FROM (& LOCATION) D.S.Cameron - Brussels

DATE 16th February, 1970. cc: H.N.Dahlstrom - D.B.35

SUBJECT Draft Letter to U.K. Customers.

REFERENCE DSC/ec

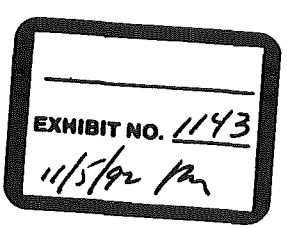
TO : W.B.Papageorge - St. Louis

Attached is a copy of the letter we have drafted for mailing to all U.K. customers for Aroclor and for products containing Aroclor - both fluids and plasticizers. In view of the present situation in the U.K. we thought our letter should be somewhat more detailed than the one you mailed in the U.S. For example, we did not think we should omit all reference to Aroclor 1242, and we have tried to give constructive guidance on the precautions to observe to minimize the pollution risk.

You may know that H.N.Dahlstrom will be in St. Louis the week commencing 22nd February, and he will be reviewing Functional Fluids with H.S.Bergen on the 24th. One of the items high on his list of priorities will be clearance of the text of our draft letter with the Business Groups involved. In view of the time pressures, we thought you might be able to initiate clearance with them and with the Law Department and anyone else involved prior to Norbert Dahlstrom's arrival.

A copy of this draft has already been sent to the U.K. Law Department in London for their comments. We are very anxious to get this letter mailed early in March, before the report from the NERC on last Autumn's Irish Sea incident is published.

D.S.Cameron.



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DRAFT LETTER TO U.K. AROCLOR CUSTOMERS

During the past few months you may have seen in the national or trade press reference to the presence of polychlorinated biphenyl (PCB) residues in the marine environment. The quantities detected have been in the parts per million and parts per billion categories.

The residues have, for the most part, resembled chlorinated biphenyls containing 54% and 60% chlorine by weight. Products sold by Monsanto under the trade names Aroclor 1254 and 1260 contain such chlorinated biphenyls. In addition, Monsanto sells certain functional fluids which contain Aroclor 1254 or 1260 as part of the formulation. These include the industrial hydraulic fluids Pydraul AC, 280, 540 and 625, the heat transfer fluids Santotherm FR-3 and Aroclor transformer coolants. Several other companies around the world also produce products containing chlorinated biphenyls.

As your supplier of the above materials we wish to alert you to the potential problem of environmental contamination as referred to in the newspaper and magazine articles. Whilst the detection of PCB in the environment is a cause for concern, it is extremely important to keep this subject in biological and technical perspective. It has not yet been established to what extent, if at all, the concentrations found represent a toxic hazard, nor has it yet been possible to identify the routes by which these residues reach the marine environment.

A considerable amount of analytical and toxicological work is presently being conducted in our laboratories and those of independent institutions and government agencies, both in

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this country and in the U.S.A. Until this research provides conclusive evidence of the nature of the problem, we consider it advisable that all users of these materials should exercise the greatest possible care to prevent them from escaping into the environment, i.e. either air or water.

There have been no reports of the lower chlorinated biphenyls such as are in Aroclor 1242 and 1248 being found in the environment and there is strong evidence that these materials are biologically degradable. However, the mechanism of this degradation in the environment, its possible ecological effects and the relative behaviour of biphenyls chlorinated at different levels are not yet fully understood. We therefore recommend the same precautionary measures are observed with Aroclor 1242 and 1248 and with formulations containing these materials, such as Santotherm FR-1 and FR-2, Hydraul 90, 135, 230, 320, A-200, F-9, 150 and 60 and Turbinol 153.

Therefore, when processing PCB's or when disposing of PCB waste care should be taken to ensure that the material does not enter surface or underground water courses or the public effluent drains. We recommend that solid waste materials should be disposed of by burying in relatively dry ground at a site approved by the local authorities for waste disposal. An alternative route is incineration at temperatures exceeding 800°C. Liquid wastes could be mixed with an absorbent material such as dry sand or earth and disposed of in a similar manner.

Meanwhile, you need not be concerned about the handling of the materials in your plant. Like many other industrial chemicals in widespread use, PCB's are not in themselves

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hazardous when properly handled. Monsanto has been manufacturing PCB's in the U.S.A. since the early 1930's and in the U.K. since 1951. During this period cases of toxic effect have been extremely rare and have occurred only when simple precautions recommended for use were not followed.

Finally, we would like to stress again that products such as Pydraul 90, 135, 230, 312, A-200, F-9, 150 and 60, Turbinol 15 and Santotherm FR-1 and FR-2 are not formulated with Aroclor 1254 or 1260.

In the present situation and until further data is available a key factor will be the observance of good housekeeping methods to prevent accidental or inadvertent spillages. To assist you we are enclosing a notice listing a number of key points which should be observed. If you feel we can be of any further assistance please let us know.

Brussels
February 13th, 1970.

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PRECAUTIONS TO OBSERVE WITH PCB WASTES

1. Collect all PCB waste for disposal.

2. Collect all waste containing PCB residues (e.g. cleaning fluids, spent earth), for disposal.

3. Liquid spillages can be absorbed on to solids such as dry sand or ash for subsequent disposal.

4. Remember PCB's can be reclaimed if not too badly contaminated or degraded.

5. PCB wastes may be disposed of by :
   (a) burying in relatively dry ground on a site approved by the local authority.
   (b) incineration, but only at temperatures above 800°C in order to ensure complete destruction.

6. Do not allow PCB waste to enter effluent drains.

7. Do not burn PCB wastes in open hearth incinerators.

8. PCB residues in empty drums should be rinsed out and disposed of as recommended above.

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