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PREFACE

I have written this book to try to give the nonlawyer a readable, clear explanation of environmental law. My goal has been to make this exciting but often intimidatingly technical field accessible to the general student. In the process, I have tried not to interject my own personal views. As a result, a zealot looking to this book for support for a particular view may find it disappointing. My purpose is to describe and to analyze the law as it is. I leave to others the task of proselytizing visions of how environmental law should be.

Environmental law is a remarkably new field, and one that has attracted much attention in many circles. Many people are interested in the field, both out of concerns over the issues it raises and because they would like to work in the field. Many books on environmental law are available for lawyers, but most of these are not suitable for undergraduate courses. They presume that the reader has finished college and the majority of a law school education before coming to the field of environmental law. Indeed, many of the books now in print assume that the reader is an attorney practicing in the field.

I have written this book to fill the resulting gap; to make environmental law accessible to the nonlawyer. Among the nonlawyers for whom the book is intended are students training to be legal assistants, or students studying various aspects of law in an undergraduate setting. To assist these readers, I have tried to minimize the jargon in my discussions, and to present technical issues in ways that keep them accessible.

I anticipate that this book will be used in a variety of settings, including term-, semester-, and year-long courses. To meet this variety of needs, I have divided the book according to statutory subject matter, leaving to the particular teacher the task of selecting material to fit a particular course. Chapter 1 introduces the various procedural issues that are common in the environmental law field, including standing and the standard of review. The concepts in this chapter were developed largely through judicial decisions, so the emphasis in this chapter is on the workings of the courts. This chapter establishes principles that apply to all of the remaining chapters, and will probably be useful in any course.

The remaining chapters deal with a major federal statute. Chapters 2 to 4 cover the National Environmental Policy Act, the statute that requires the federal government to follow environmental law. Chapter 5 examines the Resource Conservation and Recovery Act (RCRA), the statute that regulates the disposal of materials. Chapter 6 deals with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the vehicle for ordering cleanups of existing toxic waste sites. Chapter 7 details the Clean Water Act, the statute directed to cleaning America's waters. Chapter 8 deals with the Clean Air

Act, an attempt to make the nation's air safe for everyone. Chapters 9 through 11 deal with three lesser environmental acts: the Federal Insecticide, Fungicide, and Rodenticide Act; the Toxic Substances Control Act; and the Endangered Species Act.

Because all of the chapters after Chapter 1 deal with material which is statutory in its origins, I have tried to provide a clear analysis of each statute. I have not set out lengthy statutory materials, though, because I have found from experience that there are few ways to lose readers more effectively than asking them to slog through statutes.

Even though this field is primarily statutory in origin, environmental law has been shaped and reshaped by the courts. To show this, I have included a number of cases on each statute, interspersed throughout the discussion. These are intended to illustrate various points discussed in the text. I have tried to set these up so that a teacher who wishes to use them can do so without undue difficulty, but so that the teacher who elects to forego them will still have a complete text.

Both a running glossary, throughout each of the chapters, and a cumulative glossary, at the end of the book, help students keep track of terms in this acronym-laden field. Terms marked with a dagger are from *Ballentine's Legal Dictionary and Thesaurus*; these provide standard, general definitions to give the student a grounding in typical legal terminology. More subject-specific definitions, tailored by the author for the context of this book, will also aid students.

Of necessity, I have not tried to write a comprehensive study. I have left out some issues surrounding the statutes that were covered, and I have entirely excluded state environmental laws and international law questions. I have also covered only the statutes that I feel represent the most important environmental laws.

Environmental Law and Politics

I planned this text and wrote the initial drafts before the 1994 elections. Several times since then I have been asked how the book could remain current in light of the changing of the political guard. The 1994 elections brought new faces onto the political scene, but this has not changed the fact that we have become, to use Marshall McLuhan's phrase, a global village. Indeed, I have been impressed by the modesty of the proposals to revamp the various environmental statutes. Beneath the posturing and cant of the new political situation, our political leaders of all factions have shown that they are profoundly aware that environmental problems are serious.

The new political situation appears to bear out a theme I have tried to develop in these materials: when we as a nation consider environmental problems, we are like a great tribe coming together. At different times, different factions will predominate, to be superseded later by other factions. If our political system is to stay together, factional predominance must never outweigh the need to preserve the sanctity of the tribe as a whole. Factional predominance

must never fall to factional exclusion. The awareness of this need to hold the social order together appears stronger than any desire for immediate political change. If that holds true, I expect modification rather than any effort at out-and-out repeal of environmental laws.

Acknowledgments

No one writes a textbook like this without the help and support of many others, and I am grateful for the opportunity to acknowledge those who played special roles. First, the editors at Delmar Publishers have been a great source of encouragement. Jay Whitney asked me to undertake this project. Chris Anzalone and Jeff Litton have seen it through to completion. Glenna Stanfield and Judy Roberts have rendered numberless helpful services to keep things on course.

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Last among these, but foremost in my heart, my wife, Patricia Ann Haim, has borne the writing of this book with loving patience. To her especially, I trust that these pages offer a measure of thanks for her support through the process.

To the student, then, this book is an attempt to introduce the fascinating field of environmental law. I have tried to let the law speak for itself. If a student using this book comes away with an increased understanding and awareness of the power of the rule of law as a means of addressing complex problems, I will regard it as a measure of the book's success and my own.

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CHAPTER 1

JUDICIAL CONTROL OF ENVIRONMENTAL LAW DISPUTES

CHAPTER OUTLINE	The Emergence of Environmental Law as a Distinct Part of Administrative Law
	Standing and Related Doctrines
	The Evolution of Judicial Review in Environmental Law Disputes

The Emergence of Environmental Law as a Distinct Part of Administrative Law

Environmental law is a relatively new field of law. This very newness has forced the legal system to modify some of the “givens” drawn from other fields of law. A legal professional trying to come to grips with environmental law needs to appreciate its newness, and also needs to understand the relationship between environmental law and the older bodies of law with which it interacts.

By its nature, environmental law involves the government. Whether the government is the plaintiff in an environmental dispute, acting to enforce laws and regulations, or is a defendant sued because of the alleged laxity of its enforcement efforts, the government is a party to virtually every environmental dispute.

This means that environmental law is largely an outgrowth of administrative law. As is true throughout administrative law, in environmental law the courts are not the primary decision makers. Environmental decisions are generally made initially by administrative agencies. The courts’ role is limited to reviewing administrative decisions when the decisions are challenged in lawsuits. Environmental law, however, raises issues of such fundamental importance that they have forced the legal system to reconsider and to modify the roles of the courts and the administrative agencies. One of the most important of these issues is how to open the processes so that the public can have input into key environmental decisions. Much environmental litigation has been driven by this problem of how to give the public a voice.

Traditional Administrative Law

To understand the significance of the changes that environmental law has brought about, one must consider the development of administrative law. Administrative law was largely established during the New Deal in the 1930s. During the New Deal, for the first time, government thrust itself deeply into many aspects of our national life. A vast range of administrative agencies were created, more than had ever existed before. The rise of administrative government forced the courts to accept a change in their role in government. Henceforth, administrative agencies would make most of the decisions affecting the public.

The New Deal reshaped government around a key premise. The drafters of the New Deal believed that the courts should defer to administrative agencies. These agencies dealt with particularized areas of law and policy and developed expertise from their experience. The New Deal leaders believed that these agencies, using their expertise, were better able to govern than the courts, which had only generalized knowledge of law. Relying on their faith in administrative expertise, the New Deal developed doctrines that gave the courts a subordinate role. The courts were to ensure that administrative agencies followed proper procedures, but were largely to defer to the administrative agencies.

The Rise of Environmental Concerns

By the 1960s, increased concern over environmental issues brought a new way of thinking to the fore, one that challenged the continuing deference the courts showed to administrative agencies. Environmental activists charged that administrative agencies were insensitive to environmental concerns. Favoring established interests and constituencies over the general public, agencies often took actions that caused environmental problems. Environmentalists contended that existing administrative law was inadequate to address these problems. They charged that administrative agencies refused to consider environmental concerns, and that existing legal doctrines left the public no real opportunity to challenge existing norms. In many well-publicized disputes, environmentalists showed that administrative agencies were unresponsive and arrogant in their refusal to take environmental claims seriously. The activists asked the courts to reassert a more active role to force administrative agencies to hear the public on environmental issues.

Gradually, in the late 1960s and early 1970s, a new attitude emerged in the judicial system, an attitude that environmental values are so important that merely making administrative agencies follow proper procedures was not enough if existing procedures meant only the continuing degradation of the environment.

Here, however, the legal system confronted a problem. Under traditional legal models, the activists who wanted to change the actions taken by administrative agencies had no role in the disputes. They were interested members of the public, but this did not give them a right to intervene as full parties in these disputes, no matter how fervently they felt about them. To understand this problem, and its significance, one must consider the nature of environmental disputes.

The Nature of Environmental Disputes

Why are environmental law disputes different from other kinds of disputes?

First, they exist because the government has said that they exist: the Congress of the United States has adopted the various **environmental statutes** that are the subject of this book. Before these statutes were adopted, there were **common law remedies**, and these remain available. Practice, however, has proven the common law manifestly inadequate. The common law, after all, was based on an assumption that certain resources, most notably air and water, are essentially unlimited. With the growth of modern industry, we have proven that our resources are far more limited than the common law had imagined.

Further, the pace of change has outstripped the development of the common law. Traditional common law evolves through judicial acceptance of incremental changes, as shown through case decisions. The changes that environmental crises

LEGAL TERMS

environmental statute Any of the various pieces of legislation, either state or federal, that has as its goal protection of the environment.

common law remedies Remedies available through law made and refined through the courts rather than through legislation or administrative action.

have forced on the legal system are much too great for this type of solution. What was required were radical solutions that could not wait for the entire culture to gradually change without special intervention.

That intervention took the form of the adoption of statutes. Congress passed a series of laws, and this book considers the law that Congress set into motion. The use of the phrase “set into motion” here is deliberate, because, as the student will find, much of what Congress adopted was little more than sweeping outlines. It has been left to administrative agencies (especially the **Environmental Protection Agency**), the courts, the parties, the public as a whole, and individuals to shape the working details of this legal regime.

When parties have environmental disputes, the disputes are based on these statutes. Therefore, to understand environmental law disputes, regardless of which side one is on, the legal professional must understand the statutes and the dispute patterns that they produce.

In practice, environmental disputes involve dozens or even hundreds of parties. Analytically, however, environmental law cases fall into two patterns: two-party disputes and three-party disputes. A typical two-party dispute is an enforcement action brought by the government. The government sues an alleged offender to make it stop violating the law and accept responsibility for its illegal conduct. Often, the government will sue many alleged offenders in a single action, but the roles of government as enforcer and alleged violator as defendant remain the same. In Chapter 6, on the Superfund statute, most of the actions are variants on this model. As a general rule, outsiders have not felt compelled to intervene in this type of litigation.

A three-party action is one in which a member of the general public takes the initiative, bringing an action against the government to make the government enforce the law. Government constantly interacts with those who allegedly degrade the environment. In these interactions, the government has a good deal of discretion. How rigorously must the government investigate environmental impacts before it is allowed to lease public land for recreational development? What actions should the government take before banning a pesticide? What cleanup levels will the government require at an incinerator site?

All of these questions are raised both by the government and by members of the public. Often, the members of the public contend that the government is abusing its discretion in whatever actions it is taking or failing to take. Activists claim that the government is not enforcing environmental law adequately and intervene to force governmental action.

Citizen Actions Against the Government

If a citizen activist contends that the government is failing to enforce the law adequately, the citizen can file an action in court, asking the courts to force the

LEGAL TERMS

Environmental Protection Agency (EPA) The federal agency charged with primary responsibility for the enforcement and administration of federal environmental law.

government to obey its own laws. In these lawsuits, the “third party” is the supposed violator against whom the government should enforce the law. This third party may not become directly involved in the litigation. For example, assume that the government proposes to lease wilderness land to a developer. A private citizen objects to the destruction of the wilderness and brings an action to enjoin the sale. The developer may be made a party or not, either because the plaintiff names it in the action or because it intervenes to protect its own interests.

These three-party actions raise a challenging question: Under what circumstances may a citizen bring such an action? Obviously, in the situation posited, the developer has an interest in the dispute. If, for no valid reason, the government suddenly canceled the lease, the developer would have a sufficient interest to bring a lawsuit against the government.

But can the private citizen bring a suit seeking to enjoin the government from issuing the lease? Does any private citizen have the right to challenge the government’s lease of publicly held land? If one citizen has the right, does every citizen have the right to sue the government over every alleged shortcoming in every environmental program?

In some cases, Congress gives some answers. Some environmental statutes include provisions allowing actions by outsiders. By adopting such a legislative provision, the Congress has authorized suits by what are described as “**private attorneys general**.” In many other instances, Congress has not made such provisions, so the courts are left to decide who has the right to bring a civil action and under what circumstances.

Environmental Activists as Advocates for the Public

Many of the key environmental cases are unlike nonenvironmental cases; they are brought by public interest organizations rather than by conventional, interested litigants. Environmental activists contend that they represent the interests of the public as a whole rather than merely their own interests. This contention is often extremely controversial, but the environmental activists have managed a remarkable record. Without them, environmental law would probably never have emerged the way it has. Because of them, governmental decisions in the environmental area reflect far more openness and responsiveness than they otherwise would have.

Environmental organizations such as the Natural Resources Defense Council, Sierra Club Legal Defense Fund, and the Environmental Resources Defense Fund are cause-oriented. They want to preserve the environment for the public as a whole. This conscious devotion to something beyond narrow self-interest is in sharp contrast to the more traditional, and traditionally narrow, orientation of most litigants. Indeed, it clashes with a basic premise underlying our

LEGAL TERMS

private attorneys general Persons not holding any formal legal office who are authorized by statute to commence actions to enforce legislation.

litigation system: that the public interest will be adequately served by the synthesis of all of the self-serving private concerns.

Another feature that marks the environmental movement and much of the litigation it brings is a sense of urgency. Environmental cases are presented as involving overwhelming stakes, irreversible decisions, and potentially apocalyptic consequences. "Extinction is forever."

Environmental activists are zealous in their advocacy, regarding many of the administrative agencies as little more than devils and looking to the courts as much more open and fair. They also have the advantages of skill, motivation, and strategic freedom that allows them to pick cases carefully, with a calculating eye to tactical advantage. Public interest firms have shaped a large body of law, rather than having it develop through the haphazard processes that often mark private litigation.

Environmental organizations have brought many cases that affect the public as a whole. This litigation is often more political than ordinary litigation, precisely because of its wide-ranging effects. Environmental advocates have tapped the drama of the forum that courtrooms offer. Claims that might be treated as back-page news items if handled in administrative hearings are trumpeted on the front pages when delivered in courts. Further, environmental advocates have used discovery skillfully. With discovery, they have probed into administrative processes. This has forced administrative agencies to be much more careful in their actions, because their records are open to public scrutiny.

Judicial Activism as a Response to Environmental Activism

Environmentalists have managed remarkable successes. They have made the courts in particular and all of government in general more receptive to environmental claims. Key to this change is a renewed questioning of the wisdom of governmental actions that threaten the environment. In the courts, this is reflected in several ways. Courts have required a greater showing of the benefits of projects. Further, the courts have asserted a more active role in reviewing government decisions. In matters having major impacts on the environment, they have brought decisions out of the administrative forum and required that the agencies justify their actions in court. As a result, the courts have intervened in matters having environmental impacts to a much greater degree than is traditional in their review of administrative agency decisions.

Part of this judicial activism in environmental matters reflects an awareness of agency attitudes. Any agency tries to advance its own interests. Often, however, troubling differences develop between agency interests and any genuine public interest. Agencies frequently become advocates for their specific client bases. To counter this, many litigants have stressed that the courts must ensure that agencies act for the public interest, rather than considering only narrow client concerns.

The courts have also responded to the fact that environmental issues raise grave concerns amid scientific uncertainty and incompleteness of information. If the government makes a mistake on a major environmental issue, the potential consequences of error are awful—but there are no clear answers.

Faced with the combination of uncertainty and potentially horrendous consequences, many courts have sided with environmentalists out of a sense of caution. Some judicial decisions on environmental issues intimate that the stakes are so high that the courts must err on the side of protecting the environment.

Led by the United States Court of Appeals for the District of Columbia, the courts have subjected administrative agency actions to more assertive judicial review. In the process, the courts have revised their view of the administrative agencies as all-knowing experts, with the courts merely policing against excesses. Instead, they require agencies to be forums, while the courts ensure that those forums are open and fair to all interested parties.

This change in attitude in the court system has spawned challenges to well-established legal doctrines, especially rules of standing and the scope of judicial review. To understand how environmental decisions are made, this study begins with a consideration of the development of these doctrines in the context of modern environmental decisions.

Consider a scenario. Assume it is 1967. You work for an attorney, challenging what you regard as an abuse of governmental power. The Nuclear Regulatory Commission adopts a plan to dispose of all spent nuclear material. After undertaking what it deems to be adequate administrative procedures, the NRC announces that the government will dump spent nuclear material into the Grand Canyon. (After all, a speaker rationalizes, it is government land anyway and the government can use its land as it needs to.)

Your supervising attorney asks you to help file a suit to enjoin the government from carrying out this action. In 1967, the suit might have failed. The courts might have sympathized, but under existing law, you would have had grave difficulty showing standing to bring this suit, or that the controlling standard of review would allow the courts to do more than ask if the agency had followed the proper administrative procedures.

In the 1990s, if the government tried to implement such a decision, questions of standing would not bar litigation, and judicial review would be thorough and probing. To understand how these doctrines have changed during the intervening decades, the student must examine some of the critical cases by which the courts have shaped environmental law.

Standing and Related Doctrines

As environmental law emerged as a separate discipline, one key change it forced in legal doctrine was a liberalization of the rules of standing. A party has standing if it has a sufficient stake in a dispute that the courts will allow the party to be heard.

Suppose that David has a contract with Vanessa. He breaches the contract. Vanessa decides not to sue. Peter, who is not a party to this contract, is extremely upset and wants to sue David for breach of the contract. Peter cannot bring the

suit, because Peter does not have a sufficient stake in the controversy to have **standing**.

In the environmental context, standing addresses the right to challenge governmental actions. For example, a government agency makes a decision that will have a direct effect on parties who are essentially clients of the agency, but will also have an effect on the environment. If an outsider, an environmental activist, claims that the agency's decision is illegal because it harms the environment, this raises a question of standing. For example, suppose that the outsider claims that the agency is allowing its client to despoil the environment while the agency neglects its legal duty to see that the environment is protected. Does this outsider have a sufficient stake in this controversy to give the outsider standing?

Some statutes specifically provide for such situations by allowing outsiders to bring lawsuits challenging agency actions. These provisions allow for "private attorneys general." The more difficult question arises when a statute does not have such a provision and the outsider tries to sue. In this context, the courts had to decide when an outsider was sufficiently aggrieved to have a right to sue—that is, when an outsider has standing.

Sierra Club v. Morton

The foremost case on standing in environmental law is *Sierra Club v. Morton*, 405 U.S. 727 (1972). In that case, the Sierra Club challenged a United States Forest Service plan to develop a wilderness area in California, the Mineral King Valley. In 1965, the Service invited developers to submit bids for the valley. The Sierra Club asked for public hearings, but the Forest Service ignored these requests. The only parties it would talk to were developers. In 1969, the Forest Service approved an ambitious plan by Walt Disney Enterprises to build a recreational complex that would accommodate 14,000 visitors per day.

The Sierra Club sued to enjoin the Forest Service from issuing permits for the development. After a preliminary hearing, a United States District Court ruled that the Sierra Club had raised serious legal issues about Forest Service's actions, and granted an injunction.

The Forest Service appealed, challenging the Sierra Club's standing. In its complaint, the Sierra Club alleged that it was a membership corporation with special interests in conserving wilderness areas, but it did not allege that its members used the Mineral King Valley. The United States Court of Appeals vacated the injunction, ruling that the Sierra Club lacked standing because it could not show that any of its members would be injured. This opinion suggested that the only parties with standing were those with a direct economic interest: the Forest Service, Walt Disney Enterprises, and other bidders.

LEGAL TERMS

standing A doctrine limiting who can be a plaintiff in various actions to enforce certain legal rights. To have standing, a litigant must have suffered an injury in fact and also be someone the right at issue was intended to protect.

The Sierra Club appealed to the Supreme Court. The Supreme Court affirmed the court of appeals' decision, but its ruling greatly expanded the scope of standing. The Court ruled that the Sierra Club had to show that its members had a personal stake in the litigation, but personal stake was not limited to economic injury. A person has a personal stake—and standing—if he will suffer an injury in fact from a threatened governmental action. The Court ruled that allegations that the proposed development would damage the scenery, natural beauty, and wildlife of the area, and would impair the enjoyment of the region for future generations, did state an injury in fact. These noneconomic injuries were a basis for standing.

This meant that the Sierra Club lacked standing, but only because it had not alleged that its members used the Mineral King Valley. The Sierra Club relied exclusively on a claim of injury to *the public*, without showing a specific injury to its own members. The Sierra Club's longstanding interest in wilderness issues did not give it standing, because the courts would have no adequate basis for denying standing to any other organization, or to anyone else.

The Court ruled that to have standing, an organization had to allege that its members used this wilderness area, so they would be personally affected by the decision to develop it. As the Supreme Court acknowledged, the Sierra Club could show this easily.

Sierra Club v. Morton was a typical three-party dispute. The Sierra Club was not a party to the Forest Service decision, but the real parties put no priority on environmental protection. They regarded the Mineral King Valley only as a potential resort area. Even the Forest Service focused on the economic potential of the site, disregarding the noneconomic wilderness value.

Indeed, the record in this case is one of agency arrogance. The Sierra Club repeatedly sought a role in the Forest Service's decision-making process, only to be rebuffed. The Forest Service wanted to hear only from potential developers. It refused to hold public hearings or to consider the option the Sierra Club wanted: leaving the area alone.

The Forest Service won, but it was a hollow victory. The Supreme Court ruled that the original complaint was inadequate, but the Sierra Club had no difficulty in amending its complaint to show that it did have standing.

The ease with which the Sierra Club overcame the problem of standing led some critics to contend that *Sierra Club v. Morton* allows any would-be plaintiff to assert standing based on skillful pleading rather than a true interest in the dispute.

On the other hand, many environmental cases are like *Morton*—the plaintiffs want to be heard. They want government to consider environmental problems before it undertakes or allows projects that will damage the environment. If standing requirements are set too high, no one will be able to bring these cases. Recognizing this, courts have tended to use a very low standard for establishing standing in environmental contexts, especially if the key relief the plaintiff seeks is to make the government consider the impacts of its own actions. As one court put it,

[A low standard] may be especially appropriate in instances where little is publicly known about the environmental impact of the challenged action and

SIERRA CLUB

v.

MORTON

405 U.S. 727, 92 S. Ct. 1361,
31 L. Ed. 2d 636 (1972)

The Mineral King Valley is an area of great natural beauty nestled in the Sierra Nevada Mountains ... adjacent to Sequoia National Park. ... Mineral King is now used almost exclusively for recreational purposes. Its relative inaccessibility and lack of development have limited the number of visitors each year, and at the same time have preserved the valley's quality as a quasi-wilderness area largely uncluttered by the products of civilization.

The United States Forest Service ... began in the late 1940s to give consideration to Mineral King as a potential site for recreational development. ... [T]he Forest Service published a prospectus in 1965, inviting bids from private developers for the construction and operation of a ski resort that would also serve as a summer recreation area. The proposal of Walt Disney Enterprises, Inc., was chosen

The final Disney plan, approved by the Forest Service in January 1969, outlines a \$35 million complex of motels, restaurants, swimming pools, parking lots, and other structures designed to accommodate 14,000 visitors daily. ...

Representatives of the Sierra Club ... followed the progress of recreational planning for the valley with close attention and increasing dismay. They unsuccessfully sought a public hearing on the proposed development in 1965 In June 1969 the Club filed the present suit ... seeking a declaratory judgment that various aspects of the proposed development contravene federal laws and regulations governing the preservation of national parks forests and game refuges, and also seeking preliminary and permanent injunctions restraining the federal officials involved from granting their approval or issuing permits in connection with the Mineral King project. The petitioner Sierra Club ... invoked the judicial-review provisions of the Administrative Procedure Act, 5 U.S.C. § 701 et seq.

... The District Court granted the requested preliminary injunction. It rejected the respondents' challenge to the Sierra Club's standing to

sue, and determined that the hearing had raised questions "concerning possible excess of statutory authority, sufficiently substantial and serious to justify a preliminary injunction. ... " The respondents appealed, and the Court of Appeals for the Ninth Circuit reversed. With respect to the petitioner's standing, the court noted that there was "no allegation in the complaint that members of the Sierra Club would be affected by the actions of [the respondents] other than the fact that the actions are personally displeasing or distasteful to them."

* * *

The first question presented is whether the Sierra Club has alleged facts that entitle it to obtain judicial review of the challenged action. Whether a party has a sufficient stake in an otherwise justiciable controversy to obtain judicial resolution of that controversy is what has traditionally been referred to as the question of standing to sue. Where the party does not rely on any specific statute authorizing invocation of the judicial process, the question of standing depends upon whether the party has alleged such a "personal stake in the outcome of the controversy" as to ensure that "the dispute sought to be adjudicated will be presented in an adversary context and in a form historically viewed as capable of judicial resolution." Where, however, Congress has authorized public officials to perform certain functions according to law, and has provided by statute for judicial review of those actions under certain circumstances, the inquiry as to standing must begin with a determination of whether the statute in question authorizes review at the behest of the plaintiff.

The Sierra Club relies upon § 10 of the Administrative Procedure Act (APA), 5 U.S.C. § 702

[A person has] standing to obtain judicial review of federal agency action under § 10 of the APA where they had alleged that the challenged action had caused them "injury in fact," and where the alleged injury was to an interest "arguably within the zone of interests to be protected or regulated" by the statutes that the agencies were claimed to have violated. ...

[P]alpable economic injuries have long been recognized as sufficient to lay the basis for standing, with or without a specific statutory provision

for judicial review. ... [The question of] what must be alleged by persons who claim injury of a non-economic nature to interests that are widely shared ... is presented in this case.

The injury alleged by the Sierra Club will be incurred entirely by reason of the change in the uses to which Mineral King will be put, and the attendant change in the aesthetics and ecology of the area. ... We do not question that this type of harm may amount to an "injury in fact" sufficient to lay the basis for standing under § 10 of the APA. ... But the "injury in fact" test requires more than an injury to a cognizable interest. It requires that the party seeking review be himself among the injured.

... The Sierra Club failed to allege that it or its members would be affected in any of their activities or pastimes by the Disney development. Nowhere in the pleadings or affidavits did the Club state that its members use Mineral King for any purpose, much less that they use it in any way that would be significantly affected by the proposed actions of the respondents. (Footnote: [T]he Sierra Club specifically declines to rely on its individualized interest as a basis for standing.)

* * *

The trend of cases arising under the APA and other statutes authorizing judicial review of federal agency action has been toward recognizing that injuries other than economic harm are sufficient to bring a person within the meaning of the statutory language, and toward discarding the notion that an injury that is widely shared is *ipso facto* not an injury sufficient to provide the basis for judicial review. We noted this development ... with approval in saying that the interest alleged

to have been injured "may reflect 'aesthetic, conservational, and recreational' as well as economic values." But broadening the categories of injury that may be alleged in support of standing is a different matter from abandoning the requirement that the party seeking review must himself have suffered injury.

... It is clear that an organization whose members are injured may represent those members in a proceeding for judicial review. But a mere "interest in a problem," no matter how longstanding the interest and no matter how qualified the organization is in evaluating the problem, is not sufficient by itself to render the organization "adversely affected" or "aggrieved" within the meaning of the APA. ...

The requirement that a party seeking review must allege facts showing that he is himself adversely affected does not insulate executive action from judicial review nor does it prevent any public interests from being protected through the judicial process. It does serve as at least a rough attempt to put the decision as to whether review will be sought in the hands of those who have a direct stake in the outcome. That goal would be undermined were we to construe the APA to authorize judicial review at the behest of organizations or individuals who seek to do no more than vindicate their own value preferences through the judicial process. The principle that the Sierra Club would have us establish in this case would do just that.

[W]e conclude that the Court of Appeals was correct in its holding that the Sierra Club lacked standing to maintain this action.

Case Questions

1. Did the Sierra Club rely on a specific statutory provision as giving it a right to bring this lawsuit?
2. What does it take for a party to have standing?
3. Can economic injury be the basis for standing?
4. What kind of injuries did the Sierra Club allege?
5. Was the type of injury that could occur in this case an "injury in fact" for standing purposes?
6. What did the Sierra Club fail to do in its pleadings?
7. Can an organization represent injured members in seeking judicial review of their claims?

where plaintiff sues to require an impact statement. To oblige him to allege more than a generalized, non-frivolous threat to the environment in which he lives, works or plays might, in some cases, require him to state what has not yet been determined but what may be detailed in the environmental impact statement he wants prepared.

Sierra Club v. Mason, 351 F. Supp. 419, 424 (D. Conn. 1972).

One of the more troubling questions for the courts is whether a plaintiff has standing to raise environmental claims if these claims are merely a cover for using the courts to gain economic advantage over competitors. The courts have generally held that if the plaintiff's only real motive is economic, it lacks standing. For example, in *Clinton Community Hospital Corp. v. Southern Maryland Medical Center*, 374 F. Supp. 450 (D. Md. 1974), the court found that the plaintiff's real motive was merely to protect a competitive advantage, so the court ruled that the plaintiff did not have standing. To the same effect, see also *Benton County Savings & Loan v. Federal Home Loan Bank Board*, 450 F. Supp. 884 (W.D. Ark. 1978).

By contrast, if the plaintiff does have standing to raise environmental issues, it can raise such claims even if doing so also provides other benefits, including economic advantages. See *Lake Erie Alliance for the Protection of the Coastal Corridor v. Corps of Engineers*, 486 F. Supp. 707 (W.D. Pa. 1980), *on reh'g*, 526 F. Supp. 1063 (W.D. Pa. 1981), *aff'd*, 707 F.2d 1392 (3d Cir. 1983).

LAKE ERIE ALLIANCE FOR THE PROTECTION OF THE COASTAL CORRIDOR

v.

UNITED STATES ARMY CORPS OF ENGINEERS 486 F. Supp. 707 (W.D. Pa. 1980)

This is an action brought by numerous individuals and organizations against the United States Army Corps of Engineers, the Secretary of the Army and other federal officials challenging the sufficiency of an Environmental Impact Statement (EIS) issued by defendants in connection with the proposed construction of a complex steel producing facility by United States Steel (USS) in Conneaut, Ohio. ...

Presently before the court is the federal defendants' motion to dismiss ... for lack of standing ...

A. Standing

To obtain judicial review of agency action ... , plaintiffs must satisfy two requirements. First, they must demonstrate a case or controversy within the meaning of article III of the United States Constitution by showing injury in fact, economic or

otherwise, as a result of agency action. Second, they must be persons adversely affected or aggrieved by agency action within the meaning of the relevant statute, that is, the interests they seek to protect must be arguably within the zone of interests to be protected by the act.

Whether or not a plaintiff meets the test for standing must be determined by the pleadings alone. ... Personally felt aesthetic or conservation harm is sufficient to confer standing ... and plaintiffs have so alleged with specificity. Further, a non-profit, public benefit corporation whose purposes include the protection of the environment or the lives, health or property of persons or animals, qualify as persons "adversely affected" under the APA. LEA, with all of its members residing in the area involved, appears to be the ideal plaintiff contemplated by NEPA to ensure agency compliance with its mandates and therefore we find that it does have standing.

* * *

Further, it is sufficient under the first prong of the standing test for plaintiffs to allege "threatened"

economic injury as a result of agency action. [T]he Third Circuit Court of Appeals held that threatened job termination qualifies as economic injury ...

Other circuits have considered whether private plaintiffs should be granted standing under NEPA to advance their own economic interests, and have concluded that while NEPA does not encompass monetary interests alone, a party is not precluded from asserting cognizable injuries to environmental values because his "real" or "obvious" interest may be viewed as monetary. As long as the environmental concerns are not so insignificant that they ought to be disregarded altogether, courts generally do not disqualify a plaintiff from asserting a legal claim under NEPA because the impetus behind it may be economic. Otherwise, the broad congressional purposes of the Act to ensure that economic values are adequately protected would be defeated.

* * *

In *National Helium Corp. v. Morton*, the court stated:

We are unable to say that the companies are motivated solely by protection of their own pecuniary interest and that the public interest aspect is so infinitesimal that it ought to be disregarded altogether. It is not part of our function to weigh or proportion these conflicting interests. Nor are we called upon to determine whether persons seeking to advance the public interest are indeed conscientious and sincere in their efforts. True, the plaintiffs are not primarily devoted to ecological improvement, but they are not disqualified on this account from seeking to advance such an interest. No group has a monopoly on working for the public good.

455 F.2d at 655.

To support its motion to dismiss, the government inappropriately relies on decisions from other

circuits denying standing to plaintiffs who alleged *solely* economic interests or who were unaffected in any way by the detrimental environmental effects of the proposed action. While the "real" interest of the steelworkers before us is undoubtedly in job security, all live in or around the tri-state area which will be affected environmentally by this project, and all have alleged a concern with those adverse environmental effects. This case is factually distinguishable from *Breckinridge v. Rumsfeld*, where the court found that there would be *only* secondary socioeconomic effects felt as a result of the proposed agency action. *Breckinridge* actually supports the proposition that where agency action will have primarily environmental effects, then secondary socioeconomic effects, including effects on unemployment, should be considered.

* * *

There is no question that the proposed project in the Conneaut area, will primarily affect the environment, and plaintiffs have so alleged with great detail. In conjunction with these allegations, the steelworker plaintiffs, among others, have raised a concern for the secondary effects that this project will have on unemployment, a problem which decidedly extends into the realm of "public interest." In fact, the defendants took into consideration the massive unemployment which could result if one of the proposed alternative sites was chosen and cited this as one of the reasons for rejecting them. We therefore find that the policies of NEPA, to coordinate the conditions under which "man and nature can exist in productive harmony" and "to achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities" are broad enough to encompass the interests represented by the steelworkers.

Case Questions

1. What two things must a plaintiff satisfy in order to obtain judicial review of agency action?
2. What must be shown before a court can disregard a claim of environmental concerns?
3. What did the government do that undercut any contention that causing large-scale unemployment was not to be considered in this matter?

SCRAP

Sierra Club v. Morton dealt with a governmental program that would have damaged a discrete portion of the environment. But what about environmentalists' standing to challenge a program that arguably affects the entire nation? This was the question in *United States v. Students Challenging Regulatory Agency Procedures (SCRAP)*, 412 U.S. 669 (1973). Railroad rates through the country must be approved by the **Interstate Commerce Commission (ICC)**. The ICC approved a rate change that would have made the rates for shipping recycled materials greater than the rates for nonrecycled materials. SCRAP, a student environmental organization, sued to block this rate increase, arguing that it would discourage the use of recycled materials by making recycled goods cost more than goods made of nonrecycled material. The organization did not contend that it would suffer any injury distinct from that suffered by the general public, but it did allege that the ICC rate increase would have an adverse environmental impact on natural resources throughout the country. The government moved to dismiss, alleging that SCRAP lacked standing. The Supreme Court ruled that the plaintiffs did have standing.

As the Court noted, the plaintiffs' claim to standing was arguably no better than that of anyone else who used the nation's natural resources. But, said the Court, the fact that others suffered the same injury did not deny this group standing. To rule otherwise would mean that the more widespread an injury, the more difficult it would be to seek redress.

The Court noted that a plaintiff must allege that it has suffered or will suffer some perceptible injury. SCRAP alleged that if the rate increase were allowed to stand, SCRAP members would suffer injury in the form of greater use of natural resources and more incidence of litter. Although admitting that this injury was less direct and perceptible than the injury in *Sierra Club v. Morton*, the Court ruled that it was a perceptible injury, and not merely a set of circumstances in which the plaintiff might feel some imagined hurt. Further, these allegations were capable of proof at trial. Based on these findings, the Court held that the plaintiffs had sufficient standing to survive a motion to dismiss.

Other courts adopted comparable views on questions of standing. For example, in *Animal Welfare Institute v. Keps*, 561 F.2d 1002 (D.C. Cir. 1977), the court held that the plaintiffs had standing based on allegations that if the federal government waived a ban on importing South African baby seal hides, the plaintiffs would be injured because the waiver would interfere with their opportunities to observe South African seals in the wild. The plaintiffs also alleged that the waiver would contribute to the death and injury of marine mammals. The court held that these allegations stated an injury in fact and allowed the group standing. It noted that because the animals themselves were "uniquely incapable of defending their own interests in court, it strikes us as eminently

LEGAL TERMS

Interstate Commerce Commission (ICC) A federal administrative agency charged with regulating railroad rates.

logical to allow groups specifically concerned with animal welfare to invoke the aid of the courts in enforcing the statute." 561 F.2d at 1007.

Some commentators contended that the "injury in fact" requirement, which was once articulated as a key element of standing, had been reduced to a fiction. From the environmentalists' standpoint, however, *SCRAP* merely adopts a position articulated by Justice Harry Blackmun, who closed out a dissenting opinion in *Sierra Club v. Morton* with a warning and observation drawn from John Donne: "No man is an Iland, intire of itselfe." J. Donne, *Devotions XVII*, quoted in 405 U.S. at 760 n.2 (Blackmun, J., dissenting).

Lujan v. National Wildlife Federation

In the wake of *SCRAP*, the Supreme Court tightened standing requirements in *Lujan v. National Wildlife Federation*, 497 U.S. 871 (1990). The Bureau of Land Management (BLM) manages thousands of parcels of land throughout the nation. It classifies many of these as "withdrawn," meaning that they cannot be mined or developed. To meet continually changing circumstances, the BLM periodically reexamines the classification of various parcels. Fearing that reclassification would open wilderness areas to mining and development, the National Wildlife Federation sued to prevent the BLM from canceling the withdrawn status of various parcels. The environmentalists claimed this would violate NEPA and various other federal statutes.

The government moved for summary judgment, claiming that the environmentalists had failed to allege any facts that showed they were injured by the BLM actions. The environmentalists offered affidavits showing that two individuals claimed to use land in the vicinity of land covered by two of the listed actions. These allegations had been sufficient to survive a governmental motion to dismiss.

The Supreme Court differentiated between the motion to dismiss and the motion for summary judgment. To defeat a motion to dismiss, a plaintiff need only allege minimal facts which, if proved, would entitle the plaintiff to some relief. At the summary judgment stage, the plaintiff has to meet a much higher standard. It has to show that it has evidence for each of the elements of its claim.

Standing was an element in the case. Because this was an action under statutes that did not contain a private attorney general provision, the plaintiff had to show that it was adversely affected or aggrieved by the governmental action. To do this, the plaintiff had to show that the injury complained of fell within the zone of interest that the statutory provision was intended to protect.

