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Introduction Introduction.

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INTRODUCTION

DOUGLAS M. COSTLE*

President Carter has clearly indicated that it is time for the executive branch to build upon Congress' admirable record and give firm support to environmental protection. In his Environmental Message to Congress on May 23, 1977, President Carter calls for vigorous federal efforts to extend the scope of protection for the Nation's land, air, and water and for the health of its citizens.

The message demonstrates once again the President's commitment to the environment and his sense of its importance to the future of the nation and the world. The message sets forth a comprehensive program for this Administration.

In areas of EPA responsibility the message places priority on:

The effective control of toxic chemicals; A strong Clean Air Act to protect public health; Continued cleanup of our nation's water; New approaches to solid waste and pest management; And improved implementation of environmental laws.

EPA'S ROLE IN PROTECTING THE ENVIRONMENT

The late 1960's and 1970's marked a turning point in the way Americans regarded their resources and their highly technical life style. EPA was created in 1970, and Congress subsequently enacted sweeping new laws mandating the clean-up and enhancement of our air and water.

Subsequent legislation dealt with pesticides, noise, solid waste,

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resources conservation and recovery, drinking water and, finally, toxic substances. The year 1977 marks the first in which there has been no major new environmental mandate enacted by Congress. Rather, in making mid-course corrections to its landmark air and water legislation, Congress has reaffirmed its earlier philosophy and intent.

The nation now has an imposing array of tough new laws to safeguard the environment and it is EPA's job to make those laws work. What we need is a period of administrative stability to consolidate the legislative gains. We have to concentrate on enforcing the laws, refining them and innovating within their frameworks. We have to make measurable progress in cleaning up the air and water, and in getting the initial handle on toxic substances. Perhaps the single most demanding problem we must deal with is the insidious epidemic of poisonous chemicals in our society. We use about 70,000 different chemical substances and we are just beginning to learn how toxic some of them are.

EPA will not hesitate to ask for legislation if we see a need for it. EPA now has wide-ranging authority, however, and we face an urgent need to consolidate and make it work.

Enforcement.

I believe in vigorous but fair enforcement. As State Commissioner of Environmental Protection in Connecticut, I ran a very tough enforcement program. Plants that delayed in installing pollution control equipment were charged a fee equal to the amount they saved by delaying. Thus, the incentive to procrastinate was removed. Just as in Connecticut, EPA will never be open to the charge that we have failed to do our homework or that we have been arbitrary or unfair. I think EPA's credibility turns in large measure on the people whom we regulate knowing that we mean business. An increasing number of companies that are subject to our regulations have been making good faith efforts to comply with very tough standards. As the number of those companies grow, the unfair advantage which the recalcitrant few enjoy gets harder to justify under even ordinary principles of administrative justice.

I would hope that EPA will always have the reputation of being tough but fair enforcers of the law, and of knowing what we are doing before we do it.

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Regulatory Reform.

We have very little control over the number of regulations we issue. Almost all of them are required by our organic legislation. However, we do control the structure and substance of those regulations and we must answer for them if they do not make sense or deal fairly and effectively with the problems they are intended to address. That is harder than it sounds. There are competing considerations in drafting a regulation. On one hand is our responsibility to write clear, concise, straightforward regulations, to avoid boilerplate and jargon. But a lawyer is taught to be conservative, to prevent litigation, to provide for every contingency, whether writing a contract, a will, or a regulation. Thus, there is a preference for using words and structure which have stood the test of litigation and for stringing lists of near-synonyms to ensure that every conceivable area is covered.

There is a constant tension between clarity and coverage, between innovation and security. We want the rules to be specific enough to cover every situation which might arise, yet we want them to be sufficiently general that there are no absurd results in situations impossible to anticipate. We know that a rule book cannot be used as a ritual substitute for common sense judgment.

Our attempt to balance these goals sometimes looks more like juggling. We try to cut down on paperwork by requiring justification reports for all requests, and find out that justification reports are paperwork, too.

