STUDIES SHOW NO LINK BETWEEN PCB AND HUMAN CANCER

An extensive scientific review of more than two dozen health studies dealing with human exposures to PCBs (polychlorinated biphenyls) fails to show a link between the chemical and human cancer.

The findings were presented at the national meeting of the American Chemical Society by Dr. William R. Gaffey, manager of epidemiology at Monsanto Company.

Dr. Gaffey, who conducted the review of the independent epidemiologic studies, said that while they have shown that exposure to PCBs can cause temporary skin problems, there are no clinically observable long-term health effects including the occurrence of cancer.

"The one fact on which all occupational studies of health effects agree is that there has been no clinical illness associated with PCB exposure other than dermatitis (skin disorder)," Dr. Gaffey said. "Studies of non-occupationally exposed populations have found neither dermatitis nor other clinical evidence of exposure-related effects."

Dr. Gaffey told his audience that people exposed to PCBs through their work could have higher levels of the chemical in their blood than others. Consequently, occupational exposure to PCBs at high levels is associated with the occurrence of the skin disorder chloracne. "However, the relationship is not straightforward and suggests that the actual risk of chloracne is also a function of individual susceptibility and personal work habits," Dr. Gaffey said.

The conclusions are based on an extensive review of published and unpublished epidemiologic studies which have been performed by a number of scientists in the United States and abroad, including those from federal and state governmental agencies, universities and medical schools.

"The PCB studies were broken down into three categories," Dr. Gaffey said. "Accidental, heavy exposures with short and long-term health effects; the relationship between exposure and the accumulation of the substance in the body; and studies of populations that were known or suspected of being exposed to the chemical."

PCBs, formerly manufactured by Monsanto and other companies around the world, were used primarily as fire-resistant insulating fluids in electrical transformers and capacitors. For more than 40 years, their use was required in most high-rise buildings, schools and hospitals where the risks of fire or explosion were major concerns. Monsanto voluntarily discontinued production in 1977 after it was confirmed that PCBs accumulate in the environment and alternative products were developed. Production of PCBs was banned by the EPA in 1979.