Washington Law Review

Volume 57 | Number 3

7-1-1982

Environmental Regulation and Regulatory Reform

Douglas M. Costle

ENVIRONMENTAL REGULATION AND REGULATORY REFORM

Douglas M. Costle*

As the first year of the Reagan Administration drew to a close, it was increasingly evident that the "regulatory relief" undertaken by the President and his appointees is not the genuine regulatory *reform* hoped for by both the public and the regulated industry. "Regulatory relief," a slogan that springs from a philosophical opposition to using government to solve social and economic problems, signals an intent to regulate less—not necessarily better. For those committed to "regulatory relief," how to regulate better is not the issue.

The pace of regulatory activity has markedly slowed. In the field of regulation under the Environmental Protection Agency (EPA), as only one example, important regulations required by statute and desired by the public either have been long delayed or, after taking effect, have been halted or rolled back: hazardous waste land disposal rules,[1] the Superfund National Contingency Plan for the cleanup of the nation's worst hazardous waste sites,[2] the Clean Air Act ban on new source construction in nonattainment areas,[3] the annual reporting requirement for hazardous

* Former Administrator, United States Environmental Protection Agency; Chairman, 1979-1981, United States Regulatory Council; Of Counsel, Updike, Kelly & Spellacy, Hartford, Conn.; Of Counsel, Wald, Harkrader & Ross, Washington, D.C.; B.A., 1961, Harvard University; J.D., 1964, University of Chicago. The author is currently serving as Chairman of the Executive Committee of the Environmental Testing and Certification Corporation, Edison, N.J. The author wishes to thank Ann Adams Webster, Associate, Wald, Harkrader & Ross, Washington, D.C., for her assistance in preparing this article.

1. Hazardous waste land disposal regulations have been the subject of considerable litigation. The EPA proposed permanent regulations for land disposal on February 5, 1981. 46 Fed. Reg. 11,126 (1981) (to be codified at 40 C.F.R. pts. 122, 260, 264). Subsequently, however, the Agency issued a notice stating that it was reexamining its approach to regulating such facilities and soliciting comments on an appropriate regulatory framework. 46 Fed. Reg. 28,314 (1981). The District Court for the District of Columbia ordered the EPA to promulgate final regulations by February 1, 1982, but that deadline was stayed pending appeal. Illinois v. Gorsuch, 530 F. Supp. 340 (D.D.C. 1981). The regulations were finally issued on July 26, 1982. 47 Fed. Reg. 32,274 (1982).

2. The revision of the National Contingency Plan, required as part of title I of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C.A. §§ 9601–9615 (West Supp. 1981), was to have been issued by June 9, 1981. *See id.* § 9605. However, the EPA missed this deadline and was placed under court order to publish a proposed plan by March 15, 1982, and the final plan by May 15, 1982. Environmental Defense Fund v. Gorsuch, Nos. 81-2083 and 81-2269 (D.D.C. Feb. 12, 1982). The EPA met the first of these deadlines. *See* 47 Fed. Reg. 10,972 (to be codified at 40 C.F.R. pt. 300) (proposed Mar. 12, 1982). The deadline for issuance of the final plan was subsequently extended to July 16, Environmental Defense Fund v. Gorsuch, Nos. 81-2083 and 81-2269 (D.D.C. May 28, 1982), and was met by the EPA. 47 Fed. Reg. 31,180 (1982).

3. On August 7, 1980, the EPA announced that states would have until May.7, 1981, to submit revised state implementation plans (SIP's) for nonattainment areas, and that if a state failed to meet

waste facilities,[4] regulations requiring inspections for asbestos in schools and providing aid for asbestos removal from schools,[5] and several automobile and truck emission standards.[6] These are just a few examples of "regulatory relief." The Administration claims as an accomplishment the mere quantitative decrease in rules promulgated by the government during 1981, as compared with 1980.[7]

Regulatory relief is a fundamentally wrong-headed approach to solving the problems that many people legitimately perceived by the late 1970's as overlapping, duplicative, and often simply nonsensical regulation. True regulatory reform would eliminate those absurdities, to be sure, but it would take as its primary goal better, not necessarily less, regulation. Instead of the uncertain, on-again/off-again regulatory climate that is created by regulatory relief and which is very costly to businesses, which must proceed with their own activities in any event, regulatory reform should proceed in an innovative risk-taking spirit to devise fair, reasonable, and effective regulations that will encourage compliance.

Regulatory reform should be premised on recognition that government regulation is both necessary and inevitable in our complex, technology-based economy. Indeed, regulation can even be profitable to industry if structured to stimulate productivity and innovation.

A central theme of "regulatory relief" seems to be a return to reliance on the marketplace to achieve social goals. Though this may be the right approach in certain areas of economic regulation, it is misplaced in the case of environmental, health, and safety regulation. It is precisely because the marketplace has not worked to protect the public in the past in these areas that successive Congresses, with significant bipartisan majorities, have legislated this form of regulation. Because air and water have historically been treated as "free" goods, the cost of pollution arising

---

this deadline, a construction ban would go into effect on November 7, 1981. 45 Fed. Reg. 52,676, 52,687 (1980). The EPA has now reversed this position, and instead of imposing an automatic construction ban, has announced it will review each SIP individually. 46 Fed. Reg. 62,651 (1981). But even this review will not begin until settlement negotiations in litigation challenging the August 7 regulations are complete. *Id.*

4. *See* 47 Fed. Reg. 7841 (1982) (delaying effective date of the reporting requirement until August 1, 1982).

5. The EPA proposed this rule on September 17, 1980. 45 Fed. Reg. 61,966 (to be codified at 40 C.F.R. pt. 763). It is still pending.

6. The EPA recently proposed that the percentage of gasoline-fueled land diesel heavy-duty engines and light-duty trucks that will be allowed not to meet the emission standard be raised from 10% to 40%. 47 Fed. Reg. 1642 (1982) (to be codified at 40 C.F.R. pt. 86) (proposed Jan. 13, 1982).

7. The Presidential Task Force on Regulatory Relief estimated a decrease of about 25% in the number of rules promulgated in the first 10 months of the Reagan Administration, compared to the same period in 1980. The Vice President, Office of the Press Secretary, Year-End Summary of the Administration's Regulatory Relief Program (Dec. 30, 1981) (on file with the *Washington Law Review*).

from producing things for the market had rarely been "internalized" in the cost of production—a classic case of market failure.

Although the marketplace alone cannot act as an effective self-regulator of the environment or in other areas of public health and safety, a successful program of regulatory reform—as opposed to regulatory relief—would use marketplace incentives more imaginatively to achieve the desired results. Such an approach is, however, fundamentally different from what seems to be happening now. True regulatory reform would work, through government regulation, to restructure the incentives that govern choices in the marketplace to ensure that the choices made by companies and individuals will protect rather than degrade the environment and human health.

