Monsanto

FROM (NAME & LOCATION) H. L. Campbell

DATE November 16, 1972

CC G. L. Bratsch
C. F. Buckley
G. A. Hippe

SUBJECT PCB Residues in Surface Waters

REFERENCE

TO : E. E. Stewart

COMPANY CONFIDENTIAL

As you know, for some time now we have been evaluating various adsorption systems for the extraction and recovery of very low levels of PCB from surface waters. The Carbowax-Undecane partitioning column of Jensen, and the special decolorizing charcoal technique of Berg have been tried to date. We have just completed the application of the charcoal column filtration to one gallon of Miss. River Water (J.B. Bridge, on 10/30/72) and the absolute quantities of apparent PCB's found are reported below.

Approximately 0.5 gram of sediment was isolated during the filtration of the gallon sample, and was subsequently removed from the charcoal filter and analyzed separately for PCB's. The adsorption of organochlorine pesticides and PCB's on sediment or particulate matter from surface waters is well documented, and in this case the quantity of sediment collected appeared significant.

Analyses	Micrograms (ug) of PCB's	
Miss. River Water 10/30/72, 1 gallon	Equivalent to anal.blank (~0.12 ug)	
Sediment from Water sample (1 gallon)	0.17	$\frac{(0.17+0.12)\times10^{-6}}{3728\ gm} = \frac{x}{10^9}$
Analytical Blank	0.12	$x = \frac{(0.29\times10^{-6})(10^9)}{3728\times10^{-6}} = 0.077$ ppb

We still feel that it is unrealistic to report a positive PCB level unless the quantity found is at least twice the analytical blank level. In the above analyses we would report the apparent PCB level to be less than 0.07 ppb in the combination water-sediment sample. However the implication of the analytical data is apparent. The presence of sediment or particulate matter in water samples must be considered a relevant factor in the analysis and subsequent reporting of PCB contamination.

H. L. Campbell
(H. J. Horner)

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DSW 310848

IN - 10 REV. 1/72

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Monsanto

FROM (NAME & LOCATION) E. E. Stewart, W.G. Krummrich Plant

DATE November 2, 1972

cc A. E. Leisy
J. R. Savage - B2SL
P. B. Benignus - B2SC
W. C. Engman/G. A. Hippe

SUBJECT

REFERENCE

TO : Mr. P. E. Heisler

I talked with Dr. Eunice Moore on 11/1 of Electric Utilities Company, LaSalle, Illinois, with regard to possible governmental regulations of PCB's to the environment. Electric Utilities is a major customer for Aroclor in the State of Illinois.

Our concern is that the WGK strategy as a producer of Aroclor would not be in conflict with customer strategy within the State.

Dr. Moore stated they can probably meet any proposed regulation with regard to water pollution and this includes getting down to possibly "zero". She does state that residual pockets in the sewer system may contribute to background for some period to come. They have a small effluent stream that discharges to the Illinois River.

Our strategy is not in conflict with Electric Utilities. I told Dr. Moore that we would keep her informed with regard to our future contact with governmental agencies.

Dr. Moore expressed some concern with possible air pollution problems. To my knowledge PCB's will not be considered an air pollutant.

Edward E. Stewart
Technical Services Department

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