BCC: P. G. BENIGNUS
D. A. OLSON

July 7, 1970

Mr. Gene Lewis
P. R. Mallory Company
Waynesboro, Tennessee

Dear Gene:

I apologize for the delay, but after further travel and a long holiday weekend I am finally sending you my comments regarding the control and disposal of Aroclors.

I appreciated the time you and your colleagues were able to spend with Randy Graham and me and I was pleased I had the opportunity to tour your plant, since this gave me a better understanding of your overall problem.

Gene, of all the plants I personally toured, yours had the biggest challenge to reach the objectives we are striving for. I tell you this not to embarass you but, hopefully, to give you some feel for the magnitude of the problem.

First, let us consider the welfare of your employees. Aroclors, being chlorinated hydrocarbons, should not be permitted to exceed 0.5 to 1.0 milligram per cubic foot of air in the work area. In your operation, in spite of an operating ventilation system, the presence of Aroclor was noticeable by the blue haze present and insensitive as I have become, the amount was high enough to cause eye irritation which persisted for several hours after the exposure.

Another area of employee exposure is direct skin contact with the liquid Aroclor. Contact should be eliminated by operating changes or by providing protective gloves and clothing.

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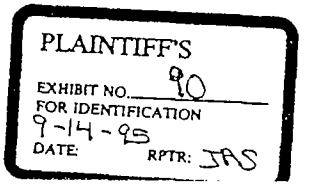

To prevent the escape of PCB's to the environment calls for a level of control and housekeeping many of us have never been asked to achieve in the past. Every effort must be made to prevent leakage and spillage. Maintenance must be kept at a very high standard. For those areas where leakage and spills will occasionally occur, catch pans must be provided. These pans must drain to a collecting basin or be emptied by responsible employees on a scheduled basis.

Mixing of Aroclors with waste water streams should be avoided since separation of PCB's from water can be costly. If mixing cannot be avoided, a catch basin and settling pond should be provided to separate the heavy Aroclor from the water.

Unusable contaminated Aroclor should be disposed by incineration which assures complete destruction to CO_2, H_2O, and HCl. Any incineration below 800°C will result in vaporization which will contaminate the atmosphere or in partial oxidation which may yield materials which are highly toxic.

To help our customers with their liquid disposal problems, we have offered to accept for future incineration scrap liquid Aroclors shipped to Monsanto Company, W. G. Krumarich Plant, Sauget, Illinois, Attention: Supervisor, Department 246. The charge for this disposal is 3¢ per pound of material. This charge is tentative pending a complete evaluation of incineration costs and does not include freight or container costs.

Contamination of the atmosphere must also be eliminated. All handling systems must be closed wherever possible. Fumes exhausted from a tank, vessel, or working area must be trapped and collected using condensers and entrainment separators.

Solids contaminated with PCB's pose a greater challenge. Until a proper incinerator is designed, we are suggesting that disposal be made in an authorized, properly operated land fill away from any water systems. These solids include treatment clays, absorbing materials used to contain spills, rags, windings and containers.

In summary, control of PCB's can be achieved with equipment engineered to prevent losses and maintained properly coupled with good manufacturing practices which result in a high standard of housekeeping.

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