Regulatory relief asks the wrong question when it asks whether a regulation's benefits justify its costs. True regulatory reform asks how to make regulation fair, reasonable, and effective—that is, both efficient in spending social resources and successful in achieving compliance. Instead of simply devising new procedural burdens to impede the regulator, we ought to focus our regulatory reform efforts on finding effective ways to regulate by stimulating and rewarding industry's efficient compliance with regulation.

I. THE CASE FOR REGULATION

A. The Political Basis of Regulation

Under our constitutional system, the regulator starts where Congress leaves off: with delegated authority to make rules, often including the authority to determine whether there is a need for a rule in the first place; to inspect for violations; to determine whether violation has or has not occurred; and to proceed against alleged violators of the rules.[8]

No matter how attenuated statutory delegations of regulatory authority sometimes are, in each instance Congress has at least identified the social good to be pursued by the agency charged with implementing the act. The purposes of the Clean Air Act,[9] for example, include protection and enhancement of the quality of the nation's air resources in order to promote the public health and welfare, productivity, and economic growth consistent with preserving clean air.[10] The purposes of the Resource Conserva-

8. W. GELLHORN & C. BYSE, ADMINISTRATIVE LAW 54, 57 (6th ed. 1974); *see e.g.*, Resource Conservation and Recovery Act of 1976, 42 U.S.C. §§ 6921, 6927, 6928, 6982 (1976).

9. Pub. L. No. 91-604, 84 Stat. 1676 (1970) (codified as amended in scattered sections of 42 U.S.C.).

10. 42 U.S.C.A. §§ 7401(b), 7470 (West Supp. 1981).

tion and Recovery Act,[11] another example, include regulation of the treatment, storage, transportation, and disposal of discarded materials that have or may have adverse effects on human health or the environment, as may be necessary to protect human health or the environment.[12]

Thus a statutory mandate to regulate springs from a political determination that, in economic terms, certain goods not being produced by the free play of market forces ought to be produced anyway, even though government must produce them. True regulatory reform will not proceed absent recognition of this underlying reality—that Congress requires regulation because it perceives something to be gained which the market, by itself, does not produce. Though this seems a rather basic premise, it bears repeating because many in government today would ignore it in their quest for the holy grail of "regulatory relief."

The motivations behind prior political determinations to seek the benefits of regulation are easily ignored today because many of the benefits realized from a particular regulatory program are not quantifiable. The legislative process that culminates in, for example, an environmental statute is typically animated by a widely shared fear of the harms that may result if regulation is *not* undertaken. The benefits of such regulation begin with the substantial "negative benefit" of preventing or mitigating the enormous harms that would occur without regulation.

Despite this difficulty of quantifying anticipated regulatory benefits, recent opinion polls have consistently shown that substantial majorities[13] of the public oppose any relaxation of environmental regulation. Pollster Louis Harris recently stated, in testimony before the House subcommittee considering amendments to the Clean Air Act: "[T]his message o[f] the deep desire on the part of the American people to battle pollution is one of the most overwhelming and clearest we have ever recorded in our twenty-five years of surveying public opinion [in this country]."[14]

11. Pub. L. No. 94-580, 90 Stat. 2795 (1976) (codified as amended in scattered sections of 42 U.S.C.).

12. 42 U.S.C. §§ 6902(4), 6903(5), (27), 6922–6924 (1976).

13. "[L]opsided," in pollster Louis Harris' own words. *Clean Air Act, 1981: Hearings Before the Subcomm. on Health and the Environment of the House Comm. on Energy and Commerce*, 97th Cong., 1st Sess. (1981) (statement of Louis Harris).

14. *Id.; see also* 12 ENV'T REP. (BNA) 789 (Oct. 23, 1981). The Harris Survey, Substantial Majorities Indicate Support for Clean Air and Clean Water Acts, June 11, 1981, shows that of a national representative sample, 40% of the respondents believed that air pollution standards are "not protective enough" (and 38% said they are "just about right," with only 18% stating that they are "overly protective"); 48% of the respondents believed that water pollution standards are "not protective enough" (and 43% said they are "just about right," with only 6% stating that they are "overly protective").

The September 1981 Harris survey on which the testimony referred to above was based indicated that 80% of the sample opposed relaxing existing federal air pollution regulations, and only 17% favored such relaxation.

B. Modern Regulation and the Quantification of Benefits

Regulation by the federal government is not new. It began at least as early as 1838, when Congress provided for the licensing of steamship operators.[15] Over the next decades such "traditional" regulatory agencies as the Interstate Commerce Commission,[16] the Securities and Exchange Commission,[17] and the Federal Communications Commission[18] were established to provide relatively tangible economic benefits in return for relatively tangible economic costs. New restrictions on companies that wanted to sell stock to the public or occupy a portion of the radio spectrum, for example, yielded clear economic benefits by preventing securities fraud and by allocating scarce spectrum space so that clear broadcasting signals would be provided. This was economic regulation. Its costs and benefits could be fairly easily compared because both could be weighed on the same scale. The decision whether and how to proceed with regulation was relatively straightforward.

By contrast, the new forms of regulation that rapidly developed in the 1970's, especially in environmental protection, worker safety, and consumer health and safety, provide benefits that we have only begun to learn how to measure. While the costs to industry of compliance with such regulation usually enter our wage- and price-setting processes—that is, they are passed on to consumers[19]—the benefits often do not. Householders purchase electric power at a higher cost than they would but for air quality regulation, but the benefits they receive in the form of cleaner air are not easily quantifiable in terms of dollars and cents. Yet these new kinds of regulation are government's response to citizens' demands for control over the environmental and health effects of our industrial economy.

These effects are especially evident in the postwar chemical revolution. Until approximately 1940, the pace of chemical development was relatively slow. Most chemicals in common use were derived from naturally

---

A November 1981 survey conducted for the U.S. Chamber of Commerce indicated, according to the president of Opinion Research, which conducted the survey, that the public would support procedural or administrative changes to the Clean Air Act, but none that would affect air quality. For example, even when respondents were informed that air pollution control from 1970 to 1987 could cost over $400 billion, 29% said more money should be spent, 34% said the costs are about right, and only 28% said the costs should be less. 12 ENV'T REP. (BNA) 973 (Dec. 11, 1981).

15. Act of July 7, 1838, ch. 191, 5 Stat. 304.

16. Interstate Commerce Act, ch. 104, § 11, 24 Stat. 379, 383 (1887) (codified as amended at 49 U.S.C. § 11 (1976)).

17. Securities Exchange Act of 1934, ch. 404, § 4(a), 48 Stat. 881, 885 (1934) (codified as amended at 15 U.S.C. § 78d(a) (1976)).

18. Communications Act of 1934, ch. 652, tit. I, § 1, 48 Stat. 1064, 1064 (codified as amended at 47 U.S.C. § 151 (1976)).

19. *Regulatory Reform, 1979: Hearings Before the Senate Comm. on the Judiciary*, 96th Cong., 1st Sess. 56 (1979) (prepared statement of John P. Schultze).

occurring materials—principally minerals and plants. They had been "screened" by the physical and historical environment: over three million years, human beings had learned by trial and error which chemicals were edible, useful, or dangerous.

