

---

January 1992

## Environmental Protection--The U.S. Approach

William W. Falsgraf

Follow this and additional works at: <https://scholarlycommons.law.case.edu/cuslj>

---

### Recommended Citation

William W. Falsgraf, *Environmental Protection--The U.S. Approach*, 18 Can.-U.S. L.J. 51 (1992)  
Available at: <https://scholarlycommons.law.case.edu/cuslj/vol18/iss/9>

This Speech is brought to you for free and open access by the Student Journals at Case Western Reserve University School of Law Scholarly Commons. It has been accepted for inclusion in Canada-United States Law Journal by an authorized administrator of Case Western Reserve University School of Law Scholarly Commons.

## Environmental Protection — The U.S. Approach

*William W. Falsgraf\**

**F**or more than twenty years, the United States has been developing and implementing a complex matrix of statutes and regulations designed to protect and enhance the quality of the nation's air, water and natural resources. Understandably, the goal is to promote the public health and welfare and the productive capacity of the people of this country. While simple in concept, the achievement of these goals requires the dedication of an enormous amount of resources, both human and economic, as well as a tricky balancing of the negative impacts of these programs against the desirable environmental benefits.

### FEDERAL-STATE CONSORTIUM

Early on, the United States Congress recognized that the geographic and economic diversity of the country militated against an exclusively federal government approach to the problems of environmental protection. Consequently, most of the environmental laws and regulations of this country involve a federal-state partnership. The federal government establishes the minimum standards to be achieved nationwide and the basic methods for achieving those standards, while leaving to the states the assessment of environmental conditions within their respective borders and the specific devices to be employed in order to achieve the federally mandated standards. These devices include regulation of industrial siting, the issuance of permits, compliance monitoring and to some extent funding.

The fundamental objective of each of the environmental statutes is to protect one or more of the basic elements necessary to support human, animal and plant life. Broadly stated, those elements are air, water and earth. It is not surprising, therefore, that the original environmental statutes deal with these basic elements. First came the Clean Air Act of 1970,<sup>1</sup> followed by the Clean Water Act,<sup>2</sup> the Resource Conservation and Recovery Act<sup>3</sup> and Superfund.<sup>4</sup> Over the past two decades, numerous other laws have been enacted which deal with narrower subsets of these broader environmental protection acts. For example, the Endangered

---

\* Senior Partner, Baker & Hostetler (Cleveland, Ohio).

<sup>1</sup> 42 U.S.C. § 7401.

<sup>2</sup> 33 U.S.C. § 1251.

<sup>3</sup> 42 U.S.C. § 6901.

<sup>4</sup> 42 U.S.C. § 9601.

Species Act focuses on species of flora and fauna that have been put at particular risk by the activities of mankind over the years, and the National Environmental Policy Act ("NEPA") requires that the federal government take into account the environmental impacts of the various activities in which it becomes involved in connection with defense efforts, public works projects and the like.

#### PRINCIPAL ELEMENTS OF FEDERAL ENVIRONMENTAL LAW

Generalizing with respect to laws which are as complex as the federal environmental statutes is dangerous at best. However, there are certain fundamental principles which typify most of these statutes.

Most of the federal statutes establish basic criteria for limiting the degradation of the primary environmental components: air, water and the earth. In each case, the statute directs the U.S. Environmental Protection Agency ("EPA") to establish limits on discharges and concentrations of various pollutants in the receiving media. The purpose, of course, is to insure a minimum level of purity in each of these elements.

Secondly, the statutes provide for the implementation of a regulatory system which mandates compliance with the criteria which have already been established. Part and parcel of each of these regulatory systems is the means for enforcing the dictates of the government.

Third, the statutes typically provide minimum programmatic criteria which must be met by each state wishing to qualify its program for federal approval and funding. In most instances, federal funding is the carrot, and disqualification of the state program is the stick incorporated into each of these statutes. Virtually every state has at least attempted to qualify itself and its environmental programs for federal approval.

