Monsanto
CANADA LTD.

FROM Lasalle, Quebec.

DATE Nov. 10, 1967

SUBJECT Minutes of Meeting held between Mr. J. Hughes Spectroscopist at N.E. and Monsanto Personnel on Oct. 19/67

REFERENCE AV-67-415

TO To those present: Messrs:

A.J. Parent	E.H. Toombs	
H. Jongsma	G. Ringrose	
R. Narbonne	C. Bias	St. Louis
A. Vendette	J. Darby	✓
H.F. Dixon	R. Trump	
R. Beamish	K. McCabe	

A meeting was held to discuss Northern Electric's new procedure for acceptance of raw materials for electrical type applications. Mr. Hughes described two rapid methods in use for electrical property determination. These methods are summarized as follows:

1- Rapid fusion of a thin film of resin (2-3 gram sample) with subsequent immersion of film in water. Haze development indicates poor electricals.

2- Slab test to determine whether 26 week IR will pass. Compound is milled, molded and then subjected to high voltage. The ratio of current passage at the one minute interval and the 10 minute interval should be over 1. The results are supposedly comparable to both wire and slab tests.

We gave Mr. Hughes samples of compounds representing a questionable lot returned by Canada Wire (1068 B # 70224) and an acceptable 1068 lot, # 70604. Their results confirmed Canada Wire's findings. The tests took a total of 45 minutes and the results were as follows:

	Avg. V.R.	Oak Avg. IR	N.E. Reading	N.E. Ratio	N.E Disposition
70224	$2X10^{12}$	244	600	1.09	Borderline Failure
70604	$14.7X10^{12}$	1064	2400	1.47	

* The results are in terms of a 0.31" coating on power cable.

Discussion

The test as indicated under 2, evidently shows good correlation with the 26 week IR test and VR tests. The reproducibility is within 1%, which compares favourably with the 50% reproducibility of the VR - IR results. N.E. can carry up to 100 of these tests per day. The quantity of blend required per test is 100 grams. The applied voltage is 500 volts. Apparently no direct reading is involved, but the ratio is calculated after one and 10 minutes.

This looks contradictory to me; the good lot (70604) is reported to be a "Failure". Perhaps there is a typographical error.

DSW 587703

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The time of measurement (usually 2-3 minutes) for the electrometer needle to go down is important. Slabs, cables and film can be tested and in such a way so that area in which problems occur are isolated.

Milling must be standardized as variation of 100% of test result may occur.

ASTM and Government approval is presently being requested by N.E. and may take one year.

An impending meeting of Monsanto personnel at N.E. has been cancelled because of N.E.'s reluctance to expand upon details of test until fully proved out.

P.S. 1- J. Hughes is an es-MCL employee at Ruabon.

2- J. Hughes will probably give us the supplier of:

a) Electrical Model press with a sample of a molding

b) German IR meter.

A. Parent.

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