



Environmental Enforcement and Compliance: An American Perspective

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I. Introduction

Environmental law is an area of international concern. Because environmental degradation affects us all, we must look beyond our own national borders for ideas and models for solutions so that we can learn from the success and failures of other countries. I will focus on the United States' experience, which has some success stories but also some flaws. It has been a pleasure to have the opportunity during this visit to learn more about Japanese environmental law as well.

My topic today is environmental enforcement and compliance. No set of laws is perfect, but the United States overall has an excellent set of environmental statutes. In the end, however, what matters is not how good the laws are, but what really happens in the outside world. The best laws in the world will have little use if they are not enforced. Thus, enforcement and compliance are critical to the success of any effort to protect the environment.

According to an old American saying, an optimist is someone who looks at a glass and says it is "half full," while a pessimist is someone who looks at the same glass and says it is "half empty." Environmental enforcement and compliance are like the glass that is both "half full" and "half empty." United States law contains some very strong enforcement mechanisms. Most businesses do their best to comply with the law. However, the government lacks the resources to detect and correct all violations of the law. Also, to be candid, political considerations sometimes interfere with enforcement. So some businesses violate the law despite the threat of enforcement.

II. An Overview of Federal Environmental Regulation

To understand the enforcement system, it is first necessary to understand those rules that are enforced. For the benefit of readers who are not familiar with U.S. environmental law, here I will offer a brief description of our regulatory system.

A. General Features of the Regulatory System

There are some basic features of the system that you should understand before I describe the details. The basic environmental statutes are passed by Congress. The laws are interpreted and enforced by the Environmental Protection Agency, or EPA. The administrator of the EPA is appointed by the President. The EPA creates regulations that provide detailed direction to companies about their environmental obligations. The EPA typically uses what is called "command and control" regulation. That is, EPA regulations tell polluters specifically how much of a particular pollutant they are allowed to release into the environment, rather than leaving flexibility to the polluter.

Often, part of the responsibility for implementing these regulations is shared by the state governments. The state governments are not subject to the direct control of Congress or the President. They agree to participate in federal environmental programs for various reasons. Sometimes they participate because the federal government offers them money to do so. When the major environmental statutes were passed in the 1970s, this sharing of authority between the states and the federal government was an innovation. It was called “cooperative federalism.” Sometimes, however, the arrangement seems to produce as much conflict as it does cooperation.

The environmental statutes have become very complex. For example, the Clean Air Act, a pollution statute I will discuss later, is over three hundred pages long. It covers the subject of air pollution in great detail. The regulations issued by EPA to interpret the statute are even longer. As a result, like tax law, environmental law is a specialized, technical subject in the United States.

The federal courts play several roles in environmental law. When the EPA issues a regulation, the federal courts review whether the regulation complies with the directions of Congress. The federal courts also determine whether the EPA had a factual basis for issuing the regulation. In addition, EPA brings suits against polluters in federal court.

B. The Key Statutes

Because environmental statutes are so complicated, I will give you only a brief and incomplete description today. I will discuss three of the most important statutes: the Clean Air Act, the Clean Water Act, and the Endangered Species Act.

As its name indicates, the Clean Air Act regulates air pollution. EPA is required to determine the safe level for certain air pollutants like carbon monoxide and ozone. The state governments have the primary responsibility for enforcing the regulations. The states are required to issue “state implementation plans,” which are detailed and legally enforceable rules applying to polluters. For example, a state implementation plan might direct a specific factory to reduce its emissions of a particular pollutant by fifty percent within two years. The state implementation plans are reviewed by the federal EPA to determine if the plans will achieve the necessary air quality. If EPA approves a plan, the plan can be enforced both by the state and by EPA. Also, at least in theory, if the state fails to enforce the plan effectively, EPA can take the entire responsibility for enforcing it and eliminate the state’s role.

This sounds simple enough, but there are many complications. Some sources of pollution, like new automobiles, require more centralized regulation because it is impractical for fifty different states to have their own standards for new cars. Other sources of pollution by toxic chemicals cause more immediate harm to human health and require separate regulation. In addition, specific industries have unique problems that must be considered. The result is the extremely long and complex statute that now exists.

