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MONSANTO TO PHASE OUT PCB MANUFACTURE WHEN ALTERNATIVES BECOME AVAILABLE

As soon as Monsanto is satisfied that the electric power supply industry's needs for usable, acceptable alternative dielectric fluids have been met, by whom ever, the firm will voluntarily stop manufacturing polychlorinated biphenyls, according to Monsanto's F.J. Fitzgerald. While it is too early yet to put an exact timetable on the phase-out, Fitzgerald said, it will take place in a planned and orderly manner. Meanwhile, Monsanto will continue steps taken to minimize the environmental impact of PCB manufacture.

"The challenge is to replace them in an orderly manner," Fitzgerald said, "without creating another hazard of equal or potentially greater consequences, while at the same time avoiding serious power and transportation disruptions. This is our goal," he continued, noting that, in the interim, "we will continue to work with industry and government to insure that the restrictive measures and controls we implemented in the early 1970s remain in force and diligently pursued."

In a related development, Envirotech Corp.'s Frank Sebastian told the recent Mid-Atlantic Industrial Waste Conference in Newark, Del., that modern sewage sludge incineration technology can almost entirely destroy PCBs and other hazardous wastes found in the sludge, while reducing the energy consumption of sludge treatment systems to almost zero. A number of "closed loop" sludge incineration systems currently under construction in the U.S. will require virtually no new fuel once they are started, he said, since the heat-dried sludge has a fuel value equal to soft coal.

Meanwhile, Organization for Economic Cooperation and Development officials have charged the U.S. with not living up to its obligations under a 1973 council decision to restrict the use of PCBs and prevent them from entering the environment and contaminating the human food chain. Explaining that a council decision under the rules of the organization "has the binding effects of a treaty," an OECD official expressed surprise at the terminology of Environmental Protection Agency Administrator Russell E. Train in referring to the council decision in a recent statement as a "recommendation."

Other nations who are major PCB offenders, according to data collected by the OECD environment secretariat, are West Germany, Italy and Spain. Among countries that have met their PCB control obligations are Japan, the Scandinavian countries, the Netherlands, Austria and Switzerland. The U.S. is expected to run into criticism from the countries that have met their obligations at a March 15 meeting in Paris to discuss application of the council decision.

HOUSE MERCHANT MARINE UNITS DISCUSS PCBs, OCEAN DUMPING

House Merchant Marine and Fisheries Subcommittee on Fisheries, Wildlife Conservation and the Environment last week launched oversight hearings on the impact of polychlorinated biphenyls and similar toxic substances on fisheries and wildlife resources, then joined with the Subcommittee on Oceanography for oversight and authorization hearings on the Marine Protection, Research and Sanctuaries (Ocean Dumping) Act.

During the hearings on PCBs, Monsanto Co. reiterated its intent to discontinue its manufacture as soon as alternatives are available (story above); other witnesses, however, demanded further action. Interior Department's Nathaniel P. Reed, for example, urged a national ban on all domestic and imported PCBs as rapidly as possible. National Fisheries Institute's Les Weddig agreed, urging compensation for commercial fishermen whose livelihood is destroyed by prohibitions against the sale of fish in which the presence of PCBs exceeds the Food and Drug Administration tolerance levels. Both Weddig and Environmental Protection Agency Administrator Russell E. Train urged immediate passage of toxic substances control legislation.

At the ocean dumping hearings, EPA Assistant Administrator Andrew Breidenbach and three regional officials described EPA's role in the ocean dumping program, while FDA's James L. Verber outlined his agency's National Shellfish Sanitation Program. In sharp contrast to EPA's position that ocean dumping should ultimately be eliminated, Philadelphia's Carmen F. Guarino urged that more research be undertaken on the potential benefits of ocean dumping. "Ocean disposal should be properly managed," he said, but the problem "may have been overmanaged... resulting in elimination, rather than control."

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MCA-SPONSORED STUDY CALLS OZONE DEPLETION THEORY INTO QUESTION

Eighty percent or more of the fluorocarbons released into the atmosphere may be destroyed by unidentified natural processes before they reach the ozone layer, Manufacturing Chemists Association reported last month. Because of this destruction, MCA says, their adverse effect on the atmosphere may have been overestimated by 500% or more.

Conclusions come from a new study by Environmental Research & Technology, Inc., Concord, Mass., which was sponsored by the fluorocarbon industry and administered by MCA. Results of the research by ERT's N.D. Sze and M.F. Wu, will be presented March 22 in Orlando, Fla., at a conference on ozone sponsored by American Society for Testing and Materials.

Model calculations similar to those used by University of California's M.J. Molina and F.S. Rowland were made using extensive measurements of fluorocarbon concentrations throughout the atmosphere. According to Sze and Wu, these measurements are equally consistent with the existence of tropospheric removal mechanisms of the magnitude they describe, with the assumption that there is no destruction in the lower atmosphere.

Study points out that if the fluorocarbons' tropospheric lifetime is as short as 10 years, representing about 80% destruction in the troposphere, current long-term predictions of ozone depletion will be reduced by about 80%. In other words, MCA said, for the same fluorocarbon usage, the model shows that there would be a 1.2% ozone depletion by the year 2100, rather than the approximately 10% depletion produced by most current theoretical calculations which assume photolysis as the only removal mechanism.

Commenting on the study, the research team noted that "in making these calculations, we accepted the assumption that all other elements of the ozone depletion theory were correct, including the prediction that each chlorine atom freed in the stratosphere will lead to the destruction of 10,000 or more ozone molecules. Nevertheless, there are still serious questions about the validity of some of the key assumptions... The new calculations clearly illustrate the uncertainties we are dealing with when we try to describe the chemistry of the atmosphere on the basis of present knowledge and theory."

Notwithstanding these uncertainties, National Oceanic and Atmospheric Administration's Arthur Schmaltekopf said last week in Denver that consumers should no longer use fluorocarbon propellants in aerosols even though the extent of their damage on the upper atmosphere will not be known for 20 years. Testifying before a legislative committee, Schmaltekopf said that some scientists believe the use of such aerosols has already reduced the earth's protective ozone layer by 1%, and that the lost ozone will not be replaced for 100 years.

CASE ISSUES REPORT QUESTIONING EPA BASIS FOR BANNING PESTICIDES

Report questioning the validity of the Environmental Protection Agency's basis for banning several widely used pesticides, including the recent limits on chlordane and heptachlor (TMN, Jan. 1, 1976, p. 6), has been published by the Council for Agricultural Science and Technology and forwarded to Congress.

Council's 15-page report challenges some of EPA's principal assumptions, which have been used as arguments in past court cases, including: (1) tumor-causing agents are usually cancer-causing; (2) most human cancers are caused by chemicals in the environment; (3) cancer is usually irreversible and has a long latency period following the initial exposure to the causative agent; (4) it is impossible to determine threshold levels of carcinogens; and (5) positive animal test results indicate a possible cancer hazard to man.

Prepared by a 13-man group of toxicologists, pathologists and cancer experts, report contends that EPA fails to distinguish between tumors, many of which are benign, and the cancers themselves. Furthermore, EPA "considers positive evidence of tumorigenicity in any animal species much more significant than negative evidence." Council also noted that: many cancers are reversible, in contrast to EPA guidelines; sufficient animal studies can provide the basis for determining

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