



Words Into Deeds

Implementing the Resource
Conservation and Recovery
Act of 1976



Enactment of the Resource Conservation and Recovery Act (RCRA) in October 1976 marked the first major commitment by the United States to bring the health-related aspects of solid wastes under control.

While there are no exact measurements of the country's wastes, it is estimated that the United States produces about 145 million tons of municipal trash and garbage each year, about 260 million tons of industrial wastes, of which 30 million tons can be classified as hazardous, and about five million tons of sewage sludge.

These are the critical solid waste problems in terms of resource wastage and public health and environmental damage, even though, in terms of volume, they are dwarfed by mining wastes, of which the Nation produces 1.7 billion tons per year, and agricultural wastes, of which 2.3 billion tons per year are produced. Trends point toward continued growth in solid waste generation as consumption, production, and population increase.

The 30 million tons of hazardous wastes contain toxic chemicals, pesticides, acids, caustics, flammables, and explosives. The tonnage is expected to increase by 30 percent in the next decade--in large part because other environmental laws have curtailed emissions into the air, waterways, and oceans. Hundreds of cases of injury to health and environmental damage have been traced to improperly managed hazardous wastes.

Congress found that the task of safely dealing with land disposal of virtually any type of waste is also formidable. A survey conducted in 1975 revealed that there were about 19,000 land disposal sites accepting municipal wastes. Less than 6,000 of them met existing State standards. Most of these sites also received industrial wastes and there were, in addition, thousands of privately owned industrial sites that were not included in the survey.

Finding environmentally safe ways either to dispose of sewage sludge or use it is an increasingly urgent problem for many cities. The five million tons generated today is expected to double by 1985 as wastewater treatment facilities are upgraded. Unless properly managed, sewage sludge, which often contains heavy metals, can become a threat to public health and the environment.

In the last few years the Nation has become increasingly aware of water pollution problems caused by land disposal of wastes. The ground waters in many parts of the country have been affected by leachate from disposal sites. Contamination of ground water is particularly serious because once it occurs, it is practically impossible to correct, and an aquifer may be ruled out as a source of drinking water for decades. The Nation's increasing dependence on ground water supplies and the growing waste burdens destined for the land make it clear that land disposal practices

must be improved. In addition to water quality problems, other health hazards more traditionally associated with solid waste -- the sanitation problems of uncollected garbage and open dumps, the fire hazards, air pollution problems, and gas formation in landfills -- all serve to underscore the fact that solid waste management is an issue in public health, environment, and resource conservation.

Reducing waste generation and increasing the recovery of resources would lessen both the potential health effects associated with waste disposal and the adverse environmental effects which accompany the entire cycle of materials production and use. However, national historical attitudes, habits, traditions, and laws have tended to discourage the reduction of waste or the recovery of materials and energy from the post-consumer waste stream. In 1976 about six percent of post-consumer wastes were recovered.

Theoretically, the municipal wastes from larger urban areas could generate energy equal to 400,000 barrels of oil per day -- nearly a third of the projected initial flow from the Alaska pipeline. Recovery of the materials from residential and commercial wastes could provide three percent of the Nation's lead, five percent of its copper, seven percent of its iron, eight percent of its aluminum, 19 percent of its tin, and 14 percent of its paper at present levels of technology alone.

Another important aspect of the problem is the increasing costs of managing wastes -- currently almost \$4 billion a year for municipal solid waste alone. Collection costs account for around three-quarters of this, but disposal costs are also very high in many urban areas because new landfill sites are increasingly difficult to establish, and expensive long hauls to distant sites are common. It is expected that the upgrading of land disposal practices to a level that is environmentally acceptable, which is required under the new law, will add considerably to disposal costs. This may constrain the upgrading process, but it will also provide an added incentive for undertaking resource recovery.

The solid waste problem is complex. How the Nation deals with solid waste influences far-reaching social and economic issues, and is in turn influenced by them. These range from the attitudes of the individual citizen and consumer, through the options selected in regard to extraction of raw materials and manufacturing and marketing, to such complex issues as depletion allowances and international trade policies.

Built on the foundation of the Solid Waste Disposal Act of 1965, and the Resource Recovery Act of 1970, the Resource Conservation and Recovery Act of 1976 is the product of several years of deliberation and hearings held by a number of committees of both Houses of Congress.