The Court ruled that the plaintiffs had failed to show that they were adversely affected or aggrieved. The Court said that, under *Sierra Club v. Morton*, the environmentalists had the burden of setting forth specific facts showing injury. General claims that the environmentalists used land in the vicinity of two of the affected areas did not give them standing to challenge a program involving some 1,250 parcels of land.

Precisely how *Lujan* is to be reconciled with the earlier standing rulings is not entirely clear. It appears, however, that to have standing, an environmental plaintiff must claim to use affected land and cannot rely merely on claims that

LUJAN
 v.
NATIONAL WILDLIFE FEDERATION
 497 U.S. 871, 110 S. Ct. 3177,
 111 L. Ed. 2d 695 (1990)

In this case we must decide whether respondent, the National Wildlife Federation (hereinafter respondent), is a proper party to challenge actions of the Federal Government relating to certain public lands.

Respondent filed this action in 1985 in the United States District Court for the District of Columbia against petitioners the United States Department of the Interior, the Secretary of the Interior, and the Director of the Bureau of Land Management (BLM), an agency within the Department. In its amended complaint, respondent alleged that petitioners had violated [various statutes] in the course of administering what the complaint called "the land withdrawal review program" of the BLM.

* * *

[T]he Secretary engages in the ongoing process of classifying public lands, either for multiple use management, for disposal, or for other uses. Classification decisions may be initiated by petition, or by the BLM itself. Regulations promulgated by the Secretary prescribe the procedures to be followed in the case of each type of classification determination.

In its complaint, respondent averred generally that the reclassification of some withdrawn lands and the return of others to the public domain would open the lands up to mining activities, thereby destroying their natural beauty.

* * *

[T]wo of respondent's members ... claimed use of land "in the vicinity" of the land covered by two of the listed actions.

* * *

The District Court ... granted the motion to dismiss. ... It found the [members'] affidavits insufficient to withstand the motion, even as to judicial review of the particular classification decisions to which they pertained. And even if they had been adequate for that limited purpose, the court said,

they could not support respondent's attempted APA challenge to "each of the 1250 or so individual classification terminations and withdrawal revocations" effected under the land withdrawal review program.

This time the Court of Appeals reversed. It both found the [members'] affidavits sufficient in themselves The Court of Appeals also concluded that standing to challenge individual classification and withdrawal decisions conferred standing to challenge all such decisions under the land withdrawal review program. We granted certiorari.

We first address respondent's claim that the [members'] affidavits alone suffice to establish respondent's right to judicial review of petitioner's actions. Respondent ... claims a right to judicial review under § 10(a) of the APA.

* * *

[T]he party seeking review under § 702 must show that he has "suffer[ed] legal wrong" because of the challenged agency action, or is "adversely affected or aggrieved" by that action "within the meaning of a relevant statute." Respondent does not assert that it has suffered "legal wrong," so we need only discuss the meaning of "adversely affected or aggrieved ... within the meaning of a relevant statute." ... [W]e have said that to be "adversely affected or aggrieved ... within the meaning" of a statute, the plaintiff must establish that the injury he complains of (*his* grievement, or the adverse effect *upon him*) falls within the "zone of interests" sought to be protected by the statutory provision whose violation forms the legal basis for his complaint.

* * *

We turn, then, to whether the specific facts alleged in the two affidavits considered by the District Court raised a genuine issue of fact as to whether an "agency action" taken by petitioners caused respondent to be "adversely affected or aggrieved ... within the meaning of a relevant statute." We assume, since it has been uncontested, that the allegedly affected interests set forth in the affidavits—"recreational use and aesthetic enjoyment"—are sufficiently related to the purposes of respondent association that respondent meets the requirements of § 702 if any of its members do.

We ... think that whatever "adverse effect" or "aggravement" is established by the affidavits was "within the meaning of the relevant statute"—*i.e.*, met the "zone of interests" test. ... We have no doubt that "recreational use and aesthetic enjoyment" are among the *sorts* of interests those statutes were specifically designed to protect. The only issue, then, is whether the facts alleged in the affidavits showed that those interests of [*these members*] were actually affected.

The District Court found the Peterson affidavit inadequate for the following reasons:

"Peterson ... claims that she uses federal lands in the vicinity of the South Pass—Green Mountain area of Wyoming for recreational purposes and for aesthetic enjoyment and that her recreational and aesthetic enjoyment has been and continued to be adversely affected as the result of the decision of BLM to open it to the staking of mining

claims and oil and gas leasing. ... All she claims is that she uses lands 'in the vicinity.' The affidavit on its face contains only a bare allegation of injury, and fails to show specific facts supporting the affiant's allegation."

The District Court found the Erman affidavit "similarly flawed." [The Supreme Court held that this analysis was correct.]

Respondent places great reliance, as did the Court of Appeals, upon our decision in *United States v. Students Challenging Regulatory Agency Procedures (SCRAP)*. The *SCRAP* opinion, whose expansive expression of what would suffice for § 702 review under its particular facts has never since been emulated by this Court, is of no relevance here, since it involved not a ... motion for summary judgment but a ... motion to dismiss on the pleadings. The latter, unlike the former, presumes that general allegations embrace those specific facts that are necessary to support the claim.

Case Questions

1. What Bureau of Land Management program did the respondents challenge?
2. What did the respondents fear would be done with land in this program?
3. What was the closest to actual use of the land at issue that the respondents alleged?
4. What must a plaintiff show to prove that it has standing?
5. Why were the affidavits of the individuals not adequate to show standing?

it uses other land. However, it appears that if this requirement is met, the courts will acknowledge that interested members of the public do have standing to challenge actions by which the government sponsors or approves programs that threaten the environment.

Exhaustion

In addition to standing, there is a well-recognized rule in administrative law (including environmental law) that a plaintiff must seek what relief it can through administrative proceedings before it can come to court. In other words, the plaintiff must exhaust its administrative remedies. The **exhaustion**

LEGAL TERMS

exhaustion † The doctrine that when the law provides an administrative remedy, a party seeking relief must fully exercise that remedy before the courts will intervene.

rule allows the administrative agency to consider and potentially to accept the plaintiff's claims. Consider, for example, the situation underlying *Sierra Club v. Morton*. The Sierra Club had attempted to bring its arguments before the Forest Service, but the Service had refused to hear them. Now assume that the administrative agency opens its proceedings and seeks public comment. Should the courts allow a party to refuse to participate in the administrative proceedings and then bring an action in court, attempting to overturn agency action on the grounds of arguments that were never presented to the agency? Courts are reluctant to allow this.

Several reasons are advanced for requiring parties to exhaust administrative remedies before coming to court. First, the administrative agencies are experts, and they often have specialized procedures adapted to particular problems. This is especially valuable for highly technical issues bearing on the agency's expertise. Second, requiring the parties to make their arguments initially before the agency helps consolidate matters, avoiding fragmented proceedings partly in the agencies and partly in the courts.

The courts do not make exhaustion an absolute requirement. They generally invoke the doctrine if an agency determination of factual issues is needed to resolve a litigant's claim. Suppose, for example, that a plaintiff claims that the agency has adopted a position for which it has no adequate factual support. If the plaintiff has not offered its arguments to the agency, the plaintiff has no sound basis for challenging the agency's decision. A court can invoke the exhaustion doctrine to bar the plaintiff's case.

However, courts apply the rules of exhaustion flexibly. A court will not require a party to exhaust administrative remedies before coming to court if the court finds that this would mean serious injustice. If the agency puts a party in a position in which exhausting administrative remedies would effectively rob the party of any relief, the courts will waive the exhaustion requirement.

Primary Jurisdiction

Primary jurisdiction is closely related to exhaustion. In most cases, a party comes to court after an administrative agency has ruled on a dispute and asks the court to overrule the agency. Primary jurisdiction is invoked in situations in which a court has the power to make an initial decision. The party could go either to court or to an administrative agency. In situations such as this, generally the court will want the administrative agency to decide the issues first, particularly if they are technical questions within the agency's specialized area of expertise.

Note, though, that both the Clean Air Act and the Clean Water Act (considered in later chapters) have provisions authorizing citizen suits to enforce

LEGAL TERMS

primary jurisdiction † The power of a court to hear and determine a case brought before it.

primary jurisdiction A doctrine in administrative law under which if both a court and an administrative agency have concurrent jurisdiction, the court will defer to the administrative agency before hearing a civil action.

statutory requirements. The courts have construed these statutes as exempting such citizen suits from the primary jurisdiction doctrine.

Ripeness

Closely related to the doctrines of exhaustion and primary jurisdiction is a third: **ripeness**. As a rule, a suit challenging an action by an administrative agency will be allowed only if the agency has taken a “final” action. The notion is that the agency might make a different decision if given the opportunity. If a court intervenes before there is a final decision, the court will have to guess what the agency would do if it made a decision.

As with exhaustion and primary jurisdiction, ripeness is the general rule, but the courts apply this doctrine flexibly to ensure that the ends of justice are fully served.

Summary

Standing, exhaustion, primary jurisdiction, and ripeness all express a common idea: that the courts should hear cases only when there is a real dispute brought by a party who has a specific, definable interest, and after the administrative agencies have played their proper role. However, the issues in environmental law are often grave enough that the courts have had to reexamine all of these doctrines. All of them remain valid general principles, and no legal professional can safely proceed without giving them due regard. Nevertheless, the courts have applied them with a certain flexibility, acknowledging that they are general principles rather than absolute rules.

The Evolution of Judicial Review in Environmental Law Disputes

Possible Standards of Review for Administrative Decisions

Commonly, environmental litigation arises when a party challenges an administrative decision. In many cases, the issues in the case cannot be reduced to simple questions of right or wrong.

LEGAL TERMS

ripeness doctrine † The doctrine that an administrative agency or a trial court will not hear or determine a case, and an appellate court will not entertain an appeal, unless an actual case or controversy exists.

To review a decision made by an administrator, a court must first resolve a key procedural question: what **standard of review** should the court use? At one extreme, the court could review the agency decision *de novo*—that is, as if the dispute was entirely new. **De novo review** means that the court undertakes its own consideration of the evidence and makes its determination as if the agency had done nothing. At the other extreme, the court could show **total deference** to the agency, asking only if the agency followed the proper procedural steps and if the decision was rational. The courts have rejected both these extremes, opting instead for a more moderate course.

Most environmental disputes arising from federal actions involve challenges to decisions made through the process of **notice-and-comment rule-making**. In this process, the responsible administrative official publishes a proposal in the *Federal Register*. This proposal includes an invitation to anyone who wishes to comment on the proposal to submit those comments, in writing, by a specified date. Interested parties then submit comments on the proposal. The official must consider these comments when making the decision and must publish her responses to these comments along with her final decision. Any party who is not satisfied can then bring a suit in court, asking that the official's final decision be blocked.

The scope of review that has evolved for administrative decisions made in this way reflects the nature of the administrative process. The courts scrutinize administrative decisions to see if they are **arbitrary and capricious**.

The key question is how thoroughly a court can probe in asking if the administrator considered the comments that were submitted in response to the proposal. Particularly in the context of environmental law, the standard has evolved, as the courts have continually reexamined the question of how thoroughly they should scrutinize administrative decisions.

LEGAL TERMS

standard of review The level of scrutiny that a court will apply in reviewing an administrative decision. The standard can range from extremely probing and rigorous to extremely lax and deferential.

de novo review An extraordinarily rigorous standard of judicial review. Under this standard, the reviewing court treats the matter as new and does not accord the administrative agency any presumption of regularity. Under this standard, a court is free to substitute its judgment for that of the administrative agency.

total deference A very lax standard of judicial review. Under this standard, a court will merely see if an agency has gone through the proper procedural steps before reaching a decision; the court will not examine the merits of the decision.

notice-and-comment rulemaking The standard process by which administrative agencies make legal decisions. An agency administrator publishes a proposal in the *Federal Register*, inviting comments. He or she then reviews and considers the comments and publishes the final decision in the *Federal Register*.

arbitrary and capricious † A reference to the concept in administrative law that permits a court to substitute its judgment for that of an administrative agency if the agency's decision unreasonably ignores the law or the facts of a case.

Background to *Overton Park*: Statutory Restrictions on Administrative Authority to Use Public Park Land

One of the most important cases dealing with the appropriate standard of review for environmental cases dealt with the problem of freeway placement. This sort of decision often has major environmental ramifications but no right-or-wrong choice. In deciding to put a freeway on a particular route, is there a “right” place for a freeway? Generally, no—and in most environmental litigation, the dispute is not over whether there is a right route. Instead, the dispute is over whether the agency choosing the route for the freeway adequately considered environmental factors.

Americans love highways, and decisions about highway placement affect many aspects of American life, including environmental law. Highway placement decisions are primarily the responsibility of state highway departments. The funding for many highways, however, is federal money. As environmental concerns have become increasingly prominent, Congress has used the power of the purse to pressure the states into greater responsiveness to environmental concerns. Beginning in 1956, Congress conditioned federal funding for highway construction on findings that the state agency requesting funds had made a sound decision on highway placement. Soundness, however, was judged largely on economic and technical grounds, to the disregard of social and environmental concerns.

In 1968, Congress increased its control, requiring state highway departments to certify that they had considered the economic, social, and environmental impacts of their highway placement decisions. This change had only modest consequences because Congress failed to specify requirements or criteria for gauging environmental effects. Thus, state highway departments faced no real restraints. So long as a department claimed it had considered the environmental impact, there was virtually no way to challenge a placement decision.

In the same legislation, however, Congress included specific protection for parkland. This provision, codified as 23 U.S.C. § 138, barred the federal Secretary of Transportation from funding any highway project that took parkland unless the Secretary decided there was no feasible and prudent alternative to using parkland, and the project included all possible planning to minimize the harm to the parkland.

Congress felt this provision was needed because parkland continually fell prey to highway expansion. Americans forever want more roads, but landowners never want their property paved over for highway construction. The government must pay fair market value when it takes private property. Often litigation over this value is extremely contentious. Further, the political fallout from highway placement decisions is often severe and extremely bitter.

By contrast, parkland puts up much less of a fight. Parkland is already publicly owned, so that taking it for roads often involves little more than a transfer of title from one governmental entity to another. As a result, many state highway administrators used parkland to build, expand, or improve highways. Because it provided 90 percent of the money for highway construction projects,

Congress decided to exercise control. Federal funding was put firmly on the side of protecting parkland.

Section 138 left a critical question open: What if the secretary decided that the narrow exceptions to § 138 had been met? That is, what if the Secretary decided that a road should go through parkland, finding no feasible or prudent alternatives to such a route, and finding that the plan minimized the damage to parkland? What sort of review would the courts give if citizens challenged the decision?

Citizens to Preserve Overton Park v. Volpe: Formulation of the “Hard Look” Doctrine

The Supreme Court faced that case in 1971. The City of Memphis, Tennessee, wanted to build a freeway through Overton Park. Secretary of Transportation John Volpe approved the Overton Park route. However, he made no formal findings of fact; he gave no reasons why there were no reasonable or prudent alternatives to using parkland; he made no suggestions for modifying the plans to reduce the damage to the park.

Citizens groups sued. They challenged Volpe’s action procedurally, saying it was invalid for want of formal findings, and substantively, saying there were feasible and prudent alternatives to the park route and that the plans could be altered to protect the park.

Volpe responded by submitting affidavits in which he claimed he had complied fully with 23 U.S.C. § 138 and that the Overton Park route met all legal requirements. These affidavits were prepared in the course of the litigation, long after he had ostensibly made his decision.

The trial court granted Secretary Volpe summary judgment, and the plaintiffs appealed to the Supreme Court in *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402 (1971). The key issue was the scope of review. The plaintiffs did not allege that the secretary had refused to allow them to give their input. Rather, they claimed that he had not weighed the input properly, and thus had reached an unsound decision.

As a preliminary matter, the Court had to determine if it could review decisions of this sort. This was a critical issue. If these decisions were unreviewable, the public would have no way to challenge the secretary’s failure to save parkland. Virtually any administrative action affecting the environment would be unreviewable. The Court rejected this position.

Turning to the merits of the plaintiff’s claims, the Court ruled that § 138 did not require formal findings of fact. However, the Court rejected the secretary’s claim that he could satisfy judicial scrutiny by submitting litigation affidavits to the trial court. A court reviewing a decision of this sort is to scrutinize the administrative record, not merely the self-serving, after-the-fact material the secretary had prepared to rationalize and justify his position.

Review of the record, however, did not mean de novo review, as if the secretary had never made a decision. The courts are to presume that a governmental official has acted properly. But this presumption of regularity does not shield

agency decisions from "thorough, probing, in-depth review." The first step in this review was a hard look at the procedure the secretary used. The reviewing court had to examine the statute under which the secretary had acted to see if he had followed the proper procedures.

Second, the reviewing court was to review the substance of the secretary's decision. The court was to make a thorough, probing, in-depth review. To do this, the court was to review the agency record. It could set aside the secretary's decision if the record showed that he had failed to consider relevant material or if he had made a clear error of judgment.

Because the court needed to examine the agency record, the Secretary's affidavits were not adequate. They were not part of the agency record and the Supreme Court refused to accept them as a substitute. The Court sent the case back to the trial court, ordering it to review the administrative record. Further, if the written record was inadequate, it could require the decision makers to testify to explain their actions. Although this was to be avoided if the agency record obviated the need for testimony, if there was no record showing the basis for the Secretary's action, the decision makers were to be called to testify.

**CITIZENS TO PRESERVE OVERTON PARK, INC.
v.
VOLPE
401 U.S. 402, 91 S. Ct. 814 (1971)**

We are concerned in this case with ... 23 U.S.C. § 138. These statutes prohibit the Secretary of Transportation from authorizing the use of federal funds to finance the construction of highways through public parks if a "feasible and prudent" alternative route exists. If no such route is available, the statutes allow him to approve construction through parks only if there has been "all possible planning to minimize harm" to the park.

Petitioners ... contend that the Secretary has violated these statutes by authorizing the expenditure of federal funds for the construction of a six-lane interstate highway through a public park in Memphis, Tennessee. Their claim was rejected by the District Court, which granted the Secretary's motion for summary judgment, and the Court of Appeals for the Sixth Circuit affirmed. ...

Overton Park is a 342-acre city park located near the center of Memphis. ... The proposed highway ... is to be a six-lane, high-speed, expressway ... [Twenty-six] acres of the park will

be destroyed. ... In April 1968, the Secretary announced that he concurred in the judgment of local officials that I-40 should be built through the park. ... [T]he announcement approving the route and design of I-40 was [not] accompanied by a statement of the Secretary's factual findings. He did not indicate why he believed there were no feasible and prudent alternative routes or why design changes could not be made to reduce the harm to the park.

Petitioners contend that the Secretary's action is invalid without such formal findings and that the Secretary did not make an independent determination but merely relied on the judgment of the Memphis City Council. They also contend that it would be "feasible and prudent" to route I-40 around Overton Park either to the north or to the south. And they argue that if these alternative routes are not "feasible and prudent," the present plan does not include "all possible" methods for reducing harm to the park. ...

Respondents argue that it was unnecessary for the Secretary to make formal findings, and that he did, in fact, exercise his own independent judgment which was supported by the facts. In the District Court, respondents introduced affidavits,

prepared specifically for this litigation, which indicated that the Secretary had made the decision and that the decision was supportable. ...

The District Court and the Court of Appeals found that formal findings by the Secretary were not necessary ... [T]he lower courts held that the affidavits contained no basis for a determination that the Secretary had exceeded his authority.

We agree that formal findings were not required. But we do not believe that in this case judicial review based solely on litigation affidavits was adequate.

A threshold question—whether petitioners are entitled to any judicial review—is easily answered. [T]he Administrative Procedure Act ... provides that the action of “each authority of the Government of the United States” ... is subject to judicial review except where there is a statutory prohibition on review or where “agency action is committed to agency discretion by law.” In this case, there is no indication that Congress sought to prohibit judicial review ...

Similarly, the Secretary’s decision here does not fall within the exception for action “committed to agency discretion.” This is a very narrow exception. The legislative history of the Administrative Procedure Act indicates that it is applicable in those rare instances where “statutes are drawn in such broad terms that in a given case there is no law to apply.”

Section 4(f) of the Department of Transportation Act and § 138 of the Federal-Aid Highway Act are clear and specific directives. ... The Secretary “shall not approve any program or project” that requires the use of any public parkland “unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm to such park ...” This language is a plain and explicit bar to the use of federal funds for construction of highways through parks—only the most unusual situations are exempted.

Despite the clarity of the statutory language, respondents argue that the Secretary has wide discretion. They recognize that the requirement that there be no “feasible” alternative route admits of little administrative discretion. For this exemption to apply the Secretary must find that as a matter

of sound engineering it would not be feasible to build the highway along any other route. Respondents argue, however, that the requirement that there be no other “prudent” route requires Secretary to engage in a wide-ranging balancing of competing interests. They contend that the Secretary should weigh the detriment resulting from the destruction of parkland against the cost of other routes safety considerations, and other factors, and determine on the basis of the importance that he attaches to these other factors whether, on balance, alternative feasible routes would be “prudent.”

But no such wide-ranging endeavor was intended. It is obvious that in most cases considerations of cost, directness of route, and community disruption will indicate that parkland should be used for highway construction whenever possible. ... [I]f Congress intended these factors to be on an equal footing with preservation of parkland there would have been no need for the statutes.

Congress clearly did not intend that cost and disruption of the community were to be ignored by the Secretary. But the very existence of the statutes indicates that protection of parkland was to be given paramount importance. ... If the statutes are to have any meaning, the Secretary cannot approve the destruction of parkland unless he finds that alternative routes present unique problems.

[T]he Secretary’s decision is entitled to a presumption of regularity. But that presumption is not to shield his action from a thorough, probing, in-depth review.

As has been shown, Congress has specified only a small range of choices that the Secretary can make. Also involved in this initial inquiry is a determination of whether on the facts the Secretary’s decision can reasonably be said to be within that range. The reviewing court must consider whether the Secretary properly construed his authority to approve the use of parkland as limited to situations where there are no feasible alternative routes or where feasible alternative routes involve uniquely difficult problems. And the reviewing court must be able to find that the Secretary could have reasonably

believed that in this case there are no feasible alternatives or that alternatives do involve unique problems.

Scrutiny of the facts does not end, however, with the determination that the Secretary has acted within the scope of his statutory authority. [The APA] requires a finding that the actual choice made was not "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." To make this finding the court must consider whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment. Although this inquiry into the facts is to be searching and careful, the ultimate standard of review is a narrow one. The court is not empowered to substitute its judgment for that of the agency.

[The] administrative record is not ... before us. The lower courts based their review on the litigation affidavits that were presented. These affidavits were merely "*post hoc*" rationalizations, which have traditionally been found to be an inadequate basis for review. And they clearly do not constitute the "whole record" compiled by the agency: the basis for review required by § 706 of the Administrative Procedure Act.

Thus it is necessary to remand this case to the District Court for plenary review of the Secretary's decision. That review is to be based on the full administrative record that was before the Secretary at the time he made his decision. But since the bare record may not disclose the factors that were considered or the Secretary's construction of the evidence it may be necessary for the District Court to require some explanation in order to determine if the Secretary acted within the scope of his authority and if the Secretary's action was justifiable under the applicable standard.

The court may require the administrative officials who participated in the decision to give testimony explaining their action. Of course, such inquiry into the mental processes of administrative decisionmakers is usually to be avoided. And where there are administrative findings that were made at the same time as the decision, ... there must be a strong showing of bad faith or improper behavior before such inquiry may be made. But here there are no such formal findings and it may be that the only way there can be effective judicial review is by examining the decisionmakers themselves.

Case Questions

1. What did 23 U.S.C. § 138 prohibit?
2. What had to be done if the Secretary approved construction through a park?
3. What did the Secretary do that prompted this lawsuit?
4. Is a decision under 23 U.S.C. § 138 subject to judicial review?
5. What did the respondents claim "prudent" required the Secretary to consider?
6. What is the key limit on the courts' power to scrutinize an administrative record?

The Court's decision in *Overton Park* greatly increased the range of records that administrators and agencies must maintain to support their decisions. The subsequent litigation concerning *Overton Park* shows the effects that this level of scrutiny caused. On remand, it took the government more than four months to prepare for trial, and even then, what the government presented as the "administrative record" was woefully incomplete. After a lengthy trial, the trial court ruled that the secretary had never given focussed, serious consideration to the route through *Overton Park*; based on these findings, the court ordered the secretary to reconsider his decision. On reconsideration, the secretary found that he could not legally approve the route through *Overton Park*.

Overton Park established what is called the “**hard look**” doctrine. Summarizing what the Supreme Court required administrators to do, the trial court said that administrators must create a record showing that they took a “hard look” at the decision they were to make before making it. As a widely quoted decision from the United States Court of Appeals for the District of Columbia Circuit put it, a reviewing court should be on the lookout for any record suggesting “that the agency has not really taken a hard look at the salient problems and has not genuinely engaged in reasoned decision-making.” *Greater Boston Television Corp. v. FCC*, 444 F.2d 841, 850 (D.C. Cir. 1970), *cert. denied*, 403 U.S. 923 (1971).

Further, the *courts* are to take a hard look. As the Supreme Court said, theirs is to be a “thorough, probing, in-depth review.” They are to do this by examining the entire administrative record, and are not to accept less than the entire record as showing how the administrator acted.

Thus, the “hard look” doctrine requires that the courts take a hard look at the administrative record to see that the administrator took a hard look at the relevant evidence.

In the wake of *Overton Park*, many people asked if the courts should undertake this same probing scrutiny in highly technical matters. The courts generally have held that the technical nature of a dispute does not and should not insulate a decision from thorough judicial review. The courts will immerse themselves in technical questions, if necessary, to determine if a decision was rational and based on proper consideration of the appropriate factors. The courts will not try to substitute their judgment for that of an agency, but they will perform their assigned role—to ascertain that the agency has performed its proper task.

***Vermont Yankee*: Limiting the Courts’ Power to Expand the “Hard Look” Doctrine**

In the wake of *Overton Park*, cases probed the limits of the “hard look” doctrine. The leading court was the Court of Appeals for the District of Columbia Circuit. Environmentalists consistently looked to this court in challenging a wide range of governmental programs and decisions. The environmentalists’ goal after *Overton Park* was a rule that would force agencies to make more decisions openly and on the record. The environmentalists sought to force agencies to adopt more formal procedures. They hoped that this would make agencies give environmental concerns greater scrutiny.

This movement reached a climax in *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519 (1978). There, the Supreme

LEGAL TERMS

“hard look” doctrine A variant of the arbitrary and capricious standard of judicial review. Under this doctrine, a review court must take a hard look at the administrative record to ensure that the agency has taken a hard look at all relevant evidence.

Court ruled that the federal courts cannot impose procedural requirements on administrative decision-making processes beyond those required by Congress. If Congress wants to increase the procedural burden on administrative agencies, or if the agencies want to adopt extra procedures voluntarily, they may do so. However, it is not for the courts to force extra procedures on the agencies.

This decision reflected the need to eliminate uncertainty. If the courts could continually impose new requirements on the agencies, there would be no finality to administrative decisions. Agencies would not know what requirements they would have to meet.

In *Vermont Yankee*, the administrative agencies won a battle; they limited the power of the courts to add steps to decision-making processes. This did not end the struggle for more open decision-making, although it changed the forum. With the courts restricted, the environmental community turned to Congress, asking it to reconsider the decision-making process. Many of the same arguments that swayed the courts have found considerable support in Congress. One reflection of this is that Congress has granted much more specific record-making requirements in one of the key environmental contexts, the Clean Air Act. Under § 307(b) of that Act, when the EPA issues new clean air regulations, it must develop a decision record, including a summary of the factual data on which the rule is based. This record must include the major legal interpretations and policy considerations underlying the proposed rule. The result is a much clearer range of materials available for evaluation.

Although *Vermont Yankee* limits the range of additional proceedings that the courts can add on their own authority, this does not mean that administrative agencies are free to curtail the procedures established by the Administrative Procedure Act or other sources of law. For example, in *Natural Resources Defense Council, Inc. v. Environmental Protection Agency*, 683 F.2d 752 (3d Cir. 1982), the EPA announced that it would suspend the implementation of regulations issued under the Clean Air Act. NRDC challenged this, contending that this suspension was rulemaking, so that the EPA had to go through the full notice-and-comment rulemaking process. The courts agreed and ruled that the suspension was invalid.

Summary

Environmental law is a new field, an outgrowth of the interaction between administrative government and environmental concerns. The primary decision makers in environmental disputes are administrative agencies, with the courts reviewing administrative decisions.

Environmental disputes can be cases in which the government brings an enforcement action, or in which a citizen activist brings an action to force the government to enforce the laws. This raises questions of when a citizen activist can bring such an action.

One of the key doctrines involved in environmental cases is standing. A party has standing only if it has a direct stake in litigation, as determined in *Sierra Club v. Morton*. So long as a party has something more than a purely self-interested economic motive,

it can assert standing to protect environmental values. In *Lujan v. National Wildlife Federation*, however, the Supreme Court ruled that a general interest in environmental problems is not enough. To challenge a government decision to allow wilderness land to be developed, the plaintiff must show that it uses that particular parcel of land.

Three related doctrines bar parties from coming to court without going through administrative procedures first. A party must exhaust its remedies before the administrative agencies. It must respect the primary jurisdiction of the administrative agencies. It must wait until a dispute is ripe. These doctrines, however, are applied with some flexibility to allow the courts to ensure that justice is done.

In reviewing administrative decisions, courts have avoided extreme standards of review that would be either overly intrusive or excessively deferential. They have typically used the arbitrary and capricious standard. In *Overton Park*, the Supreme Court established the hard look doctrine. The Court ruled that in reviewing administrative decisions, a court is to conduct a thorough, probing, and in-depth review based on the entire administrative record.

In subsequent cases, the courts have limited their own power. Under the hard look doctrine, the courts cannot require administrative agencies to undertake procedural steps that are not required by statute.

Review Questions

1. Of what field of law is environmental law an outgrowth?
2. What is the role of the courts in environmental law?
3. Under classical administrative law, what are the courts to require of administrative agencies?
4. What has replaced the common law as the underlying source of law in environmental disputes?
5. Who are the parties to a two-party environmental action?
6. Who are the parties to a three-party environmental action?
7. Do the courts allow a plaintiff to claim standing if the plaintiff is acting only out of pure economic self-interest?
8. What could an administrative agency do that would eliminate the need to come to court?
9. What reasons are generally advanced for requiring parties to exhaust their administrative remedies before coming to court?
10. What does the idea of primary jurisdiction require?
11. Under the ripeness doctrine, what must an administrative agency make before a suit will be considered appropriate?
12. Are agencies allowed to grant more rights than are stated in the Administrative Procedure Act?
13. What are the basic steps involved in notice-and-comment rulemaking?

14. Describe the “hard look” doctrine. Cite appropriate cases.
15. Under the “hard look” doctrine, will the courts examine highly technical matters?
16. Can the courts be demanding in requiring that administrative agencies go through all of the required steps fully and completely?

Chapter Exercises

1. Should the courts have been as responsive as they were to the demands of environmentalists, or should they have forced the environmentalists to look to the legislature or the executive branch for the changes that the courts have undertaken?
2. Some environmental groups, such as the Sierra Club, are highly regarded organizations which include many responsible and conventional civic figures among their prominent members. Other environmental groups take more radical positions and tend to keep themselves on the fringes of the political system. In considering who should have standing, should a court consider what sort of people make up an organization and grant standing only to “responsible” organizations?
3. Environmental litigation is often extremely burdensome to all parties. Especially as remedies become more sophisticated, the plaintiff organizations are often required to remain part of ongoing dialogues with agencies over extended periods of time. Can a court validly limit standing to organizations which it feels will have the staying power to remain with a case for its full duration? Does this amount to limiting standing to “responsible” organizations while pretending not to?



CHAPTER 2

THE NATIONAL ENVIRONMENTAL POLICY ACT

CHAPTER OUTLINE	The National Environmental Policy Act
	NEPA's Origins and an Overview of the Act
	The Common Law of NEPA

The National Environmental Policy Act

Federal Government Decisions Open to Public Discussion

One of the most important of the federal environmental statutes is the **National Environmental Policy Act**, known by its initials, *NEPA*, and now codified at 42 U.S.C. §§ 4321–4347. NEPA was the first modern environmental statute, and it has been the impetus for a tremendous range of change within the government. Primarily, NEPA opens governmental decisions to public discussion. It has also been the basis of a great deal of litigation. Indeed, more civil actions have been brought under NEPA than under any other single environmental statute. Both through litigation and through the wider social influence it has exerted, NEPA has had a very profound effect on governmental policy.

Environmental Controls on the Federal Government

The federal government continually takes actions that have significant effects on the human environment. The government builds highways throughout the nation, builds military bases, dams rivers, undertakes many other massive projects, and controls and manages many of our most important environmental resources. A statute intended to protect the environment must deal with the actions of the federal government and its many agencies.

NEPA is such a statute. It is an effort to assert control over the environmental impacts of the actions of the federal government. When Congress adopted NEPA, it could have addressed the problem of controlling the federal government in either of two ways: a statute imposing **substantive controls**, or a statute imposing **procedural controls**. Substantive controls, which attempt to dictate specific outcomes, have certain disadvantages. It is difficult to gauge in advance how much control will be enough, and it is impossible to anticipate all of the situations and variables to be encountered.

Many environmental statutes are **substantive statutes**: they impose substantive controls on the government. The Endangered Species Act is an example. It says that the government cannot take action that adversely affects any

LEGAL TERMS

National Environmental Policy Act (NEPA) 42 U.S.C. §§ 4321–4347; the first modern federal environmental statute. NEPA imposes procedures on the federal government. It requires that the government and all governmental agencies comply with certain procedures intended to ensure that significant weight is given to environmental factors in considering any decision that may have a significant impact on the environment.

substantive controls Controls mandating specific outcomes while not prescribing specific procedures by which the outcomes are to be reached.

procedural controls Controls dictating that certain procedures be followed, but not specifically mandating set outcomes.

substantive statute A statute imposing specific outcomes while not prescribing specific procedures by which the outcomes are to be reached.

endangered species (except under strictly controlled circumstances). In the current crisis over salmon runs in the Pacific Northwest, the Endangered Species Act may protect endangered salmon, but the cost of doing so may be staggering. The people of the Pacific Northwest like salmon. The fish has long been a prominent part of their regional culture. The effect of the Endangered Species Act may be so draconian that the cost of saving the salmon may involve multi-billion-dollar dislocations of industry in the region.

The alternative is a **procedural statute**. A procedural statute does not impose specific controls on the government. Instead, a procedural statute requires the government to go through certain steps before it can act. A procedural statute, particularly one written using general commands, has the advantage of allowing the courts to tailor remedies to specific situations. Although it does not include the specific benchmarks of a substantive statute, in practice NEPA has proven remarkably effective.

Courts that have reviewed the language of the National Environmental Policy Act and its legislative history have concluded that Congress clearly intended to pass a procedural statute. Congress wanted federal agencies to go through certain steps before making decisions that would affect the environment, but it did not impose specific outcomes on these agencies. The agencies may reach whatever outcomes they will, as long as they follow the proper procedures. If the agencies do not follow these procedures, however, the courts can enjoin any decisions the agencies have made.

By making governmental agencies follow required procedures, NEPA makes decisions that affect the environment much more open and public. Decisions formerly open only to top administrators in closed-door meetings are now matters of public discussion and comment. This opening of the decision-making process has strengthened the voice of people concerned about the environment. It forces governmental decision makers to address environmental concerns explicitly and in detail. This has made the entire government more sensitive to environmental concerns.

NEPA Is a Procedural Statute that Regulates the Federal Government

NEPA has had a sweeping impact on our legal system. This range of impacts may seem somewhat surprising given the actual coverage of the statute. NEPA regulates only the federal government; it does not regulate the states or private parties. The many suits that have been brought under NEPA are actions to prod the federal government and the many federal agencies into complying with the statute—that is, they are suits to make federal agencies do what Congress has ordered them to do.

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procedural statute A statute dictating that certain procedures be followed, but not specifically mandating set outcomes.

Further, this statute is fundamentally procedural rather than substantive. As a procedural statute, NEPA requires that agencies of the federal government undertake certain steps to consider the environmental consequences of their actions, but it does not require that these agencies take or avoid taking specific actions.

This means that NEPA is not like other major environmental statutes, such as the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), or the Clean Air Act (all of which are covered in later chapters), either in terms of who it regulates or the nature of the regulation. These other statutes regulate everyone rather than just the federal government. Indeed, under these acts, the federal government often sues to compel other parties to comply with the law. By contrast, NEPA actions are brought by private parties to compel the federal government and its various agencies to comply with the law. Further, these other statutes impose substantive requirements. RCRA restricts placement of wastes in landfills. CERCLA imposes liability for hazardous waste cleanups. The Clean Air Act requires automakers to meet emissions requirements. NEPA imposes no comparable substantive requirements on the federal government.

So why has NEPA, a procedural statute that reaches only the federal government, had such a profound effect? The answer is this: NEPA has opened discussions of how government actions affect the environment, requiring governmental agencies to allow the public to participate in those discussions. Requiring federal agencies to discuss the environmental consequences of their actions openly with the public has made them much more sensitive to environmental concerns.

This is also the key to understanding NEPA and using it effectively. The foremost question that runs through NEPA cases is this: Is the government being as open in its actions as NEPA requires? If the answer is yes, the government can generally act. If the answer is no, the government's actions can be enjoined, forcing the government to stop until it has been sufficiently open in its actions.

Strycker's Bay: Substantive Versus Procedural Requirements

The distinction between a substantive statute (one imposing specific outcomes) and a procedural statute (one requiring only that the agency follow steps in making its decisions but not dictating specific outcomes of those decisions) is very important, something that a student must keep in mind. Because this distinction has shaped NEPA so critically, it must be discussed at some length.

The question of whether NEPA did or did not impose major substantive as well as procedural requirements was resolved in *Strycker's Bay Neighborhood Council, Inc. v. Karlen*, 444 U.S. 223 (1980). The federal Department of Housing and Urban Development (HUD) issued a report on a low-income housing project. The HUD report discussed the proposed site for the project and nine alternative sites. HUD acknowledged that its choice "raised valid questions about the potential social environmental impacts," but it concluded that these impacts were not so serious that they outweighed other considerations.

**STRYKER'S BAY NEIGHBORHOOD
COUNCIL, INC.**

v.

KARLEN

**444 U.S. 223, 100 S. Ct. 497,
62 L. Ed. 2d 433 (1980)**

In *Vermont Yankee Nuclear Power Corp. v. NRDC* ... (1978), we stated that NEPA, while establishing "significant substantive goals for the Nation," imposes upon agencies duties that are "essentially procedural." As we stressed in that case, NEPA was designed "to insure a fully informed and well-considered decision," but not necessarily "a decision the judges of the Court of Appeals or of this

Court would have reached had they been members of the decisionmaking unit of the agency."

