Reasons are:

1. Some WGK material produced is stable while other is not. This should simplify the study by looking for differences in operation and raw materials at these times.

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2. Aroclor expertise is located in this country - not in Japan. We must make the MMK material competitive.

3. Although there is no Aroclor competitor in this country at present, we must look at the world market and be in a position to meet foreign or domestic competition should it come.

Dr. Munch will continue to develop a shortened method to determine power factor stability to aid the quality study.

Electrical Properties Measurement

At present, there are two different methods for determining electrical properties of Aroclor - the standard method and the new Munch test. The Munch test is orders of magnitude more precise than the standard method. We are currently running both tests for G.E. and the standard method only for other customers.

The main problem in obtaining accurate results using the Munch test is contamination from the atmosphere in the laboratory. Research (Queeny) obtains equal or lower power factor numbers than are obtained in the WGK laboratory on the same samples. Analysts and measuring equipment have been eliminated as factors by switching analysts and measuring equipment between plants.

The following was decided:

1. A clean room will be installed in the WGK laboratory to eliminate air contamination. A timing schedule will be submitted by TSD by 10/23/70.

2. All material will be tested by the Munch method for power factor. Resistivity will also be measured at the same time using the same equipment. This value will be the same as resistivity measured by the standard method after an adjustment is made in the distance between the electrodes.

3. After installation of the clean room and after sufficient data has been collected, a new power factor standard will be established.

4. Marketing will be asked to coordinate the change in specification from resistivity to power factor. We will eventually drop resistivity as this measurement actually and theoretically does not relate directly to power factor.

0.1"

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Laboratory Space Available

Fluids group will require bench space in the WGK laboratory for a chemist and a technician. Immediate effort of these people will be in the quality investigation and support for the fractionator start-up.

Miscellaneous

1. We need to find an outlet for the off-gas condensate. Quantity will be near 2 M lbs/yr. Anniston R&D reports that electrical grade 1254 Aroclor can be produced from this material. R&D Report #1, Job No. 446-516, 6/1/70, by G. L. Arnett.

   We will send 5 gallons of off-gas condensate to Dick Weiss for further testing.

2. We need to follow up an current Aroclor content in muriatic acid. Dan Woods, Supervisor of Dept. 218, has been contacted.

W. C. Engman

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Technical Services Dept.

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