The Act calls for new patterns of interaction among all levels of

Government, the assumption of key responsibilities by industry on several fronts, and for public understanding and participation in all the major activities it requires. If the Law is examined in conjunction with the recently passed Toxic Substances Control Act and the Safe Drinking Water Act, it becomes apparent that the Congress is reflecting a new dimension in public understanding of what is actually required to improve the environment. This goes far beyond attitudes so popular a decade ago when many seemed to think that placing stoppers on air-polluting stacks and water-polluting outfall pipes was all that was needed to eliminate those environmental problems that had been neglected during two centuries of technologic and economic achievement.

Subtitle C of the new Law brings management of hazardous wastes under Federal-State regulatory control. EPA is required to identify these wastes, set standards for their management from cradle to grave, and issue guidelines for State programs by April 1978. The standards go into effect six months after their promulgation. States are to establish hazardous waste control programs that will meet Federal minimum requirements and issue permits for treatment, storage, and disposal of such wastes. In those States which choose not to do so, Federal regulations will apply. Civil and criminal penalties are established for non-compliance. To assist States in developing and implementing a hazardous waste program, grants are authorized for each of Fiscal Years 1978 and 1979. The most crucial and difficult of the hazardous waste provisions is development of the statutory definition of hazardous wastes, since this definition will determine the scope of the regulatory program and will thus have an influence on State participation in the program.

Within EPA, plans for developing the hazardous waste criteria, regulations, and guidelines have been approved, and working groups have been established. Dozens of public meetings have already been held, and drafting of the required documents has begun. Since, however, additional data need to be developed and evaluated and a great deal more consultation, deliberation, and public review will take place, publication of formal proposals in the Federal Register is still some time away.

To bring other wastes under control, a less direct but nevertheless compelling mechanism is to be used. The Law increases financial and technical assistance to State, regional, and local agencies for the development of comprehensive programs of environmentally sound disposal, resource recovery, and resource conservation under Subtitle D. To facilitate regional planning, EPA is required, within six months of enactment of the Law, to issue guidelines for identifying regional areas with common solid waste problems. Using these guidelines, State and local governments are then to identify regions and the State and local agencies responsible for developing and implementing the State plan. EPA guidelines for such State plans are to be issued by April 1978. For a State to be eligible for grants under Subtitle D, its solid

waste plan must meet minimum criteria. Among them is inclusion of a requirement that all solid waste be utilized for resource recovery, disposed of in a sanitary landfill, or disposed of in some other environmentally sound manner. The plan must also provide for the closing or upgrading of all existing open dumps.

Criteria for identifying open dumps and for identifying sanitary landfills are to be published by EPA no later than October 1977, and a national inventory of all open dumps is to be published within the 12 months that follow. The Act requires that all open dumps throughout the country be closed or upgraded by 1983, and forbids the creation of new dumps. Special grant assistance to help meet these new requirements for land disposal facilities is authorized for rural communities.

Grants to a limited number of "special communities" are also authorized. These are to be communities of less than 25,000 population, most of whose solid waste comes from outside their boundaries, and causes serious environmental problems.

The implementation of these Subtitle D provisions related to State and local planning are at various stages. The guidelines for identification of regions were published in the Federal Register on May 16, 1977, and EPA is consulting with the States on their implementation of those guidelines. The guidelines for State plans are in the early drafting stage.

A preliminary version has been drafted of the criteria for determining which land disposal sites are sanitary landfills and which are open dumps. EPA has distributed copies to all the State solid waste agencies, organizations representing local governments, public interest, environmental and health groups, representatives of industry, and some 100 technical experts. Through their review comments and through public meetings, EPA will be exposed to the facts and opinions that should be considered in reaching decisions on this issue.

In preparation for the open dump inventory, which will be keyed to the land disposal criteria, EPA is working with the Census Bureau on a questionnaire and consulting with the States. Current plans call for States to conduct the inventory and notify EPA of all open dumps; the consolidated list will then be published in the Federal Register.

Draft regulations on the grants to be made under RCRA have been prepared and distributed to the States and other interested groups. A public meeting to discuss the draft was held in Washington on June 30.