... Once an agency has made a decision subject to NEPA's procedural requirements, the only role for a court is to insure that the agency has considered the environmental consequences; it cannot "interject itself within the area of discretion of the executive as to the choice of the action to be taken." "*Kleppe v. Sierra Club*, 427 U.S. 390, 410 n.21 (1976).

In the present litigation there is no doubt that HUD considered the environmental consequences of its decision to redesignate the proposed site for low-income housing. NEPA requires no more. ...

Reversed.

Case Questions

1. According to the Supreme Court, is NEPA almost entirely a procedural rather than a substantive statute?
2. What is NEPA intended to ensure?
3. Did the Department of Housing and Urban Development (HUD) weigh the environmental consequences of its decision?

Opponents of the project challenged HUD's decision in court, alleging that the report did not consider environmental factors adequately. The United States District Court rejected this claim, specifically ruling that because HUD had properly considered the environmental impacts of the project, it had met its responsibilities under NEPA.

On appeal, the United States Court of Appeals reversed. The court of appeals held that NEPA imposed *substantive* requirements. The court ruled that NEPA requires agencies to give **determinative weight** to environmental factors. In other words, whenever environmental values and other values clashed, the environmental values must control.

The Supreme Court reversed this ruling. The Supreme Court acknowledged that NEPA sets certain substantive goals. NEPA § 101, 42 U.S.C. § 4331, includes the command that all agencies "use all practical means and measures ... in a manner calculated to foster and promote ... conditions under which man and nature can exist in productive harmony." However, the Court ruled that these provisions set goals for the nation rather than requirements for individual agencies. The Court said that agencies are required to adhere only to the procedural

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determinative weight Controlling weight, overriding all other competing factors.

requirements of NEPA. These press federal agencies to make fully informed and well-considered decisions, but NEPA does not require any particular outcome.

Because NEPA is a procedural rather than a substantive statute, the courts are only to ensure that the agency has taken the procedural steps that NEPA requires. If the agency has considered the environmental consequences of its actions as NEPA requires, the court cannot overturn the agency's decision merely because the court thinks it could find a better result.

The Meaning of *Strycker's Bay*: NEPA Is a Procedural Statute

The Supreme Court's decision in *Strycker's Bay* made clear that NEPA is a fundamentally procedural statute. Decisions following *Strycker's Bay* have adhered to this position. The Supreme Court's ruling has served as a check on lower courts, some of which had suggested that they had expansive power to review substantive agency decisions on the merits. The Supreme Court's ruling set a balanced approach. Environmental concerns do not have determinative weight. They are important, but not to the exclusion of other factors.

Regulations issued by the President's **Council on Environmental Quality (CEQ)** have adopted this same position: NEPA does not impose particular outcomes on agencies, but it does require that agencies take environmental factors into account in making their decisions.

NEPA'S Origins and an Overview of the Act

Historically, NEPA had its beginnings in congressional reports issued in 1968. These reports condemned the federal government for its mismanagement and destruction of the environment. The federal government is the only entity big enough to carry out some projects that are very beneficial to society. However, the congressional reports showed that the federal government was often crassly insensitive to environmental concerns. Further, it had a wide range of policies that barred effective discussion of environmental issues in its decision-making processes.

In 1969, Congress responded by establishing a national environmental policy. Various proposals were considered, trying to make the government more sensitive to environmental concerns. In committee hearings, support mounted for the notion of a procedural statute. Substantive measures had some support, but these proposals were unworkable. The proposals could not be tailored to

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Council on Environmental Quality (CEQ) A special administrative entity originally established by President Nixon to see that policies established under the National Environmental Policy Act were carried out.

specific situations, partly because the situations were almost infinitely varied and could not be anticipated in advance.

Instead of substantive provisions, Congress opted to impose procedural requirements. Any time a federal agency takes a major action significantly affecting the quality of the human environment, it must prepare a detailed statement of the environmental effects. NEPA § 102(2)(C), 42 U.S.C. § 4332(2)(C). The “detailed statement” called for in this section is known as an **environmental impact statement**, often referred to by its initials, EIS.

NEPA also established a new agency to oversee the administration of the statute, the Council on Environmental Quality. The CEQ has issued guidelines and regulations for preparing environmental impact statements. Other federal agencies have used these guidelines to draft their own regulations regarding how each agency is to prepare environmental impact statements.

As adopted in late 1969, the National Environmental Policy Act was a series of sweepingly general statements. Indeed, critics of the statute charged that its provisions are so vaguely worded that they were little more than an invitation for parties to come to court. Interested parties have responded, and the result is a substantial body of law, developed largely through judicial interpretation. Remarkably, in the years since NEPA was first adopted, there have been very few amendments to this act, so the great bulk of the law surrounding NEPA is judicial case law rather than further congressional or administrative modifications.

The crucial provisions of NEPA appear in § 102, 42 U.S.C. § 4332. This section requires that all agencies of the federal government include in every proposal a detailed statement concerning the environmental impact of the proposed action, discussing any adverse environmental effects and potential alternatives to the proposed action. Such environmental impact statements have become crucial discussion points in governmental proposals.

The Common Law of NEPA

NEPA is sometimes referred to as an “environmental bill of rights.” Like the Bill of Rights in the United States Constitution, NEPA has produced a remarkable range of judicial decisions, as courts have grappled with the issues that the statute did not resolve. Also like the Bill of Rights, NEPA has had a profound effect on the federal government. Although critics point out that the government

LEGAL TERMS

environmental impact statement † Under state and federal statutes, detailed declarations required with respect to proposed projects or legislation that might have an influence upon the environment.

has never given the statute unqualified support, the government has become far more open and responsive to environmental concerns in many actions, and this openness and responsiveness is a direct result of NEPA. Though sometimes halting and imperfect in their responses, federal agencies have followed the dictates of NEPA to a remarkable degree. Their willingness to accept the policy system which NEPA created is a measure of the responsiveness of these agencies to the dictates of Congress, and of the willingness of Congress to impose a bold pro-environmental policy on the entire government.

The National Environmental Policy Act affects all federal agencies. The legal regime that has emerged from NEPA cases has generally divided NEPA disputes into two major headings:

1. Does NEPA require the federal agency to prepare an environmental impact statement?
2. Is the environmental impact statement adequate?

By its terms, NEPA applies only to major federal actions that significantly affect the environment. Applying this test, a legal professional can divide the first question into a series of subparts: Is there a proposal? Is it a federal action for NEPA purposes? Is it a major action? Will it affect the environment significantly?

Under the second question, the legal professional must consider two general areas: Is the scope of the environmental impact statement proper for the proposed action? Is the depth of the environmental impact statement proper for the proposed action? This book considers these questions, along with certain additional matters that the legal professional must keep in mind when dealing with NEPA.

Throughout, this text stresses that all parts of the government are bound by NEPA. A legal professional working with NEPA thus has a useful tool for dealing with all branches of government. A large segment of the public tries to divide government into two parts, the political and the legal. Such people condemn the executive agencies and Congress as corrupt political cabals worthy of no respect, while hailing the courts as sacrosanct halls of truth and justice. In reality, neither the damnation of the executive and legislative branches nor the adulation of the courts is warranted. NEPA is a remarkable example of how Congress and the executive agencies can respond to social needs. It is a tribute to the success of our government that these political bodies have absorbed and incorporated NEPA into their processes. As the first modern major environmental statute, NEPA set the stage for later statutes controlling other aspects of the environment. Many critical developments of law under NEPA involved judicial decisions, but the executive and legislative branches have continually played major, positive roles in the development of this statute. Because of the supportive involvement of all of the branches of government, NEPA has been a remarkable success.

Summary

The National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321–4347, is a key federal environmental act. The first modern environmental law, NEPA has caused sweeping changes in government by opening decisions to the public. It has also been the basis for much environmental litigation.

Many federal government actions have significant effects on the human environment. NEPA tries to control the environmental impacts of the government's actions by imposing procedural rather than substantive controls. It requires the government to take certain steps before it can act, although it does not compel specific actions. By its procedures, NEPA has opened decisions about actions affecting the environment to the public.

NEPA regulates only the federal government, not the states or private parties. The procedural requirements of NEPA ensure that federal agencies make informed, well-considered decisions.

The key question in a NEPA case is: Is the government using the open procedures NEPA requires? If it is, the government can usually act. If not, the government's actions can be enjoined, barring government action until it follows NEPA procedures.

Historically, NEPA originated in congressional reports condemning the government for its mismanagement and destruction of the environment. Congress responded by imposing NEPA with its procedural requirements. Any time a federal agency takes an action significantly affecting the human environment, it must prepare a detailed statement of the environmental effects, known as an environmental impact statement (EIS). NEPA also established a new agency to oversee the administration of the statute, the Council on Environmental Quality. The CEQ has adopted guidelines and regulations for environmental impact statements.

Since its adoption, NEPA has remained largely unchanged. NEPA law is case law, and it is referred to as an "environmental bill of rights" because of the courts' role in interpreting it.

The National Environmental Policy Act affects all federal agencies. It divides NEPA disputes into two major categories:

1. Does NEPA require a federal agency to prepare an environmental impact statement?
2. Is the environmental impact statement adequate?

The first question can be divided into subparts: Is there a proposal? Is it federal for NEPA purposes? Is it a major action? Is the environmental effect significant? Under the second question, the legal professional should ask: Is the scope of the environmental impact statement proper? Does the EIS address the impact in the proper depth and detail?

All government agencies are bound by NEPA, and their response shows that Congress and the executive agencies do respond to social needs. Many key points of the development of law under NEPA involved judicial decisions, but the executive and legislative branches also played major, positive roles. It is a tribute to our government that it has absorbed and incorporated NEPA into its processes. NEPA set the stage for later laws addressing other environmental problems. With the support of all branches of government, NEPA has been a remarkable success.

Review Questions

1. What has the National Environmental Policy Act done that has had such a profound impact on the government?
2. Whose actions are controlled by NEPA?
3. Is NEPA a procedural or a substantive statute?
4. What remedy can the courts impose if any agency of the federal government fails to carry out the procedures required by NEPA?
5. What has NEPA done to governmental actions?
6. What is the purpose of most of the cases brought under NEPA?
7. What case established the rule that NEPA is fundamentally a procedural statute?
8. If an agency has properly considered the environmental consequences of its actions, as NEPA requires, can a court overturn the agency's decision if the court can show that it could find a better result?
9. What does NEPA § 102 require?
10. Into what two major categories can NEPA disputes be divided?
11. What questions can be asked to determine if an environmental impact statement is required?
12. In judging the adequacy of an environmental impact statement, what must a legal professional gauge?
13. Have all branches of the federal government contributed to NEPA's success?



CHAPTER 3

ENVIRONMENTAL IMPACT STATEMENTS

- CHAPTER OUTLINE**
- When Does NEPA Require a Federal Agency to Prepare an Environmental Impact Statement?
 - Assessing the Adequacy of Environmental Impact Statements: The Requirement of Strict Compliance

When Does NEPA Require a Federal Agency to Prepare an Environmental Impact Statement?

As stated in Chapter 2, under § 102(2)(C) of NEPA, 42 U.S.C. § 4332(2)(C), any time a federal agency proposes an action that significantly affects the quality of the human environment, the agency must include with the proposal a detailed statement of the environmental effects the proposed action will cause. This is the key requirement of NEPA. However, NEPA does not define any of the terms used in § 102. This has led to much debate and litigation as parties have fought over the precise meaning of the various terms. Having no statutory definitions, the courts and the federal agencies have had to grapple with a range of questions concerning when an environmental impact statement must be prepared: What is a proposal for a major federal action significantly affecting the environment?

Section 102(2)(C), by its terms, applies only to federal actions. NEPA does not require an environmental impact statement for a state project rather than a federal project, and it does not apply to a purely private project, regardless of its environmental impact. Notably, this is not true of some state statutes modelled after NEPA. Twenty states now have such statutes, and some of these “little NEPA” acts require environmental impact statements for large private projects. Several foreign countries that have enacted laws modelled after NEPA also regulate private parties.

When Are EISs Required: Federal Discretion

NEPA applies to federal actions, and in this context *federal* has been construed very broadly. Essentially, any matter over which the federal government exercises significant discretion is a federal action for NEPA purposes.

Most highway construction, for example, is nominally carried out by the states. However, the federal government provides 90 percent of the money for highway construction through U.S. Department of Transportation grants, and the federal government has great discretion over how these projects are carried out through the conditions it can impose on how money is spent. Courts have consistently ruled that a proposal for a highway construction project that will use Department of Transportation funds is a federal proposal for purposes of NEPA.

Federal financial involvement through programs such as block grants is often a very prominent part of many projects. Federal financial involvement, without more, is generally not sufficient to bring a proposed project within the scope of NEPA. The key is the discretion the federal government has. The federal government's discretion gives the federal agency control over the environmental impacts the proposed project will have. Therefore, state or local authorities' use of federal money alone does not automatically make their proposed project a federal action for which an environmental impact statement must be prepared. But if the federal agency providing the funding has discretion,

and can exercise this discretion to affect the environmental impacts of the project, this will federalize the action so that an EIS must be filed.

For example, in *Ely v. Velde (I)*, 451 F.2d 1130 (4th Cir. 1971), the state of Virginia wanted to build a jail using federal funds. The court found that the federal government had discretion over the grant. Given this discretion, the federal government could influence the environmental impacts of the proposed project, thus making it a federal action within the scope of NEPA.

By contrast, in *Ely v. Velde (II)*, 497 F.2d 252 (4th Cir. 1974), and *Carolina Action v. Simon*, 839 F. Supp. 1244 (M.D.N.C. 1975), the courts considered state projects that were federally funded under revenue sharing programs. In these programs, the federal government had no discretion over state spending decisions. Because the federal government had no control over how the states spent the money, the courts ruled that the mere presence of federal money did not make the projects federal actions for NEPA purposes.

The Limits of NEPA Jurisdiction

The question of when NEPA applies has prompted a number of responses as courts have tried to determine the scope of the statute's requirements. Two of the leading cases on the subject show different situations in which the question can arise. *Atlanta Coalition on Transportation Crisis, Inc. v. Atlanta Regional Commission*, 599 F.2d 1333 (5th Cir. 1979), involved a huge project with tremendous federal involvement. By contrast, *Sierra Club v. Hodel*, 848 F.2d 1068 (10th Cir. 1988), involved a project in which the federal involvement was almost minuscule. In *Atlanta Regional Commission*, the court ruled that there was no need for an EIS; in *Hodel* the court ruled that an EIS was required.

In *Atlanta Regional Commission*, the commission, a local government entity, prepared a complex regional development plan (RDP), which was a long-term proposal for developing a transportation system plan for the Atlanta area. The RDP covered matters such as the general location of proposed transportation corridors and plans for modes of transportation to be developed over a 30-year period. This was a tentative plan, and the parties acknowledged that it would be subject to ongoing revision as specific transportation facilities were developed. Nevertheless, because the plan committed governmental entities in the Atlanta area to developing a transportation system centering on highway travel, the adoption of the plan clearly made a serious and potentially irrevocable commitment to highway programs.

The RDP did not require construction of any specific transportation facilities. When any individual project was proposed, the project would be subject to NEPA and the EIS requirement. The plaintiffs, however, contended that this was not sufficient. They argued that the RDP would lock in so many aspects of long-term transportation development that an EIS was required for the plan itself.

The courts rejected this argument, ruling that the drafting of the RDP was not a federal action. Therefore, NEPA did not apply. The court reviewed the federal role in the adoption of the RDP. It found that the federal role was limited to certifying and funding the planning process by which the defendant commission

established a plan for the Atlanta region. The certification did not give federal agencies any of the discretion that would be the basis for NEPA coverage. Although there was federal funding, there was no actual project. The plan, which in and of itself would have no effect on the environment, was complete and self-contained. And what was the environmental effect of approving the RDP? Essentially, none.

The plaintiffs argued that because of the pervasive federal involvement in highway construction, any major planning effort was inherently federal, even if the actual construction had not yet been undertaken. The court rejected this argument, finding that no federal agency had any discretion over the preparation of the RDP, that the RDP as such would never be submitted to any federal agency for review or approval, and that any federal involvement in future projects to carry out the plans established in the RDP was entirely separate from the preparation of the RDP.

As the court in *Atlanta Regional Commission* stated, the presence of federal funding is a factor in deciding if NEPA applies, but it is not controlling. If no federal agency had any substantial involvement in the planning process that led to the RDP, if the RDP did not create any federal commitment to fund actual highway construction, and if the entire responsibility for the contents of the plan lay with state and local officials—without any commitment from the federal government—then the plan was not a federal decision for purposes of NEPA.

Atlanta Regional Commission involved a massive project. The highway construction would unquestionably involve federal discretion and NEPA coverage. The RDP, however, was not subject to federal discretion. Because of this, the preparation of the RDP was not a federal project for NEPA purposes.

By contrast, *Sierra Club v. Hodel*, 848 F.2d 1068 (10th Cir. 1988), involved a very small project, but because there was federal discretion, NEPA applied. In Garfield County, Utah, there was a 28-mile stretch of “road” running through land managed by the federal Bureau of Land Management (BLM). More accurately, it was a track through wilderness, passable only by four-wheel-drive vehicles. When Garfield County decided to improve this road, the BLM approved the plans but did not prepare an environmental impact statement. Environmentalists challenged this action, contending that it was a proposal under NEPA, so that the county was prohibited from proceeding with any project until an EIS had been filed.

In deciding if the county’s plan to improve the road was a major federal action for NEPA purposes, the court looked to guidelines adopted by the Council on Environmental Quality (CEQ). These guidelines state that a *major federal action* for NEPA purposes encompasses actions by the federal government, and by nonfederal entities if the actions have significant effects on the environment and the actions are potentially subject to federal control and responsibility. If a federal agency has the power to control the decision, the proposed action is federal for NEPA purposes. In *Hodel*, this meant that the county’s road improvement proposal came under NEPA, because the proposal was subject to federal control. The county had to have Bureau of Land Management approval before it could proceed. Because NEPA applied, an EIS had to be prepared.

In this case, statutes specifically required the Bureau of Land Management to ensure that wilderness lands were not unduly degraded. The BLM had to determine if there were less degrading alternatives to improving the road, and to require the county to use those less degrading alternatives as much as possible. Further, in the context of this case, the BLM's own mandates imposed on the agency a duty to ensure that these lands were not unduly degraded. Therefore, BLM acquiescence in the county's plan for development was enough to trigger NEPA and the EIS requirement. In this regard, the court distinguished other cases holding that if a federal agency has no duty to act, its decision to not act does not give rise to the need for an EIS. An EIS was required in this case because the agency had a duty to act.

These two cases are noteworthy for their contrast. On the one hand, *Atlanta Regional Council* dealt with the planning of a massive transportation project. The long-term transportation network around Atlanta will undoubtedly involve massive federal funding. However, the court found that the adoption of the regional development plan was not a federal action, because the RDP was an isolated project undertaken entirely by state and local agencies, with no federal discretion over that decision. Although the RDP might be significant in shaping the long-term project, the adoption of the RDP was not itself a federal action. On the other hand, the court in *Sierra Club v. Hodel* found that there was federal control when the BLM allowed the county to proceed, failing to prevent the undue degradation of wilderness areas that it was required to manage.

When projects are carried on by state and local governmental entities, as in *Sierra Club v. Hodel*, a project will be considered a federal project for NEPA purposes if a federal agency has discretion to require the agency that actually carries out the project to take steps to protect the environment.

Discretionary Federal Authority and Private Projects

If the federal government has discretionary authority over a project, NEPA applies, even if the project is actually to be implemented by private entities. *Natural Resources Defense Council, Inc. v. Hodel*, 435 F. Supp. 590 (D. Or. 1977), *aff'd*, 626 F.2d 134 (9th Cir. 1980), illustrates this. Private utilities proposed construction of several power plants in the Pacific Northwest. The construction was to be private. However, the Bonneville Power Administration (BPA) agreed to link these power plants to its electrical grid, to build extensive transmission facilities to facilitate the link-up, and to provide "peaking" capacity. All of this was set out in a formal written agreement between the private utilities and the BPA.

The BPA argued that the proposal to build the new power plants was not a federal action. The court rejected this argument in scathing terms. It called the contention that the proposal was entirely a private action "totally unacceptable under both the law and the facts." 435 F. Supp. at 598. The court noted that although the BPA would not participate in the actual planning, financing, or construction of the new plants, the entire project was predicated on the availability of the BPA power system. Without federal peaking power from BPA

dams, the BPA transmission systems, and the various BPA services, the private parties would have regarded the entire project as inconceivable. 435 F. Supp. at 599.

The tenor of the opinion in *Natural Resources Defense Council v. Hodel* stems partly from the nature and scope of the project. The integration of private facilities into a massive power grid was impossible without federal involvement. Given this federal involvement, the claim that this was a strictly private proposal was strained at best. Indeed, many smaller, ostensibly private projects have been held to be federal under NEPA on much less pervasive involvement, and enjoined unless the NEPA requisites were met. For example, in *Silva v. Romney*, 473 F.2d 287 (1st Cir. 1973), a private developer had contracts to build a housing project. These contracts included federal commitments to provide a mortgage guarantee and an interest grant. The court enjoined the developer from proceeding with the housing project until an environmental impact statement was prepared. The court said that it was beyond challenge that if a private party is in effect a partner with the federal government, NEPA applies.

At the outer limit of NEPA coverage are situations in which a project is built using only private money, but must have a federal permit to operate legally. The decision of the federal agency to issue or refuse to issue the license or permit pushes the limits of NEPA jurisdiction. Some cases have held that the proposal to issue a permit under these circumstances requires an EIS. For example, in *Izaak Walton League v. Schlesinger*, 337 F. Supp. 287 (D.D.C. 1977), the court held that the Atomic Energy Commission must prepare an EIS before it can issue an operating license for a new nuclear reactor. Similarly, in *Davis v. Morton*, 469 F.2d 593 (10th Cir. 1972), a tribe of Native Americans wanted to grant a lease to a developer. The lease had to have the approval of the federal Bureau of Indian Affairs. Analogizing this to the granting of a permit, the courts held that this decision was subject to NEPA requirements.

By contrast, other cases have held that the issuance of licenses or permits under these situations involves actions so removed from the operations of the federal government that it defies logic to say that the issuance of a permit makes the underlying action federal.

Finally, what of the situation in which a federal agency has discretionary power to intervene to block state or private action, but has no legal duty to do so? If the federal agency does *not* intervene, is this a federal action? Environmentalists have argued that an agency's failure to act in circumstances such as this means that the environment has been adversely affected. Environmentalists argue that the spirit of NEPA requires that the federal agency prepare an EIS on its decision not to act. Generally, the courts have rejected this argument. Absent a legal duty to act, if a federal agency elects not to act, the agency does not have to meet NEPA requirements in this situation.

“Defederalizing” Projects

States like to carry out projects using federal money, but they often try to avoid the burdens that NEPA imposes. One response that the states have tried, in order to get the funding without the burden, is to shift federal funds from

projects that are environmentally sensitive to innocuous projects. They then claim that because the original project is proceeding without federal funds, NEPA does not apply. When a state tries to do this, it generally leaves a clear bureaucratic trail showing the reasons why the state has tried to **defederalize** a particular project. Confronted with such a trail, the courts insist that NEPA still applies to the project.

For example, in *Ely v. Velde (II)*, 497 F.2d 252 (4th Cir. 1974), the state of Virginia proposed to build a penal center, using approximately \$1 million in federal financing. State officials initially drafted an environmental impact statement that would meet the requirements of NEPA. They tried to drop federal participation when the draft statement elicited strongly negative comments. At this point, the state tried to divert the federal funds to other projects, contending that if the state built the penal center entirely without federal funds, NEPA would not apply and there would be no requirement to proceed with an EIS. Instead, the federal funds would be used on environmentally innocuous projects.

The courts rejected this ploy. The U.S. Court of Appeals for the Fourth Circuit ruled that to allow the state to avoid the requirements of NEPA while retaining the federal grants, which were given on the condition that the state would comply with the EIS requirements, would undercut the congressional intent that NEPA clearly embodied. If the state proposed to accept federal money, it could not do so without meeting the NEPA requirements. If the state wanted to retain the money, it would have to prepare an EIS on the original project, not indulge in elaborate shell games.

The court's rationale appears to be that if it allowed the states to shift federal money to environmentally innocuous projects, the states could always find projects that would meet the NEPA requirements. The result would be that the goals of NEPA—making the federal government responsible for the environmental consequences of government actions—would be completely thwarted. To ensure that those goals are met, the courts insist that if a federal agency grants money to a state on the condition that the state bear the burdens of NEPA, the state cannot retain the grant while shirking those burdens.

In a few unusual situations, however, Congress has intervened to defederalize projects, explicitly removing them from the reach of NEPA requirements. One dramatic example was a highway project that was to run through a public park in San Antonio, Texas. Congress enacted a provision of the Federal Aid Highway Act of 1973 specifically declaring that the highway was not a federal project, thereby thwarting efforts to use NEPA to forestall construction. After this special legislative provision was passed, NEPA requirements did not apply. See *Named Individual Members of the San Antonio Conservation Society v. Texas Highway Department*, 496 F.2d 1017 (5th Cir. 1974), *cert. denied*, 402 U.S. 926 (1975).

LEGAL TERMS

defederalize To make a project not subject to the requirements of the National Environmental Policy Act.

Conflicts with Other Statutes: Exempt Actions

As *San Antonio Conservation Society* illustrates, there are instances when NEPA is in direct conflict with other federal statutes. Section 102 of NEPA says that NEPA's provisions are to be carried out to the fullest extent possible. When there is a clear conflict, NEPA gives way. However, in anything short of a clear conflict, the agencies must follow both NEPA and their own specific statutes.

For example, in *Environmental Defense Fund, Inc. v. Matthews*, 410 F. Supp. 336 (D.D.C. 1976), the Food and Drug Administration (FDA) adopted various regulations without following NEPA. The FDA claimed that it could not follow NEPA because it was not authorized to include environmental factors in its determination of the public interest. The court rejected this claim, ruling that NEPA gave the FDA authority to consider environmental factors. This did not require the FDA to favor environmental protection over other relevant factors, but it did require that environmental factors be considered in the decision-making process.

If NEPA and other statutes can be reconciled, the courts will reconcile them, requiring agencies to adhere to all statutes. In *Ely v. Velde (I)*, 451 F.2d 1130 (4th Cir. 1971), for example, the court considered claims that NEPA and the Law Enforcement Assistance Administration Act were irreconcilable. The Law Enforcement Assistance Administration (LEAA) was authorized to make block grants to the states to fund various projects. Environmentalists insisted that NEPA applied, so that EISs had to be prepared. The LEAA argued that making it prepare EISs would frustrate a key purpose of the LEAA Act. It would deprive state and local authorities of discretion in expending the block grant funds. The court ruled that the LEAA could comply with NEPA and still give the states discretion. EISs would narrow the range of discretion, requiring the states to use the funds in environmentally sound projects, but the courts found that this left the states an acceptable range of discretion while protecting the environment.

Similarly, in *Grindstone Butte Project v. Kleppe*, 638 F.2d 100 (9th Cir. 1981), the Court of Appeals for the Ninth Circuit ruled that NEPA gives the Secretary of the Interior authority to consider environmental factors in making decisions concerning irrigation rights-of-way on federal lands. The court said that under NEPA, the secretary must follow NEPA's mandate to protect the environment. Therefore, consideration of environmental factors was not merely permitted, it was required.

These are examples of the attitude that the courts have taken with NEPA. The Supreme Court has ruled that NEPA was not meant to repeal other statutes by implication. *United States v. SCRAP*, 412 U.S. 669, 694 (1973). Nor were other statutes intended to repeal or emasculate NEPA. This means that the courts must reconcile competing statutes. The regulations promulgated by the Council on Environmental Quality have now formalized the underlying attitude, stating that agencies shall comply with NEPA unless existing law expressly prohibits compliance or makes it impossible.

In some instances, the conflicts between NEPA and other statutes cannot be reconciled. When the requirements of NEPA and those of another federal statute

conflict irreconcilably and fundamentally, NEPA requirements must give way. For example, in *Flint Ridge Development Co. v. Scenic Rivers Association*, 426 U.S. 776 (1976), there was a conflict that left no way out. Under the Interstate Land Sale Full Disclosure Act, a developer must file a statement of record with the Department of Housing and Urban Development. The statement is automatically adopted by the department as legally binding on the 30th day after filing unless the Secretary of Housing and Urban Development determines that the statement is incomplete. If the Secretary determines that a statement is inadequate, he is to suspend the statement until it is corrected.

An EIS cannot be prepared in 30 days. That is simply not enough time to prepare such a complex document. The Court found that the Secretary of HUD did not have any discretion to extend the time for consideration of the statement of record on environmental grounds. Thus, there was a conflict that could not be reconciled. The Court ruled that in this instance, the Secretary was not obligated to follow NEPA procedure.

Similarly, the Emergency Petroleum Allocation Act ordered the Federal Energy Office to promulgate regulations within 15 days of the enactment of that statute. The issuance of those regulations was not subject to NEPA requirements, because again the issuance of an EIS would have taken much longer than 15 days. See *Gulf Oil Corp. v. Simon*, 502 F.2d 1154 (Emer. Ct. App. 1974).

NEPA also does not require government officials to divulge classified data, such as the details of a nuclear weapons facility. This means that an EIS which cannot be written without discussion of classified material is not required. See *Weinberger v. Catholic Action of Hawaii/Peace Education Project*, 454 U.S. 139 (1981).

As a bizarre and ironic twist, some defendants charged with pollution crimes have insisted that the government must prepare EISs before it can arrest polluters. Their argument seems to be that if the police arrest a midnight dumper, this will have a significant impact on the environment: it will save the environment from deliberate pollution. Although these people may be right in a very literal sense, the courts have uniformly rejected these efforts to turn NEPA on its head.

The Impact of Federal Actions: When Is an Environmental Impact Statement Required?

For any proposed action that is federal and is not exempt, there must be an environmental impact statement if the proposed action is a major federal action significantly affecting the quality of the human environment. NEPA § 102(2)(C), 42 U.S.C. § 4223(2)(C).

NEPA does not define these terms, but case law and administrative regulations have provided some clarification. First, if the environmental impact of an action will be significant, that action is treated as *major*. From the standpoint of logic, it would be hard to contend that a federal action that would have significant impacts on the environment is not a major action. This means the cases focus on what impacts are significant.

In determining if the impact of an action will be significant, the key is the action's potential impact. If the impact *may* be significant, an EIS is required. Further, in gauging the significance of an action, the agency considers both the size of the project and the intensity of the environmental impact.

If an agency claims that an action will not have a significant impact, environmentalists disputing this claim bear the burden of presenting some credible evidence of the impact that the governmental action will have. Once the environmentalists have made this initial showing, the burden is on the agency to show that the impact of the project will be insignificant.

The Council on Environmental Quality has codified the standards for determining significance in its regulations, **promulgating** 40 C.F.R. § 1508.27. This regulation requires that the agency determine the significance of an action by considering both the context and the intensity of its impacts. To analyze the context of an action, the agency must consider several factors, including the impact of the action on society as a whole, on the affected region, on the locality, and on affected interests. Further, the agency must analyze both short-term and long-term impacts. All of these factors show that the context of an action will vary depending on the setting of the proposed action.

SIDEBAR

Context of an action is the impact of the action, both long-term and short-term, on society as a whole, on the affected region, on the locality, and on affected interests.

The agency must also consider *intensity*, that is, the severity of the impact. To gauge intensity, the agency must consider a wide range of factors, including both the favorable and the unfavorable consequences of actions, the unique characteristics of affected areas, the degree to which effects are likely to be highly controversial, the uncertainty of risks involved, the degree to which an action may serve as precedent for future actions, and the like.

Agencies must also consider the potential **cumulative impacts** of their actions. For example, if the action is a small project, is it one of several projects that will gradually have a greater collective impact? Or will the project serve as a precedent for other, similar projects, standing as a decision in principle as to impacts that will be allowed in the future? Alternatively, will the project have synergistic effects when combined with other, unrelated projects?

The process of assessing the impacts of projects is not intended to be an ad hoc determination, to be undertaken from scratch with each new proposal. Instead, CEQ Regulations require each agency to develop guidelines for making these determinations, and to formalize these guidelines in its own regulations. These agency regulations are to cover the typical classes of actions that the

LEGAL TERMS

promulgate † 1. To publish, announce, or proclaim and, in particular, to give official notice of a public act ... 2. To enact a law or issue a regulation.

cumulative impacts Impacts caused by the interaction of the impacts of several projects.

agency undertakes and the typical environmental impacts that can be expected from such actions. The regulations are to include specific criteria for identifying actions as those for which an environmental impact statement is normally required, those for which a less probing environmental assessment is normally required, and those for which neither an environmental impact statement nor an environmental assessment is required. CEQ Regulations, 40 C.F.R. § 1507.3(b).

In addition, each agency is to establish procedures for categorical exclusions. A **categorical exclusion** covers a category of actions that have no significant impact on the human environment, individually or cumulatively. Because of this lack of impact, neither environmental impact statements nor environmental assessments are required for actions covered by a categorical exclusion. To ensure that these regulations are not a source of abuse, any categorical exclusion must provide that any action that will have a significant impact on the environment is not covered by a categorical exclusion. CEQ Regulations, 40 C.F.R. § 1508.4.

The decision to establish a categorical exclusion is itself subject to judicial review. The precise standard of review for such decisions varies from one circuit to another, but it is clear that almost all courts give these cases intense scrutiny.

Given the many regulations that individual agencies must adopt under NEPA and the CEQ Regulations, there is clearly a great deal of law under NEPA beyond the specific terms of the statute. Indeed, individual agencies generally have regulations, manuals, and directives of their own, all of which are law governing the specific agency. If agency regulations call for the preparation of an environmental assessment, even when it is not required under NEPA or the CEQ Regulations, a court will hold that the agency's own regulations are legally binding. See *Hiram Clarke Civic Club, Inc. v. Lynn*, 476 F.2d 421 (5th Cir. 1973); *Portela v. Pierce*, 650 F.2d 210 (9th Cir. 1981).

For a legal professional working against an agency, the agency's own materials are often a gold mine of information and legal rules binding on the agency. These materials are also often overlooked. Because of this, any legal professional dealing with environmental assessments or environmental impact statements should obtain copies of these internal regulations, manuals, and directives and analyze them to determine if the agency has violated its own procedures.

Governmental agencies have sometimes tried to avoid a determination that an action will have significant impacts by including measures in a proposal to **mitigate** the impacts. The courts have been reluctant to accept this tactic. Generally, courts reject agency claims that a proposal's impact is not significant because of mitigating measures unless these mitigation measures are legally mandated. The mitigation of environmental damages must not be a mere wishful hope. It must be something that the agency is legally required to do.

LEGAL TERMS

categorical exclusion A rule that for all projects having only certain minimal environmental impacts, no environmental impact statement or environmental assessment will be required.

mitigate To lessen, reduce, or otherwise reduce the impact of.

In one instance, the government proposed to allow mining and logging in areas inhabited by an endangered species of grizzly bear. The government proposed to avoid the threat of extinction by promising to monitor bear population, saying that it would terminate operations if the bear populations fell too much. The court ruled that this promise did not mitigate the significant impact of the project. The court described this as an attempt to act now and consider the irreversible consequences later. It held that this conduct was plainly inconsistent with the broad mandate which NEPA imposes. *Foundation for North American Wild Sheep v. U.S. Department of Agriculture*, 681 F.2d 1172 (9th Cir. 1982).

Indirect and Secondary Impacts

An environmental impact statement clearly must address the direct effects of a federal action. Often, however, federal actions cause indirect or secondary effects which are equally important. For example, the construction of a freeway will involve direct effects: the grading and paving of the road. It will also cause many indirect or secondary effects: increased traffic, development in the surrounding area prompted by greater access, changes in the makeup of the area, and so on.

These secondary and indirect effects have led to a number of inconsistent decisions. For example, in a decision by the Comptroller of the Currency to allow a bank to build a new branch, the court considered the fact that the branch would generate additional downtown traffic. By contrast, the comptroller held in another case that it could authorize formation of a new bank without considering the potential impacts of construction projects that future bank customers would finance through the bank.

If an agency preparing an EIS has data showing the range of indirect and secondary impacts, it must consider the data in its EIS. However, federal agencies are not required to engage in baseless speculation on the possible impacts of their proposed activities. Often, the imperatives of bureaucracy tend to make agencies try to overlook possible indirect or secondary impacts. It is easier to prepare an EIS that limits the range of material it covers. For the legal professional who wants to force an agency to address indirect and secondary impacts, the key is showing that an indirect impact is not speculative. Often an agency's own files are a fruitful source of material to support these arguments. Through resourceful and aggressive combing of agency files, effective legal professionals can often show that an agency already knows a great deal about the foreseeable impacts of a particular decision, even when this information is not mentioned in the EIS. Armed with this information, the legal professional can counter contentions that claims of impacts are merely speculative.

If an agency has material available that would allow it to make a reasonable assessment of the secondary impacts of a project, the agency must discuss those secondary impacts. The courts will not allow the agency to dismiss the possibility of such impacts merely because it cannot predict them with exact certainty. One example of this is *City of Davis v. Coleman*, 521 F.2d 661 (9th Cir. 1975).

The California Department of Highways proposed the construction of a major freeway interchange. It prepared an EIS that discussed the direct impacts of the construction project, such as the impact of earth-moving and the like. The EIS was notable, however, for failing to mention the indirect impacts, such as increased traffic or development of the area to be served by the interchange. The department justified its silence on these issues by arguing that any such indirect or secondary impacts were entirely speculative. The courts rejected this argument in remarkably emphatic language:

The defendants have objected that the environmental consequences of development will result from local and private action, not federal action, and that therefore they need not consider the consequences of development in determining whether an EIS is required. They are wrong. It must be remembered that the main purpose of the interchange, and its only credible economic justification, is to provide access to the [area] for future industrial development. The argument that the principal object of a federal project does not result from federal action contains its own refutation.

The department was required to delay the project until it redrafted the EIS, taking the secondary and indirect impacts into account.

Uncertainties and Unknowns

Frequently, agencies evaluating the possible consequences of actions face a problem: they simply do not know the full range of possible impacts their actions will cause. When this occurs, the agency must indicate what information it lacks. If it can obtain the information without excessive cost, the agency must obtain the information. If the information cannot be obtained, or can be obtained only at excessive cost, then the agency may substitute a statement evaluating possible impacts based on sound theoretical approaches and research methods. This statement must discuss all reasonably foreseeable consequences, including possible catastrophic consequences for which the probability is very low, so long as the analysis is supported by credible scientific evidence rather than merely being the product of pure conjecture.

Types of Effects Warranting an EIS

What effects must an EIS assess? Certainly it must address traditional ecological matters: health effects, alterations in ecological balances, pollution, destruction of wildlife, and the like. More controversial are questions of the social, economic, or psychological impacts of a governmental decision. NEPA specifically requires consideration of these impacts. The language of NEPA § 101, 42 U.S.C. § 4331, clearly mandates that EISs consider such impacts. Congress adopted NEPA in part to “fulfill the social, economic, and other requirements of present and future generations.” NEPA § 101(a), 42 U.S.C. § 4331. Section 102(b)(2) seeks to assure “productive and aesthetically and culturally pleasing surrounding.”