Since World War II, however, the chemical industry has developed thousands of entirely new synthetic substances. They are on the market because of their benefits to medicine, agriculture, and industry. But many also have side-effects we did not anticipate and could not judge adequately for years: thalidomide, DES, and DDT, for example. Unlike their predecessors, these chemicals had not been subjected to the evolutionary testing of the environment and human experience. Compounding the problem posed by the novelty of these chemicals was the rate at which they entered the market. As recently as 1971, approximately two million synthetic and natural compounds were known. A decade later, five million were known; 45,000 were in commercial distribution (not counting several thousand pesticides). The complexity of determining cause-and-effect relationships between these substances and the plethora of harms to which human health and the environment are exposed is immense. To determine whether a single chemical causes cancer, for example, may require a team of pathologists, 300 mice, two to three years, and approximately $500,000 (and despite this expenditure of resources, the chemical's neurological, genetic, and reproductive capability effects would remain largely unknown).

The nature and pace of such technological change—the bulk of which our society neither can nor desires to reverse—has made environmental, health, and safety regulation necessary and inevitable. While much of the rhetoric of regulatory reform blames excessive and cumbersome regulation on "big government" or on bureaucrats who are ignorant of economic realities, the truth is that a "big society" and our industrial success—spurred, above all, by technological change—have generated problems that no one in government or industry could have anticipated. No one predicted in 1950 that sulfur and nitrogen oxides created in one region might travel to another region as acid rain, slowing forest growth, impoverishing soil, and killing lakes. Nor could anyone have predicted in 1950 that millions of people spraying aerosol cans each day might erode the ozone shield. Government has not manufactured such problems to justify regulation, any more than industry has deliberately set out to create them.

Despite constant imperfections and some excesses, and despite significant scientific ambiguity about cause-and-effect relationships, much recent regulation represents a necessarily hasty effort to improvise protection against novel and often unpredictable forces. As such, it is

necessarily subject to error, which must be weeded out. Regulation is also subject to change, of course, as the forces that spawn environmental, health, and safety problems change. Regulatory reformers must constantly go back, take a fresh look at old regulation, and revise or eliminate it. But the fact remains that regulation—undertaken as much to prevent substantial harm to society in the future as to remedy existing situations that have gotten out of hand—will always be necessary.

II. ASSESSING THE COST OF REGULATION

A. Generally

While the process of identifying and quantifying the benefits of proposed regulations continues, both industry and government have tended to over-estimate the costs of such regulation.[20] Much of our industrial trouble since 1970 has been blamed on environmental regulation, despite statistical analyses that have proven that such regulation currently contributes only about one-tenth of one percent to annual inflation and that it reduces unemployment rather than adds to it.[21]

The electric utility industry's use of coal is one example. Some have argued that environmental regulation prevents our use of coal. In the last two years of the Carter Administration, however, the EPA approved the construction of eighty-seven new coal-fired utility boilers located all around the country—two within eighteen miles of a Class I area. When built, these power plants will represent roughly a twenty percent increase in coal use by utilities. Overall, national coal consumption has increased by an estimated 16.5% since 1978.[22] Thus, environmental regulation has not prevented conversion to coal from other fuels.

The steel industry is another example. Between 1971 and 1978, the American steel industry invested $3.1 billion in pollution-control equip-

20. At the EPA under the Carter Administration, there was ample opportunity to cultivate skepticism about cost estimates. EPA analyses comparing cost estimates (by both industry and the EPA) for controlling pollution with the actual pollution-control costs that emerged some years later showed that both the EPA and industry had tended to overestimate compliance costs. For example, both the EPA and industry estimated that pollution control would cost the petroleum refining industry $1.4 billion for the years 1974 through 1977; the actual cost was between $550 million and $750 million. The EPA estimated that iron and steel plants would have to spend $830 million during those three years for pollution control and industry estimated $1.6 billion; actual figures ranged between $470 and $630 million, roughly half to three-quarters of the EPA's prediction and about one-third of industry's. *See* COUNCIL ON ENVIRONMENTAL QUALITY, ENVIRONMENTAL QUALITY—1980: THE ELEVENTH ANNUAL REPORT OF THE COUNCIL ON ENVIRONMENTAL QUALITY 396, 398 (Dec.1980).

21. Data Resources, Inc., The Macroeconomic Impact of Federal Pollution Control Programs—1981 Assessment (July 17, 1981) (study submitted to EPA).

22. U.S. DEPT. OF ENERGY, ENERGY DATA REPORT, WEEKLY COAL REPORT NO. 225 (Jan. 22, 1982).

ment.[23] To be sure, this is a substantial sum which could have contributed toward significant improvements in productivity if devoted exclusively to modernizing plant and equipment. In the same period of time, however, Japanese steelmakers spent $3.7 billion—$600 million more than American counterparts—on pollution control and, in addition, outspent us on new machinery and expanded capacity.[24] Further, Japanese emission standards on steel plants are apparently tougher than are ours.[25]

This is not meant to deprecate the financial effect of environmental regulation on industry. Though the cost of pollution controls mandated by the federal government represented only about 3.3% of GNP and about 3.1% of all spending by industry on plant and equipment in 1981,[26] the effects on specific industries can be substantial. Utilities, for instance, have to devote about 10% of capital investment to pollution control; the steel industry, about 20%.[27] This is not surprising when one considers that these are inherently "dirty" industries that are responsible for a proportionately large fraction of the total air pollution problem. Given that the Clean Air and Clean Water Acts set time limits for achieving their goals,[28] the "dirtiest" industries, in effect, have the biggest and most expensive jobs to do. Therefore their environmental expenditures can be expected to represent a substantially larger percentage of their total capital expenditures for the affected time period than is true for other industries.

But we run a greater danger of exaggerating the dollar cost of environmental regulation than of underestimating it. The danger is that, by assuming that broad-scale deregulation will cure most industrial maladies, we risk postponing our analysis of deeper-rooted economic problems, and thus give our competition more time to extend its lead. The fact is that most estimates of regulatory costs do not include any reckoning of financial benefits in terms of sickness prevented, worker absenteeism avoided, and serious environmental damage that would have occurred without reg-

23. Meyerson, *Japan: Environmentalism with Growth*, Wall St. J., Sept. 5, 1980, at 14, col. 4.

24. *Id.*

25. On this point, the Wall Street Journal—no friend of the EPA—had this to say: "American businessmen often complain that the severity of environmental regulation puts U.S. industry at international competitive disadvantage. Yet for the last ten years, Japanese environmental policy has been at least as strict and sometimes more expensive than our own. . . . Japanese industry has been so resourceful that it has been able to grow in spite of those costs." *Id.*

26. Data Resources, Inc., The Macroeconomic Impact of Federal Pollution Control Programs—1981 Assessment (July 17, 1981) (study submitted to EPA); *see also* G.L. Rutledge and B.D. O'Connor, *Plant and Equipment Expenditures by Business for Pollution Abatement, 1973–1980, and Planned 1981*, 61 U.S. DEPT. OF COM., BUREAU OF ECON. ANALYSIS, SURV. OF CURRENT BUS. No. 6, 19, 21 (June 4, 1981) (tables showing new equipment expenditures for pollution abatement by U.S. nonfarm business).