The Clean Water Act adopts a different strategy. Under the Clean Water Act, EPA's main job is to determine the best available form of pollution control for each industry. These standards apply to entire industries or sub-industries, rather than considering the unique needs of individual firms or facilities. EPA then issues regulations that establish pollution standards based on the best technology that is available in each particular industry. EPA then gives the states the authority to issue permits to individual polluters. The permits set specific numerical limits for specific pollutants and also contain details about operating methods and monitoring. Violation of a permit is subject to various legal sanctions, and it is a serious offense to discharge water pollutants without a permit. As with the Clean Air Act, EPA has the power under the Clean Water Act to step in if the states are not doing their jobs. Again, there are many complications, but this is the basic scheme.

The difference between these two statutes is that the air pollution statute begins with a target of air quality in each locality and then tries to work out how to reach that target. This can be very complicated because so many thousands of sources contribute to air pollution in cities. In contrast, the water pollution statute begins with the sources of water pollution and requires the use of the most practical pollution control for each industry. Setting a target of water quality for each river or lake is not as important under the Clean Water Act.

Unlike these two pollution statutes, the Endangered Species Act does not provide much of a role for the states. Under the Endangered Species Act, another federal government agency is required to compile a list of endangered species. (The agency that makes this decision is normally the Fish and Wildlife Service, a part of the Interior Department, which is a Cabinet department.) Once a species is placed on this list, it is subject to rigorous protection. Federal agencies are forbidden to take any action that might jeopardize the continued existence of the species. Private individuals may not harm any endangered species, which includes hunting or fishing, and more importantly, they cannot modify the habitat of the species in a way that would harm its chances for survival.

The strength of the Endangered Species Act is indicated by an important early case. *TVA v. Hill* may be the best-known case in American environmental law.²⁾ It involved a dam construction project on the Little Tennessee River, a trout stream flowing through an historic area of Tennessee. Once it was built, the dam would flood some sixteen thousand acres of land, converting the small river into a thirty-mile-long reservoir. Opponents of the dam succeeded in having a small, unimpressive looking fish, the snail darter, proclaimed an endangered species, with the Little Tennessee River designated as its habitat.³⁾ They then filed suit in federal court, asking for an injunction against completion of the dam. The District Court denied the injunction for two main

2) For an excellent study of the case by one of the key participants, see Zygmunt Plater, *In the Wake of the Snail Darter*, 19 U. Mich. J.L. Ref. 805 (1986).

3) *Id.* at 161-62.

reasons: first, because the project was eighty percent complete; and second, because a large portion of the \$78 million already spent on the dam would be wasted. The plaintiffs went to the Court of Appeals, which held that an injunction was required. The defendants then appealed to the Supreme Court, arguing that an injunction would be an abuse of discretion. Surprisingly, not only did the Supreme Court affirm the injunction, but the opinion was written by Chief Justice Warren Burger, a conservative member of the Court. Chief Justice Burger was primarily concerned that if the dam was allowed to proceed, the court would be authorizing an exception from a rule made by Congress, that is, the Endangered Species Act. Chief Justice Burger believed that interfering with the Endangered Species Act would be a violation of the separation of powers between the legislature and the courts.

III. Enforcement Methods

Even the critics of U.S. environmental law agree that it has made great progress in reducing pollution and protecting natural areas. Of course, these advances have had a price. American industry has spent billions of dollars to comply with environmental laws. Naturally, businesses are not always eager to spend such large amounts of money. Thus, issues of compliance and enforcement must be addressed.

The primary responsibility for enforcing environmental laws belongs to the federal government and is shared by the states. However, private citizens and environmental groups also play an important part in enforcing environmental laws.

A. Government Enforcement

The simplest remedy for a violation of environmental law is a court order, called an injunction, directing a company to comply. If the company fails to obey the order, it can be fined by the court, and its managers can also be fined personally or even threatened with jail. Although sometimes a court will give a company more time to comply with the law before issuing an injunction, it can be a powerful remedy for environmental violations.

The problem with an injunction is that it does not prevent the company from violating the law before the time when the injunction is actually issued. This allows the company to delay compliance until the court acts, which can be financially beneficial. If the government's only remedy is an injunction requiring compliance with the statute, companies will have a strong financial incentive to stall as long as possible. This problem appeared early in the history of air pollution regulation, and the laws now contain provisions designed to address the issue.

