[redacted]
N. T. Johnson - BZS J
A. J. Rego - 1210
D. H. Lewis - 1180

June 10, 1971

Dr. A. E. Vassiliades
Vice President-Director
Research & Development Services
U.S. Plywood-Champion Papers Incorporated
130 North Franklin Street
Chicago, Illinois 60606

Dear Dr. Vassiliades:

Both Norm Touchette and I appreciate the good meeting with you and your Research personnel. During our meeting you inquired regarding our position on polychlorinated terphenyls as they affect the environment. I believe the comments below will be helpful to you at this time.

As you know, Monsanto made the decision last spring to withdraw from polychlorinated biphenyls (PCBs) in open system applications. This decision was made after considerable deliberation and evaluation of data available to us both from our own studies as well as those from outside agencies. Based on our evaluations we concluded that it would be in the best interest of Monsanto, our customers and environment to stop selling PCBs into open system applications. All during our evaluation of PCBs in the environment we attempted to find some evidence that the polychlorinated terphenyls were also affecting the ecology. At no time did we find these materials in the environment. Since last spring we have continued to search for polychlorinated terphenyls and our findings are still the same. They have not shown up in lakes, streams, fish, birds or in other natural states.

While we would like to say that we have a complete explanation on why chlorinated terphenyls do not appear in the environment, this is not the case. We do believe, in general, that they resist biodegradability to a degree similar to the PCBs. However, we do know that the chlorinated terphenyls are much less soluble in water than their chlorinated biphenyl analogues. This would certainly make them less available in the streams

and lakes and, thus, less likely to enter the food chain. Further, judging from (1) the size of the configuration of the two molecules and (2) the relative solubility data of chlorinated biphenyls versus chlorinated terphenyls in organic solvents like hexane, one would certainly be led to the conclusion that the chlorinated terphenyls would also be less soluble than PCBs in the fatty tissues of animals. Here again, it makes it more difficult for the chlorinated terphenyls to enter the food chain.

Our current PCB content in our chlorinated biphenyl line is less than 0.1% by weight. We are bringing a plant modification project on stream at the end of this year which will reduce this level to approximately 0.01%.

When Monsanto made its decision last spring to withdraw PCBs from open system applications and to leave chlorinated terphenyls on the market we considered all the information which was available to us at that time. The comments given above summarize some of the thinking that went into the decision. Since last spring we have continued our studies and have not as yet formed any new data which would tend to change our decision. We fully expect that the chlorinated terphenyl products will remain in our product line.

I hope these comments will be helpful to you as you appraise the performance of XS 363 and XS 374. Both of these products contain about 25% by weight of chlorinated terphenyl. The remaining 75% of these two candidate fluids are hydrogenated terphenyls. As I indicated in an earlier letter to M. P. Powell, hydrogenated terphenyl chemistries, like HB-40 and XS 362, have been found to be relatively non-toxic and are biodegradable in normal waste treatment systems.

Very truly yours,

Donald R. Pogue
Product Supervisor
Process Fluids

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cc: Mr. E. Potts
U. S. Plywood-Champion Papers Incorporated

Mr. W. B. Papageorge
Monsanto Company