

# SCIENCE

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# EDITORIAL

## Regulatory Costs

On 20 January, the Democrats become sole heirs to a phenomenon of regulation gone amok. In April 1992, 59 regulatory agencies with about 125,000 employees were at work on 4,186 pending regulations. The cost during 1991 of mandates already in place has been estimated at \$542 billion. The fastest growing component of costs is environmental regulations, which amounted to \$115 billion in 1991 but are slated to grow by more than 50 percent in constant dollars by the year 2000.

Twenty years ago, costs of federal environmental regulations were not visible to the public. However, the number and stringency of unfunded federal requirements have since increased markedly. New and tighter regulations have drained funds from cities, towns, school districts, and individuals. A result is the beginning of a revolt. There is a growing questioning of the factual basis for federal command and control actions and of the scientific competence of the regulators.

Two examples will be cited. Nine participating cities in Ohio have made an important, detailed study of impacts on them of 14 environmental regulations or issues. They estimate their compliance costs (1992 to 2001) at about \$3 billion. One of the cities, Columbus, had a budget of \$591 million in 1991, of which \$62 million went to environmental compliance. Projected compliance costs in 1995 are \$107 million (1991 dollars). Faced with difficult funding choices, Mayor Greg Lashutka decided that Columbus should create its own Environmental Science Advisory Committee. The mayor had rich scientific resources including Ohio State University, Battelle, Columbus, and Chemical Abstracts. Edward F. Hayes, Vice President for Research of Ohio State University, was named chairman of the committee.

Hayes has questioned the judgment inherent in some of the federal command and control regulations. As one example he cited the Safe Drinking Water Act, which requires that at least 133 specified pollutants be monitored. Many of the substances are not present in significant quantities in Ohio. In other instances, mandated regulatory levels are extremely tight. He cited the herbicide Atrazine. Although its average level at water intakes is far below 3 parts per billion, the city may be required to install "best available technology" for Atrazine removal at a cost of \$80 million for each of two surface water plants. Hayes has stated that the action level is 3 parts per billion because effects of massive doses to rats are extrapolated to infinitesimal doses in humans, and regulators included a thousandfold factor of safety. If the factor of safety were set at 100, then a major uncertainty would be removed, and Columbus would be more free to address real health problems in the community.

Another example of questioning of the judgment of federal regulators involves the U.S. Environmental Protection Agency (EPA) and its proposal to limit levels of radon in drinking water to 300 picocuries per liter. The EPA estimated that the cost to achieve this standard nationwide would be \$1.6 billion in capital costs and additional annual expenses of \$180 million. The Association of California Water Agencies (ACWA) found that the cost for meeting the radon water standard in California alone would approach \$3.7 billion. National costs were estimated at \$12 to \$20 billion, and only 1 percent of the public radon exposure would be reduced. The ACWA lined up support from 27 California members of the House of Representatives. A letter dispatched to President Bush and signed by them included: "We are deeply concerned about new regulations which place a considerable financial burden on our citizens without providing appreciable public benefit."

Senator Daniel Patrick Moynihan (D-NY) has been aware of deficiencies at EPA. In the 102nd session of Congress he introduced S. 2132, a bill designed "To require the Administrator of the Environmental Protection Agency to seek ongoing advice from independent experts in ranking relative environmental risks; to conduct the research and monitoring necessary to ensure a sound scientific basis for decision-making; and to use such information in managing available resources to protect society from the greatest risks to human health, welfare, and ecological resources." The bill was not acted on, but a modified version will be introduced in the new Congress and should receive widespread support.

Philip H. Abelson

\*"Ohio Metropolitan Area Cost Report for Environmental Compliance" (Columbus Health Department, Columbus, OH, 1992). Copies of the report may be obtained from Michael J. Pompili, Assistant Health Commissioner; telephone: 614-645-6181.