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Toxic waste control plan is failing

THE ENVIRONMENT BUREAU by Jeremy Bugler

ATTEMPTS to prevent toxic industrial chemicals from being dumped off the coast of Britain are not succeeding.

Quantities of the chemicals—polychlorinated biphenyls (PCBs)—are present in sewage sludge dumped daily in the Thames Estuary, in the Irish Sea off Liverpool, and in the Firth of Clyde.

The Royal Commission on Environmental Pollution in its recent first report ruled as a 'high priority' an inquiry into the disposal of wastes at sea.

PCBs were implicated in a massive slaughter of sea birds in the Irish Sea area 18 months ago, and wildlife organisations are seriously concerned at the failure of control methods. 'We're very unhappy about it,' says Mr Peter Condor, director of the Royal Society for the Protection of Birds. 'We hoped this wasn't going to be a problem that would drag on and on.'

PCBs, like DDT and dieldrin, accumulate in creatures. Although they may enter the marine environment in small quantities, their long-term effect is incalculable.

They are known to be present in hundreds of effluents sent to sewage works for treatment. During this process the chemicals mix with the organic semi-solid waste—the sludge.

The PCBs in sewage sludge dumped by Glasgow Corporation are perturbing the Clyde River Purification Board. 'If PCBs are still in the sludge in six months' time, you may take it that I shall be making representations at Government level,' says its director, Mr Ian Waddington.

Samples of the sludge taken by the Board show that PCB residues are present at an average concentration of 0.3 parts per million—a significant level. Monsanto Chemicals, the only manufacturer of PCBs in Britain, has withdrawn the chemicals—brand name Aroclor 1254—from certain industrial uses where they cannot be controlled and has warned its customers of the danger of letting them escape in effluent. It says it is willing to halt the chemicals altogether, if they cannot be prevented from entering the environment. But several other companies on the Continent supply the chemicals to Britain.

The sources of the sewage have not been traced. Glasgow Corporation says the chemicals are used by many companies in many processes and that not all the sludge dumped by the corporation originates in the city. An attempt to trace the sources through the sewers has not been successful.

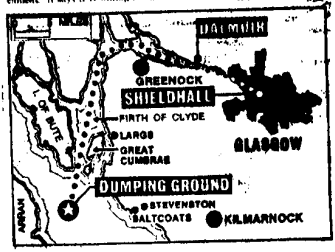
The sludge is carried daily in two ships—one from Dalmuir on the west of Glasgow, the other from Shieldhall in the city itself—40 miles to a point six miles south of the Isle of Arran. In one year, more than a million tons of sludge will be dumped here. 'We've nowhere else to put it,' says Mr John Armour, city engineer in charge of the disposal.

With variations, this practice has been going on for about 70 years. The water is more than 600 ft deep at the dumping grounds, but strong currents dispersal the sludge widely.

Residues of the chemicals in fish caught in the Firth of Clyde have been found to be much higher than anywhere else in Scotland. And seals in the Firth have about the same residues as those examined off the Thames Estuary or in the Irish Sea.

Many of the seabirds found dead in the mass mortality in September 1969 were washed up on the shores of the Firth of Clyde and showed high levels of PCB residues.

Tests of sludge dumped by Manchester Corporation in the Irish Sea indicates that about the same quantity of PCBs is being released there. The London sludge dumped in the Thames Estuary appears to contain lower quantities of PCBs.



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