We are also experimenting with other programs. For example, we are beginning to include sunset reporting provisions in all new regulations. Unless expressly prohibited by statute, all reporting and record-keeping provisions in new regulations will expire automatically in a set period, probably four or five years after issuance. Thus the burden of showing that a reporting requirement should be continued will rest on EPA. We are trying to reduce reporting burdens in new regulations, and we are using zero-based budgeting techniques to review all existing reporting requirements. Again, this places the burden of proof on EPA to establish a need for required reports.

IMPLEMENTATION OF POLICIES UNDER EXISTING LEGISLATION

This is a general overview of EPA's priorities and concerns under our existing major statutory authorities.

Toxic Substances Control Act

The most significant change in EPA's responsibility has been provided by the new Toxic Substances Control Act (TSCA). For the first time, the Agency is required to regulate, not just the residues of dangerous chemicals, but their manufacture, use, and distribution. I believe I am safe in predicting that, within the decade, this program will drive all others in EPA. Increasingly our efforts will be focused on protecting human health. We need to concentrate on preventing the introduction of harmful substances into our air, water, and soil, rather than on cleaning them up after the damage has been done.

We do not mean to suggest that we should abandon the use of thousands of products that have contributed materially to our quality of life. We reap enormous benefits from chemicals. Most of those already on the market, and most introduced each year, are not toxic. Yet it is evident that their sheer number and increasing diversity of use pose potentially large risks of damage to health or to the environment. We need to minimize that risk.

Probably the most significant evidence of our determination to make the Toxic Substances Control Act work fairly and in the best interest of the public and industry alike has been the announcement in August, 1977 of a series of cooperative initiatives which will be undertaken jointly by the Environmental Protection Agency, the Consumer Product Safety Commission, the Food and Drug Administration and the Occupational Safety and Health Administration (42 Fed. Reg. 54,856-54,857 (1977)). We will be developing common approaches to testing, methodologies, risk assessment, research and development, and enforcement.

Major activities are underway with regard to implementation of the Act. On December 22, 1977, EPA issued its first rules under the Act called the "inventory reporting rules." They require all of the country's 5,400 chemical producers and petroleum refiners—and an undetermined number of importers of chemical substances—to tell the Federal Government for the first time exactly what they are making. In addition, large producers, those with annual sales of more than \$5 million must also report how much of these chemicals they manufacture and where. Under the inventory rules, these companies must report to EPA by May 1, 1978 what they produced in 1977. From these reports, EPA will compile and publish in late 1978 an initial inventory of chemical substances produced or imported into the U.S.

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Thirty days after the inventory is published, anyone wishing to manufacture a chemical that is not on the inventory will have to notify EPA no later than 90 days before beginning commercial production. This will permit EPA to make a judgment from existing information as to whether the chemical appears safe for manufacture, or whether additional health effects testing is needed, or whether it appears too hazardous to allow production under any circumstances.

For existing chemicals, EPA as required by the law has organized an inter-Agency testing committee. This committee has the responsibility for developing a priority list of chemical substances for which additional testing is necessary. On October 6, 1977, this Federal committee made its first report and recommended that the Environmental Protection Agency require testing of four individual chemicals and six groups of chemicals to determine their potential for human or environmental damage.

All of these actions which EPA has taken and will take under TSCA, are consistent with the three basic policies stated by Congress. We will see to it that adequate data is developed with respect to the effect of chemical substances and mixtures on health and the environment; we will regulate chemical substances and mixtures which present an unreasonable risk; and we will exercise our authority in a manner so as not to impede unduly or create unnecessary economic barriers.

Clean Air Act

On August 7, 1977, President Carter signed Public Law 95-95, the Clean Air Act Amendments of 1977. The Act made extensive changes in the Clean Air Act of 1970 and will resolve a number of critical issues.