42 U.S.C. § 4331. Section 101(b)(4) seeks to “preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice.” 42 U.S.C. § 4331. The mandates of § 102 specifically require the integrated use of the social sciences in NEPA analyses. 42 U.S.C. § 4332.

Nevertheless, social science considerations have never been given the importance that has been accorded more traditional ecological values. CEQ Regulations, adopted to implement NEPA, reflect this attitude. These regulations indicate that social, economic, and psychological consequences alone do not trigger the need for an environmental impact statement, although they should be taken into account with other impacts to determine if an EIS is required.

The CEQ Regulations reflect biases against consideration of social consequences. The process itself is weighted in favor of traditional “hard” scientific methods and data. Social science information is inherently more difficult to quantify, and is substantially outside the range of expertise of most of the technical experts involved in preparing environmental materials. The only social science within their purview is economics, which may explain why agencies often tout the economic benefits of a project while not considering other social science data. The case law reflects this view, noting that socioeconomic data is too intangible, too difficult to quantify, and too subject to human frailties. *Handy v. Kleindienst*, 471 F.2d 823 (2d Cir.), cert. denied, 412 U.S. 908 (1972). The cases hold that an EIS must consider socioeconomic effects on humans only if these occur in conjunction with physical impacts. *National Association of Governmental Employees v. Rumsfeld*, 418 F. Supp. 1302 (E.D. Pa. 1976). Absent this connection, the courts are firm in holding that socioeconomic effects alone do not bring actions within the scope of NEPA. See, e.g., *Shliffer v. Schlesinger*, 548 F.2d 96 (3d Cir. 1977) (the impact on a local tax base of closing a military base is not an effect on the environment within the meaning of NEPA).

Timing

Timing is often a hotly contested issue. Parties who oppose government proposals generally argue that environmental impact statements must be prepared as soon as there is a proposal to which NEPA might apply. This is generally much earlier in the process of making a governmental decision than federal agencies would like. Agencies argue that preparing an environmental impact statement this early in the process is unnecessary and wasteful.

In government decision making, a decision generally comes in response to a report or recommendation. Construing NEPA, the courts have consistently held that when an agency makes this key report or recommendation on a proposal for federal action, the agency must prepare an environmental impact statement. The controlling question is whether a *proposal* exists that requires an environmental impact statement. Though it is not always clear when an agency has a proposal, the courts have been consistent that the plaintiff has the burden of pointing to something that could be called a proposal before the agency is under an obligation to prepare an EIS.

In most agency procedures, a decision to take or not to take an action is made in response to a final staff recommendation. This provides a common benchmark for judging when an EIS is needed. An EIS normally must be prepared early enough that the findings made in the EIS can be incorporated into the final staff recommendation. If the EIS is prepared at this stage, the agency can consider the environmental consequences of the proposed action.

Many major agency decisions are undertaken through rulemaking. The sequence in rulemaking is normally a three-stage process: a rule is proposed through a public notice; comments are solicited from interested parties; and a final rule is adopted. In this context, the environmental impact statement normally accompanies the proposed rule. This allows comments to reflect all aspects of the rule, including the environmental impacts.

Environmental Impacts and the Relationship Between NEPA and Other Statutes

Many questions can be raised about a governmental agency's proposal to take an action:

Is the action federal?

Is it significant?

Are secondary and indirect effects properly considered?

Are nonecological impacts properly considered?

Was an EIS prepared in a timely manner?

All of these questions must be considered in determining if an EIS must be prepared or if an EIS is adequate.

Additionally, NEPA must be viewed as part of a broader legal spectrum. NEPA has been the center of a great deal of litigation. Indeed, more cases have been brought primarily under NEPA than under any other environmental statute. However, NEPA is just one of many acts a litigant can use in challenging governmental action that affects the environment. Indeed, some authorities have listed more than 50 statutes as having significant environmental provisions, and have noted that others can come into play in environmental litigation.

This means that a legal professional dealing with NEPA must always keep in mind that the legal issues must be viewed expansively. The legal professional challenging governmental action must consider the possibility of new avenues that can be explored to protect the environment. A legal professional defending governmental actions must recognize that merely responding to the specific requirements of this one statute, important as it is, does not end the potential issues.

All these questions are related. In many instances, issues can be approached in several different directions at once. Unfortunately, many lawyers fail to recognize this, so they tend to approach NEPA cases narrowly. In their research, they focus on single issues, excluding other possible points of view and often

failing to take advantage of various opportunities and options that the legal system allows.

To be effective, a legal professional needs to maintain an expansive view of NEPA and the many interrelated issues surrounding that statute. This includes considering the many applicable regulations that NEPA has forced agencies to adopt and the wide range of other sources beyond specific NEPA material. One authority commenting on a related question gave what is probably the key to a command of NEPA and of environmental law generally: law is the path to the world. F. Allen "Law as a Path to the World," 80 *Mich. L. Rev.* 1 (1981).

Environmental Assessments: Evaluation of Actions That Are Less Than Major Actions Significantly Affecting the Human Environment

Thus far, the discussion of impacts has focused on a single problem: What impacts will require the preparation of an environmental impact statement? In many situations, a government agency can make a reasonable claim that its actions do not cause a significant impact. NEPA requires the preparation of an EIS if an action will cause a significant impact. By implication, no EIS is required if there is no significant impact. This reasoning, however, leads to a logical quandary—how can an agency show that an action will have no significant impact unless it prepares a statement documenting the absence of an impact?

If an agency could avoid all the requirements of NEPA merely by saying that its actions would not have a significant impact, agencies would always have a powerful incentive to claim that their actions had no impact. The rule that an agency need not prepare an EIS if an action will have no significant impact could have turned into an exception that swallowed NEPA. Rather than allow this, the legal system has crafted a compromise for this situation. If an agency claims that an action will not have any significant impact, the agency must document this claim. It cannot simply announce, without any factual support, that a project does not warrant an environmental impact statement. The agency must prepare a record that supports a **finding of no significant impact** (FONSI). The documentary record supporting this finding of no significant impact is called an **environmental assessment** (EA).

Environmental assessments are not specifically mentioned in NEPA. Instead, they are the result of court decisions under NEPA, part of the common law that the statute has produced. For example, in *Harly v. Kleindienst*, 460 F.2d 640 (2d Cir. 1972), *cert. denied*, 409 U.S. 990 (1973), the reviewing court examined a federal agency's claim that no EIS was required because the environmental

LEGAL TERMS

finding of no significant impact (FONSI) A finding that a proposed action will not have a significant impact on the environment, so that the agency need not prepare an environmental impact statement.

environmental assessment (EA) A document prepared by a governmental agency to support a finding of no significant impact. It is often a smaller and less analytical version of an environmental impact statement.

impact of the action at issue was insignificant. The court ruled that the agency had to produce a reviewable administrative record to support its decision not to draft an EIS.

Other courts adopted similar positions, and it became common for agencies to support their claims of no significant impact with documents called environmental assessments. These documents quickly took on a form similar to mini-impact statements, although with certain differences. By 1978, the practice of preparing an environmental assessment to support the claim that a federal action would not cause a significant impact was so widespread that the Council on Environmental Quality adopted regulations by which it made the use of environmental assessments mandatory for all agencies.

Environmental assessments are often mini-EISs, having many of the features of environmental impact statements but on a more limited scale. Arguably, an EA must consider any of the impacts that would have to be taken up in an EIS, showing that the action will not have an impact sufficient to warrant a full-blown statement.

For most paralegals working with environmental law, environmental assessments will be much more common than full environmental impact statements.

The same principles used to assess the adequacy of an environmental impact statement are used to assess the adequacy of an environmental assessment, and cases interpreting the requirements of NEPA for EISs are generally applicable to EAs. There are, however, certain differences in the case law. For example, because EAs involve a much less onerous expenditure of time and resources, the courts are often more willing to overturn an EA than they are to reject an EIS.

Although the case authorities are transferable from one statement to the other, the statements are not interchangeable. Thus, even if an agency prepares comprehensive environmental assessments, it cannot argue that they are an adequate substitute for an environmental impact statement if one is required. Environmental assessments involve a different balancing of factors and they serve fundamentally different purposes.

To be properly prepared, an environmental assessment must be available for public comment. CEQ Regulations have now made this requirement explicit. 40 C.F.R. § 1501.4(b). If a final environmental assessment is issued without opportunity for public comment, the action is impermissible under NEPA and can be enjoined.

Because of judicial decisions on environmental impact statements, the CEQ Regulations, and creative litigants, many EAs are looking more and more like full-blown EISs. The CEQ Regulations have fostered this trend by requiring that EAs include evaluations of alternative courses of action, just as EISs must.

Segmentation and Cumulative Impacts

The material in the past several sections has considered what happens when the impacts of a proposed action are so significant that an agency must

prepare an environmental impact statement. We now turn to a related question: When are the impacts of nominally separate actions so closely related that they must be considered together in a single EIS? Issues of this sort generate two distinct but closely related questions. First, under what circumstances can federal agencies divide an arguably unitary project into segments, thereby avoiding or delaying the need for preparing EISs? Second, when can project opponents require that federal officials consider the environmental impacts arising from the interactions of separate projects? These questions lead to cases that have been classified under the related headings of segmentation and cumulative impacts.

Segmentation

By requiring that government officials prepare environmental impact statements, NEPA imposes very serious burdens on governmental officials. Governmental officials often go to considerable lengths to avoid EISs by manipulating projects in ways that will keep them beyond the scope of the EIS requirements. One such avoidance tactic is to create many small projects, ostensibly without a significant environmental impact, rather than a single project that will have impacts requiring the preparation of an EIS.

In contrast, environmentalists have continually tried to force government officials to prepare environmental impact statements that address separate projects as a unitary whole, forcing the government to confront and deal with issues of synergistic and combined impacts. In these cases, the courts must decide whether the agency has actually proposed a single large project, or has several projects that are so closely related in fact that it is unreasonable to try to separate them.

For example, a massive highway project is frequently broken down into many smaller segments. Sometimes, this **segmentation** is done with an eye to the possibility of manipulating the need for environmental impact statements. Agencies do this for two reasons: to limit the scope of any assessment that they must undertake; and as part of efforts to defederalize particularly sensitive segments of construction projects by using only state money on these segments while using federal monies to subsidize more innocuous parts of the projects. Responding to segmentation, environmentalists have turned to the courts, insisting that even if projects are listed as separate, impact statements should be prepared for entire large projects.

Segmentation questions occur in a wide variety of contexts, from dams to power plants to flood control projects. The most common context, however, is highway construction, and it is here that most of the cases have originated. Whatever the context, the courts take a dim view of efforts to segment projects.

LEGAL TERMS

segmentation The governmental policy of dividing a large project into several smaller projects and viewing each one in isolation. It is generally disfavored out of suspicion that it is done to isolate claims of adverse environmental impact.

The courts cannot invent proposals for unitary, integrated projects where none exist. However, the courts will not sit by while agencies manipulate projects so as to defeat NEPA.

NEPA requires that alternatives be considered fully. If segmentation is allowed to run its full course, NEPA's requirements that alternatives be given adequate consideration cannot be met. In large public works projects such as highways, two related questions must be considered to keep alternatives open. First, should the entire project be undertaken or not? This question cannot be given fair consideration if assessments are undertaken only for small segments of the project. Second, what route should the project take? Again, segmentation precludes genuine consideration of alternatives. If one segment is built, this will sharply limit the range of alternatives for other, later segments, because these later segments will have to link up with the earlier segments.

These issues arise regularly when officials propose networks of highways. The planning of a highway network could be regarded as merely a preliminary matter, having no significant impact. The problem with this approach is that it circumvents the purposes of NEPA by effectively precluding any consideration of the highway network project as a whole. Alternatively, the agency could limit the effective consideration of alternatives by arguing that the placement of initial sections mandates later decisions.

To deal with these problems, courts must often determine what is the real proposal driving the construction of specific segments of the highway. The courts have required that agencies assess the environmental impacts of the larger proposals rather than merely of the isolated segments. This requires that the courts decide how the *proposal* should be defined. It is sometimes the actual proposal put forward by the agency. It is sometimes the proposal as redefined by the courts.

One touchstone that the courts use is the concept of **independent utility**. If an agency proposes a project, the court will allow assessments of the project as proposed only if the project has enough utility independent of any other project that the agency would proceed with that project even if it could not go forward with any other project. If the agency's project has independent utility, the courts will defer to the agency's argument that the project should be considered independently of other projects. However, if a project will make sense only if it is integrated into a larger project, the courts will require that any assessment of the impacts of the specific project also assess the larger project.

The courts have also required both broad-ranging assessments of the overall project when it is first proposed, and separate assessments focusing on the particular segments, if the routing or design of the segment involves considerations that are not fully addressed in the assessment for the larger project.

LEGAL TERMS

independent utility A generally accepted test for determining whether a proposed action can validly be considered on its own or must be viewed as part of a larger project. A proposed action had independent utility if the proposing agency would proceed with the action even if it could not carry out other, related actions.

A number of cases show these principles at work. For example, in *Committee to Stop Route 7 v. Volpe*, 346 F. Supp. 731 (D. Conn. 1972), when the Connecticut Department of Transportation proposed building a single 3.1-mile section of a highway, it proposed an assessment for this isolated project. Reviewing the data, the court found that this segment was viable only as part of a much larger proposed highway, and required the preparation of an environmental impact statement to reflect the larger proposal.

In *Conservation Society of Southern Vermont, Inc. v. Secretary of Transportation*, 362 F. Supp. 627 (D. Conn. 1973), *aff'd*, 508 F.2d 927 (2d Cir. 1974), *vacated*, 423 U.S. 809 (1975), *rev'd*, 531 F.2d 637 (2d Cir. 1976), the courts showed how they could adhere to a single test but disagree over its application. The trial court ruled that this section of highway was part of a larger proposal for a three-state project. Based on this finding, the trial court announced that it would require an EIS for the entire three-state project. In later litigation, the court adhered to the independent utility test, but concluded that there was no proposal for a three-state highway. Instead, the agencies regarded the segment as an independently viable project rather than as merely part of a larger effort.

Movement Against Destruction v. Volpe, 361 F. Supp. 1360 (D. Md. 1973), illustrates the balancing the courts often must do. In that case, the court said that an agency cannot create artificial, isolated segments of larger, unitary projects merely to claim that there are no significant adverse impacts. Nevertheless, NEPA does not allow the courts to force together projects that are actual separate matters. Only in unusual situations are genuinely separate projects so closely interrelated that the courts can require them to be assessed together.

Another issue that these segmentation cases raise is whether a state can avoid the burdens of environmental impact statements by using only state funds for sensitive segments of projects, while taking advantage of federal subsidies for environmentally innocuous segments. The courts do not allow this, because it would defeat the purposes of NEPA.

For example, in one case, state authorities building a major highway around a city tried to separate out the final portion of the project, using only state money for that isolated section. This final section would adversely affect a national historical landmark. The court ruled that this segment was part of the larger project, so that it was a federal project subject to NEPA, even though no federal funding was used for that specific portion of the highway. The court labelled the attempt to view this segment in isolation a blatant attempt to circumvent NEPA. *Thompson v. Fugate*, 347 F. Supp. 120 (D. Va. 1972). *Sierra Club v. Volpe*, 351 F. Supp. 1002 (N.D. Cal. 1972), is another illustrative case.

The effectiveness of this tactic has also been undercut by the state adoption of NEPA-like statutes, so that environmental impact statements must be prepared even for projects that are exclusively state-funded. Twenty states now have state statutes modelled after NEPA.

The issue of segmentation is often inextricably related to questions of timing. At what stage in the planning of a complex, long-term highway project must the environmental impact statement be prepared? The typical highway construction project goes through a series of stages: programming, location, design,

SIERRA CLUB

v.

VOLPE

United States District Court, N.D. California

Dec. 6, 1972

351 F. Supp. 1002 (N.D. Cal. 1972)

Plaintiff, Sierra Club, and other conservation organizations, together with seven individuals, who allege that they reside in the general area of the freeway project hereinafter mentioned, bring this suit to restrain federal and California highway officials from proceeding with construction of the so-called Devil's Slide By-Pass Freeway project on the ground of failure to comply, as to the federal defendants, with the provisions of ... the National Environmental Policy Act, 42 U.S.C. §§ 4321-4347, hereinafter referred to as "NEPA." ...

The Devil's Slide By-Pass project, hereinafter sometimes referred to as "the project", consists of a planned four lane freeway between the southerly limit of Pacifica, San Mateo County, California, on the north, and running thence southerly 6.3 miles to the Half Moon Bay Airport.

* * *

This project was first conceived in 1958, and has been ever since in the planning stage.

* * *

On January 1, 1970, the National Environmental Policy Act of 1969 ("NEPA") became effective, requiring even more exacting procedures concerning environmental impact than had been required by the August 23, 1968, amendment to § 128 of the Highway Act.

* * *

On September 5, 1972, no plans, specifications or estimate approval had either been requested of, or granted by, FHA; by a letter of September 5, 1972, the state formally advised FHA of its advertisement for bids and confirmed that by such actions the state intended to forego its right to federal aid on the entire 6.3 mile Devil's Slide project; by letter of September 6, 1972, the Federal Highway Administrator acknowledged

the state's position and withdrew all prior federal approvals of the project. ...

A threshold question is whether the Devil's Slide By Pass project is "federal action" within the meaning of the federal statutes involved. ...

Both federal and state defendants move for summary judgment upon the ground that there is no "federal" project upon which this Court can act, pointing out that by advertising for bids on September 5, 1973, the state defendants have now put it beyond their power to apply for, and beyond the power of FHA to grant, federal aid funds to the Devil's Slide project.

* * *

Defendants contend that ... the state cannot now receive, nor can FHA grant, federal aid for the Devil's Slide project, citing cases to the general effect that, absent a federal-state contract for federal funding, federal law requirements are inapplicable to state projects.

Plaintiffs contend, however, that, even assuming the state's option to receive federal aid cannot at this point be restored, the Devil's Slide project is, nevertheless, a *federal* project, within the meaning of both the Federal Aid Highway Act and NEPA, regardless of whether federal funds are ultimately used on or obtainable for use on it. Plaintiffs' position is that the project is an integral part of the larger federal-aid primary aid Highway #1 route, for which, as already noted above, federal aid has been used for construction to the north of the project and for which federal aid will be, or can be used on an already planned thirteen mile continuation of the highway from the project to the City of Half Moon Bay. Plaintiffs ... contend to the general effect, that under these circumstances neither the state nor the federal defendants should be permitted to segment the Devil's Slide By Pass as a separate project and to thereby eliminate it from federal participation at this late date for the obvious purpose of avoiding compliance with federal environmental laws.

* * *

In the present case, as appears from the record herein, both state and federal highway officials had regularly complied with the various federal

requirements ever since August, 1960, and up to September 5, 1972, with a view that the state would exercise, and the federal agency would recognize the state's option to receive federal funding for the Devil's Slide project.

Actual authorization of federal funds for a highway project is merely a final formalization of the federal government's commitment on a section of a federal-aid route in the course of various federal agency approvals. ... Waiver of federal aid by the state, acquiesced in by the federal agency, at the last minute for a project, which has otherwise been long treated as a federal aid project, should not be made a ground for disclaiming the federal nature of the project where it appears that the purpose is to avoid compliance with federal statutory environmental requirements.

This is especially true in this case, where, at the time of filing suit and issuance of the temporary restraining order herein, the project was clearly a "federal project" in that the state defendants still retained their option to apply for federal funding.

The state's advertisement for bids on September 5, 1972, was undertaken, not only after commencement of this action, but while plaintiffs' application for a preliminary injunction was pending—an application which, if granted, would have halted such advertising. Further, the decision of the state to thus forego federal aid was made four days after the court had made a temporary restraining order, dated September 1, 1972, restraining defendants "from opening or considering any bids for the construction of subject project, awarding any contracts concerning construction or work orders with respect to such construction or taking any other action toward construction in connection with the project which would alter the present status quo until further order of this court".

Although that restraining order recited that the state defendants could proceed with "advertising" for bids, this provision was obviously intended to merely mean that the court did not wish to unnecessarily interfere with, or cause unnecessary expense or delay on, advertising which would not become effective unless the court should deny plaintiffs' application for a complete halt on the project. Such intent of the court was

made clear to defendants at an informal hearing on issuance of the temporary restraining order.

* * *

[A]lthough various considerations may make it advisable to segment a project for financing or construction purposes, those considerations do not necessarily apply to the environmental impact of the project; ... for the latter purpose an assessment might be required of all or a larger portion of the project; ... the Congress intended NEPA to be broad enough to cover the area over which construction may be "coerced by construction of another segment in a different area"; ... where the environmental features of the project route have not been considered as a whole and where there is such a coercive effect, NEPA requires an environmental impact statement for the entire project.

* * *

Upon the record above described and upon the principles laid down in the cases above noted, we conclude that the record does not show as a matter of law that the Devil's Slide By Pass project is not a "federal project" or for that reason beyond the subject matter jurisdiction of this court.

* * *

Having concluded that the project here is a "federal action," the remaining issue is whether either federal defendants or state defendants have failed to comply with the environmental requirements of the federal and state statutes here involved.

* * *

In the pending case, as already noted, the Devil's Slide By Pass project had not reached the construction stage ... nor had it reached construction by January 1, 1970, the date of NEPA's enactment; ... nor had it reached construction by the effective dates of the various CEQ and FHA regulatory implementations of any of those statutes. Indeed, it has not, to this day, reached a stage of actual construction.

During this four year period the federal and state agencies have sought by means of narrowly drawn administrative regulations and interpretations to avoid compliance with these statutory

requirements; no prior hearing concerning design or environmental impact has ever been afforded ... ; nor has any environmental impact statement been filed notwithstanding the clear mandate of NEPA and CEQA that these requirements be met as far as possible on ongoing projects. ...

For the limited purpose of determining whether plaintiffs have shown a likelihood of success on the merits warranting the issuance of a preliminary injunction, and without final determination on the merits, we hereby tentatively find that:

... Compliance by the federal defendants with the relevant provisions of NEPA ... [was] at all times practicable and should have been undertaken

Accordingly, we find that plaintiffs have demonstrated a likelihood of success on the merits and it is therefore ordered that the defendants be preliminarily enjoined as follows:

(1) The federal defendants shall be enjoined from any further action on the Devil's Slide By Pass project pursuant to federal law, particularly from granting federal financial aid to the project, ... until the provisions of NEPA, requiring the filing of an environmental impact statement, have been complied with covering the Devil's Slide By Pass project and any planned continuation of Highway # 1 south-erly of the project, i. e., from Half Moon Bay airport to at least the city of Half Moon Bay—unless otherwise permitted by order of this court

Case Questions

1. What did the California defendants do that they contended made this not a federal project?
2. What argument did the plaintiffs make for the idea that the project was a federal project?
3. Did the record show that officials had tried to comply with federal requirements for twelve years?
4. What had the court already done before the defendants made their decision to forgo any federal aid?
5. What did the court issue to prevent further failures to obey the law?

preliminary engineering, right-of-way acquisition, specific engineering, and construction. The courts have generally held that the environmental issues must be considered early in the process, no later than the location stage. If they are taken up later, any flexibility for alternative plans would be largely hypothetical.

Cumulative Impacts

Environmental law generates great zeal. NEPA is no exception. Given the potential environmental impact of many governmental actions, environmentalists have pressed NEPA to its furthest limits, to force the government to acknowledge and address adverse environmental effects.

As Chapter 1 stated, one theme of this book is that environmental law is a matter of accommodation. Our society is made up of many interests, and major environmental disputes affect all of them. In the long run, any resolution of a major environmental dispute must be politically workable; to be politically workable, the resolution must accommodate the interests of all competing groups. At the outer limits of the question of segmentation is a dispute that required this sort of resolution based on deference to various competing interests.

The issue centered on the problem of cumulative impacts. A government agency may propose a series of actions. It may prepare an environmental impact statement for each isolated action. But what if the agency does not assess the cumulative impacts of its actions? Who gets to define what is a *proposal* to which NEPA applies? This question led to the Supreme Court's ruling in *Kleppe v. Sierra Club*, 427 U.S. 390 (1976).

Kleppe v. Sierra Club In North Dakota, South Dakota, Nebraska, Wyoming, and Montana—the northern Great Plains—there are huge reserves of high-grade, low-sulfur coal that can be strip mined. The federal government controls huge areas of this land and sets policies for development of these coal reserves.

By 1970, the federal government had begun various studies concerning the use of coal resources throughout the United States. At least one of these studies considered the northern Great Plains as a discrete area. Most studies, however, were directed at either isolated mining sites or national policy.

In 1973, the Secretary of the Interior began a comprehensive review of the national coal leasing program, looking to develop a new planning system for coal leasing. The proposal for a new coal leasing program clearly was a major federal action that would significantly affect the human environment; accordingly, the government prepared an environmental impact statement. While this study was being undertaken, the Secretary instituted a policy of granting new leases only under narrowly defined circumstances and for short periods, and requiring an EIS for each individual lease.

In 1973, various environmental plaintiffs, led by the Sierra Club, filed an action under NEPA, charging that there was in fact a government program for the development of coal resources throughout the northern Great Plains. The plaintiffs contended that the various projects being conducted in this region constituted regional federal action. There was no EIS for this regional action. The plaintiffs sought a declaratory judgment declaring that the EISs covering individual lease sites were not adequate to meet the requirements of NEPA, and an injunction barring the federal government from further action until it prepared a regional EIS.

The U.S. District Court for the District of Columbia rejected the plaintiffs' claims. The trial court ruled that the "region" which the plaintiffs had defined was not an entity, region, or area as defined by the federal government. Further, the court rejected claims that the development of northern Great Plains coal reserves was sufficiently coordinated that it amounted to an action under NEPA.

The U.S. Court of Appeals for the District of Columbia reversed. The court of appeals relied on cases holding that an accumulation of minor actions can cumulatively constitute a major federal action for NEPA purposes, even if none of the individual actions would require an EIS. Therefore, an EIS covering the overall program could be required, particularly where the various major projects were related geographically, programmatically, and environmentally. *Sierra Club v. Morton*, 514 F.2d 856 (D.C. Cir. 1975).

In making this ruling, the court of appeals asserted a bold range of powers. It ruled that the courts could analyze federal actions and make their own

determinations as to what programs were under way or proposed. In the case of the northern Great Plains, the court examined the record and adopted the Sierra Club's position that the federal government did have a program for developing the coal reserves in this region. From this ruling, the court reasoned that a regional EIS was required.

The federal government appealed. (Before the case was heard in the Supreme Court, a new Secretary of the Interior came into office, so that the case is captioned as *Kleppe v. Sierra Club*, although it had been *Sierra Club v. Morton* in the lower courts.)

The Supreme Court reversed the court of appeals' ruling. The Supreme Court ruled that the critical issue was whether there was a report or recommendation on a proposal for a major federal action. Finding no proposal, the Court reasoned that there could be no report or recommendation, so no environmental impact statement was required. This reasoning followed the literal language of NEPA. Section 102(2)(C) of NEPA requires an EIS in "every recommendation or report on proposals for legislation or other major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C). The Supreme Court found that there were proposals for local actions and for national actions. Assessments would have to be filed for these proposals, as in fact the federal government was doing. There was, however, no proposal for a regional action, nor were the individual local actions part of an integrated plan. The Court did not give a precise definition of *proposal*, but it did rule that there was no proposal in this case.

The Court reasoned that if there is no proposal, no environmental impact statement along the lines called for by NEPA can be prepared. An EIS must analyze the adverse environmental impacts of a proposed action—but this cannot be done if the scope of the action is unknown or completely speculative. Additionally, the EIS must analyze alternatives. Again, this is impossible because there can be no alternatives to an unknown.

The Court also rejected the idea that courts could order EISs for actions that federal agencies were "contemplating." NEPA did not give the courts a license to undertake a roving commission of this sort. Even assuming that this sort of inquiry might protect the environment, it would necessarily interject the courts into the day-to-day workings of agencies. The Supreme Court ruled that this would involve a level of judicial interference entirely beyond what the Congress had authorized in NEPA.

The Supreme Court did acknowledge in *Kleppe* that a single EIS might be necessary for separate proposals if the actions are so related that they have cumulative or synergistic effects. However, the Court also made clear that this would require a much greater showing of relation than the plaintiffs had made.

A key in *Kleppe* was the meaning of the word *proposal*. NEPA does not give a definition, and in cases trying to apply *Kleppe*, the lower courts have struggled with the word. In regulations issued after *Kleppe*, the Council on Environmental Quality defined *proposal* as existing when an agency has a goal and is taking active steps to make a decision on one or more alternative means for achieving that goal and the effects can be evaluated in a meaningful manner.

The regulations go on to say specifically that a proposal may exist in fact, as well as by agency declaration. 40 C.F.R. § 1508.23. The courts are firm in holding that something can be a proposal even if the agency gives it some other label. See *Concerned About Trident v. Rumsfeld*, 555 F.2d 817 (D.C. Cir. 1976) (a proposal is a proposal even if the agency gives it some other label); compare *South Carolina ex rel. Patrick v. Block*, 558 F. Supp. 1004 (D.S.C. 1983) (a “determination” is administrative rulemaking if it has the effect of administrative rulemaking). The courts have construed the regulations as maintaining the independent utility test. *Lange v. Brinegar*, 625 F.2d 812 (9th Cir. 1980).

The CEQ also responded to the timing issues raised in *Kleppe* by issuing regulations that call for the EIS to be produced as early as possible. 40 C.F.R. § 1502.5. This appears to soften part of the Supreme Court’s ruling in *Kleppe*, which had suggested that the EIS need only be ready for the final agency proposal but is not required before then. The CEQ Regulations call for the EIS to be produced when the agency is developing its proposal, so that the EIS will be a part of the entire process. The courts have adhered strongly to this position, ruling that when agencies appear to have made decisions, or even substantial parts of decisions, before preparing EISs, the agencies have not complied with NEPA. One measure that the courts use in determining when an EIS must be prepared is to ask when the “no-action” alternative would be lost. The EIS must be prepared before this point in the decision-making process.

Initially, environmentalists feared that *Kleppe* would undercut the validity of cases that had refused to allow governmental officials to evade NEPA by dividing projects into inconsequential segments. Environmentalists feared that cases such as *Movement Against Destruction v. Volpe*, discussed earlier, would no longer be accepted as good law. These fears did not materialize. Officials cannot avoid preparing an EIS merely by trying to break an action into minute component parts.

In retrospect, *Kleppe* was a necessary check on the zeal of environmentalists. It is reasonable to ask the government to consider the interactions of varied governmental actions. The plaintiffs in *Kleppe*, however, would have forced the government to do more than this: they would have shut the government down until it undertook studies the bounds of which are, at best, hard to define. The federal courts would have to decide what limits, if any, should be placed on this power. Congress did not intend to authorize this when it enacted NEPA.

CEQ Regulations and Court Responses to Problems of Cumulative Impacts

NEPA requires that a balance be struck among the various interests affected by environmental issues. In the situation underlying *Kleppe*, government agencies charged with making long-range plans for the northern Great Plains coal reserves needed greater freedom to plan that development than they would have been allowed if the court of appeals ruling had been upheld. The Supreme Court corrected the balance among the competing groups in the dispute.

The rule guarding against segmentation has remained intact for two reasons. First, the courts have upheld the segmentation cases by **distinguishing** them from *Kleppe*—that is, by finding that segmentation cases present a problem different from the problem raised in *Kleppe*. In doing so, the lower courts took advantage of ambiguities in *Kleppe* concerning how comprehensive the Supreme Court intended its ruling to be. The Supreme Court did not reject the idea of a comprehensive EIS for all related projects when the relationship is sufficiently close. How far the Court wanted to go beyond merely requiring that projects be more closely related than they were in *Kleppe* before a multiproject EIS could be required was unclear. To a degree, it remains so.

SIDEBAR

In judicial decisions, when a court *distinguishes* an earlier case from the present case, it concludes that the present case is different from the earlier one. This conclusion can be based on the facts of the case or the law. The effect of distinguishing an old case is to leave the old case intact while not applying it to a new situation.

Nevertheless, the courts have concluded that in *Movement Against Destruction* and other segmentation cases, there is a single, distinct proposal. The courts distinguish this from the situation in *Kleppe*; in *Kleppe*, there was no single proposal. The courts will not create a proposal if none exists. If there is a proposal, the critical question in these cases can be framed as one of timing: When in the course of a project should officials have to prepare an environmental impact statement? The segmentation cases remain sound, and *Kleppe* expresses a reasonable rule: the government should not have to undertake massive environmental impact statements when there is no proposal.

Factually, the degree of connectedness of the projects in *Kleppe* and in the segmentation cases is very different. If a state builds one segment of a highway, the state will almost inevitably build connecting segments. By contrast, if the government issued one coal lease in the five-state northern Great Plains region, this did not compel it to lease other sites in the area.

The second reason that the ruling in *Kleppe* has not barred consideration of cumulative effects is that the Council on Environmental Quality responded with new regulations upholding and strengthening the idea that agency EISs must consider cumulative and connected impacts. 40 C.F.R. §§ 1502.4, 1508.7, 1508.8, 1508.24, and 1508.25.

In 40 C.F.R. § 1508.25, the CEQ specifically requires agencies to consider cumulative impacts of actions in their environmental impact statements. The regulations define *cumulative impacts* as impacts which result from the impact of one action when added to those of past, present, or reasonably contemplated future actions.

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distinguish † 1. To explain why a particular case is not precedent or authority with respect to the matter in controversy. 2. To point out significant differences; to differentiate.

Further, CEQ Regulations define *connected actions* in 40 C.F.R. § 1508.25. *Connected actions* are actions that are interdependent parts of larger actions and can only be justified as part of a larger action.

The adoption of these regulations illustrates the short-sightedness with which some opponents of government approach the legal system. Some opponents of government insist that administrative and legislative entities are entirely corrupt, whereas the courts are champions of virtue. Reflecting this attitude, these people will not seek help in Congress or the administrative agencies, but look only to the courts to protect their positions. *Kleppe* and the subsequent administrative actions show that this position is unsound. In *Kleppe*, the Supreme Court restricted the rights of environmentalists. The CEQ, an administrative agency, has expanded these rights, going beyond what the Supreme Court would allow. The message is clear: an attorney who wants to provide the best representation for her clients must pursue all available avenues of relief.

The Current Resolution The action of the lower courts and the CEQ have left a tangle in light of *Kleppe*. In *Kleppe*, the Supreme Court based its ruling on NEPA. Similarly, the CEQ Regulations are based on NEPA. The Supreme Court has indicated that CEQ Regulations are entitled to considerable deference. However, the lower courts are bound by the Supreme Court. This has left the lower courts in a muddle in which they must try to resolve the apparently contradictory constructions of NEPA.

In various cases since *Kleppe*, the courts have tried to unravel the snarl of cases dealing with cumulative impacts. The resolution which the courts have reached is this:

First, cumulative impacts must be considered in deciding if an action will have a significant environmental impact—that is, in deciding whether to prepare an environmental impact statement as opposed to an environmental assessment.

Second, if an agency prepares an environmental impact statement, it does not automatically have to consider potential cumulative impacts of the proposed impacts—it is free to draft its own proposal.

Third, if cumulative impacts are raised, the agency must respond to them thoroughly and objectively.

Fritiofson v. Alexander, 772 F.2d 1225 (5th Cir. 1985), illustrates this rule. In that case, the court pointed out that cumulative impacts can arise at two points in the process of evaluating a governmental action. First, the agency could consider cumulative impacts when deciding if a project will have a significant impact, that is, in deciding whether to prepare an environmental assessment rather than an environmental impact statement. Second, the agency can consider cumulative impacts in the actual preparation of the environmental impact statement.

The court in *Fritiofson* ruled that cumulative impacts must be considered in deciding between the preparation of an environmental assessment and the

preparation of an environmental impact statement. The agency can prepare an environmental assessment only if the action will have no significant impact on the environment. The court ruled that cumulative impacts are part of the potential impact of an action.

By contrast, the court ruled that the agency is empowered to define its own proposal. As part of this, it is free to draw the actual EIS along the relatively narrow lines set out in *Kleppe*, rather than mandating automatic consideration of the wider range of cumulative impacts that would bear on the decision to prepare an EIS or an EA. The court did note that the agency could consider cumulative impacts in the environmental impact statement. It was not, however, always legally obligated to do so.

In *Thomas v. Peterson*, 753 F.2d 754 (9th Cir. 1985), the Court of Appeals for the Ninth Circuit clearly rejected the notion that environmental assessments could be prepared by viewing various actions in isolation. In some ways, this case is the converse of *Kleppe*. In *Kleppe*, environmentalists wanted to impose an unreasonably expansive view of proposals on the environment. In *Thomas*, the Forest Service tried to ignore environmental impacts that were obvious and refused to prepare an EIS even though the proposed action would clearly have a significant impact on the environment.

In *Thomas*, the Forest Service proposed to build a road through an Idaho wilderness. The Service specifically designated this as a logging road. However, the Forest Service prepared only an environmental assessment, in which it stated that the road would not have any significant impact on the environment. It managed to make this finding because it never mentioned the environmental consequences of logging.

The court of appeals emphatically rejected this position. Relying on the CEQ Regulations, the court found that the logging and the building of the road were "connected actions," which the Forest Service was required to consider together. For this, it drew from the definition of *connected actions* found in 40 C.F.R. § 1508.25. The court ruled that when there are connected actions such as this, a single EIS must consider the environmental impacts of all the actions together.

The court also considered the question of timing. Often, the government would prefer to delay the preparation of environmental impact statements, but in the case of logging roads and logging, the court ruled that delay would foreclose many possibilities. Considering the environmental impact of logging after the roads were built, would undercut the no-action option. The only way that logging roads can be made to pay for themselves is by allowing logging. Therefore, the cumulative impacts had to be considered from the outset.

In some situations, the impacts of several actions will have an impact greater than any one action alone. If there is a cumulative impact, the courts require that these impacts be considered seriously. It is not enough for an official to prepare an environmental impact statement which mentions that there may be such impacts, without showing that the decision makers gave these impacts real thought. This rule is illustrated in *Natural Resources Defense Council, Inc. v. Hodel*, 865 F.2d 228 (D.C. Cir. 1988). In that case, the Secretary of the Interior prepared environmental impact statements for two proposed offshore drilling

projects, one in Pacific and another in Alaskan waters. Both of these drilling projects could endanger migratory marine animals. In response to contentions that the EISs did not consider the interregional cumulative impacts, the Secretary inserted a few paragraphs of boilerplate language into the EIS. These paragraphs were little more than an acknowledgment that there might be a problem. They did not analyze the nature of the problem, the potential impacts, or any alternatives that might be used to obviate the problem.

