[redacted] St. Louis

February 29, 1952

Agreement signed by Mr. R. R. Cole, VP
Approved by the surgeon general 10/16/[illegible]

Mr. T. K. Smith, Jr.

St. Louis

AGREEMENT BETWEEN THE U. S. PUBLIC HEALTH SERVICE & THE MANUFACTURERS OF CHLORINATED NAPHTHALENES, CHLORINATED DIPHENYLS AND CHLORINATED DIPHENYL OXIDES

You asked about the second item in this signed agreement which we quote as follows:

"As further evidence of cooperation, the manufacturer agrees to insert on all bills of sale the following notation:

'This product is sold under direct agreement with the U. S. Public Health Service and if re-sold as such or in mixtures thereof for further fabrication within the United States, it is necessary that such products be labelled by you as follows:

"This package contains (Name of Product)

AVOID REPEATED CONTACT WITH THE SKIN AND INHALATION OF THE FUMES AND DUSTS." '"

Attached is original and duplicate invoice blank showing that our bills of sale do not carry the notation as given in the second part of the agreement noted above. It would be most difficult to understand how many of our direct customers could comply with this agreement, and to cite one example, we mention Plastics Film Corporation. Here Aroclor 1254 is used as one of the component plasticizers in the film which Plastics Film Corporation then sell to various fabricators for fabrication. This, of course, represents resale of Aroclors in mixture with other ingredients in vinyl, and would appear to come under the letter of the agreement. However, as a result of this transaction Plastics Film Corporation would not be interested in stamping their vinyl film with our Aroclor warning label.

The wording of our Aroclor label about handling is relatively mild, yet, in a few instances we know that people not familiar with chemical products have mis-interpreted it to an unjustifiable extent. On the other hand, in the very few instances where misuse of Aroclor (especially at elevated temperatures) has led to law suits, it was highly desirable and protective to us in having our current label on the Aroclor packages.

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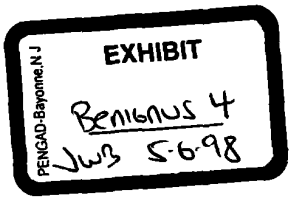

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Since the wording of the label was formulated and put into use, skin patch tests run under competent medical supervision indicated that Aroclors are neither skin irritants nor skin sensitizers. This is indicated in our literature, but of course is not intended to mean that people should bathe in Aroclor. There are instances in the commercial use of Aroclor where people have immersed their arms up to the elbow, day in and day out, in the liquid Aroclors, and of course we do not approve of this, and to avoid such misuse of Aroclor, the wording on our label to avoid repeated contact with the skin seems highly significant. Back in 1930 or thereabouts, when the Aroclor applications were relatively few and the customers about equally few, there was indeed the prize application of using Aroclor 1254 as a chewing gum plasticizer. The wording of our label would not be compatible with this sort of thing.

Since so many of the new Aroclor applications involve their use at elevated temperatures, the wording of the warning label to avoid inhalation of fumes is especially significant. We constantly keep this factor in mind in our development work, and emphasize it in direct contacts as well as indirect contacts such as our literature. While the toxicity hazard of Aroclor's fumes is well established and should be thoroughly understood by all, yet, as we go along we find that we are always confronted with violations in one degree or another, and indeed, regard keeping in touch with these things to be a major responsibility in the promotion of Aroclors.

Strictly speaking, the matter of inhaling Aroclor dusts might be deleted from the warning label, as surely most of the commonly used Aroclors certainly are not dusty, and the powdered materials such as Aroclor 1268 and 1270 and 1271 are reported in the literature as being of a relatively low order of toxicity. This item on dust may apply in the case of unloading a drum of Aroclor 5460.

Referring to the few deaths, and the relatively large number of acne or dermatitis cases arising during the war, in connection with fabricators of Navy cable coating materials using a mixture of Aroclor 4465 and Halowax, there are two things to keep in mind. One is that this combination of chlorinated hydrocarbons is more toxic than the chlorinated biphenyl or terphenyls alone; and secondly, in this program of operations, proper working facilities and cleanliness were overlooked. In fact, the workers' wives at home even acquired acne and dermatitis which was traced back to the halogenated hydrocarbon compounds.

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In the light of the immediate above, it is interesting to keep in mind that we are currently selling at least two and one-half million pounds a year of, particularly, Aroclor 5460, but also some Aroclor 4465 for hot melt impregnation of asbestos wound wire, and also as impregnating agents used in the construction of Navy cable.

In the past, when the toxicology of Aroclors may not have been particularly well understood, this factor was certainly a heavy load to bear on the development of these products. The subject remains not the easiest one in the world to understand, but in view of the large stake that we now have in the rather widespread commercial use of Aroclors, we constantly strive to learn more about this subject of Aroclor toxicology and to safeguard against any possible hazards.

P. G. Benignus

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Att.

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