27. *Id.*

28. *E.g.*, 33 U.S.C.A. § 1311(b) (West 1978); 42 U.S.C.A. §§ 7407–10 (West Supp. 1981).

ulation. Our social accounting tends to commemorate the visible victories, not the invisible ones. Just as there are no statues to honor generals who kept the peace, so there are no dollar figures to measure harms that never happened.

The difficulties of attempting to quantify accurately the benefits and costs of regulation are not new. Even regulators who have favored cost-benefit analysis have generally acknowledged these difficulties,[29] but have pursued the effort in an open-minded way. They have tried to help focus more clearly the regulatory options in terms of respective costs and benefits that could be quantified, with the understanding that not all relevant considerations can be rendered in dollars-and-cents terms. Regulatory analysis fares better when it concentrates on developing cost-effective regulation—that which achieves a regulatory goal at the least cost—and on forcing an honest appraisal of both regulatory and non-regulatory alternatives, than when it attempts to force data into preconceived, rigid, methodological models of strict cost-benefit analysis.

B. The Methodology of "Regulatory Relief"

Under President Reagan's Executive Order 12,291,[30] the emphasis in the use of cost-benefit analysis has decidedly shifted from using cost-benefit concepts as an analytical tool to make regulation *better* to requiring cost-benefit analysis to justify a particular regulation, and thus to regulate *less*. One premise of the Executive Order, and other "regulatory relief" activities, is that the regulatory policy-making process can and should approximate the marketplace. Another premise is that the costs of regulation tend to outweigh its benefits. The current policy, therefore, is to slow or halt regulatory activity by imposing new burdens on the regulators. This approach utterly ignores both our experience of the last twenty-five years and the rationale for government intervention and regulation in the first place: the marketplace simply fails to provide the environmental, health, and safety benefits that are necessary to enable our society and economy to continue at even current levels of well-being. This policy motivation

29. For a discussion of the difficulties of estimating costs, see note 20 *supra*. Susceptible as they are to error, estimating benefits is even more difficult. First, there are all the problems of establishing a causal relationship between a substance and effects on health or the environment; then the problems of demonstrating a causal incident of harm, prevention of which is the regulatory goal. Health surveys are extremely complex and costly enterprises. Some progress is being made, of course. *See, e.g.*, 12 ENV'T REP. (BNA) 677 (Oct. 2, 1981) (reporting a recent EPA staff study, based on a health interview survey of 50,000 households, which indicates a statistically significant relationship between total suspended particulate (TSP) emission levels and workdays lost). Still, benefits analysis is fraught with uncertainties that require the analyst to rely heavily on assumptions every step of the way. The results are bound to reflect such value judgments.

30. 46 Fed. Reg. 13,193 (1981).

for regulation remains, even if bureaucrats cannot quantify every conceivable cost and benefit.

Executive Order 12,291 contributes to less regulation in two ways: (1) the regulatory impact analyses (RIA's) now required by the cost-benefit justification process[31] stack the deck against regulation because benefits are usually more difficult to quantify than are costs; and (2) the mandatory review of proposed rules by the Office of Management and Budget (OMB) required under the order[32] inevitably allows those who wish to fight regulation—industry, administration budget-cutters, etc.—an extra opportunity to kill or weaken a rule.

1. Regulatory Impact Analyses

Section 2 of Executive Order 12,291 sets the general standard by which all regulations in the Executive Branch agencies shall be judged "to the extent permitted by law."[33] It requires, inter alia, that no regulatory action be undertaken unless its potential benefits to society outweigh its potential costs, and that "[a]mong alternative approaches to any given regulatory objective, the alternative involving the least net cost to society shall be chosen."[34]

Any "major" rule—defined in a way that highlights potential costs[35]—must be subjected to an RIA before it is proposed as well as before it is published as a final rule.[36] Both of these RIA's must be prepared in accordance with the general standards of section 2, which put the burden on the agency to justify a proposed rule's anticipated costs, by finding that they are outweighed by its anticipated benefits.[37]

The OMB's guidance to agencies on how to prepare RIA's[38] adds to the agencies' burden of justifying regulatory initiatives. Each RIA should begin with a "statement of need for and consequences of"[39] the rule. An agency is to address several issues, including whether, "[s]ince regulatory failure may be a real possibility, is it clear that the proposed regulation would produce better results than no regulatory change[.]"[40] Among the "alternative approaches" an agency should consider, according to the

31. *Id.* at 13,194.
32. *Id.*
33. *Id.* at 13,193.
34. *Id.*
35. *See id.*
36. *Id.* at 13,194.
37. *Id.* at 13,193.
38. OMB Interim Guidance to Federal Agencies on Preparing Cost-Benefit Analysis of Regulations, *reprinted in* 12 ENV'T REP. (BNA) 258–59 (June 19, 1981).
39. *Id.* at 258.
40. *Id.*

OMB, are "[t]he consequences of having no regulation. . . . For example, RIAs for health and safety regulations should consider the adequacy of tort law or state programs such as workmen's compensation."[41]

The RIA process under the Executive Order appears deliberately structured to predispose the policy-maker to reach an anti-regulatory conclusion. In fact, that tendency is inherent in any cost-benefit analysis process that, rather than operating simply as a means of narrowing the issues for ultimate policy judgment, becomes an end in itself. Furthermore, a cost-benefit analysis is not the scientific, value-neutral method it is often claimed to be. Many problems, such as what assumptions should be made about likely compliance behavior, arise in the process of performing a cost-benefit analysis which in effect require the policy-makers to rely, consciously or not, on their own value system. To the extent that agency policy-makers share anti-regulatory values, the regulatory process will be biased against regulation, even without the OMB directives.[42]

In addition, the cost side of the cost-benefit equation almost invariably receives greater weight in the process of cost-benefit analysis. This is so for two reasons: (1) costs are generally much easier to quantify than are benefits; and (2) decision-makers find it easier to focus on considerations that have been quantified.[43] Thus, ironically, if cost-benefit analysis is used as the single standard by which a regulation is to stand or fall, it undermines the original premise for government regulation. The political system intervenes in the marketplace through regulation because the economic system does not provide, or provides imperfectly, benefits or "goods" valued by society such as the prevention or mitigation of environmental harm. Yet, if overemphasized, cost-benefit analysis requires essentially a return to the marketplace with its emphasis on costs and a strictly economic mode of decision-making:[44] approaches rejected by Congress in its underlying decision to regulate.

