Our concern will be the formulation of a global mass balance equation of polychlorinated biphenyl compounds that would ultimately permit the determination of long-term accumulation trends in major sinks such as the oceans.

1) Data supplementary to those released by Monsanto in late November were presented at the recent PCB meeting in North Carolina. These included a breakdown of PCB production over the past ten years into the individual PCB formulations based on chlorine composition. Copies of those data would be appreciated. For each year can the principal uses of each formulation be classified in the following capacities as a percentage of the total production of each formulation: 1) capacitors; 2) plasticizers; 3) dielectric fluids; 4) lubricants or hydraulic fluids; 5) heat exchangers; 6) miscellaneous and other? If exact figures are not available can reasonable estimates be made?

2) Our task will be to estimate the rate of entry of PCB compounds of each formulation from the major pools into the environment and the total amount that might be expected to enter eventually the environment. We realize that in many cases it is not legally possible for Monsanto to release data that would indicate loss to the environment since this would constitute self incrimination on the part of the Monsanto Company or would implicate Monsanto customers. Given these limitations however we would appreciate your cooperation in making these calculations.

3) The efforts of Monsanto to develop a bio-degradable PCB that would not contain the higher isomers known to accumulate in the environment is very much appreciated. We understand that the substitute Aroclor 1016 has been developed for capacitor use. We share Monsanto's disappointment

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over the report that the toxicity of this preparation is substantially higher than that of Aroclor 1242. Is it possible that chlorinated dibenzofurans are present in the preparations?

4) In the opinion of Monsanto's chemists could the manufacturing procedure used by PCB manufacturers in France, Germany and presumably Japan be improved so as to reduce the content of the chlorinated dibenzofurans? To Monsanto's knowledge are products containing foreign PCB imported into the U.S.A.? Is Monsanto aware of any paper imports into the U.S.A. that might contain excessive amounts of PCB?

5) Can you tell us which countries supply the PCB needs of nations such as Brazil?

6) We are puzzled why the PCB in Atlantic zooplankton and fish should resemble so closely Aroclor 1254. Could Monsanto suggest a possible source of this PCB?

7) Could Monsanto suggest ways that leakage of PCB from power plants be reduced?