

ticipation. He said that citizens groups have been helpful to the courts and would be useful and important to federal agency rulemaking proceedings as well.

Assistant Secretary of Labor Eula Bingham said that although many federal laws provide for public participation at various stages of the rulemaking process, public involvement in the risk assessment portion of decision-making is less developed than at other stages.

Bingham emphasized that the decision to make any trade-offs between the health effects to workers and the effects on the economy should be made by an informed public, and she expressed concern that the Occupational Safety and Health Administration's rulemaking hearings are becoming "too formal, too legalistic." She said she would like to keep the hearings informal so that workers can participate and stressed the need to have an informed workforce that can participate in the assessment of risks.

General Policy

'FUNDAMENTAL DEFICIENCIES' EXIST IN INDUSTRY DATA BASE, EPSTEIN SAYS

NEW YORK CITY — (By a Chemical Regulation Reporter staff correspondent) — An environmental health scientist June 28 charged that there are "fundamental deficiencies" in the data on which many of the Government's environmental health and safety decisions are based.

Speaking at the New York Academy of Sciences International Conference on the Public Control of Environmental Health Hazards, Samuel Epstein, University of Illinois Medical Center, charged that the quality of industry data submitted to federal agencies is inadequate and accused industry and testing laboratories of suppressing test results that indicate a chemical substance is harmful.

Toxicological and epidemiological information is available to industry that is not made available to the public, Epstein said, placing "massive constraints" on the Government's decision-making process.

Epstein also pointed to a "medical-industrial complex" in the relationship between certain scientists and the industries supporting their research. He recommended that scientists serving on federal advisory committees be required to disclose the names of industries for which they serve as consultants.

At a press conference held during the Academy's meeting, Epstein cited a number of examples in raising questions about the availability of industry data and the quality and interpretation of that data, including charges against Velsicol Chemical Corporation in the heptachlor/chlordane case (Current Report, December 16, p. 1413) and Environmental Protection Agency findings concerning the quality of data produced by Industrial Bio-Test Laboratories (March 10, p. 1908, August 19, p. 791). He noted that IBT is one of the "principal contractors" of the chemical industry-supported Chemical Industry Institute of Toxicology.

As another example, he pointed to an EPA review of data supporting 24 registered pesticides selected on the basis of their highest tolerance on common foods. The agency's researchers found that the data backing up the tolerances on all but one of the pesticides "were not worth the quality of the paper they were written on," he said.

In an article in the July/August issue of *The Sciences*, published by the New York Academy of Sciences, Epstein expanded on this theme.

"Escalating evidence shows that constraints on data — from gross inadequacy, biased interpretation, manipulation, suppression, and even to outright destruction — are commonplace, especially when profitable technologies are involved. Alarming, such evidence justifies strong reservations as to the validity of any data developed by institutions or individuals whose economic interests are directly or indirectly affected."

'Radical Approaches' Needed

Epstein noted that federal agencies, such as EPA and the Food and Drug Administration, are now developing plans to include inspections, selective auditing, monitoring, and licensing of testing laboratories. "Clearly, more radical approaches are required," he said.

A number of approaches he suggested included a neutral "buffer zone" between those who test and those whose product is being tested through the establishment of a "disinterested" advisory group or agency to act as an intermediary between manufacturers and commercial and other testing laboratories. Bids would be awarded on the basis of economics, quality of protocols, and technical competence, he said, and the advisory group would comment on the quality of the data, make appropriate recommendations, and forward them to the agency concerned for action.

He suggested that industry could be protected from the possibility of incompetent work by requiring the contractor to post an indemnifying bond if the tests should have to be repeated because they were "bungled" or for any other reason.

Laboratory and professional malpractice suits also are needed to police the practice of toxicology, epidemiology, and safety assessments, he said.

Bingham: "A Problem"

In response to a question concerning the adequacy of industry data, Assistant Secretary of Labor Eula Bingham told the conference that failure to reveal data "certainly has occurred and is a problem." Bingham said that hopefully the Toxic Substances Control Act will help in learning how much deceit has taken place.

Sidney Wolfe, Health Research Group, cited the recent revelation of a former Dow Chemical Company scientist concerning a benzene report (June 16, p. 408) in agreeing with Epstein's charges about the quality of industry data.

"In the last five years we have realized what has been going on for a long time," Wolfe said. "Industry cannot be trusted and should no longer be involved in developing health and safety data on their products except for paying for the testing required," he said.

The general quality of industry data was defended by Norbert Roberts, Exxon Corporation, although he did note that "it's naive to deny that there have been serious problems."