The effort is misguided. In those regulatory areas dependent on scientific research, such as controlling exposure to chemicals, regulatory policy decisions must inevitably be based on less than perfect information and therefore on the policy-maker's expert judgment. If a policy decision within the framework of a regulatory statute has to be fully substantiated

41. *Id.*

42. *See* CENTER FOR POLICY ALTERNATIVES AT THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY, prepared for the SENATE COMM. ON GOVERNMENTAL AFFAIRS, 96TH CONG., 2D SESS., BENEFITS OF ENVIRONMENTAL, HEALTH, AND SAFETY REGULATION 14–16 (Comm. Print 1980) [hereinafter cited as REGULATORY BENEFITS].

43. *Id.* at 19.

44. *See id.* at 17.

by strictly demonstrated economic benefits, much of the regulation contemplated by that statute would be halted.[45]

Moreover, the benefits realized by avoiding or blunting damage costs are notoriously difficult to quantify. One report has noted:

> Health-related hazards involve a larger component of intangible costs than other situations. This gives rise to the need to account for such costs as pain and suffering, emotional stress, and the loss associated with bereavement. In addition, estimating the value of environmental amenities (such as the preservation of wildlife) poses a variety of difficult conceptual and empirical problems. Traditional valuation analyses typically neglect or understate the benefits of regulation in these areas.[46]

Most cost-benefit analyses have completely ignored the potential indirect benefits of regulation:

> Indirect, or *leveraged,* benefits accrue from the very presence of a particular regulation which induces industry to control unregulated hazards in anticipation of regulation, to innovate, and to find ways to meet the public's need for a cleaner, healthier environment while maintaining industrial capacity. The long-term, positive side effects accompanying a regulation need to be included in a complete assessment of the benefits of a regulatory strategy. An example of leveraging is the fact that chemical companies are now routinely conducting short-term tests on new chemicals for possible carcinogenic activity, even though specific regulatory requirements under the Toxic Substances Control Act have not been promulgated. These long-term benefits are substantial, though difficult to quantify. Their exclusion omits from estimates of benefits what may be the largest contribution of regulation.[47]

Indeed, the OMB's RIA Guidance to agencies *urges* them to include "various [indirect] adverse effects of the regulation—such as those from reductions in competition, innovative activity, or productivity growth"[48] but *fails* even to mention analogous indirect benefits of regulation that agencies should consider. It is unnecessary to give a regulation's opponents this one-sided advantage. It is our collective thinking about regulation's indirect *benefits* that needs stimulation, not the other way around.

---

45. If we adopted proposals that cause-and-effect data be required to be from studies on human beings instead of animals, it would be at least a decade before we could provide sufficient substantiation for many regulations. In fact, for some regulations—conceivably for many—we could never supply such substantiation because of ethical constraints regarding human testing or because of practical limitations, e.g., the 100+ years it would take to trace potential genetic effects through several human generations.

46. REGULATORY BENEFITS, *supra* note 42, at 17.

47. *Id.* at 19.

48. OMB Interim Guidance, *supra* note 38, at 259.

This criticism of cost-benefit analysis is not intended to be wholesale. Cost-benefit analysis, if it is used with a full recognition of its limitations and with a healthy skepticism concerning its results, is a valuable means for organizing data so that the policy-maker may determine which regulatory alternative is most cost-effective in a broader sense. The problem with the cost-benefit *justification* approach to regulatory reform is that it tends to make regulatory costs and benefits the only subjects of inquiry. There are other important standards by which a regulation should also be judged. Two such criteria are the legislative mandate—the likelihood that the regulation will realize the benefits that Congress and society expected when regulatory authority was delegated to the agency—and the likelihood of compliance with the regulation.[49]

2. *OMB Review*

These substantive issues also raise the political question of who makes the decision. The real debate here is not the right of a President to intervene and affect the outcome of rulemaking. The real issue is what rules apply to the President, and, more practically, to the vast apparatus of the modern Presidency; and the concern is the undue extent to which this apparatus is able to "coordinate" and "influence" proposed regulations in secret, thereby remaining largely unaccountable to Congress, the public, or the courts. The reality is that well-financed special interests have an inordinately greater ability to influence rulemaking through the White House than through regular agency processes. The opportunities for backdoor decision-making abound under Executive Order 12,291. That order chills regulatory activities, not only by its cost-benefit analysis requirements, but also through its procedural provisions for OMB review, prior to publication, of all proposed and final rules. For major rules, the OMB review causes delay of at least ninety days beyond the time necessary for the agency's own development and review of a rule.[50] Conceivably, the review taking place during this delay could yield better, rather

49. *See* REGULATORY BENEFITS, *supra* note 42, at 16. These criteria are explored further in Part II of this article.

50. Proposed major rules must be sent to OMB at least 60 days before publication, final major rules at least 30 days before publication; non-major proposed and final rules must be sent to OMB at least 10 days before publication. Exec. Order No. 12,291, § 3(c)(2), 46 Fed. Reg. 13,194 (1981). The Executive Order sets no time limit on OMB's review at either stage. To the contrary, it implicitly permits OMB to take as long as it likes to complete its review, except to the extent that that may be inconsistent with an agency's "responsibilities delegated by law." *See id.* § 3(f). Since agencies generally get at least some judicial extension of statutory deadlines relatively easily, this constraint may not be very serious.

than less, regulation. Political realities, however, combined with these formal requirements, have produced the anti-regulatory results of "regulatory relief."

The extra layer of policy-making review by the OMB at the pre-proposed and pre-final rulemaking stages can give special interests an extra inning. As a practical matter, if opponents of a regulation have struck out at the agency, they then turn to the OMB, hoping that that agency will take a fresh look at the matter. Moreover, much of the OMB's review—especially during the crucial preproposal stage—takes place *off* the public record. As a result, this review is more vulnerable to special interest advocacy than are public proceedings before an agency. This is true not only because all parties may not have access to the OMB, but also because the OMB staff conducting the review does not have the substantive expertise in a regulatory area that would enable it to reassess thoroughly the merits of a presentation.

In short, the OMB's review process is much more significant politically for its potential veto or manipulation of policy than for its certain delay.

Drastically reduced agency budgets, especially at the EPA, are another aspect of political reality that turn Executive Order 12,291 into an anti-regulatory instrument. A thorough analysis of a proposed rule's anticipated costs and benefits is usually very costly. Under President Carter's Executive Order 12,044,[51] which imposed less extensive cost-benefit analysis requirements than President Reagan's Executive Order 12,291, the EPA spent anywhere from $33,000 to $1.2 million to perform individual regulatory analyses.[52] There simply are not enough resources in an agency budget that would be reduced forty percent[53] to perform adequate RIA's for regulations mandated by statute. This Administration's requirement of detailed cost-benefit justification analyses, combined with its substantial cuts in Agency resources for performing the analyses, is certainly one of the reasons why the EPA's rulemaking activity has decreased roughly four-fold since the last year of the Carter Administra-

51. 43 Fed. Reg. 12,661 (1978).