Fourth, the federal programs are designed so as to prevent the states from sacrificing their internal environmental quality in order to lure businesses to their territory. Basically, this is accomplished by establishing minimum control levels for all industry, regardless of where it is located. In addition, failure of a state to meet federal environmental standards can lead to the loss of federal grants available to assist states in financing the upgrade of treatment facilities necessary to process the inevitable waste generated by human activity.

#### PRINCIPAL ELEMENTS OF STATE ENVIRONMENTAL LAW

Recognizing that the qualification of state environmental programs will lead to federal funding and a desirable level of local control over environmental programs, the states typically attempt to fashion their own environmental laws in such a way as to at least meet the federal criteria established for approval of the states' environmental programs. Beyond that, most states have unique natural resources which they seek to protect. For example, the entire northern border of the State of Ohio runs through the middle of one of the five Great Lakes. This unique

natural resource ensures an inexhaustible supply of drinking water, a cheap transportation medium and a recreational and aesthetic asset of inestimable value. Obviously, the State of Ohio has a tremendous interest in protecting the quality of its lake and the rivers that feed it. In other states, natural resources such as the Everglades, the Grand Canyon, Mt. Ranier and the like add enormously to the lure of the region and, therefore, its economic well-being.

Every state in the Union attempts to maximize the number of federal dollars coming into its coffers. Environmental protection is an expensive program for the states to undertake and, therefore, it is in their interest to obtain as much federal funding for these programs as possible. This, in turn, impels the states to develop programs that are not only consistent with the federal environmental mandates, but also to develop a whole range of programs which qualify for federal grant-in-aid dollars.

Finally the states are in constant competition with each other to lure business to their area. In order to do this, it is important for them to maintain a regulatory climate, which is conducive to the maintenance and attraction of a good mix of business while at the same time ensuring a quality of life at the high end of the scale for its citizens. To some extent, the federal law restricts the states' flexibility in this regard. However, a state that has a federally approved program is the master of its own fate and can exercise a good deal of discretion in the way in which it implements the environmental laws. I do not mean to suggest that states purposely ignore the federal mandates. In fact, they are not free to do so. However, within certain broad guidelines, they do have the flexibility to treat their local industry with a little more gentleness than might be the case if the federal government were in charge of the program. It is also a fact that the state government is much more likely to be responsive to the peculiar and unique demands of its populace than is the federal government. For example, states that enjoy a large influx of tourists will want to maintain the attractiveness of its natural resources, which in most cases are the reason that the tourists come in the first place.

#### AIR POLLUTION CONTROL — AN EXEMPLAR OF THE UNITED STATES ENVIRONMENTAL PROTECTION SCHEME

Air is the quintessential environmental media. It is essential for the maintenance of human, plant and animal life; it is ubiquitous; it moves rapidly and without regard to political boundaries; and it is the natural receptacle of enormous amounts of waste generated as a result of human activity. This being the case, it is not surprising that one of the earliest federal environmental acts dealt with the subject of air pollution control. In 1970, Congress adopted the Clean Air Act in response to a number of health and life-threatening events which had been taking place in the United States and elsewhere. Increasing incidences of emphysema and other pulmonary diseases was documented. Pollution alerts, brought

about by atmospheric inversions trapping pollutants at ground level, were being sounded with increasing frequency as our major cities experienced the effects of an ever-growing and more concentrated populace. Projections of population and business growth foretold of rapidly increasing degradation of the quality of the air in our major cities. These facts combined with the increasing concern on the part of the public with respect to environmental quality in general impelled Congress to take action.

