REPORT ON MEETING WITH BAYER,
CAFFARO & PRODELEC IN BRUSSELS
MAY 14, 1970

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CONFIDENTIAL

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SUMMARY

Objectives were to review that actions had been accomplished since the February 9th/10th meeting, and to enable our St. Louis visitors to give the European PCB manufacturers a first-hand and up-to-date resume of the US and Canadian situation. Whilst the later objective was achieved, it became evident that the other European manufacturers had made little progress since the February meeting. With the possible exception of Bayer, management of the Continental PCB producers still do not pay any serious attention to the PCB problem.

At the end of the meeting, H.N. Dahlstrom urged the other participants to impress upon their managements the concern with which Monsanto viewed the situation. Although political, legal and emotional pressures upon the various manufacturers might presently differ in degree, it was a common problem. Basic decisions on how to deal with it would need to be taken over the coming weeks.

If a further meeting was needed, the date was tentatively fixed for the 29th of September in Brussels.

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DETAIL

US & Canada

1. Reference was made to the 50 - 75 institutes and agencies in the USA known to be working on the PCB problem, Congressman Ryan's activities, Professor Risebourgh's conviction on the PCB hazard and the Duluth meeting. The city of Toronto was investigating possible sources of PCB pollution. The Canadian Ministry of Health was concerned, and it was conceivable that Canada could be the first country to regulate against PCBs.

2. The summary sheet showing the results at 11 months of the two year toxicity tests was circulated. State authorities were beginning to seek guidance on tolerance limits from the FDA following the detection of PCB residues in one or two samples of milk. Within the next few months it was probable they would set limits for PCB in milk and food (perhaps 0.5ppm in milk and 5.0 ppm in other food-stuffs), not publicly but in the form of a confidential note to their inspectors.

3. Following a good deal of analytical work, Monsanto was now convinced that many of the reported findings of PCB residues were qualitatively and quantitatively correct. Nevertheless, there was still room for improvements in methods - particularly the need for reference standards. Wild life residues invariably seemed to be the higher chlorinated grades, although all grades had been found in a number of rivers examined. In the latter case, there was usually a logical explanation for the presence of PCB - either a manufacturing or user plant.

ANALYTICAL

1. No further meeting of analysts or distribution of methods had taken place since the February meeting. A Monsanto methodology package is now ready and would be circulated within eight days. If other participants needed further information, then they should take the initiative in securing it.

2. Bayer had not seen Widmark, although Monsanto had visited him earlier that week. He was no longer primarily concerned with PCB nor was he still on the O.E.C.D. pesticides committee. However, since Jensen left to join the Swedish Nature Conservancy, he had carried out around 1,500 PCB analyses, mostly in bottom sediments, sewage sludges and fish.

   Jensen is still active as is the Swedish Folkhalsan Institute, and copies of the latter's recent reports on PCB residues in food-stuffs were circulated.

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Monsanto reported that van Genderen at Utrecht was reluctant to take on contract work, although the T.N.O. at Zeist would do so. Van Genderen is still actively investigating PCB toxicity and acts as an advisor to the State Public Health Authorities.

3. Reviewing other countries, there had been a limited demand for samples from various institutes in Germany and some public water supplies were being analysed. Caffaro had supplied askarel samples to a university for comparative toxicity tests. There was nothing new to report from France. Ultimately it was thought there might still be a need for a brief European survey to confirm the presence of PCB residues in nature, particularly in inland waters.

4. Unilever had not yet published details of their analytical method. They now have five or six people working on PCB residues, mostly in relation to their pesticides work. Telling will be visiting St. Louis in June.

5. Monsanto reported on the industry profiles they were developing showing the typical losses of PCB during normal processing . Empty drums were also a potent source of loss. UK customers had been mailed and a copy of the letter would be circulated.

Bayer had discussed the problem with some of their major customers and urged them to improve their housekeeping, but had done nothing further. Bayer knew that a good deal of carelessness had occurred in the past, and Prodelec also confirmed this to be true for France. French users were thought to be dumping indiscriminately. Prodelec had not started looking at fish samples and there was no governmental activity, although it was reported that a new minister was to be appointed with responsibility for enviromental preservation.

TOXICOLOGY

1. Monsanto's chronic toxicity tests will reach the half way stage in July - August, and the twelve months summary report will then be circulated. Investigations on toxicity towards fish had been delayed. The need for toxicity investigations specific to European conditions was queried, but it was thought the time for such work had probably already passed.

2. Monsanto reported there would now be two N.E.R.C. reports and neither had yet been published. The first will deal with the examination of the dead seals found off the Cornish coast last autumn, and the final draft had been completed. Relatively high

PCB residues had been found but it had not been possible to assess their significance, and the prime cause of death had been attributed to starvation. The report on the Irish Sea incident is now expected to be published in July. Monsanto will circulate this and the seal report when they are available.

DEGRADATION

1. Monsanto's biodegradation studies were continuing and although there were a number of theories, it was too early to report any conclusions.

2. Monsanto had substantial quantities of wild life tissues in cold storage awaiting analysis. It was hoped to complete this analytical work in three months and it might then be possible to establish whether, for example, if the trichloro compound was fed the residue appeared looking more like the pentachloro compound.

DISPOSAL - TRANSFORMER FLUIDS

1. Monsanto reported on their incineration studies with Purle Brothers, and a pyrolysis/incineration pilot plant. Bayer's analysis of their incinerator flue gas is awaiting the installation of a new gas chromatograph.

2. Monsanto had located some 32 year old test plots in Florida where PCBs had been buried with pentachlorophenol to see if they improved the latter's biological activity. These plots were to be sampled and analysed for PCB and might provide some interesting data on the rate at which PCBs disappear.

3. Reclamation remained a key question. Monsanto saw no functional problem with Prodelec's proposal for a relaxed specification on reclaimed fluid, but questioned whether the users would accept a double standard. Bayer also thought it functionally acceptable in terms of the higher oil content, but doubted whether customers would accept the higher power factor.

   It was agreed a common approach by all fluid manufacturers was desirable. Monsanto will accept responsibility for trying to make provision for the containment of used transformer askarel in the revised askarel maintenance guide instructions being prepared under the auspices of the IEC. This question may also come up at the forthcoming CIGRE meeting.

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DISPOSAL - CAPACITOR FLUIDS

1. This question was still a problem, particularly when dealing with capacitors that had failed in service. Monsanto had visited their major domestic customers, Bayer had visited some of theirs and Prodelec were intending to do so, in order to urge them to contain the escape of fluid during the manufacturing process. Caffaro had no plans.

2. Bayer, Caffaro and Prodelec were to consider the desirability of a joint approach to the industry in non-domestic markets and would notify Monsanto of their views by mid-June.

ACTIONS

HAV	- Send methodology package to other participants.
DSC	- Circulate twelve month toxicity data when available.
	- Circulate NERC reports when they are published.
	- Circulate copies of UK customer letter.
HAV/PJAM	- Initiate modification of askarel maintenance instructior for IEC meeting.
DSC	- Coordinate possible joint approach in non-domestic capacitor markets.

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