The 1977 amendments—despite their compromise in extending the timetable for meeting automobile emission standards—clearly recognize that this country cannot go on adding the pollution of new stationary sources to the pollution from automobiles. They recognize that if we are to have economic growth in America—especially in the older population centers where the air is already exceeding health standards—we have to clamp down on automobile emissions on a tight but fair schedule. The timetable established in the amendments extends the deadlines that EPA first advocated, but the compromises are reasonable.

One extremely important provision of the Act is the requirement that coordinated transportation planning and clean air planning

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must take place at the local level. The Act directs that organizations of elected officials be constituted for that purpose. It also authorized \$75 million with which EPA may make 100 percent grants to these local agencies to pay for the costs of transportation control planning. Other federal agencies involved in transportation issues are ordered to give priority to the affirmative exercise of their authority in this area. If a state has not made adequate progress on implementing this planning provision by 1979, it would lose its highway funds. It would also be barred from growth of stationary sources. In addition, EPA might also withhold sewage treatment grants if they would tend to promote development of suburban areas at the expense of acceptable air quality standards.

The nonattainment section of the amendments represents a substantial challenge to the Agency and its administrative enforcement capabilities. The law endorses and extends the current EPA offset policy until July 1, 1979. This policy allows growth in areas not meeting the health standards if it can be shown that new emissions are more than offset by a reduction in emissions from existing sources in the area. After July 1, 1979, however, it orders states to revise their Implementation Plans to meet national ambient air quality standards for all pollutants by December 31, 1982. If the 1982 deadline for photochemical oxidants or carbon monoxide cannot be met by using all reasonable available measures, an extension can be granted. In this case, a second plan revision must be submitted by July 1, 1982, to require the implementation of additional enforceable measures to insure attainment by 1987. States which apply for an extension to 1987 must include a schedule for a mandatory inspection and maintenance program on their 1979 plan submission.

In the sections of the amendment dealing with the prevention of significant deterioration, Congress has ratified the concept that areas with clean air should remain clean. It designated most clean air areas initially as Class II, but also designates as Class I such places as national parks, preserves, and wilderness areas. The provisions on significant deterioration also expand substantially the types of sources to be reviewed and approved by the states or EPA.

In regard to non-complying sources, the Clean Air Amendments give EPA and the states authority to assess penalties against violators of emission standards. In simplest terms, the penalty exacted against non-compliance would reflect the financial savings realized by the firm as a result of non-compliance with the law.

A new EPA study, National Air Quality and Emissions Trends

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Report, 1976, shows that America's air quality has improved since 1970. The declines in particulates (19%) and sulfur dioxide (27%)are due to the successful efforts of state and local air pollution control agencies. The carbon monoxide cuts (20%) result primarily from auto emission controls. But we are still a long way from having healthy air throughout the country. Urban smog levels remain high and are increasing slightly in some areas. Additionally, some industries such as steel, copper, petroleum, and electric utilities still are lagging in pollution control.

Clean Water Act

On December 28, 1977, President Carter signed Public Law 95-217, the Clean Water Act Amendments of 1977. This legislation provides our nations's water pollution control program with a continuity of authority and a level of funding to maintain and improve upon the significant progress we have made already.

More than eighty-five percent of the major industrial dischargers are in compliance with 1977 requirements of the Act for the application of best practicable control technology. Although tight timeframes and the uncertainties of future funding have worked as constraints to municipal compliance, substantial progress is also being made to bring municipal sources under control.

President Carter had asked the Congress to make a long-range commitment of \$45 billion over a ten-year period to aid states and communities in planning, designing and constructing essential treatment facilities that are environmentally and technically sound. The amendments authorized five additional years of funding based upon the estimate that \$45 billion would meet the backlog of sewage treatment needs. The rate of funding which Congress approved is \$4.5 billion for fiscal year 1978 and \$5.0 billion a year for fiscal years 1979-1982.