The structure of the Clean Air Act is premised on the notion that in order for human health to be protected, a certain level of air quality must be assured. Epidemiological studies indicated the concentrations of various pollutants which should not be exceeded in the ambient air if human health is to be protected. Pollutants such as carbon monoxide, particulate matter and volatile organic compounds were identified as the most pervasive polluting elements in our air. Evidence was then gathered as to the level of contamination which could safely be tolerated by human beings. The EPA was directed to establish these levels of ambient air quality as minima for the entire United States. Likewise, the Agency was required to establish secondary levels of pollution which would be protective of wildlife, plants and structures which are subject to degradation through exposure to contaminated air. The EPA has established these primary and secondary national ambient air quality standards ("NAAQS"), and NAAQS are now applicable throughout the country. These NAAQS provide the foundation for the remedial and enforcement provisions of the Clean Air Act.

Once NAAQS were established, each state was required to designate air quality control regions ("AQCRs"), within its borders. These regions were to be defined in terms of areas where the ambient air quality was roughly consistent. This determination requires attention to climatological as well as geographic variables within each state. Once the state had divided its territory into the various AQCRs, it was then required to evaluate the air quality within each region. That is to say, the states were required through sampling protocols to determine whether the ambient air in each AQCR met NAAQS and, if not, by how much it deviated from those standards. It was then incumbent upon the state to propose a plan for bringing its noncomplying AQCRs into compliance with the primary and ultimately the secondary NAAQS. In addition, the state implementation plan ("SIP") must contain mechanisms for ensuring that those AQCRs which are in compliance with NAAQS remain that way.

Throughout most of the early history of the Clean Air Act, it was the noncompliance AQCRs that received the most attention. The reason is that federal law provides that each state must bring its noncomplying AQCRs into compliance as expeditiously as practical, but no later than five years from the date that such area was designated as a nonattainment area. If the state fails to bring its AQCRs into compliance, the state is automatically subjected to a mandatory preconstruction permit program

which places various constraints on the location or major modification of major sources of air pollution in the noncomplying AQCR. In addition, existing major sources of air pollution are subject to requirements that they install or retrofit their plants with reasonably available control technology. Alternative control techniques are also being developed for smaller plants.

In the AQCRs where the ambient standards are being met, the Clean Air Act requires review of new sources of pollution. The object is to prevent significant deterioration of the quality of air in those areas which are meeting the ambient standards. In order for a major source of air pollution to be permitted to operate in these areas, the plant must have installed the best available control technology and must demonstrate that the established increments of clean air, which are allowed be used up by industrial projects, have not been exceeded.

### CLEAN AIR ACT AMENDMENTS OF 1990

While simple in concept, the Clean Air Act has been anything but simple in terms of implementation. The nature of the air mass is such that it does not lend itself to precise analysis. Furthermore, the scientific evidence relating to health effects of air contaminants is far from complete. Accordingly, the entire matter of air pollution control has resulted in bitter political infighting and less than complete success in terms of the cleanup of the air. For example, it has been estimated that at least 100 major urban areas of the country have failed to meet the ambient air quality standards for ozone. Significant nonattainment problems also exist for carbon monoxide, particulate matter and sulphur dioxide. Recognizing that the twenty years of experience under the Clean Air Act had not led to widespread compliance, Congress embarked on an ambitious legislative initiative which resulted in the Clean Air Act Amendments of 1990. These amendments addressed various nonattainment problems and imposed a wide variety of new control measures.

Among the major features of the Clean Air Act Amendments is the imposition of technology-based emission limits on previously unregulated smaller enterprises in nonattainment areas. Previously, only major sources of air pollution had been subject to the requirement that they install reasonably available control technology. Essentially these requirements applied only to the very largest industrial plants, namely those with the potential to emit 100 tons per year or more of the polluting substance. Under the 1990 Amendments, technology based emission limits are imposed on sources that emit as little as ten tons per year of volatile organic compounds ("VOC") or oxides of nitrogen in extremely polluted areas.

