Dear Mr. Thorne,

Sorry for the delay in replying to your letter of March 21, but I hope the following information will prove helpful in the preparation of your article.
The UK is represented on the OECD by the Department of the Environment and Department of Trade and Industry. Mr. Ian Prosst of the former department's Central Unit of Environmental Pollution, Room N19/04, 2 Marsham Street, London SWIP 3EB (tel. 212-3434) should be able to give you substantial assistance on the subject of PCBs.

Monsanto first started the manufacture of PCBs in the USA in the early 1930s and in the UK, at a plant in Newport, South Wales in the early 1950s.
Prior to 1951 all the PCBs used in the UK were imported. Initially these compounds were used almost exclusively in electrical transformers and then later also in capacitors. Because of their outstanding properties as a cooling and heat transfer fluid, combined with extremely low combustibility, their principal use has been in the electrical industry where they replace the more combustible oil products. The position before Monsanto voluntarily introduced control measures in 1971 was that, although the major uses of PCBs sold in the UK were in the electrical industry, a significant proportion was being used in plastics, resins, rubbers, adhesives, paints, heat transfer system fluids and hydraulic fluids applications.

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Following the discovery of PCBs in the environment by Jensen in Swedenna programme of research was started in the UK to ascertain if the previously observed but unidentified compounds in some wild animals in the British Isles were identical with PCBs found by Jensen in the pike and the white-tailed eagle in Sweden. Monsanto has spent well over half a million pounds on its own programme of research into methods of analysis, identification and measurement of PCBs, and throughout close cooperation has been maintained with appropriate government bodies.

The need for some form of control became apparent once PCBs had been identified as occurring in the environment and that the concentrations present, particularly in certain aquatic species had reached the point where undesirable effects could be expected long term.

However, because of their industrial properties, particularly their low flammability, PCBs still had some important and in some instances vital, uses in industry, for example in certain electrical equipment covered by safety regulations which require the use of non-flammable fluids. A sudden complete withdrawal from all uses, in the absence of suitable replacement products, could, therefore, have had serious consequences to industry and human safety.

Fortunately for most uses of this type, PCBs can be enclosed in sealed systems. During manufacture and transport losses can be avoided by the careful and controlled handling of the material and waste material can be satisfactorily disposed of by incineration. These two points led us to the conclusion that a partial ban affecting only non-controllable applications would be sufficient to safeguard the environment. Accordingly from March 1, 1971 Monsanto, without any directive from the UK government, introduced a voluntary ban on all uses where PCBs were not confined to a closed system such as in electrical transformers, capacitors. We recognised that there would be a problem of disposal of PCBs and made arrangements for provision of collection and disposal of waste materials arising from our plant or the users' manufacturing facilities.

As a further step towards complete control of end users, in January 1972 Monsanto discontinued its PCB sales to hydraulic and heat transfer applications throughout the world with the exception of mining applications in Germany where the industry felt it needed time to develop and test alternative hydraulic fluids. Then three months later on March 31 Monsanto discontinued sales of polychlorinated terphenyls for "non-controllable" and plasticiser applications throughout Europe and in June extended withdrawal of this product to cover "controllable" applications also.

Finally to complete the sales control programme, on November 30 last year Monsanto discontinued sales of PCBs to the German mining industry. This was the only other PCB application remaining other than in transformer and capacitor manufacture. The company's decision to withdraw sales to the German mining industry marked the last step in their planned withdrawal of sales of PCBs to any uses except to special electrical capacitor and transformer applications.

Monsanto is still the sole UK producer of PCBs which are sold only for electrical applications. We maintain a list of all PCB customers, each of whom is required to sign a pollution specific letter of agreement acknowledging the possible problems associated with PCBs and agreeing to prevent leakage into the environment.

Apart from Monsanto, PCBs are also manufactured in Europe by Bayer (Germany), Progil (France), Caffaro (Italy) and Flix (Spain).

With regard to substitutes, PCBs have been replaced by phosphate esters in lubricating and cutting oils, plasticisers, and in paint applications. In the printing industry, PCBs have been replaced by non-chlorinated, aromatic hydrocarbons.
I am not aware that PCBs have been used in pesticides and feel that you may be confusing this with DDT.

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With regard to production Monsanto was and still is the sole UK producer, and as such does wish to keep its production and capacity figures confidential. These have been released to the appropriate UK governmental agencies to assist them with their assessment of the problem. I have no figures for imports into the UK, but feel sure that these, if any, are insignificant.

Yours sincerely,

Peter W. Whippy.
Monsanto Public Relations Manager - Europe