

R. L. Sandstedt (6486) Corporate Engineering (F3EA)

December 23, 1975

cc R. L. Simpson

COMMENTS ON LETTER TO
G. L. Bratsch FROM C. P. Orr

TO : J. R. Middleton

DEC 24 1975

These comments have been revised with Bob Simpson.

This letter relates to exposure to transformer failures once PCB is no longer available. PCB can be removed from a transformer and the transformer can be filled with insulating oil. The only problem that occurs here is that the oils will always contain PCB's and there will be a disposable problem with the oil having to be incinerated at extremely high temperatures some time in the future to destroy the PCB's. Exposure comes about in that a transformer may be situated in a critical place and if the transformer should fail and catch on fire it may damage adjacent facilities, unless preparations are made for sprinkler or for fire barrier in the area.

The failure rate of PCB filled transformers is higher than oil filled transformers in that water floats on top of PCB in the most vulnerable part of the transformer where the leads are going to the terminating bushings from the windings. In the old Organic Division we had several failures in this area, but this was because the transformers were not completely sealed and the moisture build up did take place. In an oil filled transformer, moisture accumulates at the bottom of the tank in a less vulnerable area where it is not as detrimental to the transformer longevity as it is in a PCB filled transformer. It would not be a serious problem to Monsanto to replace the PCB's and in their transformers with oil. Bob Simpson said the Decatur plant did this about a year ago.

Roger L. Sandstedt
R. L. Sandstedt

/sw

DSW 185354

STLCOPCB4051600