The Amendments have also imposed on the states the requirement that they demonstrate specified percentages of reductions of pollutants in noncompliance areas on a time schedule, which calls for a fifteen percent

reduction during the first six years and a three percent per year reduction thereafter. The result of this will be enormous pressure on larger industrial complexes which are the most easily identifiable and easiest sources to control within any given AQCR. The problem is exacerbated by the fact that industrial emissions have been subject to control strategies over the years and now represent somewhere between fifteen and twenty percent of the total VOC emissions. Trying to attain compliance by heaping additional restrictions on industry is going to create a very difficult situation for industry in many areas of the country.

In addition to the pressure that is imposed on existing sources is the imposition of new source review on smaller construction projects, to the point where new sources with the potential to emit as little as ten tons per year of VOC will be subject to the new source review protocols in areas that are classified as extreme nonattainment areas. Only one area of the country is classified as extreme, but that is the Los Angeles Orange County area which is one of the largest population centers in the world.

Beyond imposing these more restrictive review standards, the Amendments provide for sanctions to be imposed in the event states do not meet the incremental and final reductions required in order to meet the ambient standards. These sanctions include withholding grants of federal highway funds and limitation or elimination of grants to the state air pollution program. Furthermore, requirements could be triggered with respect to additional control measures, and in extreme situations, a penalty fee could be imposed on stationary sources in amounts up to \$5,000 per ton of emissions exceeding eighty percent of the actual or permitted level of emissions.

### AIR TOXICS

While VOC's, particulate matter, carbon monoxide and sulphur dioxide are recognized to be pervasive and serious air pollutants, the emission of toxic materials has also been identified as a major human health problem from the very beginning. Unfortunately, the air toxics program prior to the 1990 Amendments had been a dismal failure. Only eight pollutants had been made subject to regulation since the Clean Air Act was passed in 1970. Those eight pollutants are arsenic, asbestos, benzene, beryllium, coke oven emissions, mercury, radionuclides and vinyl chloride. The reason the program had been such a dismal failure is that Congress was persuaded initially to impose the strictest type of emission limitations. What they required was the establishment of control standards which would restrict ambient concentrations of these toxic air pollutants to a level which would prevent any adverse health effects with an ample margin of safety. In effect, what this meant was that the control standards had to be set at a level which would involve no risk of human health impacts at all. In most cases, this meant that there could be no emissions, since there was no safe level of exposure to many of these

substances. Obviously, the zero emission requirement would have resulted in the closure of the industries involved in production of these eight toxic materials. It was only because the emission limits for the eight pollutants were not challenged that finite limitations on their emission are in effect. However, in *NRDC v. EPA*<sup>5</sup> the United States Circuit Court for the District of Columbia ruled that regardless of its impracticality, the statutory requirement of zero risk meant what it said. In effect, that decision brought the entire air toxics program to a halt until the 1990 Amendments were adopted.

Congress recognized the reality of this situation and has sought to remedy the statutory defects. The 1990 Amendments specify 189 air toxics and mandate a program of technology based emission limitations for sources emitting ten tons or more per year of any of these specified substances or twenty-five tons per year of any combination thereof. The control strategy is based on the maximum available control technology rather than the zero risk limits contemplated under the original statute. Needless to say, the pace of air toxic control in this country will increase exponentially as a result of these statutory changes.

### ACID RAIN

The subject of acid rain has created as much political furor as any element of the air pollution problem. Not only has there been pressure exerted on the federal government by the states in the northeastern part of the United States, but Canada as well has complained bitterly of the transboundary migration of acid rain brought about by the emissions of sulphur dioxide, which are thought to be coming primarily from coal burning power plants in the Ohio River Valley.

Responding to this pressure, Congress enacted a totally new statutory mechanism for addressing the acid rain problem. Annual sulphur dioxide emissions are to be reduced by ten million tons. The first phase of the reduction is to take effect by 1995, and the second by the year 2000. The reductions are to be achieved through a market-based system whereby power plants are to be given emission allowances. In order to avoid exceeding the allowable emission limits, the plants will either have to reduce their emissions of sulphur dioxide or, in the alternative, acquire allowances from others to achieve compliance. By 1995, 111 specifically named power plants will be required to reduce their sulfur dioxide emissions to a level of no more than 2.5 pounds per million Btu of heat input. In the second phase, these plants will be required to reduce their emissions to 1.2 pounds per million Btu of heat input. Plants that are already emitting at a lower rate than that specified will be required to maintain current emission levels.