The court rejected these efforts as patently inadequate, ruling that these paragraphs failed to show that the Secretary had considered these impacts seriously. The court remanded the EISs for further study, demanded that the Secretary undertake a real analysis of the problem, and suggested various ways in which the Secretary might present the analysis. All of this showed that the courts will insist on serious consideration of these issues.

Programmatic EISs and Site-Specific Impacts

Many major programs require what amounts to two-level consideration of environmental impacts. These programs are administered through decisions that run across the entire program, but impacts are often very site-specific. In administering these programs, the federal agency must examine the environmental impact of the overall program and separately consider the site-specific environmental impacts at the specific sites. This requires drafting separate environmental analyses for the two levels: an EIS for the overall program, often called a **programmatic EIS**, and site-specific analyses for the individual sites.

The Supreme Court has specifically approved the practice of using programmatic EISs, coupled with individual evaluations of site-specific impacts. *Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc.*, 462 U.S. 87 (1983). The process is not without its difficulties, however. In cases of this sort, the agency often faces two questions in litigation: (1) Will the application of the program to the specific site cause significant impacts, so that instead of an EA the agency should prepare a site-specific EIS? (2) Did the programmatic EIS address the proper issues and subject matters?

The question of site-specific impacts is generally fairly clear-cut. When it addresses the impacts of the program as it applies to specific sites, the agency will generally prefer to conduct an EA and issue a FONSI (a finding of no significant impact) rather than go through the process of preparing a full environmental impact statement. This decision will be scrutinized just as any other decision to produce only an EA would be examined.

The issue of the proper scope of a programmatic EIS is the more significant and problematic question. Although the courts have not been entirely clear and consistent in their positions on this issue, certain general rules have emerged. First of all, the agency is entitled to define the parameters of its own proposal, and

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programmatic EIS An environmental impact statement that analyzes an entire program to be carried out by a federal agency.

the courts must focus on the parameters as the agency defines them. The courts are not free to reinvent proposals to their own taste. *Kleppe v. Sierra Club*, 427 U.S. 390 (1976). Further, the court should defer detailed discussion of environmental impacts until there is a concrete specific proposal, if that can be done.

However, there is a limit on how the agency defines the proposal. The agency cannot make a decision at the programmatic level which it assesses only at the site-specific level. If the programmatic decision effectively forecloses options for specific sites, the agency cannot put off the consideration of these impacts until it conducts the site-specific assessments.

Often, there is a simple measure for what must be considered. The programmatic EIS must weigh the no-action alternative, and if the agency decides to put off consideration for the no-action alternative, its decision must leave this option open for later consideration.

This rule is illustrated in *California v. Block*, 690 F.2d 753 (9th Cir. 1982). In that case, the Forest Service proposed to change the designation of several million acres of land from protected wilderness to timber development. The Forest Service prepared a programmatic EIS. However, it did not consider the site-specific impacts of this decision in its EIS, contending that these could be considered adequately when specific decisions were made for individual parcels of land. The Forest Service proposal meant that it would not consider the impact of changing the designation until after it had foreclosed the option of keeping the land as protected wilderness.

The court rejected this plan, because it would put off consideration of the effects of the nonwilderness designation until it was too late. Under the Forest Service's own regulations, once land was designated nonwilderness, no wilderness features would be considered in any later decision to use that land. Thus, the critical decision was whether the land would be considered wilderness. A later, site-specific environmental assessment or environmental impact statement would not be able to revive these lost values. Because of this, the court ruled that the Forest Service had to undertake site-specific analyses at the outset. Along the same lines, see *Natural Resources Defense Council, Inc. v. Morton*, 388 F. Supp. 829 (D.D.C. 1974), *aff'd*, 527 F.2d 1386 (D.C. Cir. 1976).

Similarly, in *Sierra Club v. Peterson*, 717 F.2d 1409 (D.C. Cir. 1983), the Forest Service proposed a program for general oil and gas leasing. Site-specific EAs were to be prepared if drilling plans were proposed for a particular site. The court rejected this proposal because the site-specific analyses would come too late. The court found that there would be a great deal of environmentally detrimental activity before drilling, and it decried the Forest Service decision not to retain the power to preclude this destruction.

Environmental Concerns and Problems of Delay

The success of NEPA is that it has brought a great many environmental concerns to the attention of federal decision makers. There are, however, costs

involved with NEPA. One of these costs is delay in many programs. Arguably, this has been good in many instances: it has forced decision makers to think about what they are doing. However, there are undoubtedly instances in which the statute has caused delays to no one's benefit. It has, in some instances, done little more than slow programs down.

Assessing the Adequacy of Environmental Impact Statements: The Requirement of Strict Compliance

The review of environmental impact statements is not an ad hoc matter to be invented with each statement. It has been formalized and set in regulations, so there are a good many bright-line tests that can be used to determine whether a statement is adequate. Further, the regulations and the court decisions concerning the review of EISs have made clear that strict compliance is the controlling rule.

Environmental impact statements are the product of government bureaucracies. Government bureaucracies do not act on a spur-of-the-moment basis. They are bureaucracies—they use standardized procedures and they follow their own rules. They also create extensive written records. Further, every bureaucracy in the federal government competes with other bureaucracies for appropriations. A bureaucracy prevails because it is adept at making out a bureaucratic record justifying its own projects.

Because an environmental impact statement is a product of this bureaucracy, it will reflect standardized procedures and it will be a copious written record. Reflecting this bureaucratic regularity, the review of EISs has become a regularized, standardized process.

One reflection of bureaucratization of NEPA processes is a shift in the attitude of the courts toward substitute processes. In the first years after the passage of NEPA, a number of cases held that agencies could use procedures that were “arguably equivalent” to preparing EISs. These were held to be adequate substitutes for actual EISs. However, as NEPA processes became more firmly established and reviewing guidelines more clear, the courts reversed this attitude. They now generally hold that there are no substitutes for the EIS process. Strict compliance has become the rule.

This means that there are certain points at which the legal professional can challenge environmental analyses, with relatively clear criteria against which to judge an EIS. The present analysis of the requirements of an EIS centers on the key points which the law has focused. Before turning to the specific points which the law has accepted, it is important to look at the seminal case that set the framework for this body of law.

Calvert Cliffs

Calvert Cliffs' Coordinating Committee, Inc. v. Atomic Energy Commission, 449 F.2d 1109 (D.C. Cir. 1971), was the first major case construing NEPA. The court acknowledged that its opinion would be the starting point for analysis, and it fact it remains a key guide to NEPA.

CALVERT CLIFFS' COORDINATING COMMITTEE, INC.

v.

UNITED STATES ATOMIC ENERGY COMMISSION

United States Court of Appeals,
District of Columbia Circuit

Argued April 16, 1971

Decided July 23, 1971

449 F. Supp. 1109 (D.C. Cir. 1971)

To ensure that the balancing analysis is carried out and given full effect, Section 102(2)(C) requires that responsible officials of all agencies prepare a "detailed statement" covering the impact of particular actions on the environment, the environmental costs which might be avoided, and alternative measures which might alter the cost-benefit equation.

Of course, all of these Section 102 duties are qualified by the phrase "to the fullest extent possible." We must stress as forcefully as possible that this language does not provide an escape hatch for footdragging agencies; it does not make NEPA's procedural requirements somehow "discretionary."

Thus the Section 102 duties are not inherently flexible. They must be complied with to the fullest extent, unless there is a clear conflict of *statutory* authority. Considerations of administrative difficulty, delay or economic cost will not suffice to strip the section of its fundamental importance.

... The reviewing courts probably cannot reverse a substantive decision on its merits, under Section 101, unless it be shown that the actual balance of costs and benefits that was struck was arbitrary or clearly gave insufficient weight to environmental values. But if the decision was reached procedurally

without individualized consideration and balancing of environmental factors—conducted fully and in good faith—it is the responsibility of the courts to reverse.

We believe that the Commission's crabbed interpretation of NEPA makes a mockery of the Act. What possible purpose could there be in the Section 102(2)(C) requirement (that the "detailed statement" accompany proposals through agency review processes) if "accompany" means no more than physical proximity—mandating no more than the physical act of passing certain folders and papers, unopened, to reviewing officials along with other folders and papers? What possible purpose could there be in requiring the "detailed statement" to be before hearing boards, if the boards are free to ignore entirely the contents of the statement? NEPA was meant to do more than regulate the flow of papers in the federal bureaucracy. The word "accompany" in Section 102(2)(C) must not read so narrowly as to make the Act ludicrous. ... NEPA establishes environmental protection as an integral part of the Atomic Energy Commission's basic mandate. The primary responsibility for fulfilling that mandate lies with the Commission. Its responsibility is not simply to sit back, like an umpire, and resolve adversary contentions at the hearing stage. Rather, it must itself take the initiative of considering environmental values at every distinctive and comprehensive stage of the process beyond the staff's evaluation and recommendation.

Inclusion of environmental issues in pre-March 4, 1971 hearings might have held up the licensing of some power plants for a time. But the very purpose of NEPA was to tell federal agencies that environmental protection is as much a part of their

responsibility as is protection and promotion of the industries they regulate. Whether or not the spectre of a national power crisis is as real as the Commission apparently believes, it must not be used to create a blackout of environmental consideration in the agency review process. NEPA compels a case-by-case examination and balancing of discrete factors. ...

The sweep of NEPA is extraordinarily broad, compelling consideration of any and all types of environmental impact of federal action. However, the Atomic Energy Commission's rules specifically exclude from full consideration a wide variety of environmental issues.

* * *

NEPA mandates a case-by-case balancing judgment on the part of federal agencies. In each individual case, the particular economic and technical benefits of planned action must be assessed and then weighed against the environmental costs; alternatives must be considered which would affect the balance of values. The magnitude of possible benefits and possible costs may lie anywhere on a broad spectrum. ... In some cases, the benefits will be great enough to justify a certain quantum

of environmental costs; in other cases, they will not be so great and the proposed action may have to be abandoned or significantly altered so as to bring the benefits and costs into a proper balance. The point of the individualized balancing analysis is to ensure that, with possible alterations, the optimally beneficial action is finally taken.

* * *

The procedural duties, the duties to give full *consideration* to environmental protection, are subject to a much more strict standard of compliance. By now, the applicable principle should be absolutely clear. NEPA requires that an agency must—to the *fullest* extent possible under its other statutory obligations—consider alternatives to its actions which would reduce environmental damage. That principle establishes that consideration of environmental matters must be more than a *pro forma* ritual. Clearly, it is pointless to “consider” environmental costs without also seriously considering action to avoid them. Such a full exercise of substantive discretion is required at every important, appropriate and nonduplicative stage of an agency's proceedings.

Case Questions

1. What qualifying phrase did the Atomic Energy Commission point to as justifying its procedures?
2. What considerations are not adequate to justify an agency's failure to comply with the terms of NEPA?
3. If NEPA procedures are not followed, what is the court required to do?
4. What must an administrative agency do to meet its NEPA requirements?

The court in *Calvert Cliffs* began within the purposes and requirements of NEPA. NEPA, it said, reflects a commitment to control environmental destruction by requiring all agencies to consider environmental values in their actions. Each agency must see that these values are fully considered.

The Atomic Energy Commission (AEC) argued that these requirements did not reach the AEC, so that it was free to adopt its own rules, disregarding environmental factors. To the AEC, NEPA was a general policy statement which the commission had complete discretion to disregard.

The court rejected the AEC's position. The court found that in NEPA § 101, 42 U.S.C. § 4331, Congress ordered all agencies to use all practicable means to protect

environmental values. This required every agency to include environmental factors in the weighing of costs and benefits of its actions. Section 101(b) specifically requires agencies “to use all practicable means,” consistent with other considerations, to avoid environmental damage. This imposes stringent procedural provisions, and in enforcing these, the courts can demand strict compliance. Given § 101, no agency can set itself above NEPA. Only irreconcilable conflicts with an agency’s statutory mandate allow an agency to overlook environmental factors.

Section 102(2)(A) and (B), 42 U.S.C. § 4322(2)(A) and (B), set specific requirements for considering environmental values. In decisions affecting the human environment, an agency must use a systematic, interdisciplinary approach. It must identify environmental values and develop ways to ensure that these values get appropriate consideration. This is not painless. Environmental values often clash with other considerations. To ensure that environmental values receive their due, NEPA requires a finely tuned, systematic balancing analysis each time an agency makes a decision affecting the environment.

To ensure that this balancing analysis occurs, § 102(2)(C) requires that the agency prepare an EIS covering the environmental impact of the action, environmental costs that might be avoided, and alternative measures that might alter the cost-benefit equation. Additionally, under § 102(2)(E), the agency must study, develop, and describe alternatives, including the no-action alternative. Taken together, the EIS and its discussion of alternatives are intended to ensure that a decision maker considers all sound alternatives that might alter an environmental impact.

Abused, the NEPA process could become a hollow claim that the decision maker has done her duty. A detailed environmental statement has value only if the decision maker gives environmental issues real consideration. Although this does not dictate a particular outcome, the statutory procedures require the agency to produce a record that the processes have taken place. This record must allow a reviewing court to see that proper steps were followed.

Section 102 says that the duties apply “to the fullest extent possible.” Under *Calvert Cliffs*, this is a very high standard. The legislative history shows an intent that all agencies carry out the EIS process unless another statute expressly excuses or prohibits compliance with NEPA.

The *Calvert Cliffs* court held that § 102 requires every agency to use the EIS procedures to carry out a careful, informed process. If these procedures are not followed—if an agency decides without considering and balancing environmental factors fully and in good faith—the courts have the power and duty to enjoin the decision.

The *Calvert Cliffs* court found that the AEC had not met this test. It had not given environmental factors full, good faith consideration. Therefore, its action was void.

Specifically, the AEC licenses nuclear reactors. In this process, the Commission agreed to prepare environmental statements. These statements were to “accompany” a reactor licensing application through the licensing review process. However, AEC rules said the hearing board was not required to consider

any environmental factors not raised by outside parties. The court in *Calvert Cliffs* refused to accept this as adequate consideration, calling it a crabbed interpretation that made a mockery of the NEPA. It would mean that EISs would never be considered, their mere physical presence passing for review. The hearing board would be free to ignore environmental concerns and to remain ignorant of these concerns as long as it had the EIS close at hand. This was not review "to the fullest extent possible," and the court dismissed this construction of NEPA as absurd. The court ruled that the decision makers, the hearing board, must consider the EIS seriously before making their decision.

Calvert Cliffs was the first case to hold that an agency cannot legally act unless it has complied with NEPA. Most courts do not require that specific decision makers read entire EISs, but they can and do insist that agencies not adopt any rule that would allow decision makers to put up barriers to the actual consideration of EISs.

Calvert Cliffs also held that agencies cannot wait for outsiders to raise environmental issues. Such a policy would gut the NEPA's goal of making agencies consider the environmental consequences of their actions. It would make NEPA depend on outsiders' diligence. Also, because the public has no access to decision-making processes, any consideration would be delayed until after decisions were really made. But NEPA makes agencies consider environmental impacts and alternatives from the outset and weigh these throughout the decision-making process.

The Requirement of Full Disclosure

NEPA, at section 102(2)(C), 42 U.S.C. § 4332(2)(C), requires that every proposal be accompanied by a detailed statement discussing the environmental impacts of the proposed action, any unavoidable environmental effects, available alternatives, factors bearing on the costs and benefits of the action, and the irreversible commitment of resources that the action would entail. A statement meeting these statutory criteria must represent a full disclosure of the environmental consequences of an action. Although NEPA does not specify what must be disclosed, or how full the full disclosure must be, court decisions and CEQ Regulations give a fairly thorough guide to what a proper EIS must include.

NEPA has repeatedly been called a "full disclosure" statute. *See, e.g., Daly v. Volpe*, 326 F. Supp. 868 (W.D. Wash. 1971); *City of New York v. United States*, 337 F. Supp. 150 and 344 F. Supp. 929 (E.D.N.Y. 1972); *Environmental Defense Fund v. Froehilke*, 473 F.2d 346 (8th Cir. 1972). At § 102(2)(C), 42 U.S.C. § 4332(2)(C), NEPA sets out the basic requirements of an environmental evaluation. The responsible official must submit a detailed statement of the environmental impacts of the proposed action, including a discussion of any unavoidable adverse environmental effects, available alternatives to the proposed action, factors bearing on the relationship between the short-term use of the environment and enhancement of long-term productivity, and any irreversible commitments of natural resources involved in the proposed action.

An environmental impact statement has several purposes. One of the most important of these is to force agencies to consider the environmental impacts of their own actions. The CEQ Regulations state that the primary purpose of an environmental impact statement is to force agencies to ensure that the goals and policies that Congress enshrined in NEPA are infused into their actions. CEQ Regulations, 40 C.F.R. § 1502.1. To this end, the preparation of an EIS must reflect several features:

- It must provide full, fair discussion of significant environmental impacts.
- It must inform decision makers and the public of the reasonable alternatives which would avoid or minimize the adverse effects of an action or would enhance the quality of the human environment.
- It must be concise, readable, and to the point.
- It must be supported by evidence showing that the agency has made the environmental analysis necessary to prepare a sound statement.

CEQ Regulations, 40 C.F.R. § 1501.2.

The most important part of the environmental analysis is the discussion of the environmental impacts of a proposed action. This discussion must include enough scientific and analytical data to allow for reasonable comparison of alternatives. To do this, the statement must include a discussion of the direct effects of a proposed action, the indirect effects, potential conflicts with other land use plans, and the environmental effects of the alternatives. The consideration of environmental impacts must discuss a wide range of factors, including urban quality, historic and cultural resources, and the reuse and conservation potential of alternatives and mitigation measures. *See* 40 C.F.R. § 1502.16(a)–16(h).

To be effective, an EIS must present an analysis that is useful to the decision maker and to the interested members of the public. To ensure that this goal is met, the statement must be an analysis rather than an encyclopedic discourse. It must show the reader what is important and why. To do this, environmental analyses need only discuss the significant impacts; EISs need not dwell on minutiae. The rule of reason dictates the level of discussion required: an agency must discuss the items that a reasonable person would consider important, in a degree of detail that a reasonable person would find was appropriate to the issue.

To ensure that an EIS or EA meets the legal requirements, a legal professional should review the statement and ask:

- Does the statement provide full and fair discussion of significant environmental impacts?
- Does it discuss the reasonable alternatives to the proposed action?
- Is it concise, readable, and to the point?
- Is it supported by evidence showing that the agency has made a serious environmental analysis?

- Does it show the reader what is important and explain why these items are important?
- Does it discuss the significant environmental impacts fully?
- Does the discussion include enough scientific and analytical data to allow for reasonable comparison of alternatives?
- Does it discuss the direct and indirect effects of the proposed action, potential conflicts with other land-use plans, and the environmental effects of the alternatives?
- Does the statement discuss urban quality, historic and cultural resources, and the reuse and conservation potential of alternatives and mitigation measures appropriately?

Authorship and Delegation of Authorship of EISs

NEPA speaks of a detailed statement prepared “by the responsible official.” The courts do not require literal adherence to this provision. That would be burdensome and unproductive. This eventually led to an amendment of NEPA (now NEPA § 102(2)(D), 42 U.S.C. § 4332(2)(D)) that allows state agencies or officials with statewide jurisdiction to prepare EISs. This amendment has been most widely used in regard to highway construction, for which the federal government provides critical money but where state officials are often better able to prepare the EIS for the project. NEPA now allows state officials to prepare the environmental impact statements, as long as responsible federal officials provide guidance, give an independent evaluation of the EIS before adopting it, and retain final responsibility for its contents.

The legal system has accepted the need to delegate preparation of EISs, as long as there are certain controls to protect the integrity of the evaluation process. Federal officials and agencies are free to accept input from any source if the responsible federal officials show that they have made the statement their own by giving it a detailed, searching review. CEQ Regulations now call for federal agencies to cooperate with their state and local counterparts to the fullest extent possible. 40 C.F.R. § 1506.2.

An agency may also adopt another agency’s EIS, as long as it was prepared for a proposal that is substantially the same as the agency’s own proposal. If the EIS has already been submitted for comments, the adopting agency can treat it as a final EIS. If the original action and the proposed action are substantially different, the adopting agency must treat the EIS as a draft and resubmit it for comments. 40 C.F.R. § 1506.3.

EISs are frequently prepared by contractors, private entities specifically retained to prepare environmental evaluations. The contractor must execute a disclosure statement showing that it has no financial or other interest in the outcome of the project. Further, as with state agency preparation of an

environmental evaluation, the responsible federal agency must furnish guidance, independently evaluate the statement, and accept full responsibility for the final product. 40 C.F.R. § 1506.6(c).

Although some delegations are allowed, an agency cannot simply adopt as its own an EIS prepared by an applicant for a license or permit. This situation would raise too many threats that the applicant would create an EIS filled with self-serving assumptions. *Greene County Planning Board v. Federal Power Commission*, 455 F.2d 412 (2d Cir. 1972).

In addition to using outside contractors, agencies frequently cite studies prepared outside the EIS process. If outside data was prepared specifically for environmental purposes, and includes the rigorous environmental analysis that NEPA calls for, the courts will allow use of this data. If the outside material was prepared for other purposes, and raises environmental issues only incidentally, the agency will not be allowed to rely on it.

Consider two cases. In *Public Citizen v. National Highway Traffic Safety Administration*, 848 F.2d 256 (D.C. Cir. 1988), the agency relied on EPA comments in response to a draft EIS. The EPA's comments were prepared in response to another question, dealing with the Clean Air Act rather than NEPA. The court allowed the National Highway Transportation Safety Administration to adopt these comments, even though it meant using data prepared in a different context.

By contrast, in *Calvert Cliffs*, the Atomic Energy Commission (AEC) tried to exclude all mention of environmental concerns from nuclear power plant licensing proceedings, saying only that the licensee had said it had the capacity to observe environmental regulations and had promised that it would do so. The court refused to allow this. Under NEPA, the AEC must determine the degree of environmental impact of a nuclear reactor. The AEC was offering as a substitute for this determination an unstudied claim that the licensee's promise showed that there would be no significant environmental impact. This was not adequate. As the court ruled, NEPA requires an individualized determination of the potential environmental consequences of a proposal. If the agency does not make this determination, it cannot proceed. The assertion that a licensee will comply with the laws does not assess significant environmental impacts.

To bring this comparison closer to a familiar setting, consider a course that is graded pass-fail. Is a "pass" a perfect score?

The EPA determination in *Public Citizen* was not directed to the precise conclusion that the agency drew from it, but it was close enough for the court to accept it as a valid substitute for a specific determination. By contrast, the AEC rule in *Calvert Cliffs* was so far from the conclusion that the agency drew from it that it could not stand. This suggests a general rule: minor deviations are tolerated; major attempts to avoid responsibility are not.

These requirements mean that the legal professional checking the authorship of an EIS can ask:

- Did the responsible official write the EIS?
- If authorship was delegated to the state level, was the EIS written by agencies or officials with statewide jurisdiction?

- Did the responsible federal official furnish guidance, independently evaluate the statement before adopting it, and retain final responsibility for its contents?
- Did federal officials cooperate with their state and local counterparts?
- If an agency has adopted another agency's EIS, was the EIS prepared for a proposal that is substantially the same as the agency's own proposal?
- If an agency adopts an EIS for an action substantially different from the action now being proposed, has the adopting agency treated the EIS as a draft and resubmitted it for comments?
- If the EIS was prepared by a private contractor, did the contractor execute a disclosure statement showing that it has no financial or other interest in the outcome of the project?
- If the agency relies on studies done outside the EIS preparation process, do these studies show the sort of rigorous environmental analysis that NEPA calls for?
- Is the agency relying on studies that were not focused primarily on environmental concerns?
- Do all materials on which the agency relies reflect an individualized determination of the environmental consequences of a proposal?

Scoping

The CEQ Regulations require that the agency begin its analysis of the environmental consequences of its action as soon as it determines that an environmental analysis must be prepared, whether it is an EIS or an EA. At this point, the agency must undertake a process called **scoping**. It must identify the issues that require complete analysis and distinguish these from less important matters that do not require detailed consideration. The scoping process is not to be a closed process. The agency proposing the action must invite the participation of the public and other affected agencies—federal, state, and local. 40 C.F.R. §§ 1501.7, 1508.25.

Scoping involves several steps. The agency must consider three types of actions, three types of alternatives, and three types of impacts. The three types of actions are connected actions, cumulative actions, and similar actions. The three types of alternatives are the no-action alternative, other reasonable alternatives, and mitigation measures. Finally, direct impacts, indirect impacts, and cumulative impacts must be considered. The indirect impacts are to include

LEGAL TERMS

scoping A process of considering the potential impacts of a proposed federal action, in order to establish the bounds of an EIS. The federal agency must consider connected actions, cumulative actions, and similar actions; the no-action alternative, other reasonable alternatives, and mitigation measures; direct impacts, indirect impacts, and cumulative impacts, including ecological, aesthetic, historic, cultural, economic, social, or health effects on the natural, physical, and human environment.

any reasonably foreseeable impact, including growth-inducing effects. The effects to be considered include ecological, aesthetic, historic, cultural, economic, social, or health effects, whether these are direct, indirect, or cumulative. If economic or social effects are the only effects of a proposed action, these alone will not require the preparation of an EIS, but if they occur as part of interrelated effects on the natural or physical environment, then the statement must discuss all of the effects on the human environment. 40 C.F.R. § 1508.14.

The scope of a project is closely related to its context, and the scope will vary depending on what type of area will be affected. For example, the impacts of a project implemented in an isolated rural setting will be very different from the impacts of a project carried out in an urban setting, and the discussion of the scope of the project will vary accordingly.

Similarly, the regulations call for the agency to consider a range of factors in judging the intensity of the impacts, including both the adverse and the beneficial impacts of the proposed action, the effects on public health and safety, the unique characteristics of affected areas, controversial effects, unquantifiable or unknown risks, the precedential effect of the project, cumulative impacts, risks to historical or cultural resources, and impacts on threatened or endangered species,

This means that in determining if the agency has gone through the proper process of scoping, the legal professional should ask:

- Did the agency go through the scoping process?
- Did the agency identify the important issues and distinguish them from less important matters?
- Did the agency invite the participation of the public and other affected agencies?
- Did the agency consider connected actions, cumulative actions, and similar actions?
- Did the agency consider the no-action alternative, other reasonable alternatives, and mitigation measures?
- Did the agency consider direct impacts, indirect impacts, and cumulative impacts?
- Did the agency consider all reasonably foreseeable impacts, including growth-inducing effects?
- Did the agency consider ecological, aesthetic, historic, cultural, or health effects, whether direct, indirect, or cumulative?
- Did the agency consider economic or social effects when these are interrelated with the natural or physical effects on the environment?
- Did the agency consider the context of the proposed action?
- Did the agency consider the intensity of the potential impacts of the action?

Worst-Case Scenarios

One of the more controversial details of EISs is the need to cover the *worst-case* scenario in detail. Worst-case analysis is attractive to opponents of projects because it allows them to raise possibilities that are often horrendous. Project proponents decry it as raising issues that are completely unreasonable, and based not on scientifically valid possibilities but on unsound conjecture. The Supreme Court has now ruled that an agency proposing an action need not provide a detailed analysis of the worst-case scenario if that scenario is based on speculative possibilities and conjecture. The EIS does have to describe the consequences of remote but potentially severe impacts if they are supported by scientific opinion. If the worst-case scenario is not considered a reasonable prospect, however, it need not be discussed.

Characteristics of an EIS

Environmental impact statements will vary from one to another, but regulations and judicial decisions have fixed certain features as mandatory. One of the most important of these features is the summary. Each EIS must contain a section, not more than 15 pages long, summarizing the major conclusions and the areas of controversy. This summary is to draw on the more detailed material presented in the main body of the document, and it must accurately summarize the EIS. 40 C.F.R. § 1502.12.

The main body of the EIS must discuss certain items: any unavoidable adverse environmental impacts of the proposed action, the relationship between the short-term and long-term effects of the proposal, any irreversible or irretrievable commitments of resources that the proposal will require, and any mitigation measures that the project involves. 40 C.F.R. § 1502.16.

If the agency has used cost-benefit analyses, these must be incorporated by reference or appended to the EIS. Further, in the cost-benefit analysis, the agency must explain how it took into account often unquantifiable environmental impacts, values, and amenities. 40 C.F.R. § 1502.23. If the cost-benefit analysis is skewed, because it fails to take these values into account, the agency's reliance on it will be regarded as misplaced.

EISs often cover very technical matters and are based on complex scientific considerations. Nevertheless, if an environmental impact statement is to have any serious impact on decision-making processes, it must be readable. The public cannot be expected to follow extraordinarily technical material. If an EIS is incomprehensible, it has no value, either to the agency officials who must consider it or to the public. Therefore, a proper EIS must be readable by both the decision maker for whom it was intended and the public that will be affected by the various impacts the EIS describes. To achieve this result, agencies are to make every effort to make their statements clear and easy to understand, including using graphics and plain language to make them comprehensible. 40 C.F.R. § 1502.8.

CEQ Regulations, 40 C.F.R. § 1502.8, require that the EIS be written in plain language, using clear prose. In a small but significant number of cases, critics have

successfully attacked EISs as unreadable. Often they have shown that even someone with a graduate-level education could not understand the EIS. This led one court to remark that an EIS was useless to the public that would bear the risks of the federal proposal, because no one could understand it. *Oregon Environmental Council v. Kunzman*, 614 F. Supp. 657 (D. Or. 1985).

The issue of readability raises difficulties. Often matters covered by EISs are so complicated that it is hard to discuss them in simple terms. Nevertheless, the affected public has a right to fair, reasonable, and accurate information about proposals. EISs must be reasonably accessible. The CEQ Regulations give a number of means by which this burden can be borne, including having agencies hire outside writers and editors to translate technical material into readable form. An agency may find that it must include highly technical documents as appendixes to the EIS. It can do so, but the EIS itself must reduce these to a readable form, understandable to an interested, nonprofessional layperson. CEQ Regulations require agencies to write EISs in plain language, using appropriate graphics to aid understanding. 40 C.F.R. § 1502.8.

Many environmental decisions require consideration of a wide range of scientific disciplines. Reflecting this, NEPA itself calls for agencies to use a systematic, interdisciplinary approach to ensure that the decision-making process includes all relevant information. Accordingly, an EIS must show that the agency has looked to all appropriate scientific sources for help throughout the planning process. The goal is to ensure that the agency undertakes a thorough, systematic evaluation of the reasonable alternatives and their potential consequences to the environment, the economy, and society. 40 C.F.R. §§ 1501.2, 1502.6, 1506.5, 1507.2.

The result of all this must be a statement showing the reviewing court that the agency has taken an objective, good-faith hard look at the environmental consequences of its proposed action and its alternatives; that the agency has produced an EIS that provides sufficient detail to allow the public to understand the considerations that went into the decision; and that the explanation of alternatives set out in the EIS is sufficient to permit a reasoned choice among different possible courses of action.

All of this requires detail, and the courts have made clear that they will not accept mere conclusory statements. Although the EIS need not be perfect, NEPA requires a statement sufficient to demonstrate that the federal agency did indeed carry out its duty to consider the environmental impacts of its proposals. The case law has made clear that conclusory statements dismissing environmental concerns are not enough. Conclusions must be supported by specific, detailed analysis. The regulations and the judicial decisions show that there must be a genuine, searching investigation of the ecological consequences of an action, the unavoidable environmental consequences, and the impact on resources and population. To meet these requirements, the agency must prepare a formal, detailed statement showing that it considered the environmental impacts and the reasonable alternatives in order to show that the agency has made a reasonable decision, taking the environmental consequences into proper account. See *Calvert Cliffs' Coordinating Committee, Inc. v. Atomic Energy Commission*, 449 F.2d 1109 (D.C. Cir. 1971), cert. denied, 404 U.S. 942 (1972).

In judging the adequacy of an EIS, the legal professional should ask:

- Does it contain a summary of the major conclusions and the areas of controversy?
- Is the summary of conclusions and areas of controversy accurate?
- Does the EIS discuss any unavoidable adverse environmental impacts of the proposed actions?
- Does the EIS discuss the relationship between the short-term and long-term effects of the proposal?
- Does the EIS discuss commitments of resources that the proposal will require?
- Does the EIS discuss any mitigation measures that the project involves?
- Are the agency's cost-benefit analyses appended to or incorporated by reference in the EIS?
- Do any cost-benefit analyses consider unquantifiable environmental values?
- Is the EIS clear and easy to understand, for both agency decision makers and the public?
- Does the EIS systematically incorporate input from all appropriate disciplines?
- Are conclusions in the EIS supported by specific, detailed analysis?
- Does the EIS show that the agency has objectively and in good faith made a genuine, searching investigation of the ecological consequences of its proposed action, the unavoidable environmental consequences, and the impact on resources and population?
- Does the EIS provide enough detail to allow the public to understand the considerations that went into the decision?
- Does the EIS explain alternatives sufficiently to permit a reasoned choice among different possible courses of action?

Balanced Evaluation of the Impact of a Proposed Action

Under NEPA, an agency preparing an EIS must take certain factors into account and balance various competing values. In making this evaluation, the agency can adopt documents prepared by other agencies and can prepare documents jointly with state officials. Indeed, CEQ Regulations encourage and in some cases require cooperative efforts. 40 C.F.R. § 1506.2(b) and (c).

A leading case in this field is *Calvert Cliffs*. (Lengthy excerpts from that case are included earlier in this chapter.) In a passage that has been frequently quoted, the court discussed the need for an evaluation of the impacts of environmental actions in each case. The agency must undertake a case-by-case balancing, weighing the economic and technical benefits that a given action will

produce against the environmental costs. Alternatives must also be considered. If the costs of the action outweigh the benefits, then changes must be made to the proposal. To ensure that this balancing can guide the agency to an optimal decision, the balancing must occur early enough to allow the agency to make necessary alterations to the project. See *Calvert Cliffs*, 449 F.2d at 1123.

A balanced evaluation requires that the agency consider not only views favorable to the proposed action, but also unfavorable views. But suppose that someone presents claims of supposed adverse effects of a project. What if the agency considers these views to be entirely baseless? Is the agency required to include these views in its evaluation? The rule that has emerged from the cases is no. The courts have held that the agency need consider only "responsible opposing views." Further, the agency is entitled to edit these views in a reasonable manner, so long as the agency's presentation of opposing views identifies the problems raised in a reasonable manner. *Committee for Nuclear Responsibility v. Schlesinger*, 463 F.2d 783 (D.C. Cir. 1971).

This notion that the agency must include reasonable opposing views is arguably necessary, but it does have a significant weakness. It tends to favor formal, scientific evidence, while giving agencies license to exclude nonscientific views that are frequently important in environmental cases. For example, aesthetic and recreational concerns often cannot be reduced to scientific data, but they are critically important human values.

In determining whether the agency has made a balanced evaluation of the impact of its proposed action, the legal assistant should ask:

- Has the agency cooperated with appropriate state and federal officials in making a balanced evaluation of the impacts of the project?
- Has the agency weighed the economic and technical benefits of the specific action against the environmental costs?
- Has the agency weighed the impacts and the alternatives to an action early enough to alter the action to achieve an optimal balance of costs and benefits?
- Has the agency considered both favorable and opposing views in making its evaluation?

The Comment Process

One of the foremost purposes of NEPA was to make governmental agencies open their processes to allow comments from the public. The process that has evolved under NEPA involves two phases of consultation. First, the agency proposing an action must consult with other governmental agencies. Second, the agency must allow the public to comment on the proposal before it makes its decision.

NEPA requires an agency making a proposal to consult with and obtain comments from any federal agency that has legal jurisdiction or special expertise on the subject matter of the proposal. NEPA § 102(2)(C); 42 U.S.C. § 4332(2)(C). This requirement has been refined through CEQ Regulations. The agency making a

proposal must circulate its draft statement for comments so that these comments can be incorporated into the final statement. NEPA specifically requires consultation among federal agencies, and the CEQ Regulations have expanded this to require consultation with state and local agencies, affected Native American tribes, and any agency that has asked to receive impact statements on the type of proposal in question. 40 C.F.R. § 1501(1)(a) and (b).

When a consulted agency expresses reservations about a proposal, it must set these out in writing, specifying the mitigation measures that it feels should be included in the proposed action. 40 C.F.R. § 1503.3(d).

The Environmental Protection Agency has a special role in this consultation process because its purpose is to develop and implement federal environmental policy. The EPA must comment in writing on the environmental impact of any matter relating to its area of expertise. If the EPA concludes that a proposed agency action is environmentally unsatisfactory, or that an EIS is so inadequate that the EPA cannot make appropriate determinations, the EPA is to publish its determinations and notify the Council on Environmental Quality as soon as practicable. 40 C.F.R. § 1504.11(b). Certain federal agencies, most notably the EPA, are required to comment on EISs. *See* NEPA, § 102(2)(C), 42 U.S.C. § 4332(2)(C).

Notably, even if the EPA reports that an agency's proposed action is environmentally unsatisfactory, this does not preclude the agency from proceeding. It does mean, however, that in the final EIS, the agency must explain clearly and in detail its reasons for proceeding in spite of adverse EPA comments. *Alaska v. Andrus*, 580 F.2d 465 (D.C. Cir. 1978).

Although NEPA specifically requires agencies to solicit and respond to comments from other governmental agencies, generally the failure to follow these procedures is not regarded as fatal, in and of itself, to agency actions.

NEPA did not require that draft environmental impact statements be offered to the public for comment. This requirement was added by executive order and is now reflected in the CEQ Regulations. 40 C.F.R. §§ 1506.6, 1503.1(a)(4). These regulations require more than just allowing interested members of the public to comment on proposed actions. An agency proposing an action must *actively solicit* public comment. This includes publishing the proposal in the *Federal Register* and mailing it to national organizations that could reasonably be expected to be interested. The agency must also make the impact statement available to any interested party without charge or at a nominal fee not greater than the cost of copying the documents. 40 C.F.R. § 1506.6.

The agency effort to involve the public in the comment process must be diligent. This means that the agency must do more than merely make the EIS available and passively wait for comments. The agency must take affirmative action to seek the comments of interested or affected persons. It must encourage full, open public comment. 40 C.F.R. §§ 1500.2(d), 1503.1, 1506.6. Anyone who makes a comment on a draft EIS is entitled to a copy of the final version of the statement.

The courts have demanded that agencies take the duty to solicit public comments very seriously. This contrasts with their view of solicitation of agency comments. Partly, this reflects the courts' attitude that when an agency fails to obtain comments from the public, or to reflect these comments in the final EIS,

a violation of NEPA is probably afoot. This attitude is clearly reflected in *Lathan v. Volpe*, 350 F. Supp. 262, at 265 (W.D. Wash. 1974). In a wide range of cases, when the courts have found a failure to solicit comments or a failure to reflect these comments in the final statement, they have relied heavily on such failure as a basis for remanding the statement to the agency for further action.

NEPA does not require that agencies hold public hearings. However, if the agency holds hearings as a matter of course, it must allow consideration of environmental comments in these hearings. The CEQ Regulations are emphatic that agencies should use existing procedures to encourage comments from the public. 40 C.F.R. § 1506.6(c).