52. *Regulatory Reform Act, 1981: Hearings on S. 1080 Before the Senate Comm. on Governmental Affairs*, 97th Cong., 1st Sess. (1981) (statement of Milton Socolar, Acting Comptroller General of the United States), at 4, app. at 3. Not only are the EPA's RIA costs under E.O. 12,291 probably higher, but OMB's review of a rule and the accompanying RIA also imposes some costs. *See id.* app. at 6. Thus the fact that OMB's resources are also limited is an additional factor contributing to delay in the regulatory process and, at least indirectly, to a decrease in rulemaking activity.

53. The EPA budget would be reduced from $1.353 billion in fiscal 1981 to $817 million in real 1981 purchasing power under EPA Administrator Anne M. Gorsuch's proposed budget for fiscal 1983. NATIONAL WILDLIFE FEDERATION, SHREDDING THE ENVIRONMENTAL SAFETY NET: THE FULL STORY BEHIND THE EPA BUDGET CUTS 9 (1982).

tion.[54] Perhaps even more significant are the budget constraints imposed on the EPA's Office of Research and Development. EPA Administrator Anne M. Gorsuch's proposed fiscal 1983 budget for this office is expected to be only $206 million, down from $365.5 million in fiscal 1981.[55] As basic research winds down, the Agency may be unable to produce sufficient data to support new regulations, even under requirements less exacting than the Executive Order's RIA requirements.

The present emphasis on strict cost-benefit justification for regulation prejudices the regulatory policy-making process against regulation. This anti-regulatory approach results from misapprehension of both the underlying need for and the inevitability of regulation. Our environmental problems stem less often from any intent by industry to pollute, than "from inadvertence, unawareness, random information gathering techniques, and from the difficulty of keeping pace with the advancement of technology."[56] The benefits of regulation sought by the public are either intangible or can be stated primarily only as negatives: the prevention or mitigation of substantial harm to human health and to the environment. On the other side of the equation, the alleged costs of regulation are often magnified. The result, under the cost-benefit justification approach, is either no regulation or poor regulation, or (amounting to the same thing) a decision-making process that is so slow or changeable that neither the public nor industry knows what standards govern.

III. EFFECTIVE REGULATION: GETTING THE JOB DONE

Regulatory reform efforts must focus on how to make regulation effective, that is, how to effectuate the legislative mandate at the least cost. The constant inquiry should be whether a particular alternative will be likely to result in compliance that will achieve the regulatory intent. Thus the important characteristics of effective regulation should include the following three elements:

Clarity and certainty. The standards to which regulated behavior is expected to conform should be public, explicit, and consistent with other related standards. Not only must the regulations themselves be clear and certain, but the agency must support its regulations with clear and certain enforcement policies. Unless regulations and their enforcement are clear and certain, business is highly unlikely to achieve the social goals in-

54. *EPA's First Year Under Reagan Marked by Friction with Congress, Criticism Over Budget, New Direction*, 12 ENV'T REP. (BNA) 1272, 1274 (Jan. 29, 1982).

55. *Id.* at 1275.

56. T.H. TRUITT, D.R. BERZ, D.W. WEINBERG, J.B. MOLLOY, ENVIRONMENTAL AUDIT HANDBOOK: BASIC PRINCIPLES OF ENVIRONMENTAL COMPLIANCE AUDITING iii (1981).

tended by the regulation. Moreover, even those achievements that are made may otherwise be only at a higher than necessary cost. Other things being equal, the most clear and certain regulation is most likely to elicit compliance.

Reasonableness and fairness. Those affected by regulation, especially officers and employees responsible for conceiving and implementing corporate policy, must perceive regulation to be reasonable and fair in terms of the demands it places on corporate resources.[57] Again, the consistency with which regulatory requirements are enforced is important. Other things being equal, the regulation that is perceived as most reasonable and fair is most likely to elicit compliance.

Efficiency and cost-effectiveness. Efficient regulation is cost-effective regulation, that is, that which is analytically determined to be the least costly way, within statutory constraints, to achieve the legislative mandate. Other things being equal, the most cost-effective regulation is most likely to elicit compliance.

Each of these three characteristics contributes to the likely effectiveness of a regulation. In addition to weighing these factors, though, the regulatory policy-maker should explicitly inquire into effectiveness per se. Determination of the likely per se effectiveness of a regulation requires a different kind of judgment—one informed by an accurate understanding of corporate behavior, especially corporate decision-making structures and patterns of communication, and of financial incentives that can be manipulated to stimulate corporate self-interest in compliance. The question here is whether the entities subject to the regulation are likely to comply with it in a way that will achieve regulatory intent. More often than not, if industry can be persuaded that compliance with a regulation will be profitable to it (or at least more profitable than no or partial compliance), the regulation will be effective.

Clarity, certainty, reasonableness, fairness, efficiency, and effectiveness are all valid and necessary considerations in devising regulatory schemes. The following examples of innovative regulatory techniques in the environmental field appear to offer some of those advantages. They are discussed here as illustrations of how regulatory reform might get the job done.

57. Such "demands" may be in terms of innovation and technological advance; a regulation may be technology-forcing and still meet this test. The mere absence of an inexpensive, ready-to-hand mechanism does not in itself invalidate a regulatory requirement, although such absences may require allowances in time frames or other types of credit for necessary innovations.

A. *Example 1—Mandatory Third-Party Liability Insurance*

In December 1978, the EPA proposed regulations under the Resource Conservation and Recovery Act[58] that would have required new hazardous waste treatment, storage, and disposal facilities to demonstrate "financial responsibility" for claims of a minimum specified dollar amount for personal injury or property damage arising from escape of hazardous waste during the facility's operating life.[59] Under this initial proposal, financial responsibility could have been established by evidence of insurance, self-insurance (defined as a percentage of the firm's equity), some combination of the two, or some other form of financial responsibility acceptable to the Regional Administrator.[60]

When the EPA promulgated these regulations in interim final form in January 1981,[61] it had made several changes. The interim regulations eliminated the options of self-insurance and a Regional Administrator-devised variance. They also required both new and existing firms managing hazardous waste to purchase liability insurance. However, facilities where hazardous waste does not come in contact with the land were not required to purchase coverage for non-sudden occurrences; and for facilities required to purchase such coverage—landfills, surface impoundments, and land treatment facilities—the requirement was to be phased in over a three-year period, beginning with larger firms.

This evolution in policy was primarily due to the Agency's intelligence from the insurance industry that policies covering non-sudden occurrences were already on the market, though to a limited extent, and thus were available to hazardous waste firms or would become available with encouragement from the EPA.[62] Moreover, even if the established insurance industry did not come forward with adequate coverage, the hazardous waste firms required to have the coverage could form their own mutual insurance carriers.[63] In addition, and this is a key point, commentators had observed and the Agency had agreed that requiring existing firms to obtain liability coverage would put the insurance carriers in the position of having to evaluate those existing hazardous waste firms in an effort to assure their compliance with environmentally sound practices as a condition to obtaining insurance.