The allocated allowances are established by taking the average fuel

---

<sup>5</sup> 824 F.2d 1146 (D.C. 1987).



consumed by each of the 111 named plants between 1985 and 1987, and applying an emission rate of 2.5 pounds per million Btu. If a plant installs control equipment which reduces its total emissions below the permitted level, then to that extent excess allowances will become available which can be used at another plant or be banked. Banked emission allowances could be used for expansion purposes or for helping to meet Phase II reductions.

It remains to be seen how the trading of sulfur dioxide emission allowances impacts the affected entities. Theoretically, the provision for trading allowances will result in the required emission reductions in the most cost effective way. In reality, plants may bank their emission allowances for future use, and thus the market may be extremely limited. If this turns out to be the case, the building of new plant capacity could be severely impacted.

### PERMITS

The 1990 Amendments have substantially changed the permit system under the Clean Air Act. The permit is now the primary mechanism for ensuring compliance with the various provisions of the Act. Any major source of air pollution — that is, one which has the potential to emit more than 100 tons of pollutant per year or considerably less than that in seriously polluted areas — will be required to have a permit. Permits are also required for any source subject to the air toxics regulations and all sources subject to new source performance standards. The states will be required to substantially revise their permit programs in order to comply with the requirements of the newly revised federal law. Once in place, the permit program will provide for a document which will in turn contain all of the operating requirements applicable to a given industrial facility. That is, it will include emissions limitations, schedules of compliance, monitoring requirements and other provisions including self-reporting and certification of compliance with established requirements. This should result in a much greater understanding of the regulatory requirements, in that each facility will have a detailed compliance roadmap. The down side, of course, is the additional paperwork, control equipment installations and process changes which will be necessary in order to qualify for a permit.

Even under the 1990 Amendments, the onus of running a permit program falls on the states. It is anticipated that most states will revise their permitting processes so as to comply with federal law. Those which fail to do so risk losing federal highway funds and being faced with prohibitions on new industrial source construction. It is anticipated that these sanctions are sufficiently severe that no state will want to risk their application.

## ENFORCEMENT

Provisions relating to enforcement are an important element of every environmental statute. The enforcement provisions of the Clean Air Act are typical. In general, it can be said that over the past twenty years the enforcement authority of the federal and state governments has been steadily increased.

### *Civil Enforcement*

From its inception, the Clean Air Act, and for that matter the other environmental statutes, have authorized the EPA to commence civil actions for permanent or temporary injunctions and to assess and recover civil penalties, typically in the range of \$25,000 per day of violation. The administrator may seek these civil penalties whenever a person has violated any requirement or prohibition of an applicable implementation plan, permit or any other requirement of the Clean Air Act or regulations. Likewise, sanctions can be sought whenever a person attempts to construct or modify a major stationary source in violation of the prevention of significant deterioration (“PSD”) or nonattainment requirements.

In addition to these long-standing civil enforcement provisions, the 1990 Amendments added authority for the EPA to seek administrative penalties up to a maximum of \$200,000. The advantage of an administrative penalty is that the EPA is not required to involve the Department of Justice before initiating this administrative procedure. There is, of course, the opportunity to appeal an administrative penalty determination, but the statute provides that administrative penalties can only be overturned by the reviewing court if they are not supported by substantial evidence.<sup>6</sup> Given this restrictive standard of review, the chances of successfully reversing an administrative penalty assessment on appeal are extremely small.

