

the acceleration of pesticide reregistration and greater public access to health and safety data submitted by registrants.

Other changes would mandate that pesticide "special reviews" be completed within 18 months of their initiation, allow any person adversely affected by a pesticide cancellation to request a hearing, and establish new requirements for recordkeeping.

Risk Assessment

EPA MAY CHANGE ASSUMPTIONS TO REDUCE OVERESTIMATES OF RISK, OFFICIAL TELLS AAAS

BOSTON—(By a BNA Staff Editor)—The Environmental Protection Agency's current tenfold overestimates of the cancer risks posed by exposure to chemicals would be reduced drastically under changes the agency is considering, an agency official told a symposium Feb. 12.

Peter Preuss, director of EPA's Office of Technology Transfer and Regulatory Support, said the agency may change several of the major assumptions it uses to calculate the risks from exposure to chemicals. Risk assessment is an evolving process, he said, and the changes under consideration would refine the agency's calculations of risk. Preuss made the remarks during a symposium at the American Association for the Advancement of Science annual meeting.

The modifications would be based on EPA research on how well laboratory animal data predict human cancer risks, according to Preuss. Using both toxicologic information and human epidemiology data for 44 chemicals, the agency concluded that the use of animal data alone overestimates the risk to humans on the average of tenfold, he said.

Different Assumptions

Under one change being considered, EPA would switch from its assumption that a person will be exposed to a certain chemical 24 hours daily for 70 years to an estimate that a person will be exposed two to 16 hours per day for 10 to 35 years, according to Preuss.

EPA also is mulling a change in how it calculates a substance's potency, Preuss said. The environmental agency now gives equal weight to benign and malignant tumors found in experimental animals exposed to the chemical, he explained, but in the future might use only malignant cancers for risk assessment.

The agency also may use the average potency of the chemical, calculated from the results of toxicologic experiments using a variety of animal strains, he said. EPA currently uses a number derived only from experiments using the most "sensitive" animals—the species or strain of laboratory animal that is most likely to develop cancer from the substance.

If these changes are adopted, the current tenfold overestimation of the cancer risk to humans would drop to a twofold overestimation of risk, Preuss said.

Carcinogens Predicted To Be Less Hazardous

Bruce Ames, chairman of the biochemistry department at the University of California at Berkeley and inventor of a widely used bacteria mutation assay, told the seminar he expects that over the coming years, carcinogens will be found to be far more common and much less hazardous than now thought.

Ames said it is reasonable to assume chemicals that cause cancer in laboratory animals will cause cancer in humans—but only in people who receive the same high dose of the substances the animals got.

Cancer is a degenerative disease of old age, for both laboratory rats and people, Ames said. "Whatever is doing us in in aging is doing us in in cancer," he said.

Regulators should be concerned with the carcinogenic potency of a substance, not the mere fact that it is carcinogenic, he argued. By way of example, Ames said that regulation of trichloroethylene, a solvent he called a "very weak" carcinogen, does not make sense because the chemical is used in place of flammable solvents that pose a greater danger of death to workers.

Roger McClellan, director and president of the Lovelace Inhalation Toxicology Research Institute in Albuquerque, N.M., told the symposium risk assessors need to understand how a chemical affects the body at low levels of exposure. Additionally, they need to understand how various animal species, including humans, are similar and how they differ in the way they metabolize substances, he said.

Public Involvement in Risk Decisions

Erik Rifkin, head of the Columbia, Md., consulting firm of Rifkin and Associates, said members of the public who are exposed to carcinogens should play a part in deciding how their risks should be managed.

The public should be involved with risk decisions from the beginning, he said. Regulators should not present a risk management proposal to people just for their reaction.

Although risk management decisions would become more tedious and difficult if the public were involved, people would understand the nuances of risk assessment that regulators find difficult to explain, Rifkin said, and would accept compromises for risk management more readily. Laymen can understand risk assessment if scientists will give them the appropriate information, he added.

Rifkin criticized regulatory agencies, environmental groups, and the chemical industry for giving the public "lip service" in risk assessment, rather than encouraging people exposed to carcinogens to participate in decision-making. Those making the decisions "think they know what's best for the public," he said.

To help communicate how great a risk is from certain exposures to a chemical, Rifkin suggested that regulators express risk not as a single number but as a range, thus incorporating uncertainty. He also said consistent risk assessment methods should be developed and used in all federal and state regulatory agencies.

Responding to Rifkin's presentation, Preuss said EPA is trying to decentralize risk management strategies. The agency is encouraging its 10 regional offices, as well as state and local governments, to make such risk management decisions using information gathered by the Emergency Planning and Community Right-To-Know Act, Preuss said.

Pesticides

EPA POLICY ON AGREEMENTS WITH INDUSTRY TO AVOID CANCELLATION HEARINGS HIT BY JUDGE

The Environmental Protection Agency must follow the letter of the federal pesticides law even if the agency believes that doing so will not be the best way to protect human health and the environment, a federal judge told agency lawyers Feb. 13 in a case involving an environmental group's challenge to EPA's actions on the termiticides chlordane and heptachlor (*NCAMP v. EPA*, DC DC, No. 87-2089).

However, Judge Louis F. Oberdorfer of the U.S. District Court for the District of Columbia did not announce a