

Consumer spending for pollution abatement consisted principally of buying and maintaining emission controls on autos. Spending to reduce pollution from residential property was not included.

Governments devoted 70 percent of their abatement expenditures to controlling water pollution, mostly through capital expenditures for sewers and sewage treatment facilities. Federal funding of governmental pollution abatement accounted for 29 percent of such spending.

An exclusively governmental activity, regulation and monitoring, accounted for \$351 million of Federal, state and local governments' expenditures. Federal agencies spent 57 percent of that amount. Air quality claimed 40 percent of the funds, leaving 38 percent for water, 4 percent for solid waste, 19 percent for pesticides, noise and radiation collectively.

Research and development expenditures came to nearly \$1.6 billion, or about 8 percent of all anti-pollution expenditures. Private research and development expenditures, estimated at \$1.3 billion, include the development of equipment and products for pollution abatement. Government expenditures (\$0.3 billion) consist of programs to develop pollution abatement techniques that lead to the establishment of emission standards, and to develop monitoring equipment and sampling procedures.

Pollution abatement and control spending estimates are made within the framework of the national economic accounts. Thus, the effects of such spending on the economy can be measured and analyzed in a manner conceptually consistent with the way economic activity is portrayed in these accounts.

PCBs SAID TO HAVE TOXIC EFFECTS IN MONKEYS AT HALF THE LEVEL IN HUMAN FOODS:

Industrial pollutants, PCBs, have been found to have toxic effects on monkeys, when ingested in a steady diet, at half the level allowed in some human foods, said Dr. James R. Allen, a University of Wisconsin Medical Center pathologist, in a study funded by the Sea Grant College Program and by NIH.

Dr. Allen has found that female monkeys fed a diet containing 2.5 ppm of PCBs develop acne, hair loss, swollen eyelids and lips, enlarged livers, stomach ulcers and gastritis within one or two months and also had lower than normal conception rates, the university announced.

FDA has set tolerance limits for PCBs ranging from 0.1 ppm for infant and junior foods to 5 ppm for poultry and fish. Dr. Allen stressed that man is not likely to consume 5 or 2.5 ppm of PCBs on a continuous basis.

He said it also appears that PCBs are deposited in human fatty tissue and "there is a very distinct possibility that even at extremely low levels, PCBs may eventually reach a toxic level in man." The sole American manufacturer is Monsanto Chemicals Ltd., which voluntarily restricted its sales of PCBs in 1970 to important uses where the chemical cannot reach the environment. It is, however, widely produced and sold in Europe and Japan.

Paul Degurse, microbiologist with the Wisconsin Department of Natural Resources, recently reported concentrations of up to 50 ppm in Lake Michigan salmon and trout.

According to Dr. Allen, the PCB effects he observed in monkeys are similar to effects reported in 1969 for about 1,000 Japanese who had consumed rice oil accidentally contaminated with a PCB mixture. He said he plans to feed monkeys lower and lower levels of the chemical on an intermittent basis in a meal made from Lake Michigan fish to determine what level—if any—can be considered safe.

EQUITABLE LIFE ACQUIRES ENVIRONMENTAL ANALYSTS, INC.:

Equitable Life Assurance Society of the United States has acquired Environmental Analysts, Inc., a multidisciplinary environmental consulting firm headquartered in Garden City, N.Y. Environmental Analysts, Inc., founded in 1970 by Dr. Merrill Eisenbud and James V. Fitzpatrick, offers professional environmental counseling in such areas as water quality, air quality, meteorology, biological sciences, radiological sciences, environmental engineering, environmental impact statements, socioeconomic, energy economics, noise measurement and control and occupational health.

The firm's clients include major utilities, industrial concerns and governmental agencies. In addition to the Garden City offices, the firm operates a regional office in Deerfield, Ill., a biological science lab and office in Batavia, Ill., a water quality lab in Woodbury, N.Y., and a branch office in Maryland Heights, Mo.

Dr. Leon J. Warshaw, vice president and chief medical director of The Equitable, said the acquisition is in line with the company's intention to become increasingly involved, through its subsidiaries, in fields