One major theme of the amendments is the increased emphasis on water conservation and the recovery and reuse of nutrients and other valuable materials found in waste waters. In the municipal area, this theme is entirely consistent with the objective of making maximum use of limited funds, because reduced water usage means reduced treatment needs. The amendments emphasize this theme through a series of fourteen new provisions. The Act requires republication of cost-effectiveness guidelines to reflect the long-term benefits of reclaiming and recycling, creates a special set-aside for rural and lightly populated areas to be used for alternative technologies, and authorizes a special provision for increasing the federal share

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to eighty-five percent for grants for the use of alternative and innovative technologies such as land application. The Act also includes a provision for extension of the compliance dates for industries which use innovative technologies.

The summer drought of 1977 in the West and part of the Northeast has highlighted projections that, without major water conservation programs, much of the nation will run short of water in future years.

The most challenging, and perhaps the most critical element of the Agency's water pollution control program, is that dealing with toxic substances. The Agency's strategy for control of toxic pollutants relies on coordinating implementation of the authorities in all of our major environmental legislation, including the Toxic Substances Control Act, the Resource Conservation and Recovery Act, and the Safe Drinking Water Act.

Our primary means for bringing toxic pollutants and waste water discharges under control is and will continue to be the application of technology-based limitations to the waste water discharge.

By using this approach until toxicity and exposure data are sufficient to justify more stringent controls, large numbers of pollutants and pollutant sources can be regulated, an initial and often preventive level of control can be achieved, and economic impacts can be kept within reasonable limits. This is the strategy which EPA is now pursuing in the development of best available technology limitations. It is the basic concept embraced in the Settlement Agreement with the Natural Resource Defense Council and the Environmental Defense Fund (8 Envir. Rep. Cas. (BNA) 2120, D.D.C. 1976). This agreement requires the Agency to review and, where necessary, revise Best Available Technology (BAT), new source, and pretreatment limitations in order to address a minimum of sixty-five priority pollutants or classes of pollutants in twenty-one major industrial categories.

The amendments have been designed specifically to "codify" the above settlement agreement. Congress recognized that to take a different course for dealing with toxics at this point would require a major reprogramming of EPA resources. Such a delay would only cause confusion and add still more time to efforts to solve the toxics problem. The Act amends section 301(b) of title 33 to require that all sixty-five toxic pollutants listed in the settlement agreement are to be published in accordance with section 307(a), and any discharger of a listed pollutant must comply with effluent limitations which require the application of best available technology no later than

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July 1, 1984, a one year extension of the previous deadline.

The Act does not require that the effluent reduction achieved be equated to the specific water quality benefit because that test is no more realistic now than it was in 1972. The Act does recognize that in establishing limitations for conventional pollutants, which include—but are not limited to—those pollutants classified as biological oxygen demanding, suspended solids, fecal coliform, and pH, for categories and classes of industries; the best available technology may not be the most applicable technology in terms of relationship of the cost of achieving a particular level of reduction and the amount of reduction actually achieved. Under the amendments to section 304, effluent guidelines for conventional pollutants are subject to a new cost effectiveness test. Effluent guidelines for toxic pollutants and nonconventional pollutants (those pollutants neither toxic nor conventional) however, are not subject to any test of cost in relation to effluent reduction benefits or any form of cost benefit analysis outside the factors set out in section 304(b)(2)(a). The compliance date for best conventional pollutant control technology has been extended one year to no later than July 1, 1984. The compliance date for best available technology for nonconventional pollutants has been set as not later than three years after such limitations are established or not later than July 1, 1984, whichever is later, but in no case later than July l, 1987.

Finally, as to enforcement, for those industries out of compliance we will be taking vigorous enforcement actions, giving priority to those dischargers whose effluents have adverse effects on public health and those whose conduct demonstrates bad faith. In resolving these cases, we will be seeking—in addition to court imposed compliance schedules—penalties commensurate with the economic benefits of the delay. Although Congress adopted this approach as part of 1977 Clean Air Act Amendments, they did not adopt a similar amendment for water pollution control. But that omission was in no way intended to affect the Agency's current strategy.