Finally, interagency comments must be made available to the public for further comment. Often, these are a fruitful area for public opponents of projects, and the public is entitled to know their contents.

The comment process is intended to move relatively quickly. CEQ Regulations require that the comment period be at least 45 days, 40 C.F.R. § 1506.10(c), although this can be extended. Critics have charged that often this period is not as long as it appears, because of delays in obtaining full copies of draft statements.

Once comments are received, the agency must consider them. To show that it has considered these comments, the agency must physically attach all comments to the draft statement as part of the formal record. It must do this even if the agency concludes that it need not respond to a comment because it raises no meritorious issue. 40 C.F.R. § 1503.4(C).

After it has obtained comments both from other agencies and from the public, the agency must consider the comments and prepare an appropriate response. The agency may decide which comments warrant responses. Many comments will not. Many comments merely say the agency should not act, without any further discussion. If a comment asserts a claim, which, if true, would cause a reasonable person to alter the proposal, then the agency must either alter the proposal or explain why it has not done so. Comments are treated as evidence. If the agency has contrary evidence in the record, and shows that it has considered all of the comments, then the agency can reject the claims raised in the comments. The agency must, however, consider all comments seriously.

For example, in *California v. Block*, 690 F.2d 753 (9th Cir. 1982), the Forest Service received a wide range of comments addressed to conditions at specific sites. Many raised detailed reasons why the Forest Service proposal to list areas as nonwilderness was unsound. The final EIS did not identify or discuss any of these reasons. Instead, the Forest Service merely dismissed the comments, with no effort to respond to their contents. The court ruled that this was completely inadequate.

When environmental issues are raised, it is not enough for an agency to claim that it will follow legal guidelines in dealing with the problem. The agency must address the environmental concerns in its EIS. See *Calvert Cliffs' Coordinating Committee, Inc. v. Atomic Energy Commission*, 449 F.2d 1109 (D.C. Cir. 1971); *Citizens Against Toxic Sprays, Inc. v. Bergland*, 428 F. Supp. 908 (D. Or. 1977).

Assuming that it deems a comment to raise a reasonable, substantive issue, an agency can respond in either of two ways: by modifying the proposal to

reflect the comment, or by explaining why the agency will not modify the proposal. 40 C.F.R. § 1503.4(a).

The comment procedure is often extremely important. The courts demand that all federal agencies take the comment process seriously, and do not allow proposals that take this process lightly to stand. This means that a legal professional will be able to ask:

- Has the agency solicited comments on its draft statement from federal agencies having legal jurisdiction or special expertise?
- Has the agency solicited comments on its draft statement from appropriate state officials?
- If a federal agency expresses reservations, has it set these out in writing?
- If the proposal falls within the EPA's area of expertise, did the agency seek the EPA's comments?
- If the EPA has concluded that a proposed agency action is environmentally unsatisfactory, or that an EIS is inadequate, has the EPA published its determinations and notified the CEQ?
- If the EPA reported that a proposal was unsatisfactory, has the agency prepared an adequate environmental impact statement before proceeding?
- Has the agency diligently solicited public comment?
- Has the agency made the draft EIS available to interested parties?
- If the agency holds public hearings, has it allowed for comment on environmental issues?
- Has the agency made interagency comments available for public scrutiny?
- Did the agency hold the comment period open for at least 45 days?
- Has the agency responded to reasonable comments?

Consideration of Alternatives

NEPA requires that an agency include consideration of alternatives in its evaluation of environmental impacts. NEPA § 102(2)(c), 42 U.S.C. § 4323(2)(c). The statutory command and supporting CEQ Regulations require the agency to study, develop, and describe appropriate alternatives. NEPA § 102(2)(D), 42 U.S.C. § 4332(2)(D); CEQ Regulations, 40 C.F.R. § 1502.14.

The CEQ Regulations require that the agency explore and evaluate all reasonable alternatives. Perhaps the most critical alternative that must be discussed is the alternative of doing nothing. This "no-action" alternative is often the best for protecting the environment, and CEQ Regulations specifically require that the agency discuss the no-action alternative, as well as other reasonable courses of action and mitigation measures. Further, the consideration of

alternatives must come early enough in the decision-making process that the no-action alternative is viable. 40 C.F.R. §§ 1502.14(b) and 1508.25(b).

The discussion of alternatives does not have to include all conceivable alternatives, only those that are reasonable. An EIS need not discuss alternatives that are impossible in any meaningful sense, or which are highly remote, speculative, or impracticable. See *Trout Unlimited v. Morton*, 509 F.2d 1276 (9th Cir. 1974); *Natural Resources Defense Council, Inc. v. Morton*, 458 F.2d 827 (D.C. Cir. 1972).

One of the more frequent claims in the consideration of alternatives is that the agency does not have jurisdiction to carry out a proposed alternative. The CEQ Regulations have now resolved this issue. The regulations require that the agency consider any reasonable alternative, even if it would require action which is beyond the agency's jurisdiction. CEQ Regulations, 40 C.F.R. § 1502.14(c). In the leading case on this issue, *Natural Resources Defense Council, Inc. v. Morton*, 458 F.2d 827 (D.C. Cir. 1972), the court ruled that NEPA requires a full discussion of the environmental impact of all reasonable alternatives. This could not be limited by claims that the specific agency proposing an action is not authorized to carry out the details of an alternative.

**NATURAL RESOURCES
DEFENSE COUNCIL, INC.**

v.

MORTON

**United States District Court,
District of Columbia**

Dec. 30, 1974

388 F. Supp. 829 (D.D.C. 1974)

[Note: In the first portion of this case, the court dealt with *exhaustion*, which is discussed in Chapter 4.]

Exhaustion of Administrative Remedies

Federal defendants urge that plaintiffs' suit is not timely since under the doctrine of exhaustion of administrative remedies the BLM should have an opportunity to prepare an EIS which it believes satisfies NEPA's requirements before plaintiffs may seek court action.

* * *

[T]he rationale of the doctrine of exhaustion of remedies is to allow the agency time to complete its assigned duties before judicial intervention is countenanced. ...

"However, ... the court may promptly proceed to the merits of the action when it is confident or

becomes confident that agency recourse is futile, as where the agency's position is firm."

This court might be less willing to consider the plaintiffs' claims if the BLM had demonstrated more diligence in pursuing its own role. The Bureau did not determine to prepare a programmatic EIS on the grazing program until June, 1972, two and one-half years after the effective date of the Act. A preliminary draft was not then issued until March 1973, with a second draft in October 1973. In March 1974 the final draft was prepared and the federal defendants represented to the court that the final EIS was expected to be issued in the summer of 1974. Although the court would naturally prefer to await the filing of the final statement, it is clear that the BLM has delayed beyond reason. ... [T]he entire process of preparing the programmatic EIS, from initiation of research to issuance of the final statement, appears to have taken only six months. ...

One other factor has persuaded the court to reach the merits of this claim. Over the past four years the BLM has shown relatively slow progress in implementing a thorough management planning system which would assist in protecting the environment. ... In a substantial and practical sense there is a serious threat of injury to the public

lands which lends urgency to plaintiffs' claims. While the court should always be reluctant to rule on issues before full and final agency determination, to wait until the filing of the final programmatic EIS would be a useless act and would thwart Congressional intent, reducing NEPA to a mere "paper tiger." Having considered the above, it appears to the court that there are no appropriate agency procedures which plaintiffs should be required to exhaust and that the situation dictates a decision by this court on the merits of the claim.

* * *

In section 102 Congress authorizes and directs preparation of detailed impact statements "to the fullest extent possible." This language has been consistently construed to require compliance with NEPA unless such compliance would give rise to a violation of other statutory authority under which the agency is proceeding. ... [T]he Taylor Grazing Act ... is not purely environmental since it is aimed at promoting the highest use of the public lands; NEPA seeks to protect the environment. These two purposes, as pointed out above, are not the same, but are not in such conflict that a rigorous application of NEPA would give rise to violations of the Taylor Act.

* * *

In the BLM grazing license program the primary decision-maker is generally the individual district manager, with his staff, who approves license applications. While the programmatic EIS drafted by the BLM provides general policy guidelines as to relevant environmental factors, it in no way insures that the decision-maker considers all of the specific and particular consequences of his actions, or the alternatives available to him. The proposed EIS does not provide the detailed analysis of local geographic conditions necessary for the decision-maker to determine what course of action is appropriate under the circumstances.

Additionally, the programmatic EIS does not allow those who are not part of the decision-making process to adequately evaluate and balance the factors on their own. While NEPA does not require public hearings, it does provide a formalized procedure for such citizen input. In the present case the public will have the opportunity to comment

only on the programmatic impact statement. Undoubtedly national organizations, such as plaintiff NRDC, will provide comments and engage in the review process. However, when it comes to the actual implementation of the licensing permit program at the local level, there will be no opportunity for particularized input by state and local citizens. Even though the actual permits may be made public, that provides only information from the government to the citizens and does not allow information to flow from the citizens to the government. As the court stated in *Calvert Cliffs' Coordinating Committee v. AEC*, "[c]oncerned members of the public are thereby precluded from raising a wide range of environmental issues in order to affect particular ... decisions. And the special purpose of NEPA is subverted."

* * *

While the BLM has certain licensing requirements, they relate mainly to the timing and duration of the allowable grazing period and the number of animals involved. ... A program statement may be very helpful in assessing recurring policy issues and insuring consideration of the cumulative impact that numerous decisions might have on the environment, but that does not mean that it will suffice to fulfill the NEPA mandate. The court is convinced that the BLM programmatic statement alone, unrelated to individual geographic conditions, does not permit the "finely tuned and 'systematic' balancing analysis" mandated by NEPA.

While the BLM may decide in the future to prepare specific impact statements on new activities, for the present grazing will continue on millions of acres without adequate individualized assessment of the impact of such grazing on local environments, and extensive environmental damage is possible.

* * *

While Congress has determined that public lands should be put to the best use possible, it has also demonstrated a strong interest in protecting the environment. In the present case over 100 million acres of public land are being leased for grazing although apparently no thorough analysis has been made of the specific impact of

such activity. The court is, therefore, of the opinion that major federal actions having significant effects on the environment are being taken without full NEPA compliance, even though that Act has been in effect almost five years.

For the above reasons the court will grant relief to the plaintiffs by entering a judgment declaring that the programmatic environmental impact statement prepared by the BLM, standing alone, is not sufficient to comply with the NEPA requirements. ... The crucial point is that the specific environmental effects of the permits issued, and to

be issued, in each district be assessed. It will be initially within the BLM's discretion to determine whether to make this specific assessment in a separate impact statement for each district, or several impact statements for several districts or portions thereof, or indeed by other means. So long as the actual environmental effects of particular permits or groups of permits in specific areas are assessed, questions of format are to be left to defendants. The court will maintain jurisdiction in order to facilitate future review of the methods chosen by the BLM, and a time period for agency formulation of procedures will be set by subsequent order on recommendation of the parties.

Case Questions

1. What reason did the defendants urge should preclude the plaintiffs from getting any sort of a hearing?
2. What reason is given for the doctrine of exhaustion of remedies?
3. Did the court find that compliance with the Taylor Grazing Act and compliance with NEPA were incompatible?
4. Can a programmatic EIS take into account factors necessary for the sound granting of an individual lease?
5. What was the overall effect of existing management of BLM land?

Further, the agency cannot exclude alternatives merely because they offer only partial solutions. To say that an alternative warrants discussion only if it is a complete solution would artificially limit the agency's responsibility.

In discussing alternatives, the agency is not permitted simply to list extreme courses of action, and dismiss other, more moderate courses without discussion. This tactic of listing the extreme courses amounts to setting up straw men, and the courts do not accept it. Thus, in *California v. Block*, 690 F.2d 753 (9th Cir. 1982), the agency set up three extreme courses. These were the only alternatives it discussed, and by isolating these, the agency effectively foreclosed entire ranges of alternatives. The court found that this was arbitrary; it showed that the agency never gave serious consideration to whole ranges of sound alternatives.

The court also decried the agency's use of claims of expertise as a means of avoiding sensitive issues. As the court noted, the EIS is to be a vehicle for airing views on a proposal, not a vehicle in which the agency hides behind claims of expertise while denying affected parties any real chance for input. Thus, when the agency cut off discussion of wide ranges of alternatives, it had to present more than a "we know better" attitude to justify its action.

A naked list of possible alternatives is not enough. An EIS must reflect an agency's own investigation and evaluation in enough detail that the reasons for

a given choice of action are clear. The discussion need not be exhaustive, but it should be complete enough to show how the agency reached a reasoned decision. It should make clear what the consequences of the proposed action will be. Unless the alternative is clearly not feasible, if the agency wishes to dismiss an alternative without discussion, the agency must show why the alternative does not warrant discussion.

Exactly which alternatives the agency must discuss depends on the details of the specific proposal. The agency will be required to discuss any alternatives that a reasonable person would assume would be discussed. *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519 (1978).

There are no precise guidelines. The rule of reason is particularly ripe for litigation. Words such as *rigorous*, *reasonable*, *objective*, and *practical* all invite conflicting interpretations. Although the lack of precision in these terms makes exact rules impossible, it has helped to make ongoing dialogue between the agency and the public a norm. Keeping these ideas in mind, a legal professional evaluating an environmental proposal can ask:

- Has the agency considered reasonable alternatives in evaluating the environmental impacts of its proposed action?
- Did the agency study, develop, and describe appropriate alternatives, rigorously exploring and objectively evaluating them?
- Did the agency consider the no-action alternative?
- Did the agency consider alternatives early enough that the no-action option is still open?
- Has the agency considered the reasonable and practical alternatives?
- Has the agency considered reasonable alternatives that require actions beyond its own jurisdiction?
- Has the agency discussed those alternatives that a reasonable person would assume would be discussed?

The Comment Process: The Filing and Dissemination of Environmental Impact Statements

The preparation of an environmental impact statement is intended to be a dialogue between federal agencies and the interested public. To achieve this end, the CEQ Regulations substantially modified the process originally envisioned under NEPA, so that the process now includes two stages. First, a draft statement must be filed and made available to the public. CEQ Regulations, 40 C.F.R. § 1502.9. The draft statement must be made available at least 90 days before any final action is taken. CEQ Regulations, 40 C.F.R. § 1506.10(b)(1).

To allow interested parties to obtain draft statements, the federal government must publish announcements in the *Federal Register* of the availability of draft statements. The government also publishes a special monthly series

announcing new draft statements, the *102 Monitor*. Often, however, there is a considerable delay between the filing of a draft statement and either inclusion in the *102 Monitor* or publication of an announcement in the *Federal Register*. To maintain more direct contact, interested parties should contact agencies and get themselves put on the agency mailing list.

For interested parties, learning about a draft statement quickly is often critical to participating effectively in the comment process. Environmental analyses are often complex, lengthy documents. It takes a massive effort and generally no small amount of professional expertise to prepare an effective substantive comment to a major EIS. One of the keys to effective preparation of such a comment is time. A party that waits for the *102 Monitor* may learn that a draft statement was available nearly 30 days after it was first filed. This may cut critically into the time needed to evaluate the draft and prepare effective comments. Because of this, being on an agency's mailing list—and, whenever possible, maintaining active contact with an agency—is much better than reliance on these more removed channels.

Once the draft statement is made available, interested parties will comment on it. The agency must consider these comments and append them to the final statement, which must be filed at least 30 days before any administrative action on the proposal is taken. CEQ Regulations, 40 C.F.R. §§ 1505.9(b), 1506.10(b)(2).

Given the importance of the comment process, a legal professional can ask:

- Did the agency make the draft environmental analysis available at least 90 days before taking any administrative action on the proposal?
- Were substantive comments published with the final statement?
- Was the final statement filed at least 30 days before any administrative action was taken?
- Was the statement properly announced through the *Federal Register*, the *102 Monitor*, and agency mailing lists?

Cost-Benefit Analysis

In determining what action it should undertake, an agency will frequently use cost-benefit analysis. This is allowed as long as it is undertaken in a fair and objective manner. For example, if an agency claims that there will be major benefits from a project and supports these claims with detailed analyses of the possible benefits, it cannot claim that the costs are unknown, or dismiss possible costs with sweeping statements that show it will consider only the benefits. Further, if the benefits themselves will bring costs, the agency cannot trumpet the benefits while saying that the costs are outside the agency's jurisdiction.

Cost-benefit analysis is often a very fertile field for litigation, because it frequently involves a wide range of assumptions. Often modest changes in these assumptions will have a significant effect on the final outcome.

In some cases, an agency will insist that the action it has proposed will have only beneficial effects. The agency must still undertake an EIS, under the same standards as if the effects were entirely detrimental. Partly the reason is that what an agency may see as beneficial opponents may see as disastrous. Further, there is a need to test the agency's assumptions.

In examining agency cost-benefit analyses, a legal professional should ask:

- Is the cost-benefit analysis fair and objective?
- Has the agency presented comparable analyses of both the costs and the benefits?
- Has the agency analyzed costs which are both within and outside its jurisdiction?
- Are the agency's assumptions sound?

Conclusion

The processes used for the preparation of environmental analyses are hardly perfect. They do, however, represent a major shift in federal policy from what existed before NEPA was adopted. The very fact that the government must prepare formal documents analyzing the environmental impact of its actions has forced the government to become much more aware of and sensitive to environmental concerns. The process does not always mean that environmental factors are given precedence over other factors. However, if we envision government as a gathering of the relevant parties to discuss what should be done, NEPA has been a remarkable success. Through the requirements imposed by the CEQ Regulations and through its statutory provisions, NEPA has forced the federal government to give a serious hearing to those who seek to elevate environmental concerns. Environmentalists do not always win through the NEPA process—that was not what the law intended. As a practical matter, that is not something that the political system could have allowed. What NEPA was intended to do, and largely what it has done, is to make the process much more open to environmentalists than it was in the past.

Summary

The most important of NEPA's procedures is a requirement that any time a federal agency decides to take an action that will have a significant impact on the environment, the agency must file an environmental impact statement before it takes that action. The Council on Environmental Quality oversees the administration of this statute. This has led to a range of disputes over when an EIS is required and whether any given EIS is adequate. These disputes may involve a legal professional in a range of issues dealing with law and with the administration of law.

NEPA is a federal law. It applies only to federal projects, but not to purely private or state projects. NEPA applies whenever the federal government carries out a project, and also when the federal government funds a state project, so long as the federal government has control over how the project will be carried out. If the federal government has discretion over the project, the project is federal for NEPA purposes. Further, the application of NEPA must be based on the impact of the present project, not some other project. NEPA also applies to private projects that are predicated on federal cooperation. However, if the federal government has a right, but not a duty, to intervene in a project, NEPA generally does not require this intervention, so there is no duty to file an EIS.

If a state initially proposes to carry out a project with federal money, and then discovers that the project will have a significant environmental impact, it cannot defederalize the project by using state money to carry out the sensitive portions of the project while diverting the federal money to innocuous projects. However, Congress can specifically exempt projects from NEPA jurisdiction.

Generally, if both NEPA and another federal statute apply to a project, the federal agency is required to comply with both statutes. NEPA does not repeal other statutes by implication. It cannot claim that compliance with an agency specific statute either exempts it from compliance with NEPA or precludes compliance with NEPA. Agency claims that they must allow discretion cannot stand, because the agencies have discretion, subject to the bounds of the law. In some cases, however, statutes cannot be reconciled, as when a specific law requires that decisions be made so quickly that preparation of an EIS is out of the question. In these instances, the agency is excused from following NEPA. Notably, NEPA does not preclude enforcement of laws such as criminal laws used to arrest persons involved in illegal dumping operations. NEPA does not require that the government go through the ritual of filing an EIS before arresting a midnight dumper.

An environmental impact statement must be filed if a proposed action is a major federal action significantly affecting the quality of the human environment. If the potential impact of the action is significant, an EIS is required. If an agency claims that there will be no impact, environmentalists must present evidence that there will be an impact, but then the burden is on the agency to prove that it will not be significant. The agency must analyze the context of the action, short- and long-term, gauging the intensity of the impact and the cumulative impact of related actions.

An agency may create categorical exclusions, declaring that the environmental impact of whole classes of decisions is so small that EISs are not required. The decision to establish a categorical exclusion is itself subject to judicial review. An agency can consider measures to mitigate environmental impacts only if these measures are legally mandatory rather than discretionary. The agency must consider both direct and secondary impacts. It must address questions of uncertainty, although it is not required to speculate on impacts. Under CEQ Regulations, the agency must consider ecological impacts and also social, economic, and other impacts on present and future generations. The EIS must be prepared early enough that the findings made in the EIS can be incorporated into the final staff recommendation.

For the many actions that do not have a significant impact, the government must make a finding of no significant impact (FONSI), which must be supported by an environmental assessment (EA). The EA document is not specifically mentioned in NEPA, but its use is sanctioned by the courts and it is specifically authorized by the CEQ Regulations. Authorities setting out EIS requirements are generally applicable to EAs, but the two documents are not interchangeable.

An EIS is required for any governmental action that will have a significant impact on the environment. Government officials cannot divide projects into many small

segments to avoid a finding that the action will have a significant impact. To control segmentation, the courts look to the independent utility of projects. If a project has no utility independent of the other projects, the separate projects are in fact one. If a segment has no independent utility, the courts will require an EIS both for the overall project and for the segment if it is to be built separately. However, if two projects are genuinely separate, the courts cannot require that they be considered as one. One of the fears in segmentation cases is that a state will use federal funds for environmentally innocuous portions of a large project, and state funds whenever environmentally sensitive portions are encountered. This tactic has been undercut by the adoption of state statutes that mirror NEPA, precluding state manipulation.

Segmentation is linked to questions of timing, and the courts have held that an EIS must be prepared at least before the government has committed itself to a specific location. It must be prepared early enough to keep the no-action option open. If it is prepared later, it does no more than measure the environmental damage done.

A related issue is that of cumulative impacts, the interconnected impacts of different projects. NEPA requires the preparation of an EIS whenever the government proposes to act. The government, and not its opponents, gets to define the government's proposals. If there is no proposal, NEPA does not apply. If there are several proposals, and they will have a cumulative impact, CEQ Regulations require the government to weigh cumulative impacts in the EIS process. The regulations define cumulative impacts as those resulting from the impact of one action when added to those of past, present, or reasonably contemplated future actions.

The government takes many actions by adopting broad programs which it then applies to numerous specific projects. NEPA allows the preparation of a programmatic EIS, to be followed by site-specific assessments. However, the programmatic EIS must either consider the site-specific impacts of the overall program, or leave the no-action alternative open until the site-specific determinations are made.

Often NEPA causes considerable delays. This is the cost of considering the environmental impacts of governmental programs.

The preparation of environmental impact statements and environmental assessments has been formalized in extensive regulations, and the courts require strict compliance with these rules in the preparation of environmental analyses. For the most part, the courts do not allow substitute processes. NEPA is not merely a general policy statement that governmental agencies may adopt or dismiss at their convenience. NEPA requires all agencies to use all practicable means to protect environmental values. Only if the agency can show an irreconcilable conflict will the courts consider any claim that an agency's statutory mandate allows it to overlook environmental factors. This must be more than a tokenistic announcement that the decision maker has weighed the appropriate factors. If an agency makes a decision without an individualized full consideration and balancing of the environmental factors, done in good faith, the courts have the power and the duty to declare the decision void. The actual decision makers must consider the concerns raised by an EIS or EA before making a final decision. Further, agencies cannot wait for outsiders to raise environmental concerns.

NEPA requires a detailed statement discussing the environmental impacts of any proposed action, its environmental effects, alternatives, cost and benefit factors, benefits of the action, and irreversible commitments of resources to the action. Under CEQ Regulations, an EIS must reflect a full and fair discussion of environmental impacts; must inform decision makers and the public of reasonable alternatives that would avoid or minimize the adverse effects; must be concise, readable, and to the point; and must be supported by evidence showing that it is the product of sound analysis. The discussion

of the environmental impacts must include enough scientific and analytical data to give a reasonable comparison of alternatives.

Preparation of EISs and EAs can be delegated as long as responsible federal officials show clearly that they have made the statement their own by undertaking a detailed, searching review. They must take full responsibility for the final statement.

The preparation of an EIS begins with the process of scoping, which is to involve the public as well as responsible officials at all levels of government. The agency proposing the action must consider connected actions, cumulative actions, and similar actions; the no-action alternative, other reasonable alternatives, and mitigation measures; and direct impacts, indirect impacts, and cumulative impacts. The agency needs to consider all reasonable alternatives, but is not required to consider worst-case scenarios that are completely unrealistic. Each EIS must contain a section, not more than 15 pages long, summarizing the major conclusions and the areas of controversy. The EIS must discuss unavoidable adverse environmental impacts (short-term and long-term), any irreversible or irretrievable commitments of resources, and any mitigation measures that the project involves. Any cost-benefit analyses used must include analysis of unquantifiable environmental impacts, values, and amenities. An EIS must be readable, in plain language using clear prose, even if it deals with highly complex issues. An EIS must reflect a systematic, interdisciplinary approach. There must be a searching investigation of the full range of environmental impacts that an action will cause. The agency must, case by case, balance the economic and technical benefits of an action against the environmental costs, and change the proposal if the costs of the action outweigh the benefits. This balancing must be made early enough to allow the agency to alter the project.

In making this evaluation, an agency must consider responsible opposing views. This favors conventional scientific views over less formal scientific and aesthetic concerns.

NEPA requires that the EIS process include comments by interested parties, including the public. The agency proposing an action must consult with and obtain comments from any federal agency having legal jurisdiction, state and local agencies, affected Native American tribes, and any agency that has asked to be involved in the process. The EPA is required to participate in the comment process for EISs. CEQ Regulations require that all draft EISs be made available to the public for comment and that agencies actively solicit public comments. If a comment asserts a claim, which, if true, would cause a reasonable person to alter the proposal, then the agency must either alter the proposal or explain why it has not done so. The courts demand that agencies take the comment process very seriously, because this is the way the public is allowed to give its input in the EIS process.

NEPA requires that an agency include consideration of alternatives in its evaluation of environmental impacts. The most critical of these is often the no-action alternative. The agency must discuss the reasonable alternatives, but does not have to discuss alternatives that are impossible, speculative, highly remote, or impracticable. Notably, an agency cannot refuse to discuss an alternative merely because the alternative involves matters outside the agency's jurisdiction or because they offer only partial solutions. The agency cannot set up and dismiss extreme arguments and call this a substitute for reasonable discussion, nor can it dismiss comments with blanket claims of expertise. It must show that it has given comments genuine consideration.

Cost-benefit analyses in EISs and EAs must be fair and objective.

Although the EIS process is not perfect, it represents a tremendous opening-up of government, allowing interested parties much greater input into decision-making processes.

Review Questions

1. What tangible physical item must a federal agency produce under NEPA § 102(2)(C) to ensure that environmental values are considered in the decision-making process?
2. What must federal officials include in an environmental impact statement to meet the requirements of § 102(2)(E)?
3. If a project has an environmental impact sufficiently small that the project does not warrant a full-blown environmental impact statement, what must the government prepare?
4. What must the federal agency providing the money have before a project is considered federal for NEPA purposes?
5. If a project can proceed only if a permit is granted by a federal agency, have the courts generally held that this makes the project a federal project for NEPA purposes?
6. If there is a clear and unavoidable conflict between NEPA and another statute, which must give way, NEPA or the other statute?
7. Assume that a governmental agency has some evidence that supports its conclusions, but much that does not. Under the arbitrary and capricious standard, can the court void the administrative agency's decision because the agency has gone against the weight of the evidence?
8. What test did the Court of Appeals for the District of Columbia develop for testing an agency's conclusion of insignificance?
9. A government agency wishes to take an action that will have an environmental impact, but the agency argues that mitigating measures will eliminate any real adverse effects. What must be true of these mitigating measures before a reviewing court will accept them as eliminating the need for an EIS?
10. What provision in the CEQ Regulations has forced agencies to produce progressively more elaborate EAs?
11. If an agency needs to make a decision with incomplete information, what must the agency indicate about the information on which it acts?
12. What concept have the courts used as their touchstone in deciding whether a small project is a real project of its own or is a part of a larger project?
13. On the question of the timing of preparation of an EIS, what position have the CEQ Regulations taken?
14. If a system-wide decision will preclude consideration of site-specific impacts, when must these site-specific impacts be considered?
15. In addition to discovery, what could environmentalists file to force an agency to produce documents relevant to an environmental impact statement?



CHAPTER 4

JUDICIAL REVIEW OF NEPA DECISIONS

CHAPTER OUTLINE	Introduction
	Discovery
	Defenses the Government May Assert
	Scope of Review
	Injunctive Relief

Introduction

Much of what NEPA has prompted is an ongoing dialogue between governmental agencies and the affected public. Eventually, however, the government makes a decision. The agency may announce a finding of no significant impact. The agency may make a decision after reviewing a final EIS. The agency may refuse to supplement materials despite claims that an original EIS is out-of-date. In any of these instances, the dissatisfied party must turn from the administrative process to litigation.

NEPA litigation does not produce awards of damages. A plaintiff claiming that an agency has violated NEPA has no right to money from the agency. Instead, the remedy under NEPA is an **injunction**, an order from a court requiring the governmental agency to stop work on its project until it complies with NEPA. NEPA litigation is often quite complex. This chapter discusses some of the issues involved in NEPA cases.

Discovery

Plaintiffs Are Generally Allowed Discovery in NEPA Cases

When a plaintiff sues a governmental agency, claiming a NEPA violation, the court has wide discretion as to the range of evidentiary materials it will consider and the means it will allow the plaintiff to use to obtain those materials. Most courts allow plaintiffs discovery in NEPA cases, including cases challenging the adequacy of EISs. The courts treat these as general civil matters and have refused to foreclose discovery if it is aimed at establishing that the agency has not fully complied with NEPA. Courts have been particularly sensitive to claims that an agency failed to consider responsible scientific opinions that were available. This discovery is allowed because if the plaintiff can prove such a claim, it shows that the agency failed to comply with NEPA.

Discovery is also allowed to show that the agency did not disclose pertinent information to the public in the comment process. NEPA does not allow an agency to sweep problems under the rug. On the contrary, the purpose of NEPA is to air problems, and discovery is a valid means of determining if the legal requirements of NEPA have been observed or disregarded.

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injunction † A court order that commands or prohibits some act or course of conduct. It is preventive in nature and designed to protect a plaintiff from irreparable injury to his or her property or property rights by prohibiting or commanding the doing of certain acts. An injunction is a form of equitable relief.

Discovery Is Not Allowed Merely to Duplicate an Existing Record

By contrast, especially in an action challenging an EIS, the courts do not allow discovery that will merely replicate an existing record. If discovery will merely cover matters already specifically covered in the EIS or elsewhere in the administrative record the courts generally refuse to require the agency to submit to discovery.

The key in such cases is to ask if the material sought to be discovered would be cumulative of material already in the public record. This is a matter of discretion rather than rigid rules, and a court can allow discovery of materials that are arguably cumulative if it feels the discovery will aid its understanding. What evidence a party will be allowed to introduce in a trial is also subject to the discretion of the court. This discretion ranges from allowing the parties to raise new issues for the first time to limiting review to matters in the record. The legal professional must be prepared to deal with either position and any variant between.

The Freedom of Information Act Is Available Against the Government

One valuable weapon an agency's opponents have is the Freedom of Information Act (FOIA), 5 U.S.C. § 552. Under this act, a party can obtain governmental information. Further, this can be done before litigation commences, allowing opponents of particular actions to secure a wide range of information before filing a case. For example, a party can learn if the evidentiary record suggests that the agency knew about issues that were not covered in the EIS.

Information available through the Freedom of Information Act can be used to determine the adequacy of a draft EIS, because FOIA can be used outside of litigation and outside the comment process. Indeed, the use of FOIA may obviate the need for litigation and expensive discovery. A case made up entirely through Freedom of Information Act requests may allow the opponent to show that the EIS is inadequate, thereby allowing the case to be ended on a pretrial motion.

The Government Is Generally Not Allowed Discovery Against Plaintiffs

Although plaintiffs are generally allowed extensive discovery, most courts do not give the government nearly so many liberties. As the courts have noted, the government has the resources and opportunity to prepare an adequate EIS, and it has an unqualified duty to do so. If an agency fails to make an adequate record to support an action, most courts do not allow the agency to overcome weaknesses in an EIS by submitting new material.

Defenses the Government May Assert

When a plaintiff brings a suit contending that an agency has failed to comply with NEPA, the federal agency is like any other civil litigant. It has a range of defenses available to it. Although the primary issue in NEPA cases is compliance with NEPA, agencies often raise a variety of preliminary issues in their own defense.

Statute of Limitations

One developing defense is the statute of limitations. NEPA does not mention any limitations period, and the courts have not been clear in whether there should be one. They are inclined to accept the general six-year federal statute of limitations under 28 U.S.C. § 2401(a), although there is no definitive ruling on this to date. See *Sierra Club v. Penfold*, 857 F.2d 1307 (9th Cir. 1988).

Laches

Agencies have also raised various defenses based on equitable considerations. These defenses are intended to ensure that the courts do justice rather than merely adhering to the letter of the law.

One common defense is **laches**. Laches is an equitable defense. It rests on the idea that if a plaintiff is unreasonably slow in asserting its rights, to the point that the defendant would be unduly prejudiced if the plaintiff's rights were fully enforced, the courts will not fully enforce the plaintiff's rights.

Laches is allowed in NEPA cases. A court can refuse to hear a case brought by a plaintiff environmentalist who has failed to assert her claim in a timely manner if the governmental agency can show that, as a result of this delay, it would suffer unreasonable prejudice if the plaintiff were allowed to proceed.

The cases show, however, that the governmental agency must make a very strong showing to uphold a claim of laches. This is partly because the government exists to serve the public interest, and the public interest requires that NEPA be upheld. In several cases in which the agency claimed laches, the courts have ruled that merely delaying a project is not enough, if the alternative is to allow the agency to violate NEPA. *Ecology Center of Louisiana, Inc. v. Coleman*, 516 F.2d 860 (5th Cir. 1975); *Steubing v. Brinegar*, 511 F.2d 489 (2d Cir. 1975).

Further, in determining what prejudice the government will suffer if there is a delay to comply with NEPA, the courts will weigh the amount of money the government may lose if there is a delay against the potential environmental losses from failing to comply with NEPA. This calculus generally favors the

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laches † The equitable doctrine that a plaintiff's neglect or failure to assert a right may cause the court to deny him or her relief if, as a result, the defendant has changed position so that the defendant's rights are at risk.

environmental concerns, because NEPA gives environmental values great weight. In many instances, these concerns will be allowed to prevail unless a governmental project is so near to completion that requiring the agency to prepare an EIS would be a hollow gesture. *Shiffler v. Schlesinger*, 548 F.2d 96 (3d Cir. 1977); *Township of Parsippany-Troy Hills v. Costle*, 503 F. Supp. 314 (D.N.J. 1979), *aff'd*, 639 F.2d 776 (3d Cir. 1980); *Michigan v. City of Allen*, 501 F. Supp. 1007 (E.D. Mich. 1980).

A third reason that the doctrine of laches is not favored is the sheer complexity of federal decision making, which makes it, at best, very difficult to determine what claims should be asserted when. Often, a decision that may have adverse environmental consequences can be blocked by pursuing any one of several courses. For the opponents of governmental action, cost considerations often require that efforts be concentrated where they are likely to do the most good. For example, assume that a governmental agency proposes to let interested parties have permits to develop wilderness areas. The agency files an EIS that is so cursory that its adequacy is clearly open to question. Nonetheless, the agency decides to allow parties to petition for permits. Should environmentalists challenge the adequacy of the EIS or lobby the agency not to issue permits? If the environmentalists lobby against the issuance of permits, but the agency elects to issue permits anyway, should the environmentalists be barred from then bringing an action challenging the adequacy of the EIS? The courts have generally said no, allowing the environmentalists to bring their claims and not penalizing them for picking what proved to be the wrong forum to raise their claims. *Park County Resource Council, Inc. v. United States Department of Agriculture*, 817 F.2d 609 (10th Cir. 1987). However, because laches rests in large part on the discretion of the courts, no plaintiff can safely assume that a court will always reject such claims.

Exhaustion of Administrative Remedies

Many federal agencies have well-established administrative appeal procedures. This has raised a question in the context of NEPA: If a litigant fails to exhaust the administrative appeals offered by the agency, is the litigant then precluded from seeking judicial review?

The general rule emerging from the cases is that if the administrative appeal offers a reasonable and accessible means of challenging an administrative decision, without placing undue burdens or restrictions on the litigant, the courts can treat failure to exhaust administrative appeal remedies as barring the plaintiff from later seeking judicial review. However, if the administrative appeals process is so narrowly drawn that it does not afford any real opportunity for review of a litigant's claims, a court can rule that the process is not an exclusive means of challenging an agency's decision, and can allow judicial review.

In *Oregon Natural Resources Council v. United States Forest Service*, 834 F.2d 842 (9th Cir. 1987), the court found that the administrative appeals procedure was reasonable, and refused to allow litigants a second chance at administrative and judicial review. They had not brought their initial challenge in a timely manner

and sought to reopen a decision some six years later. By contrast, the court in *Park County Resource Council, Inc. v. United States Department of Agriculture*, 817 F.2d 609 (10th Cir. 1987), held that an administrative appeal procedure that barred all claims not filed within 30 days of the initial administrative decision was so narrow that it did not allow contestants a real opportunity to challenge the administrative decision. In these circumstances, the court ruled that the exhaustion doctrine did not apply and allowed a judicial case to proceed.

As discussed earlier, the courts have also generally required that parties seeking to overturn an administrative decision raise their claims during the administrative process. The NEPA process is intended to allow an airing of objections to agency proposals. This process cannot work if the contestants do not bring out their objections to agency proposals in the agency's own procedures.

If a plaintiff fails to raise an objection to an agency proposal during the EIS process, and later asserts that objection in court, the agency can claim that it did not have any opportunity to hear and respond to the objection during the EIS process. The court will not automatically refuse to consider this issue, but it does have discretion to do so. Often the decision is more complex than determining whether an objection was brought out below, so the courts look to a variety of factors, such as the development of the record below, the sophistication and resources of the parties, the importance of the issue, and the potential impact of the issue on the ultimate outcome of the case.

Because of the possibility that a court will invoke the exhaustion doctrine, it is never sound policy to withhold objections during the administrative process with the idea that one will be able to use them later in judicial proceedings. Plaintiffs who remain completely aloof from administrative procedures and then assert claims in court may find that the courts refuse to hear them. The administrative procedures are intended to help educate agencies. They will not work if interested parties refuse to participate.

In *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519 (1978), the Supreme Court considered a case in which opponents of a nuclear power plant refused to participate in hearings or comments on a draft EIS, but later challenged the final statement on the ground that it did not discuss certain alternatives. The agency did not have detailed information on these alternatives until after the EIS was finalized. The Supreme Court ruled that an agency is not required to anticipate alternatives that are unknown when it drafts its EIS. Parties wishing to press alternatives must bring them to the agency's attention. They cannot hang back during the EIS process and then waylay the agency in court with contentions that were never raised earlier.

