The report praised the scientists and engineers now working in the federal system, but noted that they work in organizations that operate under priorities and problems from the past and thus cannot address problems of today and tomorrow. The Carnegie Commission called for reorganization and redirection to come from the top of the executive branch through the appointment of an individual in the White House with broad authority and leadership to identify federal activities that support the environmental, development, and risk reduction goals of the president. This recommendation seems to have found fertile ground in the early plans of the Clinton administration: the appointment of Kathleen McGinty (former Senate aide to Vice President Gore) to head a newly created White House Office of Environmental Policy was announced in early February.

The Carnegie Commission also provided many suggestions for improving the environmental research and development programs in various departments and agencies. One recommendation called for a new agency to conduct environmental monitoring. It would build upon an organization created by combining the National Oceanographic and Atmospheric Administration (now in the Department of Commerce) with the U.S. Geologic Survey (in the Department of the Interior). This new agency would be located in a new Department of the Environment or established as an independent agency. The report also called for a National Center for Environmental Information to consolidate and disseminate information from the many federal environmental research and demonstration programs.

The research activities now managed by the EPA were discussed in detail in the Carnegie Commission report. The commission suggested that the 12 existing laboratories of the EPA be consolidated into four major entities. These would address ecologic systems; environmental monitoring systems; environmental engineering; and health effects research. In addition, the creation of at least six university-based "environmental research institutes" was recommended. These institutes would offer flexible, problem-oriented, multidisciplinary research capability in academic institutions across the United States.

The recommendations for restructuring and reorganizing have not yet been addressed by the Congress or the Clinton administration official. The first two bills introduced in Congress to elevate the EPA to cabinet status did not contain any substantial structural changes. Still, there will be hearings on these bills at which testimony may be taken from members of the Carnegie Commission Task Force that will provide ample opportunity to begin exploring these recommendations in detail and perhaps to begin implementing some of the new changes advocated

Assessing the Risk Equation

Carrying out a mandate by Congress to make sense of federal risk assessment and management techniques, the Environmental Protection Agency has convened the Risk Assessment and Management Commission to examine these complex issues. EPA says the 10-member commission, established under the Clean Air Act amendments of 1990, will "direct a comprehensive investigation of federal decision-making, including scientific, economic, and policy issues which arise in risk-management decisions on cancer and other health problems."

This is not a scientific commission in the traditional sense, says Bernard Goldstein, director of the Environmental and Occupational Health Sciences Institute in Piscataway, New Jersey, and a member of the panel appointed by the National Academy of Sciences. Goldstein pointed out that the members of the panel have been selected from several different disciplines with insight into risk assessment and management decisions. The commission's "charge is very broad," Goldstein said. "I would hope that there would be as much or more focus on risk management as on risk assessment. To try to fix the problems in risk management by tinkering with risk assessment is not the approach. There is a lot of intellectual challenge in risk management, such as the 'bubble' approach. We haven't done as good as we should as a whole."

Other members of the panel include presidential designees Thorne Auchter, director and chief executive officer of the Institute for Regulatory Policy and former head of the Occupational Safety and Health Administration; Barbara Bankoff, president of Bankoff Associates of Washington; and Anthony Thompson, an attorney with the Washington law firm Perkins Cole.

Congressional appointees include John Doull, professor at the University of Kansas Medical School, appointed by Senate Minority Leader Robert Dole (R-Kansas); Virginia Weldon, a vice president at Monsanto Corporation, appointed by House Minority Leader Robert Michel (R-Illinois), Joshua Lederberg, Nobel Prize winner and former president of Rockefeller University, appointed by House Speaker Thomas Foley (D-Washington), and Gilbert Omenn, Dean of the School of Public Health and Community Medicine, the University of Washington in Seattle, also appointed by Foley. The commission is required to publish a draft report by May 1994 and submit a final report to Congress and the president by November 1994.

Research Priorities for Mobile Air Toxics

The Health Effects Institute, a cooperative effort of the auto industry and the EPA whose mission is to provide health effects information to ensure that motor vehicle emissions do not pose unreasonable risks, recently undertook a project to define priorities for research that would decrease uncertainties in risk assessments for mobile air toxics. Under the 1990 amendments to the Clean Air Act, Congress specified promulgation of regulations for motor vehicles and fuels to control emissions of toxic air pollutants. Five compounds or classes were designated as toxic air pollutants: benzene, acetaldehyde, formaldehyde, 1,3-butadiene, and polycyclic organic matter. Regulation of at least benzene and formaldehyde by 1995 is specified. Thus, there is considerable urgency in identifying uncertainties in risk assessments for particular compounds so that regulations may be directed toward those pollutants of greatest health risk.

As a first step, HEI held a Mobile Air Toxics Workshop in Monterey, California, 4–6 December 1992. The workshop was organized and chaired by Bernard Goldstein, chair of HEI's Research Com-mittee and director of the Environmental and Occupational Health Sciences Insti-tute. Co-chairs were Roger McClellan, president of the Chemical Industry Institute of Toxicology, and Jack Moore, president of the Institute for Evaluating Health Risks. Scientists from academia, industry, and government worked to identify uncertainties in understanding the potential risk of exposure to mobile air toxics, including methanol, an important potential alternative fuel. Although cancer risk was the primary concern regarding most compounds, there was also much discussion of non-cancer effects of potential importance. Participants discussed research priorities for scientific issues that apply across all compound groups, such as dosimetry, high-to-low dose extrapolation, exposure assessment, and molecular biology approaches.

The HEI project is on a fast track to facilitate research funding efforts by HEI and other research organizations and to provide research results in time for consideration in developing regulations. A report titled *Research Priorities for Mobile Air Toxics* is expected to be published by HEI later this spring.