Roberts said that the "vast majority of industry management is enlightened enough today not to want to buy distorted work." He added that inferior work is produced in government and academic laboratories also.

Litigation

BENZENE EXEMPTIONS HAVE NO EFFECT ON INDUSTRY CHALLENGE, COURT TOLD

The Occupational Safety and Health Administration's decision to exempt certain liquid mixtures from its permanent

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APPENDIX 10 a

SAMUEL S. EPSTEIN

PERSONAL:

Born April 13, 1926, Middlesborough, Yorkshire, England.
Naturalized U.S. citizen. Married, Three Children
Professional address: University of Illinois School of Public
Health, P.O. Box 6998, Bldg. 930 Chicago, Illinois 60680.

QUALIFICATIONS:

1947	B.Sc. (Physiology) London University, England.
1950	M.B.B.S. (Bachelor of Medicine, Bachelor of Surgery) (Double Honors) London University, England.
1952	D.T.M.H. (Diploma of Tropical Medicine and Hygiene, Bacteriology and Parasitology) London University.
1954	D.Path. (Diploma of Pathology) London University
1958	M.D. (Doctorate of Medicine, Thesis in Pathology and Bacteriology) London University, England.
1963	Diplomate, in Public Health and Medical Laboratory Microbiology, of the American Board of Microbiology.
1971	Fellow of the Royal Society of Health, England.

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POSITIONS HELD:

1950: Demonstrator, Morbid Anatomy, Guy's Hospital, London.

1951: House Physician, St. John's Hospital, London.

1952: Postgraduate Student in Tropical Medicine, Pathology Bacteriology and Parasitology, Royal Army Medical College, London.

1952-1955: Specialist in Pathology, Royal Army Medical Corps.

1955-1958: Lecturer in Pathology and Bacteriology, Institute of Laryngology and Otology, University of London.

1958-1960: British Empire Cancer Campaign Research Fellow, in conjunction with the Chester Beatty Cancer Research Institute, and Tumor Pathologist at the Hospital for Sick Children, Great Ormond Street, London.

1960: Consultant in Pathology, The Memorial Hospital, Peterborough, England.

1961-1971: Research Associate in Pathology and Microbiology, The Children's Hospital Medical Center and the Children's Cancer Research Foundation, Inc., Boston, Mass.

1961-1971: Chief, Laboratories of Carcinogenesis and Toxicology, Applied Microbiology and Histology, The Children's Cancer Research Foundation, Inc., Boston, Mass.

1962-1971: Senior Research Associate in Pathology, The Children's Cancer Research Foundation, Inc., Boston, and Research Associate in Pathology, Harvard Medical School, Boston.

1971-1976: Swetland Professor of Environmental Health and Human Ecology; Professor of Pharmacology; Director Environmental Health Programs, Case Western Reserve University, School of Medicine, Cleveland, Ohio.

1976 to date: Professor of Occupational and Environmental Medicine, School of Public Health, University of Illinois at the Medical Center, Chicago, Illinois.

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COMMITTEES AND CONSULTANTSHIPS:

1. Member, Society of Protozoologists Committee on the Relation of
Protozoology to Public Health, 1962-1968.
2. Chairman, Committee on Biological Effects of Air Pollution, Air Pollution
Control Association, 1963-1973.
3. Member, Technical Council of the Air Pollution Control Association,
1963-1973.
4. Executive Secretary, Environmental Mutagen Society, 1969-1972.
5. Chairman, 1969, HEW Panel, Mutagenicity of Pesticides, "Mrak Commission".
6. Chairman, 1969, HEW Panel, Teratogenicity of Pesticides, "Mrak Commission".
7. Member, 1968, HEW Panel, Pesticide Interactions, "Mrak Commission".
8. Member, 1969, HEW Panel, Carcinogenicity of Pesticides, "Mrak Commission".
9. Chairman, NIMH Panel on Chronic Non-psychiatric Hazards of Drugs of Abuse,
1969.
10. Consultant to the Committee on Public Works, United States Senate, 1970-1974.
11. Chairman, Effects Division, Technical Council, Air Pollution Control
Association, 1970-1973.
12. Consultant, Center for Studies of Narcotic and Drug Abuse, National
Institute of Mental Health, 1970-1973.
13. Consultant to the Panel on Polycyclic Organic Matter, National Academy of
- Sciences, National Research Council, 1970.
14. Consultant to the Pesticide Board of the State of Massachusetts, 1970-1971.
15. Consultant, U.S. Senate Sub-committee on Executive Reorganization and
Government Research, Committee on Government Operations, 1971.
16. President-elect, Society for Occupational and Environmental Health, 1972-1974.

