PROGRESS REPORT
ORGANIC CHEMICALS DIVISION
TECHNOLOGY DEPARTMENT

REPORTED BY	FOR	DETAILS	REPORT NO	DATE
W. M. Mees W. J. Litschgi E. S. Tucker	January- August, 1971	Yes	1	8-30-71

LOCATION	JOB NOS
St. Louis - S. Second Street	2-21-760.01-13480, 85010, 16300

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*E. P. Wheeler/G. J. Levinskas

PROJECT TITLE

ENVIRONMENTAL ANALYTICAL STUDIES - RESEARCH AND DEVELOPMENT, MANUFACTURING AND OUTSIDE SUPPORT STUDIES

PROJECT OBJECTIVE

Identify, locate and assess the magnitude of Aroclor pollution problems, help determine what needs to be done to control pollution sources, verify the effectiveness of proposed pollution control procedures, guide development of recycle and/or disposal methods, and provide collaborative data for legal and regulatory purposes.

SUMMARY

During the period covered by this report (January-August, 1971), 185 environmental and research samples have been analyzed for polychlorinated biphenyls (PCB's) by electron capture gas chromatography. Analysis of these samples represents a minimum manpower expenditure of 600 hours.

PCB's typical of our Aroclor products have been found at levels below and above recommended guidelines in:

- water and sediment from 3 manufacturing sites and 10 customer sites.
- fish meal, bakery meal, and in chickens and eggs of chickens fed feed manufactured from these materials.
- paperboard coatings.
- milk from the Ohio Department of Agriculture.
- Vermicelli.
- four Monsanto products, 6 customer products, and one competitive product.

A table showing the sample sources, types, and the level and type of Aroclor found as well as the support objective is presented in the details section.

Additional external and internal support has been provided in the form of analysis of samples for plant pollution and process development, on-site methodology training, analytical consultation and distribution of Aroclor reference materials.

R-28 REV. 6-70

FUTURE PLANS

Samples Scheduled for Analysis

1. J. F. Queeny monthly plant effluent composite(s) (1+).
2. N.C.R. monthly 24-hour composite plant effluent(s) (1+).
3. Frigidaire Division monthly composite plant effluent samples (2+).
4. Westinghouse (S. Boston, Va.) plant effluent, sediment, and oil samples (7).
5. Ag Division - Nitro plant Santoquin and CaMHA samples (27).
6. Inter-laboratory synthetic PCB exchange samples.
7. PCB analysis of "Barbecue King" barbecued chickens - Greenville, South Carolina (4).

Other

1. Distribution of PCB in whole milk (fat vs skim)(legal).
2. Review of methods used by regulatory agencies to analyze Ohio milk samples for PCB's (legal).
3. On-site PCB analytical training for St. Regis Paper Company laboratory representatives (September 9th).
4. Evaluate and publish methods for isolation and detection of PCB's in Santoquin and CaMHA.
5. Analysis of Anniston plant effluents for polychlorinated terphenyls(8).
6. Review of PCB analytical methodology for representatives of Ontario Water Resources Commission (September 1st).

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9-3-71

W. J. Litschgi

E. S. Tucker