Monsanto

FROM (NAME & LOCATION) E. S. Tucker - R&D Laboratories - 1700 So. Second

DATE March 28, 1969 cc W. R. Richard - GO

SUBJECT MONTHLY SUMMARY - AROCLOR WILDLIFE
MARCH, 1969 - ANALYTICAL STUDIES

REFERENCE

TO : R. E. Keller

The Biotest-Aroclor chicken and rat feeding has been completed and the tissues have been received. The analytical procedures for the isolation and analysis of the chlorinated hydrocarbons are nearly completed and the tissue residue analysis should begin soon.

EG/GC analysis of tap water equilibrated with Aroclor 1242, 1248, and 1254 has been completed. The respective Aroclor solubilities in ppb were: 203 ± 10, 106 ± 14, and 50 ± 2.

Aroclor analysis of Snow Creek samples indicated its presence at the following levels:

	Amount of Aroclor Found	
	Sediment	Water
Plant Outfall	$0.20\pm.02$	58 ± 2 ppb
Plant Outfall (1 Blk)	$1.64\pm.04$	-

As a result of the above findings, it was suggested that samples should be taken further down Snow Creek, down Choccolocco Creek, and even from the Coosa River if necessary.

Aroclor waste samples from W.G.K. have been received and their analysis has been started. The sludge and water samples being analyzed are from the Sauget Village waste treatment plant and from the Mississippi River (300' from the plant outfall).

Incineration experiments with N.C.R. paper indicates that the Aroclor present is easily volatilized, undergoes little if any significant decomposition, and that air pollution could occur via this route.

Initial experiments with the catalytic reduction of Aroclor to bicyclohexyl with a Beroza unit prior to GC analysis were encouraging. Further experimentation is planned. It is hoped that this technique, if successful, will resolve the isomer and quantification problems. Further work is also being carried out on chemical and TLC techniques to provide better methods of isolating Aroclor from other chlorinated hydrocarbons.

A meeting at Biotest Laboratories on the Aroclor-Wildlife problem was attended. Results of the discussions with the Biotest people and our consultants, Professors Mailer and Metcalf are being incorporated into the program.

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As of April 1st, a continuous 2-1/2 - 3 man effort will be brought to bear on the analytical portion of the Aroclor-Wildlife problem in order to keep up with the pace at which it is developing.

E. S. Tucker

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