"Noncompliance penalties" under the Clean Air Act are aimed precisely at denying polluters such financial advantages from delay. A provision added in 1977 provides that EPA or the state

“shall” assess and collect a noncompliance penalty against “every” person who is guilty of a significant violation of the statute. The amount of the penalty shall be equal to “no less than the economic value which a delay in compliance . . . may have for the owner of such source.” Such fines are in addition to other civil or criminal sanctions which may be imposed under the Act or under state or local law.

Similarly, the Clean Water Act provides for administrative penalties of up to \$250,000 per day for each violation. The amount is to be determined based on a variety of factors, one of which is the degree of “economic benefit or savings (if any) resulting from the violation.” These administrative penalties may approximate the noncompliance penalties under the Clean Air Act.

Almost every federal environmental statute also imposes criminal liability besides these civil fines. Criminal sanctions are aimed at companies that have operated in bad faith. Congress has made virtually all “knowing” and some “negligent” violations of pollution control requirements subject to criminal as well as civil sanctions. It is not entirely clear what constitutes a “knowing” violation. One major uncertainty about prosecutions for “knowing” violations is determining exactly what the defendant had to know. Normally, the courts have held that the defendant can only be found guilty under these statutes if he knew that his conduct created an environmental risk, but he does not have to know the details of the risk or of the legal rules that he is charged with violating. For example, to be charged with knowingly discharging pollutants without a permit, the person has to know that a pollutant of some kind is being discharged but not that the law requires a permit or the exact chemical composition of the pollutant.

Congress has explicitly expanded criminal liability to include any “responsible corporate officer.” A recent case applying this doctrine is *United States v. Iverson*.⁴⁾ The defendant had been the chief of a chemical company. The company shipped its chemical in drums, which were returned for cleaning and then reused. The process generated waste-water pollution, but the company used illegal disposal methods. Although the defendant “officially” retired before these violations, he continued to receive money from the company, to be listed as president in documents it filed with the state government, and to give orders to employees, including the employee responsible for the drum-cleaning operation. The defendant sometimes was present when drums were cleaned.

In affirming the conviction, the court held that the defendant could be found guilty as a “responsible corporate officer” if (1) he knew that pollutants were being discharged to the sewer system by company employees; (2) he had the “authority and capacity to prevent the discharge”; and (3) he failed to prevent the ongoing discharge. Note that the prosecution did not have to show that he ordered the misconduct; only that he tolerated it. If a corporate officer knows that an unlawful activity is taking place and has authority over that activity, he has an affirmative duty to stop the

4) 162 F.3d 1015 (9th Cir. 1998).

illegal conduct.

Congress generally has not defined when violations of environmental laws or regulations are serious enough to justify adding criminal to civil penalties. Those judgments are left to enforcement officials in the executive branch. Most cases come to federal prosecutors by referral from EPA. In 1994, EPA established specific standards for beginning a criminal investigation. Case selection is based on two general measures, "significant environmental harm" and "culpable conduct." Criminal cases are normally brought only if the defendant's conduct created a severe risk or harm or if the defendant acted in blatant disregard for the law.

Thus, EPA uses a mixture of the various enforcement methods. In 2000, in the area of air pollution, it sent 236 criminal cases and 368 civil cases to the Justice Department. Penalties collected in 2000 for air pollution violations totaled \$224 million.

In order to improve compliance, the government encourages companies to engage in environmental audits. An audit is a systematic review of a company's practices by the company itself in order to find and correct violations. The existence of a corporate compliance program is a factor in reducing punishments for violations, especially if a company voluntarily reports environmental violations to enforcement officials. Some states make the information gathered through voluntary environmental audits privileged, meaning that the information cannot be introduced in court. Several states also provide immunity from penalties for violations that a company discloses voluntarily, but the federal government does not approve of this approach. The federal government is concerned that companies will abuse such a privilege to shield illegal activities from enforcement efforts.

As we have seen, the environmental statutes provide a set of enforcement measures including injunctions, civil penalties, and criminal sanctions. EPA has created another enforcement measure that is not explicitly covered by the statutes themselves, the Supplemental Environmental Project (SEP). An SEP is an environmentally desirable measure that a violator agrees to implement in place of some of the penalty which it would otherwise be legally required to pay. For example, from 1992 to 1994, EPA negotiated more than 700 of these supplemental environmental plans with an estimated cost exceeding \$190 million. A case study of ten supplemental environmental plans found some significant pollution prevention efforts.

