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More on PCBs

There are disturbing signs that attempts to prevent the damaging industrial chemicals Polychlorinated Biphenyls (PCB) from entering the environment are not working. Monsanto Chemicals, the only manufacturer of PCBs in Britain, last year withdrew the chemicals from a number of applications such as their use in paints and varnishes. It also warned its customers of the dangers of letting the chemicals escape in liquid effluent and stopped supplying those customers it did not consider reliable enough to carry out the restrictions.

But recent analyses of the sewage sludge dumped by Glasgow Corporation in the Firth of Clyde showed that PCBs are present at the significant quantity of 0.5 parts per million. Monsanto Chemicals was surprised to be informed of these results; the company had hoped that the escape of PCBs would have been stopped. The analyses of the sludge were carried out in March by the Clyde River Purification Board. Its director, Mr Ian Waddington, told me that if PCB traces were still present *in six months' time* "*you* may take it that I shall be making representations at Government level".

Waddington is concerned especially because of the association of PCBs with harm to the natural life of the Clyde Estuary. PCBs are implicated in the massive mortality of seabirds that occurred in September 1969; many of the dead birds, containing high levels of PCB residues, were found washed up on the shores of the estuary. In addition the fish caught in the estuary have been found to have higher concentrations of PCBs than anywhere else in Scotland.

The PCBs end up in sewage sludge because they must be present in industrial effluents which are sent to sewage works for treatment. The escapes may be happening in two ways. They may be due to faults in Monsanto's policing of its customers. Or they may be caused by companies using PCBs which are not bought from Monsanto but from one of several Continental manufacturers. Maybe Continental chemical companies are less efficient and/or conscientious about protecting the British environment than Monsanto which has to live and work here.

It is understood that Monsanto has a tacit agreement with the Continental companies that if it bans a customer because it isn't satisfied with its control methods, then the Continental companies will refrain from picking up the business. This agreement may also not be working, or a Scottish industrialist may be finding a way round it.

There are only two points for comfort. First, samples taken by Glasgow Corporation itself indicate much lower concentrations of PCBs in the sludge than those taken by the Clyde River Board. And anyway, the Board's samples reveal about half the quantities present in samples taken about six months ago by the Freshwater Fisheries Laboratory in Scotland. (*Nature*, 19 December 1970). The trouble here is that not enough samples have been taken to give grounds for optimism.

Secondly Monsanto Chemicals is continuing to show concern and has informed me that if PCBs are proved to be uncontrollable, it will withdraw them from the market. The evidence is that voluntary control is not working.

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