In addition to the administration penalties, the EPA is authorized to establish a program for issuing “field citations” for minor violations. Field citations are analogous to traffic tickets and can be issued by EPA representatives during an investigative site visit. These can range up to \$5,000 per day of violation.

### *Citizen Suits*

Citizen lawsuits represent a unique feature of U.S. environmental laws. For example, under the Clean Air Act Amendments, a citizen may commence a civil action on his own behalf against any person alleged to be in violation of an emission standard or limitation under the Act, or an order issued by the administrator or a state with respect to such standard or limitation. The complaining citizen may file suit in a United States District Court and may seek an order requiring compliance with the

---

<sup>6</sup> Clean Air Act, 42 U.S.C. § 7413 (d)(4).

emission standard or limitation. Further, the complainant may seek the imposition of appropriate civil penalties for past violations. Citizens may also file suit against the administrator of the EPA where there is an alleged failure to perform any act or duty under the Clean Air Act which is of a nondiscretionary nature. In any such actions against the administrator, the court is without jurisdiction to apply civil penalties. However, the court can issue mandatory orders compelling the administrator to perform acts or duties required under the statute. Whenever the court determines that it is appropriate, it may include an award of costs of litigation, including attorneys' fees and expert witness fees, to the complaining citizen. With the addition of these powerful citizen suit provisions to the Clean Air Act, we contemplate that there will be a significant increase in the number of such suits in the relatively near future. This has certainly been the experience under the Clean Water Act.

### *Criminal Enforcement*

While criminal sanctions have been available under environmental statutes, including the Clean Air Act, from the very beginning, their scope has been substantially expanded in recent years. Under the 1990 Clean Air Act Amendments, the knowing violation of the Clean Air Act has been raised to the level of a felony. The statute provides that any person convicted of knowingly violating any requirement of the Clean Air Act shall be punished by a fine of up to \$250,000, or by imprisonment for a period of time not to exceed five years, or both. For the second and subsequent offenses, the maximum punishment can be doubled.

In addition, any person who knowingly makes a false material statement or certification, or who omits material from an application, record, report or other document, may be found guilty of a felony. Thus, the 1990 Amendments have added a felony penalty for those who fail to notify or report as required under the Act. These so-called "record keeping crimes" are additions to the prosecutor's arsenal of weapons which substantially increase the corporate managers' risk of indictment and ultimate conviction.

The Amendments have also added criminal penalties for any person who knowingly releases any hazardous air pollutant and who knows at the time that he thereby places another person in imminent danger of death or serious bodily injury. The penalties are fines of up to \$250,000, or imprisonment for fifteen years, or both. A second offense can result in a doubling of the maximum penalties.

### CONCLUSION

The federal-state duocracy has typified the United States governmental efforts to protect all elements of our environment. Although there are variations on a state-by-state basis, most of the programs are essentially the same. Ohio's approach is typical of that taken by most of

our state governments. While Ohio has not been in the vanguard of those jurisdictions which have led the way in aggressive environmental protection, neither has it been among the laggards. The result has been some notable successes mixed with at least as many disappointing failures to reach the stated objectives. In all instances, the costs have been high, and the pace of progress deliberate at best.

Typical of the American approach to governmental remediation of social and political problems, environmental protection has been typified by an adversarial relationship between the regulators on one hand and the regulated community on the other. Perhaps this approach is necessary in order for these programs to have the appearance of legitimacy. However, the European model of a cooperative government-industry approach to these problems would clearly speed the process with little or no sacrifice of any realistically achievable results.

It is politically attractive for elected representatives to mandate achievement of utopian visions of environmental perfection. Unfortunately, our technical and financial ability to realize these results falls far short. What has happened is that the regulated community has been forced to mount legal challenges to these unrealistic levels of control, which the government has sought to impose upon it, or risk financial ruin in its vain effort to comply. This, in turn, has cost the nation dearly in terms of the slow pace of environmental improvement, not to mention the dollars that have been wasted chasing the environmental perfectionists' will-o'-the-wisps.