We believe that the Act is a sound and effective mechanism for moving us nearer to the goal of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters. The changes by Congress were needed to make the Act more effective in dealing with future problems.

Safe Drinking Water Act

An adult American consumes from $1\frac{1}{2}$ to 5 or more quarts of

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water per day depending on climate, the kind of work performed, body size, and many other factors.

Most of us assume that the water we drink is safe. It usually is, but some people are using water that is improperly treated and may be contaminated by bacteria, toxic chemicals, metals or other pollutants.

At least 4,000 known cases of water-borne illnesses occur each year in this country. The actual total may be ten times greater. Further, medical science has not yet determined the effects on people of long-term, low-level exposure to contaminated drinking water. To combat this threat to our health, Congress enacted the Safe Drinking Water Act in 1974.

The Act was designed to assure that water supply systems serving the public meet minimal national standards for protection of public health. The Act gives EPA responsibility for setting minimum national drinking water regulations for all public water systems having at least fifteen service connections or regularly serving twenty-five people.

The drinking water regulations under the Act are of two types: primary and secondary. Primary regulations are aimed at protecting health to the extent that it is technically and economically feasible. Secondary regulations are designed to protect public welfare, and deal with taste, odor, and appearance of drinking water.

June 24, 1977 marked an important milestone in EPA's efforts to ensure the safety of the nation's drinking water supplies. On that date, the interim primary regulations published by the Agency on December 24, 1975, became effective. The regulations require that the nation's 40,000 community drinking water supply systems and 200,000 other public water systems must be sampled routinely to make sure they meet the Agency's new standards. Many of these systems already meet these requirements as a result of existing state programs. Those regulations set health standards for microbiological contaminants, ten inorganic chemicals, six organic pesticides, turbidity and radiological contamination.

Thus for the first time virtually all public water systems are subject to a uniform systematic sampling program nationwide. Of special interest to consumers, the law requires the water supply systems to notify customers if the standards are not being attained. If that happens, the notice to consumers will explain the nature of the problem, specify corrective action that is being taken and, if appropriate, suggest precautions consumers can take. A written notice—perhaps accompanying water bills—must be made. In addi-

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tion, whenever a specific health standard is not being attained, notice by newspaper and notification of radio and television stations is also required.

Even though June 24, 1977 marks a major step in the regulations of drinking water quality, we still have a long way to go and many problems still remain unresolved. The most notable of these is, of course, the widespread contamination of water supplies by small quantities of organic chemicals.

EPA took the first step in a comprehensive program to reduce these organic contaminants by announcing proposed regulations on January 25, 1978. The regulations propose to set a limit for chloroform and related organic chemicals of the trihalomethane group that are formed during the disinfection process at the treatment plant. They also call for some water systems to install a special treatment technique—filtration with granular activated carbon—to control other organics that are present in untreated water due to upstream pollution of drinking water sources. Such pollution comes from industrial and municipal waste discharges and spills, and from agricultural and urban run-off.

Congress recognized that the states, due to their existing expertise, should play the key role in protecting the quality of their citizens' drinking water. For a state to become the central figure in regulating the quality of drinking water, it must assume primary enforcement responsibility (or primacy) over a program designed to meet minimum national standards. Should a state be unwilling to do this, the law requires EPA to assume that responsibility. About twenty states have already achieved primacy and it appears that as many as thirty states may assume primacy by mid-1978. To assist states in moving toward the assumption of primacy, EPA will be disbursing almost \$50 million to help set up and maintain adequate state programs. Approximately thirty-five states have already enacted new or revised drinking water legislation and forty-four states have modified, or are in the process of modifying, their drinking water regulations.