The authorization in RCRA for grants to States in Fiscal 1978 for hazardous waste regulation is \$25 million; for the various grants to States and localities for developing and implementing State solid waste plans under Subtitle D, the authorizations amount to

\$97.5 million. Actual appropriations will be much less, with the current budget request for grants to States totalling \$12 million for FY 1978.

The Act also provides for technical assistance teams, called "Resource Recovery and Conservation Panels," which will be made available to State and local governments on request. The teams, which can include experts from State and local governments, professional associations, and industry as well as Federal personnel, will be prepared to assist in upgrading collection, disposal and hazardous waste management, as well as in developing resource recovery and resource conservation systems. EPA is now developing plans for this program, which will be initiated in Fiscal 1978.

Section 1008 of the Law requires EPA to develop suggested guidelines on solid waste management practices, with emphasis on methods for protecting public health and environmental quality. The Agency has begun drafting guidelines under this provision on land disposal of municipal solid waste and on land disposal of sewage sludge.

RCRA includes wide authority for research, demonstrations, and studies in support of the objectives of the Act. One of the most important of these is a large-scale two-year study of resource conservation policies to be undertaken by a Cabinet-level committee chaired by the EPA Administrator. The Resource Conservation Committee will examine the effects of current public policies on resource use and the consequences for the environment and society, and the potential effects of proposed measures, particularly the imposition of disposal charges on products. The findings and recommendations are to be reported periodically to the President and the Congress. The first report of the Committee describing the plan of study was submitted June 10.

Unlike some of the environmental acts, RCRA was not developed under the assumption that science can magically produce a quick high-technology solution to any problem or that the Federal Government alone can work out the means of applying the solution. Moreover, even though it encourages serious and far-ranging changes in the way the Nation deals with solid waste, the level of economic stimulus that it authorizes is modest, and appropriated funds are likely to be considerably less.

In view of the nature and complexity of the issues the Act addresses, the voluntary changes in institutional and personal habits and attitudes it is intended to stimulate, and the difficult direct and indirect regulatory actions it prescribes, its successful implementation depends on a high level of public understanding and participation.

The Act contains an unusually complete array of provisions for public information and participation. In Section 8003, the Administrator of EPA is required to develop information on nine

key elements which are crucial to the Act's purposes, rapidly disseminate this information, and implement educational programs to promote citizen understanding.

Section 7004(b) calls for public participation in virtually everything that is mandated by the Act and requires EPA, in cooperation with the States, to develop minimum guidelines for public participation in the Federal and State programs.

These guidelines have been drafted and a public meeting was held on July 1 in Washington to discuss them. The draft guidelines require public participation in the decision-making process through various types of meetings, through advisory and review groups, and through educational programs that would enable the public to become aware of the significance of the technical information upon which much of the decision-making hinges.

Public participation is already a vital part of the process. EPA is holding public meetings, hearings, and workshops throughout the country, scheduled in accordance with the unfolding of the Act's key provisions. By the end of 1977, over 120 meetings will have been held to obtain public input regarding one or more aspects of RCRA implementation. Particularly with regard to the issues in hazardous waste control and land disposal methods, the representation of the health fields should be strong.

In RCRA and other recent legislation the Congress is reflecting a new dimension in public understanding of what is required to improve the environment. This was also reflected in the President's 1977 environmental message, which encompassed not only traditional environmental concerns but also occupational safety and health and the environmental hazards to the urban poor.

This wider awareness on the part of the public makes it clear that solid waste, which has been seen too often in the past as a problem to be resolved by the Public Works Director alone, is instead a matter of deep concern for environmentalists, public health specialists, economists, and for the public at large. This realization parallels that which was occurring in air pollution 20 years ago. At the First National Conference on Air Pollution in 1958, the Surgeon General of the Public Health Service, Leroy Burney, described the dawning realization of the complexity of the problem before them. He ended his address with this statement that is pertinent to the challenges the Nation faces in solid waste management today:

"The problems that come as by-products of our almost unbelievable material progress demand everybody's skills and knowledge. More than that, they demand genuine cooperation. We can no longer ask, who's going to be in charge? Or who's going to get the credit? We must ask: How can we most effectively work together?"