58. Pub. L. No. 94-580, 90 Stat. 2795 (1976) (codified at scattered sections of 42 U.S.C.).
59. 43 Fed. Reg. 58,946, 59,006 (1978) (to be codified at 40 C.F.R. § 250.43-9).
60. 43 Fed. Reg. at 58,987.
61. 46 Fed. Reg. 2802 (1981) (to be codified at 40 C.F.R. pts. 122, 264, 265).
62. 46 Fed. Reg. 2802, 2827 (1981).
63. Meyer, *Compensating Hazardous Waste Victims: RCRA Insurance Regulations and a Not So "Super" Fund Act*, 11 ENVTL. L. 689, 708 n.105 (1981).

The status of the EPA's third-party liability hazardous waste regulations became problematical, however, when the Agency announced in October 1981 that it was deferring their effective date to April 13, 1982 in order to consider whether to withdraw the liability requirements entirely.[64] Recently, the EPA changed its mind and published revised interim final rules requiring liability insurance.[65] But, because some portions of the rules may be subject to continuing controversy before the Agency and, perhaps, in litigation, their ultimate form cannot be foreseen. In any event, required insurance coverage has been thought by many to be a potentially valuable means of mitigating environmental harm because it makes environmental compliance profitable: those companies whose operations are environmentally sound will be charged less for the required coverage than companies whose operations pose environmental risks.

On the other hand, the insurance industry views its role, more realistically, as that of spreading—not preventing—risk. Yet the technique of requiring, in the regulation of hazardous wastes, that waste-disposal firms maintain third-party liability insurance merits serious consideration for several reasons. First, it guarantees that there will be at least some compensation to victims of environmental harm, providing they can prove liability.[66] It also enlists the insurance industry in a complementary role with the government.[67] As a result, it promises to improve both performance and the risk-assessment approach to regulation. The insurance premium charged would presumably be based both on an engineering study of a site and on risk-assessment techniques. This kind of regulation can be tailored to particular facilities and thus can be clear, certain, reasonable, and fair.

Second, this technique creates a strong financial incentive for compliance, not only with environmental regulations but also with general principles of responsible financial management. If we assume that the premium is a function of the amount of risk that a particular facility poses to human health and the environment, then that dollar figure is an immediate, rational representation of the cost of the risk of harm to the regulated company. Conversely, it is a monetary measure of the potential benefits to the company of adopting environmentally sound corporate behavior, including compliance with applicable regulations. Corporate managers are more likely to change corporate behavior in response to this

64. 46 Fed. Reg. 48,197 (1981).
65. 47 Fed. Reg. 16,544 (1982).
66. Meyer, *supra* note 63, at 711.
67. *See id.* at 711 & nn.118, 119 (giving examples of precedents to statutorily-required insurance).

financial signal than they are likely to speculate about such uncertainties as whether an agency has sufficient resources to inspect for and proceed against violations, whether incidents of environmental harm will occur, and whether an injured party can obtain a judgment for such an incident. This kind of regulation translates the costs of noncompliance and the benefits of compliance into commonly-used balance-sheet terms. It is therefore likely to be effective in eliciting corporate compliance to get the job done.

Third, requiring third-party liability coverage involves top management directly in the process of environmental compliance by making it an element in the management of finances and risk. As a result, compliance is more likely to be sought as a corporate policy goal than if it were merely one of many subordinate concerns for a plant manager, whose focus is necessarily on daily operative performance.

Finally, the technique places on the regulated industry a share of the enforcement costs of the regulatory process, or at least the portion of those costs administered by the insurance industry. The EPA and parallel state agencies lack sufficient resources to station a "cop" at every facility. The insurance industry, though it legitimately perceives its role as that of spreading rather than preventing risk, would probably stimulate compliance through the performance requirements it would impose as a condition of coverage. Profit maximization behavior in the insurance industry and in the regulated hazardous-waste firms would lead to cost-effective regulatory techniques.

A significant potential disadvantage of regulation by mandatory insurance coverage is the due process problems that might arise when a carrier wants to cancel a policy. The private insurance industry is not bound by the administrative protections, for example the need to show cause and to provide a hearing, that government agencies, under the Constitution and statutes, must provide.[68] Nevertheless, the potential advantages of this supplement to regulation are so substantial that it deserves serious consideration.

B. Example 2—Corporate Environmental Auditing

A corporate environmental audit is a review by a corporation of its activities affecting the environment to determine whether it is in compliance with federal, state, and local environmental laws and regulations. Many United States corporations began to conduct environmental audits in the mid-1970's, partially as a result of congressional and judicial pressures

68. Meyer, *supra* note 63, at 711.

and consent orders issued by the Securities and Exchange Commission to enforce its disclosure requirements.[69]

While some firms initiated auditing in response to such external pressures, in many others the practice has been entirely voluntary. A good auditing program depends on management's recognition that the company's ability to function profitably requires prudent management of activities that affect its financial exposure, including environmental compliance. Some corporations have established their own environmental auditing departments and conduct these audits in-house; others hire outside consultants who have developed a recognized expertise in the field. In either situation, it is generally recognized by management, environmental auditors, and legal counsel that, to be of service to the company, the audit function must be performed by persons who: (1) are not themselves responsible for compliance with environmental requirements; and (2) have direct access to and the support of the company's chief executive officer.[70]

Several years ago, the EPA began to generate ideas about regulatory programs that would stimulate environmental auditing. The Agency currently appears to be making progress toward designing such a program. Some of its possible features are outlined below.[71]

First, the EPA would develop general guidance criteria for an acceptable corporate environmental audit program. This should be done in consultation with the states, because many federal environmental requirements are administered and enforced by state agencies (with direct enforcement by the EPA only if the state defaults). This development should be done, of course, with public notice and comment. Among the general criteria that the EPA has considered for such guidance are: (1) the company's audit program should have the corporate executive officer's clear support; (2) the audit should be conducted by independent persons, whether company employees or outside consultants, who are not responsible for production and who are rewarded on the basis of the company's environmental performance; (3) the company should establish regular procedures of ensuring that any violations uncovered by the audit are corrected at the plant level; (4) the company should employ an established schedule of site visits or internal inspections by the auditing team; and (5) the company should establish a regular procedure for communicating the

69. *See* Harrison, *Big Business's Pollution Problems Spawn a New Breed of Auditors*, N.Y. Times, May 17, 1981, § 3, at 8, col. 1.

70. *Id.; see New Environmental Audit Plan: Staff Adds Flexibility, Keeps Inspections*, Inside E.P.A., Feb. 12, 1982, at 1, 2.

71. This description of a possible EPA environmental auditing program is drawn from recent conversations with EPA staff, as well as from *New Environmental Audit Plan: Staff Adds Flexibility, Keeps Inspections*, *supra* note 70.

information about compliance above the plant level to corporate headquarters. In addition, companies should be required to establish a procedure for retaining records of each audit.