B. Citizen Enforcement

Much of the most important environmental litigation is brought by public interest groups. Sometimes these cases are brought against the government when a government project is environmentally harmful or when a new regulation by an administrative agency may not comply with the requirements of the law. But sometimes the cases take a more unusual form. Normally, in U.S. law, private citizens can sue for damages when a company causes them harm, but only the

government can impose fines for violations of statutes or regulations. The environmental statutes contain an unusual provision that provides for “citizen suits.” The provision allows private citizens and environmental groups to sue companies that are violating legal requirements. The citizen or environmental group can obtain a court order requiring the company to comply with the law. The citizen or group can also obtain an order requiring the company to pay a fine to the government. So citizens are acting instead of the government to engage in law enforcement. For this reason, these citizens are sometimes called “private attorney generals.” This has sometimes been thought to raise separation of powers concerns. However, the Supreme Court has interpreted citizen suit provisions in ways that focus the cases more on redressing harm to the plaintiffs, which lessens the constitutional issues.

Because the government has limited resources, citizen suits play an important role in enforcing environmental statutes. Also, officials sometimes are not enthusiastic about suing polluters, especially those that are economically or politically powerful. In this situation, citizen suits provide another way to enforce the law. When Congress created citizen suits it was being realistic about political pressures that are sometimes brought against officials trying to enforce the laws.

Most litigation in the United States ends with a settlement rather than proceeding all the way through the judicial process. A settlement is an agreement between the plaintiff and defendant, where the plaintiff agrees not to pursue the lawsuit in return for some action by the defendant. These settlements have been used in creative ways. Under the Clean Water Act, citizens may sue to collect civil penalties payable to the government. In settlements, however, instead of payments of fines to the government, environmental groups have obtained agreements from polluters to use fund to restore the environment, in several cases exceeding \$1 million. This practice now has explicit recognition in the citizen suit provision of the Clean Air Act, which provides that penalties may be applied to these “mitigation projects” rather than being paid to the government.

In order to act as private attorneys general policing agency compliance with federal statutes, private citizens and environmental groups must have access to funding. One of the most important sources of funding for these groups consists of the awards of attorneys’ fees provided by many environmental statutes. The availability of fee awards and their size have been the subject of tremendous litigation, both in the environmental area and elsewhere. Two basic rules are that (1) fees are available only to “prevailing parties,” and (2) fees are usually calculated by multiplying a reasonable hourly rate times the number of hours reasonably invested in the suit.

Some recent experiments have been made to involve citizens in other parts of environmental enforcement. Because of decreases in the cost of technology, it is now feasible to equip community groups with some types of monitoring devices. This allows citizens to provide chemical analysis of pollution, which can be used by the company and the government to improve compliance. For example, in one program, citizens are given inexpensive devices for collecting samples of air outside

of oil refineries. They send the samples to a company that performs chemical analysis of the air. Sometimes this evidence has disclosed important violations of the pollution laws.

As we have seen, U.S. law provides some powerful tools to force companies to comply with the law. Government enforcement and citizen suits create strong pressure to comply. But this is not the end of the story. Ultimately, the important question is whether compliance actually occurs. This turns out to be a complex question.

IV. Over-compliance, Noncompliance, and Slippage

When we look at the actual behavior of firms and government authorities, we find a complicated picture. Some firms comply because they are afraid of government sanctions. But some firms comply for reasons that have little to do with a fear of penalties. In fact, they may “over-comply” by doing more than the law actually requires. Other firms take advantage of the practical limits of enforcement in order to dodge their legal responsibilities. This is the noncompliance problem. Finally, in one of the most interesting developments, firms sometimes work with the government to create innovative solutions that are not found in the laws themselves.