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COMMITTEES AND CONSULTANTSHIPS (cont.):

17. Member, National Air Quality Criteria Advisory Committee,
Environmental Protection Agency, 1972-1975.
18. Member, Department of Labor Advisory Committee on Occupational
Carcinogens, 1973.
19. Consultant, Industrial Union Department, AFL/CIO, 1973 to date.
20. Ad Hoc Consultant Oil Chemical and Atomic Workers Union, 1968 to date.
21. Ad Hoc Consultant Textile Workers Union, 1972 to date.
22. Chairperson Occupational Task Force, State of Ohio, 1974-1975.
23. President, The Society for Occupational and Environmental Health,
1974 - 1976.
24. Consultant, Office of General Counsel (on Aldrin and Dieldrin),
Environmental Protection Agency, 1974.
25. Consultant, Office of General Counsel (on Chlordane and Heptachlor),
Environmental Protection Agency, 1975 to date.
26. Member, Environmental Health Advisory Committee, Environmental Protection
Agency, 1975 to date.

URL 14041

PUBLIC INTEREST GROUPS AND ORGANIZATIONS:

1. President, Rachel Carson Trust, 1974 to date.
2. Chairperson, Commission for the Advancement of Public Interest Organizations, 1974 to date.
3. Member, Advisory Council Center for Science in the Public Interest
4. Member, Science Advisory Board for the Journal, Environment.
5. Ad Hoc Advisor to groups including:
 - a. Environmental Health Programs, Environmental Defense Fund, Washington, DC
 - b. Center for Responsive Law, Washington, DC
 - c. Natural Resources Defense Council, New York City
 - d. Consumer Union, New York City
 - e. National Council for the Public Assessment of Technology, Washington, DC

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CONGRESSIONAL AND STATE TESTIMONY:

1. On "Cancer and Mutation-Producing Chemicals in Polluted Urban Air", at Hearings before the Subcommittee on Air and Water Pollution of the Committee on Public Works. July 29-31, 1968, Chairman, Senator Edmund S. Muskie.
2. On "Teratogenic Effects of 2,4,5-T Formulations". At hearings before the Subcommittee on Energy, Natural Resources and the Environment, of the Committee on Commerce. April 15, 1970, Chairman, Senator Philip A. Hart.
3. On "Potential Biological Hazards Due to Nitrates in Water and Due to the Proposed Use of Nitrilotriacetic Acid Detergents". At Hearings before the Subcommittee on Air and Water Pollution, of the Committee on Public Works. May 4, 1970, Chairman, Senator Edmund S. Muskie.
4. On "Adverse Human Effects Due to Chemical Pollutants". At hearings before the Subcommittee on Executive Reorganization in Government and Government Research, Committee on Government Operations, April 6, 1971, Chairman, Senator A. Ribicoff.
5. On "The Delaney Amendment and on Mechanisms for Reducing Constraints in the Regulatory Process in general, and as applied to food additives, in particular.": At Hearings before the Select Committee on Nutrition and Human Needs. September 20, 1972. Chairman, Senator G. McGovern.
6. On "The Federal Food Inspection Act of 1973, and on Deficiencies in Current Procedures for Monitoring 'Animal' food for carcinogenic and toxic residues of animal drugs". At Hearings before the U.S. Senate Committee on Commerce, 93rd. Congress, March 21, 1973, Chairman, Senator W. Magnuson.
7. On "Current Problems with Occupational Health Standards". At Hearings before the House Select Subcommittee on Labor, Committee on Education and Labor, April 25, 1974. Chairman, Congressman Dominick V. Daniels.
8. On "Potential Carcinogenic Hazards Due to New Orleans Drinking Water". House Committee on Health and Welfare, Louisiana House of Representatives, February 21, 1975.

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AWARDS:

1. Military Awards in Royal Army Medical Corps, 1953
 - (a) Montefiore Gold Medal in Tropical Medicine
 - (b) Montefiore Prize in Tropical Hygiene
 - (c) Ranald Martin Prize in Military Surgery
2. Society of Toxicology, 1969 Achievement Award
3. Fellow of the Royal Society of Health, 1971.
4. Fellow of the New York Academy of Sciences, 1975.

SOCIETY MEMBERSHIPS:

1. Society for Pathology and Bacteriology
2. Society for General Microbiology
3. Society of Protozoologists
4. Air Pollution Control Association
5. American Association of Pathologists and Bacteriologists
6. American Society for Experimental Pathology
7. American Association for Cancer Research
8. American Board of Microbiology
9. Society of Toxicology
10. Environmental Mutagen Society
11. American Association for Advancement of Science
12. Society for Occupational and Environmental Health
13. New York Academy of Sciences.

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