In order to get approval for a company's audit program, the EPA may require that a corporate executive officer certify to responsible federal or state authorities that an audit program meeting the above criteria is in place. The certifying officer should be someone with ultimate responsibility for the corporation's environmental compliance, and should be of at least vice-presidential rank. In addition, false certification should subject the individual to personal liability. After the EPA receives the certification, the Agency should be required to approve or reject the company's audit program within a reasonable defined period—say, 120 days.

The EPA is structuring its regulatory audit policy to offer companies some inducements to adopt internal auditing programs. First, in return for requiring companies to notify the state or EPA's Regional Administrator of violations found during the audit, enforcement penalties could be waived provided that the company acts in good faith to bring itself into compliance. Statutory constraints, such as mandatory fines for violations, would have to be modified to make such self-reporting provisions viable. Second, the EPA could eliminate many reporting requirements, so long as the company has procedures for retaining its own auditing records. Third, the EPA is considering reducing, but not eliminating, its own inspections or inspections by state agencies of companies whose audit programs meet the criteria that would be established. If an auditing policy works, it should soon become evident to the EPA and the states that companies that meet the criteria are usually in compliance and, as a result, the need for frequent inspections should substantially decrease. Any audit program, however, must ultimately be judged by whether "compliance" is actually achieved.

This sort of flexible policy (really a strategy) for encouraging environmental auditing deserves serious consideration. Its potential advantages are numerous. The principal advantage is that, if the EPA structures the policy to make it profitable to companies,[72] private industry would be encouraged to create automatic self-correcting mechanisms for dealing with environmental problems when they occur. Rather than depending on the uncertainties of a regulatory agency's inspection and enforcement efforts to uncover and correct violations, environmental auditing, by en-

72. For example, the EPA could consult with the financial industry to find out what criteria it might look for in determining the interest rate at which it would provide funds to a company with hazardous waste facilities.

couraging corporations to comply of their own volition, is likely to result in more pervasive compliance with environmental regulations.[73]

Of course there are risks to an environmental auditing policy. For the public, there is the risk that companies that uncover violations will neither report them nor correct them. Yet, given the Agency's discretion to continue to inspect; the availability of statutory citizen suit provisions; the likelihood that auditing consultants will, in effect, "police" much of the process; and the severe penalties that a certifying corporate officer could personally incur if the company's audit program does not measure up to the EPA criteria; the risk may be worth taking. For companies that institute environmental auditing programs in reliance upon an EPA policy, the principal risk is that the violations they uncover and report and act in good faith to correct will result in penalties despite the provision of penalty waivers. This risk, too, seems worth running, for if the EPA were to seek penalties in contravention of the policy, the whole policy would collapse in the resulting negative reaction.

73. The EPA's current thinking is that it would not require an approved audit program to use outside auditors. Environmental auditing can be done with the necessary independence by corporate personnel. Nevertheless, as a practical matter many companies will probably turn to consultants at least to design, if not to implement, their audit programs. *See* Harrison, *supra* note 69. The market for such services will grow, and consulting firms that have already begun to develop a reputation for setting up and performing good environmental auditing programs will benefit. Insofar as they will be marketing their expertise and their good reputation with the EPA and state agencies, they would assume something of the oversight role that we envision for insurance companies if third party liability insurance were required under RCRA. This is especially true because of the potential liability to them if they were to write an opinion letter to a company stating that it is in environmental compliance when in fact it is not. With their necessarily cautious, "show-me" posture, auditing firms would thus remove some of the regulatory burdens from the EPA. While the criteria that the EPA is considering for an approvable environmental auditing program currently lack specificity, that may be the necessary price of the flexibility the EPA's concept offers. The current concept should be tested in a pilot program; we understand that the EPA is considering conducting a trial auditing program in Region V. In any event, a company that does develop an audit program that the EPA approves can rely on that fact. Thus a degree of certainty would be provided. The non-specificity of the criteria in the possible EPA guidance is also, of course, an advantage, for it allows corporate management to tailor a program to fit a company's operations and flow of communications.

The EPA concept of waiving penalties for companies with approved audit programs offers a significant financial incentive for adopting an audit program acceptable to the EPA and for subsequently acting in good faith to correct any violations the company might uncover through the audit. However, significant exposure would remain, for example, to private litigation, or to discovery during a hostile take-over attempt. But there are also other potential financial incentives. For example, pollution control equipment is likely to be operated more efficiently if it is regularly inspected and maintained in anticipation of audits. Companies with EPA-approved audit programs may be able to purchase liability insurance (including any that may be mandatory under environmental regulations) more cheaply than if they did not have such audit programs. Companies with such programs also may find it easier to raise money in the capital markets. The EPA should solicit the views of the insurance and financial industries before issuing a final environmental audit policy in order to structure it to stimulate private sector financial incentives that complement any penalty-waiver feature the EPA can provide itself. The more financial incentives that can be built into the policy, the more likely it is that companies will adopt audit programs.

C. *Other Examples*

There are other examples of innovative regulatory techniques that use financial incentives to elicit environmental compliance. One that has been much discussed for years, and appears to have made substantial progress, is the "bubble," or controlled emissions trading policy under which a company is allowed to determine the mix of pollution controls at all its stationary sources in an area, so long as the overall emissions levels from all those facilities are in compliance with applicable laws and regulations.[74] The bubble policy encourages industry's capacity for technological innovation to meet a performance standard; it thus relies on the carrot of lower operating costs as distinct from the stick of regulatory sanctions to be applied if complex, rigid design standards are not followed. Similar emissions trading policies could be used in motor vehicle pollution control, by averaging the emissions of a manufacturer's entire fleet to determine compliance, and in water pollution control as well as in stationary source air quality regulation. The creation of marketable rights, for example by auctioning limited airport takeoff and landing slots to reduce noise pollution or by allowing sources to "bank" and trade credits for emission reductions, is another innovative regulatory technique that has already begun to be implemented. Emission fees, which are charges based on pollutant emission levels, also are a technique that would provide financial incentives both to reduce pollution and to develop least costly control technologies.[75] Using the tax code to encourage technological innovation in pollution-control equipment and processes should also be explored.

IV. CONCLUSION

Regulation should try to achieve policy goals with fairness and efficiency, and regulatory reform should try to orient regulatory processes and policy-makers toward that objective. The conception and development of innovative regulatory techniques that began well before the 1980 election was an attempt to find alternatives to the "command and control" regulation traditionally used by government, but which was by then, in many instances, clearly outdated. This regulatory reform was an effort to use market forces to achieve environmental goals with minimal economic costs.

That effort should be renewed with the strengthened goal of structuring

74. *See* 47 Fed. Reg. 15,076 (1982) (emissions trading policy statement).

75. For these and other examples of innovative regulatory techniques, see U.S. REGULATORY COUNCIL, REGULATING WITH COMMON SENSE: A PROGRESS REPORT ON INNOVATIVE REGULATORY TECHNIQUES (Oct. 1980).

regulation to stimulate voluntary corporate compliance. The regulated community will strive to realize society's environmental goals if the benefits of achieving them can be made real in corporate terms to those responsible for corporate action.