Scope of Review

A NEPA plaintiff often claims that the agency has failed to comply with NEPA's procedural rules. If the plaintiff can show that the agency failed to follow

NEPA procedures, the court can enjoin agency action until the agency does comply. This is a matter of strict compliance. As *Calvert Cliffs* showed, NEPA demands strict adherence to its procedures. Similarly, the various CEQ Regulations leave no real leeway.

The more difficult question occurs when the agency can show that it complied with NEPA's procedural steps, but the plaintiff contends that the agency's decision is wrong. In such a case, the question goes beyond procedure. What level of review is a court to undertake in this case, where its review challenges the substantive correctness of an agency's decision?

The Standard of Review on Decisions to Prepare an Environmental Assessment

One of the key decisions an agency will make under NEPA is the decision to prepare an environmental assessment rather than a full-scale EIS. To do this, the agency must find that its action will have no significant impact.

In many cases, environmentalists challenge this finding. They insist that the agency must prepare an EIS rather than an EA. This prompts a critical question: What standard of review should the courts use to determine whether the agency acted properly in preparing only an environmental assessment?

The cases show that the courts divide, using one of two standards of review: **arbitrary and capricious** or *reasonable*.

SIDEBAR

Arbitrary and capricious is a standard of judicial review under which a court will accept the substantive findings of an administrative agency as long as they are supported by evidence in the administrative record, unless the court finds that the agency was arbitrary and capricious in its decision. This standard is extremely deferential to agency decisions.

Under the arbitrary and capricious standard, if an agency finds that its action will have no significant impact on the environment, the courts will accept the agency's finding of fact if the administrative record contains any substantial evidence to support it. A finding will be overturned only if the record evidence runs so clearly against the agency's finding that it shows that the action was arbitrary and capricious. This standard is very deferential to administrative agencies.

Many courts follow the "arbitrary and capricious" standard. Nevertheless, courts in the Eighth, Ninth, Tenth, and District of Columbia Circuits have ruled that judicial review of FONSI decisions should be more intensive than is allowed under the arbitrary and capricious standard. The courts in these circuits

LEGAL TERMS

arbitrary and capricious † A reference to the concept in administrative law that permits a court to substitute its judgment for that of an administrative agency if the agency's decision unreasonably ignores the law or the facts of a case.

hold that they should probe more deeply, asking whether the agency's decision is reasonable.

Consider how each of these standards would work. Assume that an agency finds that its action will have no significant impact. In making its finding, the agency relies on evidence submitted by one expert witness. A reviewing court using the arbitrary and capricious standard must accept this finding, unless the contrary evidence is overwhelming. So long as the record shows that the agency considered any contrary evidence before it made its finding, the reviewing court must accept the agency's finding as conclusive. By contrast, a court using the *reasonableness standard* would be able to reconsider the finding, reversing the agency's decision if the court concluded that it was unreasonable.

SIDEBAR

Under the reasonableness standard of judicial review, the court asks if an agency decision was reasonable. The standard is not as deferential to agency decisions as the arbitrary and capricious standard.

The arbitrary and capricious standard is the norm for judicial review of administrative decisions. The Supreme Court has now held that, for at least some decisions under NEPA, the correct verbal formulation of the standard of review is "arbitrary and capricious." *Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc.*, 462 U.S. 87 (1983). However, *Baltimore Gas & Electric* did not deal with a decision to prepare only an environmental assessment. This particular issue has been dealt with only in lower court opinions, and many of these indicate that it requires a more probing review. The courts have been concerned and have demanded greater powers of review.

For example, in *Save Our Ten Acres v. Kreger*, 472 F.2d 463 (5th Cir. 1973), the court ruled that the language and intent of NEPA made the decision to prepare an environmental assessment rather than an environmental impact statement a jurisdiction-like issue. It was so important that the court could make its own review of the evidence to determine if the agency acted reasonably in finding that the particular project would have no significant impact. Further, in undertaking this review, the court said it would not limit itself to the administrative record, but could consider outside affidavits and other materials if it found that the administrative agency had failed to develop the evidentiary record adequately.

Courts in the Eighth, Ninth, Tenth, and District of Columbia Circuits have taken similar positions on issues of this nature, using a standard of reasonableness in these cases. The court in *Save Our Ten Acres* claimed to use the arbitrary and capricious standard, but found that the issue of drafting an EIS rather than an EA required a more rigorous examination.

Other courts that claim to follow the arbitrary and capricious standard in NEPA have also found that this decision to use only an environmental assessment is so important that the courts will not give complete deference to agency decisions. In *Hanly v. Kleindienst*, 471 F.2d 823 (2d Cir. 1972), for example, the Second Circuit Court of Appeals said that under the arbitrary and capricious

standard, the court would defer to the agency on regular findings of fact, but it would scrutinize the agency's conclusions of law. The court ruled that the determination of what is a "significant impact"—the question that controlled whether the agency would prepare an environmental assessment rather than an environmental impact statement—was a question of law. The reviewing court could substitute its own determinations for those of the agency.

A crucial point in this case was that in determining what *significant* meant, the agency decided what procedure it would use to determine whether a particular project did or did not have a significant impact. In *Hanly*, this was critical. If the agency decided that an action had a significant impact, it had to follow the procedural steps that NEPA calls for. As the agency in *Hanly* tried to read NEPA, if the agency found no significant impact, it could skip the procedures prescribed by § 102(A), (B), and (E) of NEPA, 42 U.S.C. § 4332(A), (B), and (E). In other words, if an action had no significant impact, the agency did not have to use an interdisciplinary approach through the planning processes, as called for by NEPA § 102(A), 42 U.S.C. § 4332(A). The government did not have to ensure that unquantifiable values were taken into consideration in the decision-making process, as called for by NEPA § 102(B), 42 U.S.C. § 4332(B). It also meant that the government did not have to develop appropriate alternatives to the recommended course of action, as called for by NEPA § 102(E), 42 U.S.C. § 4332(E).

These are not inconsequential technical points. As *Calvert Cliffs* made clear, NEPA calls for governmental agencies to consider the environmental consequences of their actions seriously. In *Hanly*, the court found that the agency's procedures were not legally sound. Specifically, the court found a flaw in the agency's reading of NEPA. The agency had reasoned that no part of NEPA § 102 applied to any action that was not significant. But, as the court pointed out, only one portion of NEPA § 102 refers to actions having a significant impact: NEPA § 102(C), 42 U.S.C. § 4332(C), which deals specifically with the preparation of an environmental impact statement. NEPA § 102(C) is specifically limited by its terms to "major federal actions significantly affecting the quality of the human environment," so it clearly does not apply to actions that have no significant impact. But the other portions of NEPA § 102 do not contain this language. The *Hanly* court concluded that the other portions, which do not include this restrictive language, apply to all actions, whether the actions have a significant impact or not.

Critically, this meant that the agency's determination that a particular action did not have a significant impact was legally fatally flawed. To make the determination that a particular action was not significant, NEPA required the agency to follow the procedures set out in § 102(B), 42 U.S.C. § 4332(B): it had to identify and develop methods to ensure that the unquantifiable aspects of the existing environment would be given appropriate consideration in the decision-making process, along with economic and technical values. Because the agency had not done this, its finding of no significant impact could not stand.

The court further ruled that NEPA required the agency to notify the public of proposed major federal actions and allow interested parties to submit relevant facts that might bear on the threshold decision, namely, was this a project that would have a significant impact? This meant that the process of

preparing environmental assessments would often resemble that for preparing full-blown environmental impact statements.

Thus, even in a case in which the court ruled that the controlling standard was arbitrary and capricious, it found ways to subject governmental decisions to intense scrutiny, and ordered the government to open the process of environmental decision making.

The courts have imposed rigorous scrutiny even in decisions in which they claim to use the arbitrary and capricious standard. This prompts a question: Is there a real difference between the arbitrary and capricious standard and the ostensibly more rigorous reasonableness standard? The Court of Appeals for the District of Columbia said that even under the arbitrary and capricious standard, in reviewing an agency's "significance" conclusion, the courts would use a three-part test, asking:

1. Did the agency take a "hard look" at the problem, as opposed to merely making sweeping conclusions without ever undertaking a genuine inquiry?
2. Did the agency identify relevant environmental concerns?
3. Did the agency make a convincing case that the impact is insignificant?

Are these standards, reasonableness and arbitrary and capricious, precise delineations that can be quantified? Clearly they are not. Judges must give some deference to the decisions of administrative agencies, and they must exercise some degree of control and oversight over these same agencies. Under NEPA, if a federal agency announces that an action will not have a significant impact, that determination will be given closer scrutiny than is given to many governmental actions. The precise degree of scrutiny will vary depending on a wide range of factors, including the particular beliefs of the judge hearing the case, the skill and experience of the lawyers, and the resources that the parties are able to bring to bear on the case. In any case, however, it will be scrutinized.

Agency Decisions Based on Environmental Impact Statements

When an agency prepares an environmental impact statement, and opponents challenge it in court, a critical question that the court must decide is the standard of review to use when evaluating the adequacy of the EIS. This question is essentially the same as in the context of the threshold decision on whether to draft a full-blown environmental impact statement. Indeed, the courts have frequently applied the cases to either context without distinction.

This means that the standard for review of an environmental impact statement is the same as for the threshold question of drafting an EIS: sometimes stated as a "reasonableness" standard; sometimes as "arbitrary and capricious"; often meaning something between these standards. It involves considerable deference to the fact-finding expertise of the agencies, although not merely blind acquiescence.

The courts have also modified the standard in the context of review of EISs by introducing the “**hard look**” doctrine. The hard look doctrine requires that the courts reviewing an agency decision must conduct the sort of substantial inquiry into the agency’s actions that was the basis of *Citizens to Preserve Overton Park v. Volpe*, discussed in Chapter 1.

This standard has a wonderfully forceful name and simplicity of expression that masks an amorphousness in the cases dealing with this issue. What a court will consider a hard look depends in no small part on the personal views of the particular judge involved, because it is impossible to say just how hard a look is involved.

The hard look doctrine requires the court to do several things. First, the court must ensure that the agency has carried out the proper procedures and has acted according to the legislative mandate under which it operates. Further, the court must be sure that the agency has taken a hard look at the problem and engaged in reasoned decision making rather than merely acting by fiat. This means that there are really two levels of hard-looking. The court must take a hard look to determine that the agency took a hard look.

This has involved the courts in considerable probing. The court must examine the agency’s record to be sure that the record can be reviewed, so that the court can determine whether the agency did in fact undertake a genuine and thorough review.

All of this means that even in cases using the arbitrary and capricious standard, the courts do not follow the extreme deference that was the traditional rule in cases decided under this standard prior to the late 1960s. Even when they purport to use the arbitrary and capricious standard, the courts will insist on a right and a duty to take a hard look at what the agency has done, and will require a record from the agency showing that the agency has taken a hard look at the facts and circumstances of the particular decision.

Despite the probing that this standard allows the court, “hard look” remains a fundamentally procedural standard. It does not require that an agency reach any particular outcome in a given case. What it does require is a record showing that the agency has fully informed itself of the facts surrounding a problem and has given that problem thorough consideration before reaching a decision. The court reviewing such a decision must ask whether the decision took into account all relevant factors, and must determine if there have been any clear errors of judgment. This is much more than a cursory glance. As one leading scholar on the subject put it:

Courts taking a hard look must become sufficiently acquainted with technical matters in the record to understand why the agency did what it did. ... Under the doctrine, assumptions must be spelled out, inconsistencies explained,

LEGAL TERMS

“hard look” doctrine A judicial rule that requires the courts to scrutinize the administrative record closely to ensure that the agency has made a probing inquiry into the problem. This is described as requiring that the courts take a hard look at whether the agency has taken a hard look at the problem.

methodologies disclosed, contradictory evidence rebutted, record references solidly grounded, guesswork eliminated and conclusions supported in a “manner capable of judicial understanding.”

Rodgers, “A Hard Look at *Vermont Yankee*: Environmental Law Under a Close Scrutiny,” 67 *Geo. L. Rev.* 699, 705–06 (1979).

This means that the court must find that the agency considered all pertinent evidence, going through a reasoned decision-making process. If the agency did consider all of the evidence and reached its decision through reasoned process, then the court cannot replace the agency’s decision with its own.

Suppose, for example, that a judge reviewing a challenge to an EIS reviews the evidence that the agency considered. The judge finds that the agency reviewed all of the evidence and reached a reasoned decision based on the evidence. The judge also believes that if she were deciding the case, instead of reviewing an agency decision, she would have ruled differently. The judge’s feeling about how she would have decided the case is irrelevant. She must uphold the agency decision.

Notably, courts using the hard look doctrine do not abandon the arbitrary and capricious label. Many courts have indicated that “hard look” modifies the older standard rather than replacing it. Importantly, the Supreme Court has considered the various standards used under NEPA and found that there is no substantial difference among them. The Supreme Court expects lower courts to confine themselves to the question of whether the agency followed the right procedures, but within this standard to make a rigorous, searching inquiry. See *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 378 n.23 (1989), quoting with approval *River Road Alliance, Inc. v. Corps of Engineers of United States Army*, 764 F.2d 445, 449 (7th Cir. 1985), cert. denied, 475 U.S. 1055 (1986). The court in *River Road Alliance* suggested that there was no practical difference among the competing standards.

Agency Decisions to Prepare or Not to Prepare a Supplemental EIS

Sometimes, after an EIS is prepared, the circumstances change. This raises questions of whether a new EIS should be prepared to supplement the first. The same test is used for this as for determining the need for an EIS at the outset: Has a change of circumstances caused a significant environmental effect?

Frequently, questions about the need for a supplemental EIS lead to differing views between agencies and their opponents. The agencies argue that there is no need for a supplemental EIS, whereas their opponents insist that there is a clear need. The agency makes this decision subject to review in the courts. This review will be under the arbitrary and capricious standard, but the courts have indicated that although this requires the courts to give significant deference to the agency, it must be probing enough to have real meaning.

Injunctive Relief

When a plaintiff challenges a governmental action for failure to comply with NEPA, the remedy the plaintiff will seek is an injunction to prevent the government from continuing its action. Before the court will grant this relief, the plaintiff must meet the standards for an injunction. The courts generally follow the test articulated in *Blackwelder Furniture Co. v. Seilig Manufacturing Co.*, 550 F.2d 189 (4th Cir. 1977). That is, the plaintiff must demonstrate that it has a reasonable likelihood of success on the merits; that the plaintiff will suffer irreparable injury if equitable relief is not granted; that the granting of equitable relief is in the public interest; and that the balance of equities favors granting equitable relief.

NEPA cases have established a relatively low standard for equitable relief. In some cases, the courts have ruled that if the agency has failed to comply with NEPA, irreparable injury will be presumed. This presumption relies partly on the fact that no alternative remedies are available under NEPA. The injury is the actual harm that will occur to the environment, but also the injury of failure to observe a key federal law. If the government violates the law, the violation is, in and of itself, an injury.

Recent cases have rejected the notion that a violation of NEPA creates a presumption of irreparable injury, but these same cases have held that it takes a low standard to show irreparable injury.

In rare cases, injunctive relief has been denied because the court found that denying an injunction will prevent environmental injury. For example, in one case, the Forest Service was trying to block recreational use of fragile desert environments. The court found that the Forest Service had violated the law; it had not complied with NEPA before closing the area. The court ruled that the best way to prevent irreparable injury to the desert environment was to refuse to enjoin the Forest Service, thereby allowing the Forest Service to freeze the situation.

Typically, before a court will impose an injunction on a private party, the plaintiff must post a bond. This is to compensate the defendant for damages that the defendant will have suffered if the court later finds that the plaintiff had no right to relief. This raises a question: Are NEPA litigants subject to Rule 65(a) of the Federal Rules of Civil Procedure, which requires that an applicant for an injunction post security to cover the costs and damages that may be incurred if the injunction is found to have been wrongly allowed?

The courts have generally refused to impose crushing bonds on NEPA contestants. Partly, this appears to stem from the fact that the NEPA litigant is merely asking the government to do its duty under one of the government's own statutes. Further, the courts realize that imposing onerous bonding requirements on litigants will prevent any effective enforcement of NEPA. The policy the courts have adopted is to impose nominal bonds, intended largely to ensure that the litigants recognize the seriousness of their responsibility. A typical bond is \$100. Often, the bond will be set at a mere dollar, so that the court can

say that a bond was imposed. In some cases, the courts have not required even this, waiving the bond requirement altogether.

Summary

If a party affected by a decision that is subject to NEPA does not agree with the decision, that party can bring a suit to enjoin governmental action. Plaintiffs are generally allowed discovery, as long as the discovery will not merely duplicate the regular administrative processes. Plaintiffs can also use Freedom of Information Act to obtain materials. By contrast, the government is generally restricted in the discovery it can obtain from plaintiffs, on the ground that these materials are not relevant.

The government is allowed a limited range of defenses. The courts have generally set a six-year statute of limitations on NEPA actions. Laches is generally available, barring plaintiffs from suing on a claim if they have been unreasonably slow in asserting that claim, to the detriment of the government. However, the cases show that the government must show a severe injury from the delay before laches will bar the plaintiffs' case. A plaintiff generally must exhaust administrative remedies as a prerequisite to bringing a lawsuit. However, an exhaustion defense will be allowed only if the agency has procedures that allow plaintiffs to assert claims in an administrative setting without unreasonable difficulty. The courts do have discretion regarding what claims to bar, but anyone who has arguments to raise in the administrative process should assert them there rather than risk having a court invoke the exhaustion doctrine.

On procedural questions, if a plaintiff shows that an agency has failed to comply with NEPA procedures, the court will enjoin agency action until the agency complies. The courts require strict compliance. On questions of substantive law, the courts are less clear. One frequently litigated issue is an agency's decision to prepare an environmental assessment rather than a full environmental impact statement. This decision must be supported by a finding of no significant impact. The courts are divided as to whether substantive review of this issue is to be under the arbitrary and capricious standard or the more stringent reasonableness standard. Often, however, in view of the "hard look" concept, the courts have increased the level of scrutiny under the arbitrary and capricious standard so that it is quite rigorous. Similarly, cases challenging findings in environmental impact statements are sometimes decided under the arbitrary and capricious standard and sometimes under the reasonableness standard. In all of these cases, the courts are expected to become sufficiently familiar with the technical issues that they can take a hard look at the agency decision. The result is a substantial blurring of the standards.

As a practical matter, the courts must show some deference to the administrative agencies in these decisions. Nevertheless, the courts have a serious role to play in making certain that the agencies do not abuse their powers.

Suits under NEPA seek injunctive relief. These suits require that plaintiffs demonstrate a reasonable likelihood of success on the merits; that they will suffer irreparable injury if equitable relief is not granted; that the granting of equitable relief is in the public interest; and that the balance of equities favors granting equitable relief.

NEPA cases have established a relatively low standard for equitable relief. In some cases, the courts have ruled that if the agency has failed to comply with NEPA, irreparable injury will be presumed, and even the courts that do not invoke this presumption set the standard for showing irreparable injury very low. The Federal Rules of Civil Procedure require that a bond be posted for these suits, but often the courts have required

the plaintiff to post only a nominal bond, setting the amounts at \$100, or even waiving the bond requirement altogether.

Review Questions

1. What standard do the courts generally use in suits challenging the adequacy of an EIS?
2. Is it often hard to tell a difference between cases tried under arbitrary and capricious review, as modified by the hard look doctrine, and cases using a "reasonableness" review?
3. Under "hard look" review, what must the record show?
4. What types of findings might a court make which would warrant enjoining a government project?
5. Assume that the agency has fully informed itself of the facts, considered all of the relevant factors, and arrived at a reasonable decision. Can a court substitute its decision for the decision that the agency made?
6. What alternatives must be discussed in an EIS?
7. An agency lists an alternative, but then announces that it does not intend to pursue it. What must the agency do before it can reject that alternative?
8. What alternatives must an agency address before its discussion of alternatives will be considered adequate?
9. If an agency preparing an EIS wishes to rely on outside studies, what must it show it has still done?
10. What appears to be the accepted statute of limitations period for NEPA actions?
11. How strong a showing must the government make before a claim of laches will be upheld?
12. If the court weighs the cost of delay to the government against the potential environmental costs, will it give the potential environmental costs a high or a low value?
13. When will a litigant be allowed to bring a suit without exhausting its administrative remedies, that is, raising an argument for the first time in court proceedings rather than administrative processes?
14. What kind of relief do litigants in NEPA cases generally want?
15. What amount is normally set as the bond requirement for injunctions in NEPA cases?



CHAPTER 5

THE RESOURCE CONSERVATION AND RECOVERY ACT

CHAPTER OUTLINE	Background to RCRA: The Problem
	An Overview of RCRA
	Identifying Hazardous Wastes
	Regulation of Hazardous Waste Generators
	Transportation of Hazardous Wastes
	Storage, Treatment, and Disposal of Hazardous Wastes
	Permits for Hazardous Waste Disposal Facilities
	State and Local Control

Background to RCRA: The Problem

In recent decades, the United States has had to confront a problem: **hazardous waste**. As a nation, we generate huge amounts of waste, much of which threatens human health and the environment. In 1945, at the end of World War II, the United States generated some 500,000 metric tons of hazardous waste material every year. By 1985, this amount had soared to 275 million metric tons of hazardous material. As the amounts of hazardous waste have grown, so have the technical and legal problems of managing it.

Beginning in the late 1960s, Congress began to address the problem of this enormous—and growing—waste stream. Congress began by prodding the various administrative agencies to institute hazardous waste management programs. What emerged from these early efforts was a concept of continuing management of hazardous materials. Once material became hazardous waste, it was to be regulated continuously, and tracked as long as it remained hazardous waste.

In these early efforts, problems of final disposal emerged as a critical area. Waste disposal had traditionally meant little more than putting wastes into a dump. In many instances, it meant open burning, a process that could aggravate the hazardous nature of wastes. Early efforts soon restrained the use of unsophisticated dumps as the primary disposal sites for hazardous waste, while also pressing industry to reduce the amount of hazardous waste it generated and to reduce the volatility of the hazardous components in those wastes.

Until 1976, efforts to bring comprehensive management to this vast waste stream had had some effect, but they had not coalesced into a comprehensive, coordinated program. In 1976, Congress enacted the **Resource Conservation and Recovery Act (RCRA)**, 42 U.S.C. §§ 6901 to 6992k. Somewhat surprisingly, the statute received little notice at the time it was adopted. Environmentalists focused their attention on the **Toxic Substances Control Act (TOSCA)**. Ironically, TOSCA has not had the effect its proponents hoped it would have, whereas RCRA has had a profound impact on environmental law. (TOSCA is considered in Chapter 9.)

RCRA represented a sweeping effort to do away with the old regime of casual waste disposal. In RCRA, Congress put into place a comprehensive waste management program. Congress ordered the Environmental Protection Agency to implement a comprehensive waste management program, including cradle-to-grave management of hazardous wastes.

LEGAL TERMS

hazardous waste As defined in RCRA, any substance that may cause, or significantly contribute to, an increase in mortality or serious illness; or pose a substantial hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed. RCRA § 1004(5), 42 U.S.C. § 6903(5).

Resource Conservation and Recovery Act (RCRA) 42 U.S.C. §§ 6901 to 6992k; the primary federal statute regulating the disposal of wastes.

Toxic Substances Control Act (TOSCA) A federal environmental statute that restricts the right to introduce toxic substances into commerce.

SIDEBAR

Cradle-to-grave management is a waste management concept based on the rule that once a substance is a hazardous substance, it is subject to management under federal law systems for as long as it remains a hazardous substance with any capacity to enter the environment.

Congress and the EPA also established rigorous controls directed especially at the final disposal of wastes. RCRA further empowered the EPA to bring civil actions to force cleanup of existing waste sites, although this has not been the focus of subsequent practice. (RCRA still provides for waste site cleanups, but almost all cleanup actions are brought under the **Comprehensive Environmental Responsibility, Compensation, and Liability Act (CERCLA)**, which is the subject of Chapter 6.)

The effects of RCRA have been dramatic, although they have not been entirely as Congress intended. Waste minimization has become the norm in industry.

SIDEBAR

Waste minimization programs are programs implemented by generators to reduce the volume and/or toxicity of the hazardous wastes they produce. Under HSWA, all generators are required to certify that they have waste minimization programs in place.

The volume of waste streams has fallen sharply while the science of waste management has flourished. Attitudes have undergone wide-ranging change. A generation ago, a company generating hazardous wastes could often casually dispose of those wastes simply by sending them to a local landfill. Now, a company with the same wastes must dispose of these wastes through specialized facilities. At the same time, EPA regulations have forced sites to shut down, primarily sites that had been legal but were environmentally unsound.

This has greatly increased the cost of disposal. It is a simple case of supply and demand: prices increase as the waste stream is forced into a shrinking disposal capacity. The closure of environmentally unsound sites has limited the range of available legal disposal sites. Ironically, this has meant that the effort to regulate the disposal of hazardous waste has, in some ways, worsened the nation's hazardous waste problems. The soaring costs and increasing difficulty of disposing of wastes has prompted the rise of businesses on the fringe of the legal system: "midnight dumpers."

The EPA regulatory system, created to help clean up the nation, provides incentives for people to use environmentally irresponsible or out-and-out illegal means to dispose of hazardous wastes.

LEGAL TERMS

Comprehensive Environmental Responsibility, Compensation, and Liability Act (CERCLA)
The primary federal statute providing mandates for cleaning up properties contaminated by hazardous substances.

SIDEBAR

Midnight dumpers are persons who dispose of hazardous wastes secretly and illegally. Often these persons dump their wastes at night or under other circumstances that allow them to operate undetected.

These imperfections in the system cannot be ignored, but they should not overshadow what RCRA has accomplished. It has created a remarkable system for managing hazardous wastes. That, rightly, is the focus of this chapter.

An Overview of RCRA

The Resource Conservation and Recovery Act is an effort to impose a comprehensive management system on waste streams produced by industry and commerce. The act that Congress first adopted in 1976 largely did not dictate the specific course the EPA was to follow in framing its regulations. Rather, in broad terms, the statute directed the EPA to issue regulations, giving only general directions for the course the EPA was to adopt. The heart of the congressional plan was subtitle III, RCRA §§ 3001 through 3011, codified as 42 U.S.C. §§ 6921 to 6931. Under these provisions, the EPA was to promulgate regulations covering six key points:

1. Identifying hazardous waste which would be subject to cradle-to-grave management
2. Regulating **hazardous waste generators**
3. Regulating **hazardous waste transporters**
4. Regulating the treatment, storage, or disposal of hazardous wastes
5. Regulating permits for **treatment, storage, and disposal facilities** (known collectively as TSD facilities)
6. Authorizing states to implement and enforce their own controls over TSD facilities in lieu of the federally enforced program.

LEGAL TERMS

hazardous waste generator Any person or business that creates hazardous wastes subject to regulation under RCRA. Generators must be licensed and are subject to extensive regulation.

hazardous waste transporter A person or business that transports hazardous wastes, taking them from a generator's facility to a licensed treatment, storage, or disposal facility or to another transporter. Transporters must be licensed and are subject to extensive Department of Transportation regulations.

treatment, storage, and disposal facilities (TSD facilities) Facilities at which hazardous wastes are treated, stored, or disposed of. All TSD facilities are subject to extensive regulation under RCRA.

Implementing this regulatory regime proved a much larger task than Congress had envisioned. It was quite difficult to establish and implement an effective permitting program for TSD facilities, although these were the first of the regulations the EPA was to adopt. Under the original terms of RCRA, Congress ordered the EPA to complete the regulations for the permitting program within 18 months. Pending the adoption of final regulations, Congress allowed the EPA to issue **interim permits** to existing TSD facilities. Under the provisions for interim permits, any TSD facility that filed a permit application and met very lax standards was allowed to continue to operate, treating, storing, and disposing of hazardous wastes until the EPA issued its final regulations. 40 C.F.R. Part 265.

However, once the EPA put this interim permit system into place and TSD facilities obtained interim permits, there was no real incentive for the TSD facilities or the EPA to move on to the much more difficult process of adopting final permit regulations. The task of developing final regulations was much more complex than the EPA had anticipated, and the EPA failed to meet the statutory deadlines for adopting final regulations. The entire process bogged down.

When the EPA failed to issue final regulations, various environmental groups brought suit to compel the Agency to act. Nevertheless, it was 1980 before the EPA issued the regulations that Congress had ordered issued by 1978.

When the Reagan administration took office in 1981, the EPA's administrative efforts slowed even more. EPA administration was at the center of continuing debates between those favoring aggressive environmental protection and those advocating greater deference to industry. The Reagan administration tended to be more solicitous of industry than its predecessors had been. As a result, the EPA did not enforce RCRA aggressively, and many facilities continued to carry on environmentally unsound operations while relying on interim permits.

Eventually, the EPA adopted regulations called for by RCRA Subtitle III, in phases. Phase I regulations included regulations identifying hazardous wastes, setting standards for generators and transporters, establishing standards for interim status TSD facilities, authorizing permits, and authorizing states to establish their own hazardous waste programs. Phase II regulations were to cover financial responsibility, and closure and postclosure standards for new and existing TSD facilities.

During 1981 to 1984, the ongoing political struggle surrounding RCRA took a different turn. The EPA was rocked by a series of scandals, centering on charges that officials were mismanaging the hazardous waste program. In 1984, Congress grew so impatient that it amended RCRA by adopting the

LEGAL TERMS

interim permits Permits issued to allow the legal operation of TSD facilities that were in operation when RCRA was adopted. Interim permits were intended to remain effective until the EPA could issue final regulations. In fact, the interim permit system remained in effect much longer than Congress originally intended.

Hazardous and Solid Waste Amendments (HSWA). Under HSWA, Congress gave the EPA specific deadlines for implementing regulatory standards. Further, Congress did not leave the matter with simple legislative mandates. It backed the deadlines up with “hammers.”

SIDEBAR

“Hammers” are features included in the Hazardous and Solid Waste Amendments of 1984 to compel prompt action by the EPA. Congress specified dates by which the EPA was to issue certain regulations for pretreatment of hazardous wastes, and added provisions under which land disposal of wastes would be banned if the EPA did not act in a timely manner.

For example, HSWA included provisions that would automatically cancel all interim status permits if the EPA did not act in a timely manner to implement regulations that would force facilities to obtain final permits. HSWA also required the EPA to establish a program of corrective actions at existing TSD facilities where there were leaks, brought thousands of previously exempt TSD facilities within the scope of RCRA coverage, and imposed regulations on underground storage tanks.

HSWA also showed a major change in the latitude Congress had given the EPA in drafting regulations. In the original version of RCRA, Congress mandated general ends that the EPA was to achieve, but left the Agency with broad discretion on how to achieve those ends. HSWA imposed more restrictive mandates, limiting the EPA’s discretion in many matters. Congressional critics charged that this amounted to dictating regulations to the Agency. Through the rest of the 1980s, the Agency managed a relatively good record of meeting the various congressional deadlines.

Notably, HSWA did not undo the regulatory framework that the EPA had adopted up to that point. Virtually all the regulations that the EPA promulgated prior to 1984 remain intact and effective. The effect of HSWA was largely prospective, forcing the EPA’s hand as to regulations it considered and adopted after the 1984 enactment of HSWA.

The current RCRA system contains the six basic components of the original statute:

1. It identifies hazardous wastes
2. It regulates hazardous waste generators
3. It regulates hazardous waste transporters
4. It regulates treatment, storage, and disposal of hazardous wastes
5. It regulates permits for hazardous waste disposal facilities
6. It authorizes states to implement and enforce their own controls over TSD facilities in lieu of the federally enforced program.

The following sections consider each of these topics, in order.

LEGAL TERMS

Hazardous and Solid Waste Amendments (HSWA) An extensive piece of amending legislation, adopted in 1984, that substantially revised and refined RCRA.

Identifying Hazardous Wastes

Solid Waste and Hazardous Waste

One of the first challenges Congress and the EPA faced was defining *hazardous waste* in terms sufficiently broad to protect human health and the environment, but still be administratively workable.

RCRA began by defining **solid waste** in RCRA § 1004(27), 42 U.S.C. § 6903(27). The definition of *solid waste* is so complex and extraordinarily sweeping that it is easier to describe what is *not* a solid waste. Materials in domestic sewage are not solid waste; materials in wastewater regulated under the National Pollution Discharge Elimination System under the Clean Air Act are not solid waste; regulated nuclear wastes are not solid wastes under RCRA. Beyond these few exceptions, *solid waste* is “[a]ny garbage, refuse, sludge[,] ... and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities.” In other words, “solid” waste includes wastes in any physical form except uncontained gases. Thus, liquids, sludges, and contained gases are all solid wastes. One environmental expert explaining RCRA commented that under RCRA, solid waste includes anything discarded from any business, commercial, or industrial process that is not water pure enough to drink.

RCRA then defines *hazardous waste* in RCRA § 1004(5), 42 U.S.C. § 6903(5), as:

a solid waste or combination of solid wastes, which because of its quantity, concentration or physical, chemical, or infectious characteristics may—

(A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or

(B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

Arguably, the statutory definition of *hazardous waste* could be read so broadly that almost any solid waste could be deemed to be hazardous waste. Virtually any substance could contribute significantly to an increase in mortality or serious irreversible illness, or pose a substantial present or potential threat to human health or the environment, if disposed of improperly. This would make it a hazardous waste under RCRA § 1004(5), 42 U.S.C. § 6403(5). But if the EPA had classified every substance that arguably could meet the statutory definition of hazardous waste, the result would have been bureaucratically unworkable and economically crippling. By contrast, an excessively lax construction of these

LEGAL TERMS

solid waste Any garbage, refuse, sludge, or other discarded material resulting from industrial, commercial, mining, or agricultural operations, or from community activities. Despite the term “solid,” a waste can be in any physical form except uncontained gas, including liquid, semisolid, solid, or contained gaseous material.

definitions could have allowed the EPA to find ways to designate as not hazardous substances that clearly should be regulated as hazardous. Such a course would have been environmentally unsound.

Congress did not leave the EPA unguided in this area. In RCRA subtitle C, at § 3001, 42 U.S.C. § 6921, Congress detailed the process the EPA was to use to bring specific substances within the RCRA regulatory regime. First, RCRA § 3001(a), 42 U.S.C. § 6921(a), required the EPA to promulgate regulations setting criteria for characterizing wastes as hazardous. In making these determinations, the EPA was to take into account toxicity, persistence, bioaccumulability, flammability, corrosiveness, and other hazardous characteristics which wastes demonstrate. Then, under RCRA § 3001(b), 42 U.S.C. § 6921(b), the EPA was to identify specific wastes as hazardous.

The resulting regulatory definitions are set forth in the complex regulations of 40 C.F.R. Part 261, which addresses the identification and listing of hazardous wastes. The opening sections of these regulations set out the various technical criteria that make a waste a **characteristic waste**. 40 C.F.R. §§ 261.20–261.24. Later sections include extensive lists of hazardous substances, giving details such as quantity, source, or concentration that make them subject to regulation as hazardous wastes. 40 C.F.R. §§ 261.30–261.35. A waste listed in these materials is known as **listed waste**.

Recycling

The EPA has had to address many complex problems in determining what wastes should be managed as hazardous waste. One of the more visible problems is the question of recycling. This is a difficult issue because the EPA wants to encourage recycling, but also wants to prevent “recycling” from becoming a loophole for irresponsible disposal. When does material become waste subject to regulation, as opposed to being recycled material not yet discarded and therefore not covered by RCRA? For example, consider a manufacturer that makes plastic bottles. When it molds bottles, plastic scraps are trimmed from finished bottles. If this material is put back into the manufacturing process and used in bottles without being discarded, the material is not a waste product and does not come under RCRA. In contrast, some “recycling” uses endanger the environment. For many years, one of the more common ways to use spent motor oil was as a dust suppressant and weed killer. Spent motor oil does kill weeds. It also contaminates soil and groundwater, so this use is not encouraged.

The position the EPA adopted in its regulations was that so long as materials are reused as part of an industry’s ongoing production process, the material

LEGAL TERMS

characteristic waste Any waste exhibiting one or more of the characteristics that cause wastes to be listed under RCRA: ignitability, corrosivity, reactivity, or toxicity. A waste exhibiting such a characteristic is a hazardous waste even if it is not specifically listed in the RCRA regulations.

listed waste Any chemical substance specifically identified in the lists of hazardous substances included in the RCRA regulations.

is not discarded, and therefore it is not classified as a waste under RCRA. The EPA has now formalized this position in 40 C.F.R. § 261.2(e), which states that materials are not recycled if they are to be used or reused as ingredients in an industrial process; used or reused as effective substitutes for commercial products; or returned to the original process from which they came without first being reclaimed. By contrast, materials are classified as solid wastes if they are used in a manner constituting disposal. Further, certain actions are deemed to be disposal because of their risk of polluting the environment. If the materials are used to produce products that are applied to land, other than as part of the original industrial process, they are classified as wastes rather than as recycled materials. 40 C.F.R. § 261.2(c)(1). Additionally, if the materials are burned for energy recovery, are used to produce fuel, or are contained in a fuel, they are classified as wastes. 40 C.F.R. § 261.2(c)(2).

The EPA has also carved out certain exceptions, circumstances in which it will not recognize material as being used for recycling. First, some wastes are considered so dangerous that they cannot be used in recycling. These are the **acute hazardous wastes**, which are included among the Schedule F wastes. These chemicals are so extraordinarily dangerous that the EPA has determined that they cannot be used safely in recycling.

Second, the EPA will not allow a generator of hazardous wastes to hold those wastes on the speculative possibility that some recycling use can be found. 40 C.F.R. § 261.2(d)(4). The standard the Agency has adopted in this regard is that material can be held for up to one year under a claim that it will be used in recycling. If it is held longer, the party accumulating it must show that the material can be used in a legitimate recycling process.

Recycling Motor Oil

The problem of used motor oil has been particularly vexing. Congress finally addressed this problem in the 1984 Hazardous and Solid Waste Amendments, adopting RCRA § 3014, 42 U.S.C. § 6935(b)–(d). This provision ordered the EPA to propose whether or not it would list used motor oil as a hazardous waste.

The EPA initially indicated that it would not regulate recycled oil as a hazardous waste, arguing that the stigma attendant to such regulation would impede recycling efforts. When environmental groups sued the EPA over this policy, the United States Circuit Court of Appeals for the District of Columbia ruled that the potential stigma imposed by regulations was not an adequate basis for refusing to regulate recycled oil. *Hazardous Waste Treatment Council v. EPA*, 861 F.2d 270 (D.C. Cir. 1988). As a result, the EPA has had to promulgate regulations. 40 C.F.R. Part 279.

LEGAL TERMS

acute hazardous wastes Any one of several hazardous wastes considered so dangerous that a single exposure may cause immediate, serious health consequences. Acute wastes are subject to extremely rigorous regulations, including categorical bans on recycling and land disposal.

