Monsanto

FROM (NAME & LOCATION) B2SC P. G. Benignus

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SUBJECT Transformer Pyranol

REFERENCE

TO C. PATON

cc: 1920 K. W. Easley
B2SL H. S. Bergen
B2SL T. L. Gossage
T1B R. H. Munch
T3A W. R. Richard
B1ND W. B. Papageorge
B2SL J. R. Savage
B2SL J. L. Wikoff
1650 P. L. Slayton
1650 J. G. Bryant
1070 H. R. Ford

I. General Electric's Stand on Transformer Pyranol

Following Raab and Keith discussions with our Mr. Cunningham, G.E. was convinced that PCBs will continue available to meet their forecasted requirements. Price increases consistent with costs are anticipated. But certainly the amount of Aroclor 1254 used in Pyranol bears direct relation between the cost of TCB vs. PCB. At this time G.E. is advised that there is no shortage of TCB. However, for technical reasons G.E. at both Pittsfield and Rome desire a high percentage of PCB over TCB.

Following a three month survey by their top management in their transformer division, of all business considerations of all types of Pyranol transformers (including: costs, technology, gas vs. dry vs. other liquids, manufacturing facilities, market acceptance, G.E.'s present major share of the markets, G.E.'s responsibilities to transformer users and to the environment), G.E. has decided and advised Art Peltasalo to stay in the Pyranol business, if at all possible. This means that G.E. will fight to have attainable and reasonable EPA standards to allow G.E. to stay in this business. G.E. has begun intensive lobbying in Washington.

As the proposed EPA standards will become law in July, 1975 if these are not realistically modified, it is most likely that G.E. will go to court. They assume that Monsanto, as well as Westinghouse, will do likewise. A further assumption is that G.E. capacitor people will also join this effort as it must be a united G.E. stand.

II. Things G.E. Asked Monsanto To Do That Have Not Been Done

G.E. has not received Monsanto's written data on Aroclor - soil migration and biodegradability tests. They urge that this highly favorable data be released and used actively in pursuing the case for PCBs at EPA by the users of transformers and capacitors.

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G.E. still wait and urge that Monsanto respond to G.E. questions of the price sensitivity of Aroclor 1254 (up and down) relative to volume use. As this is strongly influenced by use or discontinuation of PCBs for capacitors, Monsanto is urged to pursue and use their above given transformer Pyranol posture which strongly supports continued use of PCBs when we deal with G.E.'s capacitor people.

Specifically, we should bring this to attention at G.E. Hudson Falls and strive to withhold unwarranted promotion of Econol. Its promotion is misleading to Government officials and in fact to all others than the relatively few people who understand the immediate purpose and limitations of Econol (phthalate ester).

III. Mark The Following

Monsanto should consider the possibility that G.E. (like much of the industry already) could become interested in the use of Aroclor 1242 and 1016 for transformers if:

A. EPA recognizes different degrees of biodegradability and
B. If National Electric Code, IEEE, ASTM, ANSI, NEMA and UL change their definition of askarel to require only that the liquid be non-flammable and delete all reference to the non-combustibility of arc-formed gas.

Through these technical organizations the original definition of transformer askarel has already been altered for Westinghouse to better cover them from a legal point of view relative to their use of Aroclor 1242, after they and our laboratory noted that the arc formed gas from Aroclor 1242 has a degree of combustibility. Now Westinghouse wonder -- why not use Aroclor 1016 in transformers?

But mark that this is the first time that G.E. has indicated entertaining use of Aroclor 1242 or 1016 for transformers. As the chance for primary explosion with askarel is little different (the same) as with mineral oil, perhaps the non-combustibility of arc-formed gas generated during such a devastating explosion is relatively unimportant and the main thing is that the fluid (like) Aroclor 1242 and 1016 does not sustain combustion.

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As today's environmental considerations now enter this debate to a very marked degree, man's concern over remote salmon eggs, etc. may easily over-ride his feeling of need to prevent a secondary explosion, especially as the primary blow will be far more devastating.

A. Aroclor 1260 was eliminated and our research and plant people rearranged things.

B. Our research and plant people should anticipate the possible elimination of Aroclor 1254 and determine how best to rearrange things in that event. In the meantime we will continue to try to retain maximum use of Aroclor 1254 for transformer Pyranol. However, whereas the EPA still regards all chlorinated biphenyls (except perhaps mono) as being "bad PCBs", the time may come when the EPA understands our teachings and becomes convinced that there is significant biological difference between pentachloro vs. tri and dichloro biphenyls. The French, certainly Dow and to some extent the Germans anticipate this attitude against pentachlorobiphenyl.

P. G. Benignus

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