Most firms comply with their important environmental obligations most of the time. The reasons are complex. Coercion by the government is certainly not the only reason that American corporations take action to protect the environment. Although environmental law has generally focused on coercive regulatory schemes, efforts at industrial self-regulation also exist. One is Responsible Care, the Chemical Manufacturer’s Association program for reducing pollution. The program was adopted in response to the accident that killed thousands of people in Bhopal, India, and also in response to a federal law that required public disclosure of toxic releases. This “Responsible Care” program stresses pollution prevention, linked to a system similar to “total quality management” (TQM) for increasingly rigorous control of accidents. (TQM is a method of quality control that U.S. manufacturers borrowed from Japanese companies.) Although the program is ambitious, the results are as yet unclear. Another example is EPA’s 33/50 program, a voluntary scheme to reduce emission of certain toxic chemicals by 33% in the first phase and 50% in the second phase. When this scheme was implemented, emissions for the chemicals in question fell twice as much as those for other toxic chemicals. Finally there are schemes in which the government uses inspections and other methods besides punishment to show firms how to improve their practices; at least some of these schemes have apparently had some success.

The key question, of course, is what motivates polluters to undertake these voluntary actions? One motive might be that business people themselves, like other Americans, believe in the importance of environmental protection. A related motive is that sometimes environmental

protection actually saves money because it leads to more efficient production processes. Consumers may favor “green” firms, putting market pressure on firms to avoid environmental misconduct, or investors may disfavor firms with environmental violations.

Although many businesses voluntarily go beyond what the law requires to protect the environment, other firms only grudgingly comply with the law or fail to comply at all. Because the government lacks the resources to detect and prosecute every violation of the law, some firms are able to avoid compliance.

Noncompliance has been a serious problem with respect to water pollution. For example, some twenty years after the passage of the Clean Water Act, roughly ten thousand dischargers of pollution still had no permits whatsoever;⁵⁾ twelve to thirteen percent of major private and municipal sources were placed in a “Significant Noncompliance” status during a single three-month period alone; and another five percent avoided that status only because they were already on extended compliance schedules.⁶⁾ The situation was even worse for companies discharging into sewage systems rather than waterways: about half were in “significant” violation of discharge standards. This sounds terrible, but the reality is not quite so bad, because these violations were not generally large enough to cause substantial harm.

The biggest problem is that the government is overburdened and cannot keep up with its work. For instance, in two states, federal authorities had not acted on hundreds of permits, often for as long as ten years. In recent years, EPA’s regional office had written thirty-three permits, but there was a backlog of a thousand applications, most of them over four years old. Compliance by state agencies was also spotty. In one state, about half of major air pollution sources were never inspected. For two years, that state completely stopped reporting major violations (contrary to its duties under federal law), and even after being rebuked by EPA, the state complied only partially.⁷⁾

These failures of compliance are serious, but they must be kept in perspective. Despite the gaps in the enforcement system, industry has made great progress in controlling pollution. Nevertheless, the extent of noncompliance is a significant issue.

There is probably always something of a gap between the law as it appears in the books and how the law actually works in action. In environmental law, at least, it seems to be perilous to assume that the two will correspond. Unfortunately, as legal scholars, we have devoted disproportionate attention to the written laws, without enough attention to the mechanisms that translate law into actions. I have used the term “slippage” to describe the situation in which the formal legal requirements and actual behavior slip apart from each other.⁸⁾ This type of slippage is widespread in

5) Robert Adler, Jessica Landman, and Diane Cameron, *The Clean Water Act: 20 Years Later* 151 (1993).

6) *Id.* at 167.

7) John Cushman, *EPA and States Found to Be Lax on Pollution Law*, *New York Times*, June 7, 1998, at 1, 17.

8) Daniel Farber, *Taking Slippage Seriously: Noncompliance and Creative Compliance in Environmental Law*, 23 *Harv. Envtl. L. Rev.* 297 (1999).

environmental law.

Slippage is not always a bad thing. Sometimes slippage can actually result in improved regulation. An imperfect legal requirement can actually be improved with a little creativity. An example is provided by the history of toxics regulation under the Clean Water Act. As enacted in 1972, the statute required EPA to produce standards providing an “ample margin of safety” for all toxic water pollutants. The problem was that this requirement was unrealistic. First, EPA actually did not have very good information about the risks of many chemicals. Second, some important industries cannot completely eliminate their discharges of toxic chemicals. Because of these difficulties, the section on toxic pollutants was never implemented as written. Doing so would have resulted in widespread closings of factories, which would have caused economic harm.