The Act also provides for regulating the underground injection of fluid to prevent the endangerment of underground sources of drinking water. This is accomplished by means of regulatory programs similar to that governing public water systems. Primary responsibility rests with the states where underground source protection programs have been established. If a state has failed to assume this responsibility within two years after enactment of the Act, EPA will prescribe a control program for that state. The Act specifies that

regulations will not be established that will interfere with oil or natural gas production, unless such regulations are considered essential to ensure that underground drinking water sources will not be endangered by such injection.

As my predecessor, Russell E. Train once stated:

We in America have long considered safe drinking water as our natural heritage. Indeed we have accepted it much as we have regarded the air we breathe—unlimited, free and clean. But it is neither limitless nor free nor a product that somehow is immune from the pollution which affects other aspects of our lives.

The Resource Conservation and Recovery Act of 1976

While there are no exact measurements of the country's manifold wastes, it is estimated we produce about 145 million tons of municipal trash and garbage each year, about 260 million tons of industrial waste of which 30 million tons can be classified as hazardous, and about 5 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 we produce 1.7 billion tons per year, and agricultural wastes, of which we produce 2.3 billion tons per year. Trends point toward continued growth in solid waste generation as consumption, production, and population increase.

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 only about six percent of post-consumer waste was recovered.

Cost is an important aspect of the problem. Currently almost \$4 billion per year is spent for the management of municipal solid wastes alone. Collection costs account for around three-quarters of this, but disposal costs also are 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 mandated under the new law, will add considerably to disposal costs. This may constrain the upgrading process, but it may also provide an added incentive for undertaking resource recovery.

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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 evolutionary product of several years of deliberations and hearings held by a number of committees of both houses of Congress.

An extensive program of federal grants, starting in fiscal year 1978, is authorized by the Act to help states and regional governmental agencies plan and carry out solid waste management programs. Grant assistance and technical aid are available for waste collection and disposal systems as well as for waste reduction, conservation, and resource recovery methods.

For the first time EPA is required to set standards for the handling of hazardous solid wastes, with power to regulate and enforce. Hazardous waste is defined as any waste that "because of its quantity, concentration, or physical, chemical, or infectious characteristics" may cause death or disease or threaten public health or the environment. Under EPA guidelines, states must establish rules for the handling of hazardous wastes and issue permits for treatment, storage, or disposal. If states fail to do so, EPA regulations apply.

Open dumps throughout the nation are to be phased out over a five year period and banned entirely by 1983. EPA must make a national inventory of such dumps and set standards for upgrading them to sanitary landfills no later than October 1977. Special assistance is authorized for rural communities, and demonstration grants are provided for small communities that must cope with large amounts of waste from outside their boundaries.

The Act provides for extensive research, development, and demonstrations of solid waste technology. These include special studies on the handling of glass, plastics, rubber tires, sewage sludge, and mining wastes. EPA is required to disseminate the information gained, to educate the public, and to maintain a central reference library on solid waste management.

One of the most important activities required by the Act is a large scale two year study of resource conservation policies to be undertaken by a cabinet level committee chaired by the Administrator of EPA. 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 of the Committee are to be reported periodically to the President and to the Congress.

We must move-for energy, environmental, natural resources and

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health reasons—to capture the potential recoverable energy and materials in the municipal solid waste stream. The energy equivalent of 400 thousand barrels of oil a day, plus significant quantities of steel, glass, paper and aluminum, must be converted from an environmental problem to an economic opportunity.

CONCLUSION

The Environmental Protection Agency will be persistent and consistent in carrying out our environmental laws. We will be thorough and fair. And we will vigorously pursue our mandate to protect the integrity and health of the biosphere upon which our human life, growth and activity depend.

Years before the first astronauts viewed our earth from outside its limits, an American statesman realized, with vivid insight, the delicate nature of our place in the universe. Adlai Stevenson said: "We travel together, passengers on a little spaceship dependent on its vulnerable reserves of air and soil; all committed for our safety to its security and peace; preserved from annihilation by the care, the work, and I will say the love we give our fragile craft. . . ."