EPA was sued for its failure to implement the toxics program, and entered into a settlement. The settlement adopted a new approach to the regulation of toxic water pollutants. It required EPA to issue regulations based on the best available technology for various industries. The original statute had demanded complete safety, which was unrealistic, but the settlement only required that polluters use the best technology available even if that technology was imperfect. The type of regulation created by the settlement was actually much more realistic and effective than the original requirements of the statute. Later, the statute was amended to incorporate the main provisions of the consent decree.⁹⁾

The Clinton Administration showed particular creativity in renegotiating regulatory standards. Perhaps the most notable example is provided by the Endangered Species Act. As originally enacted, the statute was an almost-absolute ban on destruction of individual members of endangered species.¹⁰⁾ But this ban led to what seemed to be an impossible situation. Individual landowners were faced with bans on development to save the last few members of a species, while the government seemed powerless to intervene at an earlier time to protect the habitat on which the species relied.¹¹⁾ An obscure 1982 Amendment proved to be the key to the solution. The amendment allowed the Secretary of the Interior to issue a permit to modify the habitat of an endangered species if the effect on the species is incidental to the project, all possible mitigation measures are used, and there will be no appreciable effect on the prospects of the species for survival.¹²⁾ This provision, which sounds very restrictive, has served as the basis for a sweeping new approach to protecting endangered species. Rather than trying to completely stop land development, the government uses habitat conservation plans to protect biodiversity. By using habitat conservation

9) See CWA ' 307(a)(2), 33 U.S.C. ' 1317(a)(2).

10) See *TVA v. Hill*, 437 U.S. 153 (1978)(federal action endangering species must be enjoined regardless of countervailing government interests).

11) See Blaine Green, *The Endangered Species Act and Fifth Amendment Takings: Constitutional Limits of Species Protection*, 15 *Yale J. on Reg.* 329 (1998).

12) ESA ' 10(a)(2)(A), 16 U.S.C. ' 1539(a)(2)(A).

plans, the government can take a more systematic approach to protecting biodiversity. At the same time, developers are not completely deprived of the value of their lands.

Another important example of regulatory renegotiation is provided by an agreement of the automobile industry in the 1990s to introduce, ahead of the statutory deadline, a new level of pollution control in cars sold across the country. This concession arose out of complex negotiations between multiple parties: the industry; environmentalists; the Northeast States, who were threatening to invoke their powers under another portion of the statute to deal with regional ozone problems; the state of California, which plays a pivotal role with respect to regulating car pollution; and the EPA. The result was a more stringent requirement than the statute itself required to be implemented at that time.

Many U.S. environmental law scholars view these examples as an emerging trend. They hope that negotiation among government, industry, and environmental groups can be a more effective way to create and enforce environmental standards. Some scholars worry, however, that industry will abuse this system rather than cooperate in good faith. Time will tell which of these scholars are correct.

VI. Conclusion

Environmental law is only as good as the level of compliance. In order to improve compliance, U.S. environmental law contains some strong enforcement mechanisms: injunctions, noncompliance penalties, criminal sanctions, and citizen suits. But there are limits to how much firms can be coerced into compliance, because enforcement resources are finite. As a result, the actual compliance picture is complicated. Compliance is imperfect, despite the fear of government sanctions and other incentives. Sometimes, the government has negotiated creative agreements with polluters rather than insisting on strict compliance with the standards as written.

American legal education needs to focus more carefully on this situation. Environmental law programs in U.S. law schools tend to focus on the complex rules and statutory requirements of the federal government. Setting environmental standards does involve fascinating issues of regulatory policy. But much of the hard and important work done by lawyers involves enforcement and compliance, rather than standard setting. We have done less well in teaching students how to perform these important tasks. I hope that our law schools can begin to meet this challenge. At Berkeley, for example, we are planning to open an environmental law clinic, so that students can be more involved in the concrete application of environmental law.

The topic of enforcement and compliance is central to the success of environmental regulation. Yet, no other subject has so clearly failed to receive the scholarly attention it deserves. As we

struggle to turn environmental standards into reality, we can all learn from the methods used elsewhere in the world. As we have seen, the United States has been moving somewhat toward more collaborative approaches. Other countries, which may have reached the limits of what can be accomplished with collaboration, may find the U.S. experience with coercive methods relevant. In this way, we can all learn from each others' successes and failures.