HAZARDOUS WASTE TREATMENT COUNCIL
v.
U.S. ENVIRONMENTAL PROTECTION AGENCY
United States Court of Appeals,
District of Columbia Circuit
861 F.2d 270 (D.C. Cir. 1988)

Petitioners challenge a final determination by the Environmental Protection Agency not to list used oil destined for recycling and recycled oil as hazardous wastes. The Agency premised this conclusion on its finding that such a listing would attach the stigma of the label "hazardous waste" to recycled oil, thus discouraging recycling and its environmentally beneficial effects. As we conclude that the statute does not permit the Agency to consider these stigmatic consequences in deciding whether to list recycled oil as a hazardous waste, we grant the petitions for review.

* * *

Soon after the HSWA was enacted, the EPA proposed to list used oil as a hazardous waste because it met the criteria for listing ... After the close of the public comment period, but before the Agency's final decision, Congress enacted the Superfund Amendments and Reauthorization Act of 1986 ("SARA"). SARA gave the EPA additional authority to regulate recycled oil *without* classifying it as a hazardous waste. ...

The EPA then issued its final decision not to list recycled oil as a hazardous waste because the stigmatic effects of such a listing would discourage recycling. The Agency deferred decision on whether to regulate recycled oil without listing it as hazardous, and on whether to list non-recycled used oil as a hazardous waste. These petitions for review followed.

* * *

To repeat, the controlling provision states: "the Administrator shall make a final determination whether to list or identify used automobile and truck crankcase oil and other used oil as hazardous wastes *under section 6921*" Viewing the "particular statutory language at issue" in isolation, this provision requires the EPA to determine whether used oil meets the criteria for hazardous waste ...

Although "under" has a number of meanings, the only ones that could have been intended in the present context are "required by: in accordance with: bound by."

* * *

Section 6921 and the regulations adopted thereunder refer only to the technical characteristics of hazardous wastes; they do not mention "stigma." Examined alone, therefore, section 6935(b) forecloses the EPA's decision, as it requires the EPA to determine whether to list used oil under (i.e., according to the criteria specified in) section 6921.

* * *

The EPA's final attempt to demonstrate a statutory ambiguity draws on the statute's unique treatment of recycled oil. ...

The Agency maintains that Congress intended to permit it to determine whether such an appellation [i.e., calling used oil a hazardous waste] would serve the general aim of the Act, to promote environmental protection. Thus, when section 6935(b) speaks of a decision "under section 6921," it merely means that the EPA must decide whether to regulate a particular recycled oil under section 6935(a), in which case it will not list it as a hazardous waste, or to regulate it under section 6921, in which case it will. ...

Although superficially appealing, this structural argument ultimately fails. ...

First, the EPA's interpretation is implausible in view of the statute's historical development. When it first dealt with the problem, Congress directed the EPA to consider whether a determination that used oil was hazardous would discourage recovery and reuse. As we have noted, that direction expired when the EPA fulfilled its obligation ... by delivering its report to Congress. When Congress acted again in 1984, it carefully separated the *listing* decision from the resultant *regulatory* decisions. With respect to the former, section 6935(b) simply requires the Agency to determine whether to list used oil as hazardous under section 6921. Only after the EPA decides to list does the statute permit it to consider the effect of its regulations on recycling.

Congress'[s] inclusion of the effect on recycling ... , combined with its omission of that factor in section 6935(b) and its inclusion only in section 6935(c), demonstrates that Congress intended the EPA to consider that factor only when adopting regulations for hazardous recycled oil, not in determining whether to list it as hazardous. When a statutory provision is deleted in a subsequent reenactment, the omitted term cannot be read into the later statute.

* * *

In short, the language of section 6935(b) requires the EPA to determine whether used oil meets the technical criteria for listing as hazardous, and

the structure of the statute does not indicate that Congress had a different intention with respect to recycled oil. ...

The EPA nevertheless argues that its action is justified as a means of furthering the general purpose of the Act, to promote environmental protection. Reference to these general purposes, however, cannot override the intent of Congress clearly expressed in the language and structure of the statute. ...

The EPA's concern over the possible adverse environmental consequences of listing the used oil may well be warranted. Nevertheless, it is the Agency's obligation to comply with the dictates of Congress, and ours to enforce them.

Case Questions

1. What action had the EPA taken that the petitioners challenged in this case?
2. What justification did the EPA offer for its action?
3. The court found that the language of the statutes did not allow the EPA to refuse to list used oil as a hazardous waste. What argument did the EPA then fall back on as a justification for its refusal to list used oil?

Characteristic Waste

As noted earlier, RCRA required the EPA to develop two categories of hazardous waste. Any solid waste that exhibits certain characteristics is classified as a *characteristic waste*. Additionally, specific wastes that the EPA deems to meet these characteristics are designated as *listed wastes*. RCRA § 3001(b), 42 U.S.C. § 6921(b).

In characterizing hazardous wastes, the EPA has used four characteristics: ignitability, corrosivity, reactivity, and toxicity. If a solid waste exhibits any one of these four characteristics, it is classified as a hazardous waste.

Ignitability describes the propensity of a waste product to burn. Substances that burn easily and with great ferocity are classified as ignitable. 40 C.F.R. § 261.21. *Corrosivity* describes the propensity of a waste product to corrode other substances. Powerful acids and caustics are corrosive chemicals. 40 C.F.R. § 261.22. *Reactivity* describes the propensity of a waste product to react with other substances. 40 C.F.R. § 261.23. Ignitability, corrosivity, and reactivity are subject to relatively straightforward tests; it is generally fairly easy to determine if a waste meets any of these characteristics.

The fourth characteristic category is *toxicity*—that is, how poisonous a solid waste is. By contrast to the other characteristics, toxicity is a much more

open-ended criterion, because it can take a variety of forms. A toxin can kill outright, but often the more frightening forms of toxicity are those that cause long-term damage while having no immediate effect. Three varieties of toxins are specifically mentioned in RCRA: carcinogens (wastes believed to cause cancer), mutagens (wastes believed to cause mutations), and teratogens (wastes believed to cause misshapen organisms). RCRA § 3001(b), 42 U.S.C. § 6921(b).

Initially, the EPA based its characterizations of toxicity on a test called an **Extraction Procedure (EP) toxicity test**, and gauged the toxicity of wastes according to their Extraction Procedure toxicity. EP toxicity did not attempt to measure toxicity directly. Rather, it sought to measure the toxicity a substance would exhibit if it leaked from a landfill.

If a toxic substance is placed in a leaking landfill, groundwater flowing through the landfill can pick up the toxic substance and carry it to surrounding soil and groundwater. Potentially, the toxic substance might flow into wells from which water was drawn, or otherwise reach humans. This was the possible threat that EP toxicity was intended to measure.

The extraction procedure was intended to simulate the chemical process that would occur if the particular substance were placed in a leaking landfill. The substance was processed in a way that generated an extract simulating the contaminated groundwater that would flow from a landfill. By testing the resulting extract, the EPA attempted to determine the toxicity threat the substance would pose if it leaked from the landfill. The EP test checked the extract for the presence of 14 substances that the EPA had previously regulated under the **Safe Drinking Water Act**, 42 U.S.C. §§ 300f to 300j-11. These included eight metallic elements (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver), four insecticides, and two herbicides.

As a basic test for regulating toxic wastes, EP toxicity was adequate. Over time, however, critics charged that it did not cover a wide enough range of toxics. Specifically, it did not cover **carcinogens**.

Following congressional directives to revisit the toxicity issue, the EPA developed a new toxicity test, known as the **Toxic Characteristic Leaching Procedure (TCLP)**. 40 C.F.R. § 261.24. This test retained many features of the EP

LEGAL TERMS

Extraction Procedure (EP) toxicity test The test originally used by the EPA to determine toxicity for RCRA purposes. It assumes that a substance is placed in a landfill and then seeps through to the surrounding environment. The EP toxicity test gauges the toxicity of the resulting leachate extract.

Safe Drinking Water Act 42 U.S.C. §§ 300f to 300j-11; a statute banning certain substances from drinking water. The list of prohibited chemicals was the basis for the EP toxicity test.

carcinogen A substance that causes cancer.

Toxic Characteristic Leaching Procedure (TCLP) toxicity test The test for toxicity that has replaced the EP toxicity test. Like the EP toxicity test, the TCLP assumes that a substance is placed in a landfill and leaches into the surrounding environment. The resulting leachate is judged based on the presence of substances listed under the Safe Water Drinking Act plus 25 other substances (mostly known or suspected carcinogens).

toxicity test. The EPA again assumes that hazardous waste is placed in a leaking landfill. It then uses a model based on the tendency of the waste to migrate out of the landfill and contaminate the surrounding environment, just as with the EP toxicity test. The key change is that the TCLP examines the resulting extract for a much wider range of toxic substances. Under the TCLP, the EPA will test for the presence of the original 14 regulated substances, plus 25 other chemicals, mostly known or suspected carcinogens.

The EPA will classify a substance as hazardous under the TCLP if the extract exceeds any one of four threshold levels:

1. If any of the 14 substances regulated under the Safe Drinking Water Act is present in levels greater than those allowed by that statute
2. If any known or probable carcinogen is present in concentrations greater than 1 part per 100,000
3. If a suspected carcinogen is present in concentrations greater than 1 part per 10,000
4. If any other TCLP substance which is not a known or suspected carcinogen is present in an amount at which a person would show adverse health effects if she was exposed to that level of the substance for her entire lifetime.

The TCLP model has been criticized by both environmentalists and industry advocates. Environmental groups charge that the standard is much too lenient. The environmental groups wanted the EPA to classify any waste as hazardous if it contained any known or suspected carcinogen in concentrations greater than one part per million. Such a standard would be 10 times more stringent than the TCLP standard for known carcinogens and 100 times more stringent than for suspected carcinogens. Industry groups, on the other side, complain at the EPA's insistence on using worst-case scenario models, even if this borders on the absurd.

SIDEBAR

A *worst-case scenario* assumes that the worst possible course of events will occur. Such scenarios are often used as the basis for regulations implementing safety statutes such as RCRA.

For example, the standard for noncarcinogens assumes that an individual will be exposed to threshold levels of a toxic substance continuously for her entire lifetime. Despite these criticisms, the TCLP remains the controlling test for toxicity.

Listed Wastes

In addition to characteristic waste, the EPA has published extensive lists of specific substances that it deems to be hazardous waste. The regulations set up

three categories of listed wastes: **generic wastes**, **industry-specific wastes**, and other dangerous wastes.

Generic wastes must be treated as hazardous no matter who generates them and regardless of the process that generates them. Wastes designated as generic must be managed as hazardous waste under all circumstances, regardless of what type of industry generates them. These wastes, listed in 40 C.F.R. § 261.31, include various acute hazardous wastes, which are considered far more dangerous than any other types of wastes.

A second category of wastes are *industry-specific wastes* associated with specific industries. If the waste is generated by a listed industry, it must be treated as hazardous. If the same waste is generated by someone else, it must be treated as a hazardous waste only if it is a characteristic waste. 40 C.F.R. § 261.32.

A third category includes a variety of chemicals, primarily those discarded from various processes, that pose sufficient risks to be regulated. 40 C.F.R. § 261.33.

Delisting Hazardous Wastes

If a facility generates a listed hazardous waste, the facility must treat it as a hazardous waste. Often this will involve an expensive system of hazardous waste management. In some cases, generators will contend that their wastes are not truly hazardous. For example, what if a generator does produce a listed waste, but claims that its waste is not corrosive, reactive, ignitable, or toxic? Because this is a listed waste, it is legally hazardous. But what if the generator claims that its waste is innocuous? For example, what if the waste contains only minute quantities of some hazardous substance, in such dilution that the generator claims that full-scale management would be unreasonable?

Excessive regulation is unsound, but there is a danger in any loophole that might allow generators to avoid managing wastes as hazardous. If the EPA allowed exceptions, every generator would try to avoid regulation. To prevent this, the RCRA regulations require all generators of listed waste to treat their waste as hazardous unless and until they prove it is not hazardous.

If a generator claims that its waste is not hazardous, it can petition to have the waste delisted. To have its waste delisted, the generator must show that its waste demonstrates none of the characteristics that caused it to be listed initially. 40 C.F.R. § 260.22. **Delisting** is often a very onerous procedure, but the

LEGAL TERMS

generic wastes Wastes classified as hazardous and therefore subject to regulation under RCRA regardless of the industry in which they originate.

industry-specific wastes Wastes classified as hazardous and therefore subject to regulation under RCRA only if they originate in an industry listed in the RCRA regulations.

delisting A process of taking a waste out of the RCRA regulation system. Delisting requires that the generator demonstrate that its wastes do not exhibit any characteristic that would cause its wastes to be listed.

alternative—having to manage wastes as hazardous—may be even more burdensome. This reflects the view that exceptions to RCRA must be narrowly construed.

The “Mixture” Rule

Originally, the EPA ruled that a mixture of a solid waste and a hazardous waste is considered to be a hazardous waste, essentially without regard to how diluted the hazardous waste is. The purpose of this rule was to ensure that hazardous mixtures were managed, and to prevent generators from evading RCRA by mixing hazardous waste and benign material. The EPA has now granted certain exceptions. If a waste was classified as hazardous because it was corrosive, reactive, or ignitable, a mixture containing that waste will be classified as non-hazardous if the generator can show that the mixture does not exhibit any of these characteristics. Toxicity, on the other hand, is not lessened by dilution, so a mixture containing toxic waste remains hazardous. Further, a mixture that contains a waste that is classified as an “acute” hazardous waste is considered hazardous no matter how diluted it is. 40 C.F.R. § 261.3. Also, wastewaters managed in publicly owned treatment facilities and regulated under the Clean Air Act are generally not subject to the mixture rule. 40 C.F.R. § 261.3.

The “Derived-From” Rule

Material that is derived from hazardous waste remains hazardous waste if it exhibits any of the qualities that caused it to be classified as hazardous.

Regulation of Hazardous Wastes Generators

RCRA § 3002, 42 U.S.C. § 6922, sets standards applicable to generators of hazardous waste. The regulations to be promulgated under this section do several things:

- Establish a permit system, identifying each generator of hazardous wastes
- Require generators of hazardous waste to identify the chemical composition of their hazardous wastes, identify accurately quantities of hazardous waste, and maintain accurate records showing the disposition of these hazardous wastes
- Require generators to follow the rules for storage of hazardous waste pending shipment to a TSD facility
- Require transporters to use appropriate containers for hazardous wastes

- Require generators to use a **manifest** system to ensure proper tracking of their hazardous wastes
- Require generators to submit detailed reports to the EPA (or an authorized state agency).

In 1984, Congress increased the generators' role in the waste management process. Congress amended RCRA § 3002(b), 42 U.S.C. § 6922(b), to require that, as part of the manifesting system used to track hazardous wastes to their disposal, each generator must certify that it has put in place a *waste minimization program* designed to reduce the volume and toxicity of hazardous wastes as far as is economically practicable. Although this does not give the EPA direct authority to compel waste minimization, indirectly it has that effect.

EPA Identification Numbers

As a first step in the RCRA process, the generator must have an EPA identification number. A generator must not treat, store, dispose of, or transport hazardous wastes without an EPA identification number. To obtain a number, the generator must file EPA Form 8700-12 with the EPA. This form identifies the generator, its location, its owners, the hazardous waste activity being carried on at its location, and the type of hazardous waste involved. After submission of this information, the Administrator of the EPA will issue an EPA identification number. 40 C.F.R. § 261.12.

Identification of Hazardous Waste

Under EPA regulations in 40 C.F.R. § 262.11, anyone who generates solid waste must determine if that waste is hazardous. The generator can do this by determining that the waste is a listed waste catalogued in 40 C.F.R. part 261, subpart D. If a waste is listed in subpart D, it is a hazardous waste.

Even if a waste is not a listed hazardous waste, the generator must still check the waste to determine that it is not a characteristic waste. It can do this in either of two ways. It can test the waste, using the tests prescribed in EPA regulations, to determine if it is corrosive, reactive, ignitable, or toxic as defined by EPA standards. 40 C.F.R. § 261.11(c)(1). Alternatively, if the generator knows the chemical makeup of its waste and the processes by which it was generated, it can determine from these that its waste is or is not a hazardous waste. 40 C.F.R. § 262.11(c)(2). If they can do so, most generators prefer to determine whether their wastes are hazardous based on their knowledge of the chemical makeup. This method is much less expensive.

LEGAL TERMS

manifest † A document that lists items being warehoused or shipped.

Accumulation of Hazardous Waste

A generator usually accumulates hazardous wastes until it has a large enough quantity to make it economical to ship the wastes to an appropriate facility. To accumulate hazardous wastes, the generator must use a container clearly labelled as containing hazardous wastes and showing the date on which the accumulation of wastes began, and must comply with other requirements for safe storage. 40 C.F.R. § 262.34.

The wastes must be stored in closed containers that do not leak. The containers must be handled carefully and checked weekly for leaks. 40 C.F.R. Part 265, Subpart I. RCRA regulations give some guidance for storing hazardous wastes, but this is also an area where other rules come into play, such as OSHA regulations, fire codes, and the like.

EPA regulations allow a generator to accumulate wastes for up to 90 days without being classified as a storage facility. On the generator's application, the EPA can extend the 90-day accumulation period to accommodate unforeseen difficulties. 40 C.F.R. § 262.34(b). If the generator does hold waste for more than 90 days, it will be classified as a storage facility and will have to have a interim TSD permit.

For anyone classified as a generator, RCRA means extra costs for having to dispose of hazardous wastes only through legally permissible channels. This is expensive. Thus, generators try to economize by shipping wastes in large quantities rather than making more frequent, small-quantity shipments. In accumulating wastes, however, the generator faces a risk. If it keeps hazardous waste too long, it will be classified as a storage facility, a much more burdensome and expensive classification.

These storage requirements encourage generators to arrange for the disposal of hazardous wastes early, rather than waiting, shopping the market, and hoping to get good deals at the last minute.

Transportation of Hazardous Wastes

The generator has two options for the disposal of hazardous wastes: it can dispose of them on site, or it can have them transported to an off-site TSD facility. If it elects off-site disposal, a generator must use transporters and TSD facilities that have EPA identification numbers. 40 C.F.R. § 262.12(c).

Additionally, when it offers hazardous wastes to a transporter, the hazardous wastes must be packed, labelled, marked, and placarded according to Department of Transportation regulations for the transportation of hazardous wastes. 40 C.F.R. §§ 262.30–262.33. The relevant Department of Transportation regulations are set out at 49 C.F.R. Parts 172, 173, 178, and 179.

The generator must document that it has transferred its hazardous wastes to a licensed transporter or TSD facility. The controlling document for this is a Uniform Waste Manifest, EPA Form 8700-22, and Continuing Form, EPA Form 8700-22A.

SIDEBAR

The *Uniform Waste Manifest*, EPA Form 8700-22, and the *Continuing Form*, EPA Form 8700-22A, are the shipping documents required for any shipment of hazardous wastes under RCRA. These forms identify the generator, the hazardous wastes, the transporter, and the TSD facility to which the wastes are being shipped.

For each shipment of hazardous waste, a generator must prepare a manifest showing the proper DOT shipping name, hazard class, and identification number for each waste to be shipped. It must also identify the generator, the transporter, and the facility designated to receive the wastes. The generator (or its agent) must sign the manifest. By doing so, the generator certifies that all hazardous wastes are properly identified, properly packed, and packaged appropriately for the method of transportation being used. 40 C.F.R. Part 262, Appendix.

On-Site Disposers

Because generator requirements are burdensome, generators may wish to dispose of their own hazardous wastes on site. This is allowed under RCRA, but few generators do so because of the legal consequences. A generator that disposes of hazardous wastes at its own facility is largely exempt from generator regulations. However, the site is then a disposal facility, and the owner/operator must meet the many regulatory requirements applicable to such facilities. 40 C.F.R. § 262.34(b). These requirements are far more onerous than the requirements imposed on generators.

Midnight Dumpers

As noted previously, one effect of RCRA has been a great increase in the cost of disposing of hazardous wastes. The increasing costs have encouraged some people to carry out irresponsible and plainly illegal practices. They have made clandestine businesses of dumping wastes illegally. They often operate at night, under cover of darkness, earning them the nickname "midnight dumpers." In one noted case, a midnight dumper disposed of hundreds of gallons of hazardous liquid waste by spraying it from a van along the sides of various back roads. Before he was caught, he had spread hazardous waste over hundreds of miles of roadways.

Cases such as this have generated massive civil lawsuits and criminal prosecutions. Tragically, the worst of the midnight dumpers have few resources to fund cleanup efforts. As a result, the public must bear the massive costs of these cleanups, to protect itself from serious health risks.

Small-Quantity Generators

The regulatory regime that the EPA has imposed on generators under RCRA is quite severe—enough so that the EPA has found it inappropriate for generators

that produce only relatively small quantities of hazardous waste. For generators that generate less than 100 kilograms (approximately 220 pounds) of hazardous waste per month, the EPA has created a partial exemption from the regulatory requirements on generators. This is the **small-quantity generator rule**. 40 C.F.R. § 261.5.

If subject to full regulation, the entities generating these small quantities of hazardous waste would be a source of more paperwork than wastes. Entities generating less than 100 kilograms of hazardous waste per month make up 91 percent of all generators, but they generate only about 1 percent of all hazardous waste. Fully regulating these small-quantity generators would impose massive burdens on regulatory authorities while yielding little or no environmental protection.

The small-quantity generator exemptions relieve small-quantity generators from some of the RCRA requirements. For instance, a small-quantity generator does not need an EPA identification number. It is not under a specific time restraint for collecting hazardous wastes. It does not have to bring collected hazardous wastes within the full range of RCRA management until it transports them from its site. When it does transport hazardous wastes, it must use a Uniform Hazardous Waste Manifest; in doing so, it brings the wastes within the RCRA tracking system. Prior to transporting these wastes, however, the small-quantity generator is largely exempt from regulation, so long as it never accumulates more than 1,000 kilograms of hazardous waste on its site at any one time. 40 C.F.R. § 261.5.

For generators producing more than 100 but less than 1,000 kilograms per month, the EPA provides a more limited exemption. The generator in this range must obtain an EPA identification number, but it is allowed to accumulate hazardous wastes for up to 180 days without being classified as a storage facility. 40 C.F.R. § 262.34(d). This time period can be extended to 270 days if the generator must ship wastes more than 200 miles for disposal. 40 C.F.R. § 262.34(e).

Reporting Requirements

RCRA requires extensive reporting as a means of tracking hazardous wastes. A generator must submit detailed reports to the EPA, giving full information on the quantity and nature of wastes generated, the disposition of all hazardous wastes, efforts undertaken to minimize the volume and toxicity of wastes, and changes in the volume and toxicity of wastes from prior years. 40 C.F.R. § 262.41. The generator must maintain these reports in its own files for a minimum of three years. 40 C.F.R. § 262.40(a). It must also notify the EPA of any discrepancies in the manifest reporting system, such as nonreceipt of confirming copies of

LEGAL TERMS

small-quantity generator A generator that produces less than 100 kilograms of hazardous waste per month, and is therefore partially exempt from RCRA regulations applicable to generators.

manifests. 40 C.F.R. § 262.42. It must also submit any additional reports called for by the EPA. 40 C.F.R. § 262.43.

Transportation of Hazardous Wastes

RCRA provides for cradle-to-grave management of hazardous wastes. Given the difficulties that stem from on-site disposal, most generators have their hazardous wastes transported to licensed facilities.

However, in adopting RCRA, the Congress realized that another law already regulated the transportation of hazardous wastes: the **Hazardous Materials Transportation Act (HMTA)**, 49 U.S.C. §§ 801 to 812. HMTA is supported by extensive regulations issued by the Department of Transportation (DOT). 49 C.F.R. Parts 170 to 179. Because this statute and its regulations already provided effective regulation in this field, Congress and the EPA dealt with the transportation of hazardous wastes in a fairly simple manner. Congress directed the EPA to adopt regulations for transporters that provided cradle-to-grave management of hazardous waste and were consistent with the Hazardous Materials Transportation Act. RCRA § 3003, 42 U.S.C. § 6923.

As a result, virtually all regulations concerning the actual transportation of hazardous wastes are DOT regulations. RCRA adds to this system provisions that maintain cradle-to-grave management during transportation.

A transporter must have an EPA identification number. 40 C.F.R. § 263.11(a).

A transporter can ship hazardous wastes only if they are covered by a properly completed Uniform Hazardous Waste Manifest. After the generator signs the manifest, the transporter must also sign the manifest and leave a copy with the generator. 40 C.F.R. § 263.20(b). When it delivers the hazardous wastes, either to a TSD facility or to another transporter, it must have the TSD facility or new transporter sign the manifest, and then it must retain a copy. 40 C.F.R. § 263.20(d).

A transporter is also restricted: it can transport, and nothing else. It must take the hazardous wastes from the generator's site to a TSD facility or to another transporter, as designated in the manifest. 40 C.F.R. § 263.21(a). To allow for consolidation of shipments from several generators, a transporter is allowed to **stop over** for up to 10 days during transportation. 40 C.F.R. § 263.12. This stopover allows a transporter to bring shipments from several generators together for transportation, but it does not allow a transporter to consolidate wastes by putting wastes from different transporters into a single container. If it does this, the

LEGAL TERMS

Hazardous Materials Transportation Act (HMTA) 49 U.S.C. §§ 801 to 812; the act that is the basis for regulation of the transportation of hazardous wastes.

stopover A temporary stop during the transportation of hazardous wastes. Under RCRA regulations, any transporter is permitted one stopover of up to 10 days in transporting a shipment of hazardous waste.

transporter will be treated as a generator and will have to comply with the rules for generators. 40 C.F.R. § 263.10(c). Similarly, a transporter that imports hazardous waste from foreign countries is classified as a generator. 40 C.F.R. § 263.10(c).

If a transporter spills hazardous waste, it must clean up any discharge. 40 C.F.R. § 263.30. The transporter is liable for all cleanup costs under the Comprehensive Environmental Responsibility, Compensation, and Liability Act (CERCLA), covered in Chapter 6. CERCLA § 103, 42 U.S.C. § 9703, requires any person who releases a reportable quantity of any hazardous substance to report the release to the EPA. A *hazardous substance* under CERCLA includes any RCRA hazardous waste. A *reportable quantity* is any amount specified by regulations, or one pound if the EPA has not set a quantity for the particular substance.

If there is a release, or a substantial threat of a release, the government can arrange to remove the substance or take other appropriate remedial action. The owner/operator of the responsible facility is liable for all costs of the removal or remedial actions, as well as damages for injury or losses to natural resources. This is strict liability, imposed without regard to fault or the preventive steps a transporter has taken. CERCLA § 107(a), 42 U.S.C. § 9607(a).

Storage, Treatment, and Disposal of Hazardous Wastes

Background

Of the many techniques used to dispose of waste, land disposal remains the most common. Our favored way of getting rid of trash has been to dig a hole and bury it. Over the years, the size and complexity of our waste disposal problems have forced some advances in our technique—the holes became landfills—but the basic idea remained unchanged. In a land disposal facility, wastes are placed on or under land, with the intent that they will remain there permanently.

Although land disposal is the most common form of disposal, it also involves a great risk that waste will leak through and contaminate the surrounding environment. Indeed, by its very nature, any land disposal of hazardous wastes involves placing hazardous wastes in the environment, despite the intent to confine the wastes to a limited and isolated site, such as a sealed landfill. Additionally, many hazardous wastes remain hazardous forever. Consider basic chemical elements such as lead, mercury, silver, and barium. These never deteriorate; they always remain hazardous. Thus, land disposal involves the continuing threat that hazardous substances will escape from the confined facility in which they are originally placed and contaminate the surrounding environment. Reflecting this, the EPA's regulation of land disposal facilities is based on the controlling premise that no land disposal containment system is entirely safe from the threat of leaks.

Working from this premise, the EPA has adopted two strategies for protecting the environment. First, restrict the wastes that can be placed in landfills. Second, control leaks from landfills.

SIDEBAR

The EPA's Strategy is to restrict the wastes that can be placed in landfills and control leaks from landfills.

Leaching

The critical problem with land disposal is the process of **leaching**. Anyone who has brewed a pot of coffee has dealt with leaching. Leaching occurs when a liquid passes through solid substances, picking up **soluble material** as it passes.

Consider the pot of coffee. Hot water passes through ground coffee. As it does, it picks up soluble material, microscopic coffee particles. The water that flows out of the ground coffee carries the soluble material with it, making the drink that we call coffee.

The same process can occur in any land disposal facility, with far less pleasing results. Water or other liquids flow through the waste material in the land disposal facility. The flowing liquid may be rain water flowing down through the waste, groundwater flowing laterally through the waste, or liquid waste flowing out of the facility. As it flows, the liquid picks up soluble material and carries it into the surrounding environment. If a soluble material is hazardous, it will contaminate the surrounding environment.

A liquid that has leached through a land disposal facility is called **leachate**. Because of the possibility that the leachate flowing out of a landfill will be contaminated with soluble hazardous wastes, RCRA regulations subject it to rigorous controls.

Much of the EPA's regulatory regime for land disposal facilities is based on the fear that leaching will occur at any disposal facility, and that the resulting leachate will be contaminated. Leaching is almost inevitable because there is no truly effective way to isolate a land disposal facility from the surrounding environment. Natural materials such as clay slow the leaching process, but they cannot stop it completely. Manmade materials can stop the leaching process while they remain intact, but even the best manmade materials cannot be expected to last for the decades and even centuries during which some wastes will remain hazardous. Once there is a breach in a containment system, leachate can

LEGAL TERMS

leaching The process of soluble materials being picked up and carried by a liquid passing through the solid soluble materials.

soluble material Material that is picked up and carried along by a liquid passing through it; material dissolved in a liquid.

leachate A liquid containing soluble material that was picked up through a leaching process and is being carried along by the liquid.

migrate to the environment beyond the facility. A **leachate collection system** can be installed to collect leachate escaping from the landfill, but this cannot guarantee that all of the leachate will be collected.

Given the complex problems involved with leachates, the EPA has consistently taken the view that leaching and the attendant migration of hazardous wastes will inevitably occur from any land disposal facility. Acting on this assumption, the EPA has gradually refined its regulations to protect human health and the environment. As noted, this regulatory effort has concentrated on two points: protecting against leachate escaping from land disposal facilities, and restricting the substances that can be placed into land disposal facilities.

Standards for Hazardous Waste Disposal Facilities

RCRA § 3004, 42 U.S.C. § 6924, requires the EPA to issue regulations establishing performance standards for treatment, storage, and disposal facilities. RCRA § 3005, 42 U.S.C. § 6925, calls for the EPA to implement these standards by establishing a permit system for TSD facilities.

The EPA has issued two sets of regulations setting standards covering owner/operators of hazardous waste disposal facilities. One set of regulations applies to all owners and operators of new hazardous waste disposal facilities. 40 C.F.R. Part 264. The standards set out in these regulations are very detailed. They cover essentially every aspect of the operation of any facility where hazardous wastes will be treated, stored, or disposed of: waste analysis, recordkeeping and reporting, security, preparedness, emergency procedures, releases and monitoring for releases, financial responsibility, closure and postclosure requirements, and many other aspects of facility management. The EPA is able to enforce these regulations because it can withhold or cancel permits for any noncomplying facility. RCRA § 3005, 42 U.S.C. § 6925.

Separate regulations apply only to owner/operators of facilities that had been granted "interim status." 40 C.F.R. Part 265. The facilities covered by 40 C.F.R. Part 265 are those that were operating before the regulations became effective on November 19, 1980, provided that the owner/operator of the facility had applied for a permit to allow continued operation. Upon the filing of the interim status permit application, these facilities were deemed to be in compliance with RCRA. RCRA § 3005(e)(1), 42 U.S.C. § 6925(e)(1). The discussion in this chapter focuses on the standards of 40 C.F.R. Part 264, regulating new facilities.

Anyone wanting to establish a facility that will treat, store, or dispose of hazardous wastes must first obtain an EPA TSD facility permit. RCRA § 3005(a), 42 U.S.C. § 6925(a).

LEGAL TERMS

leachate collection system A drainage or similar system installed around a TSD facility to collect any leachate flowing from the facility to the surrounding environment.

Standards for Leachate Control

One of the EPA's critical standards appears in 40 C.F.R. Part 264, Subpart F, establishing requirements for **groundwater monitoring** and **response systems** for all new TSD facilities. Many portions of 40 C.F.R. Part 264 apply only to specific types of facilities. By contrast, the Subpart F requirements apply to all RCRA TSD facilities. Any land disposal facility must meet these requirements, as well as any requirements specific to the type of facility.

EPA Proposal and Congressional Modification

The development of Subpart F reflects the interaction of Congress and the Environmental Protection Agency. The EPA originally proposed a system that would give owner/operators options. The EPA did require the owner/operator to install a leachate collection and removal system in any new landfills and waste piles, as well as a leak detection system. However, under the EPA proposal, if the owner/operator installed a double-layer liner, it would not have to install groundwater monitoring and response equipment so long as no leaks were detected in the liner. If a leak in the liners was discovered, the owner/operator would then have to either repair or replace the liner or install a groundwater monitoring and response system. However, until then, the owner/operator was spared the expense of installing full-blown groundwater monitoring and response systems. This reduced the monitoring an owner/operator had to do at a facility, and with it the cost of building a facility.

Environmentalists blasted the proposed EPA regulations. In response, Congress imposed several new restrictions under the Hazardous and Solid Waste Amendments of 1984. These amendments reflected growing congressional dissatisfaction with the EPA. Congress felt the EPA was allowing landfill design to remain too lax. The Hazardous and Solid Waste Amendments eliminated the Agency's discretion in this area. In this act, Congress declared that merely installing liners in land disposal facilities did not assure long-term containment of untreated hazardous wastes. As long as wastes were placed in land disposal facilities, there would always be a risk of leakage.

Rather than allow this risk to remain, Congress sharply increased the minimum technology requirements under RCRA § 3004(o), 42 U.S.C. § 6924(o). This statutory provision overrode the EPA on what equipment had to be installed in new TSD facilities. It requires that for any new facilities or new portions of facilities for which permits were issued after November 8, 1984, the owner/operator is not allowed the option of choosing between the liner and

LEGAL TERMS

groundwater monitoring The testing and treatment of groundwater in which leachate has been detected.

response systems A system installed to respond to the release of hazardous wastes from a leak in a TSD facility.

the monitoring system. The facility must have *both* a double liner *and* a groundwater monitoring and response system.

What Subpart F Requires

The EPA regulations in Subpart F impose general groundwater monitoring and response requirements. These regulations require that owner/operators operate facilities so that they minimize the formation of leachate and the risk that leachate will migrate from the facility into the surrounding soils where it could contaminate groundwater and surface waters. 40 C.F.R. §§ 264.91–264.95. The regulations also require that owner/operators maintain systems that allow them to detect any groundwater contamination and to correct any contamination that threatens human health or the environment. 40 C.F.R. §§ 264.96–264.101.

Subpart F establishes a three-stage system to detect, evaluate, and (if necessary) correct any threat of groundwater contamination. First, the owner/operator must install **monitoring wells** around the TSD facility. 40 C.F.R. § 264.97. One monitoring well must be **upgradient**, situated so that the water flowing into it is the groundwater coming to the facility site. 40 C.F.R. § 264.97(a)(1). By testing water from this well, the owner/operator will be able to show what contaminants are contained in groundwater flowing onto the property, thereby establishing a background level. Other wells must be installed **downgradient** from the waste facility, so that water samples from these wells will show the contaminants found in the water flowing from the site. 40 C.F.R. § 264.97. By comparing the contaminant levels in water flowing from the site with the background level, the owner/operator can determine if any contaminants are leaching into the groundwater. 40 C.F.R. § 264.98.

If any contaminant leakage is detected, the owner/operator must undertake *compliance monitoring* to track the migration of hazardous contaminants. 40 C.F.R. § 264.99. The EPA can require the owner/operator to monitor for any hazardous substance which the EPA believes is contained in and may escape from the facility. 40 C.F.R. § 264.93(a). It will also require the owner/operator to monitor for 14 hazardous constituents listed in the **National Interim Primary Drinking Water Regulations** (NIPDWR). 40 C.F.R. § 264.93(a). The groundwater flowing from the facility must not contain any contaminant at a level that exceeds the background

LEGAL TERMS

monitoring well A well drilled at or near a TSD facility to monitor groundwater flowing under the facility to determine if there have been any leaks in the facility's liners.

upgradient Upstream; upgrade; designating water coming to the site rather than water coming from the site.

downgradient Downstream; downgrade; designating water going away from the site rather than water coming to the site.

National Interim Primary Drinking Water Regulations (NIPUDWR) The regulations concerning drinking water quality.

level—that is, the level of the contaminant found in the groundwater before it reached the facility. 40 C.F.R. § 266.94(a)(1).

If the contaminant level exceeds these standards, the owner/operator must undertake **corrective action**. 40 C.F.R. § 264.100. This corrective action must continue until the owner/operator brings all contaminant levels back to background. 40 C.F.R. §§ 264.94(a)(1), 264.100(a)(2). The owner/operator must show that it has not detected contaminants at higher than background levels for at least three years before the corrective action can be deemed completed. 40 C.F.R. § 264.96(c). The regulations do not specify any particular types of corrective action. This is left to case-by-case standards which the EPA can set in the permit for the facility. 40 C.F.R. § 264.100(b).

Requirements for Particular Facilities

In addition to certain general standards covering all land disposal facilities, the regulations in 40 C.F.R. Part 264 have separate portions covering different types of facilities. These regulations address specific types of sites and are intended to ensure that owner/operators minimize the formation and migration of leachate by taking measures appropriate to their particular type of facility.

RCRA divides land disposal facilities into four categories, and the EPA has promulgated separate regulations for each of these: surface impoundments, regulated by 40 C.F.R. Part 264, Subpart K; waste piles, regulated by 40 C.F.R. Part 264, Subpart L; land treatment units, 40 C.F.R. Part 264, Subpart M; and landfills, 40 C.F.R. Part 264, Subpart N. The regulations establish separate design and operating criteria for each type of facility, based on the risks attendant to that type of facility.

The simplest regulations apply to **land treatment units**. A *land treatment unit* is a facility at which hazardous waste is treated but not stored permanently. When a land treatment unit is closed, all hazardous waste and hazardous waste residues must be removed. As part of the **closure process**, the owner/operator must show that the soils at the facility have been cleaned back to the background level. 40 C.F.R. §§ 264.272(a), 264.280(d).

For actual disposal units, whether they are surface impoundments, waste piles, or landfills, the regulations require that any new land disposal facility be constructed with liners to prevent migration of wastes from the facility to surrounding soils and waters throughout the life of the facility. In addition, landfills and waste piles are required to have leachate collection and removal systems, such as a drain system to collect any leachate-bearing groundwater that might

LEGAL TERMS

corrective action An action taken by the owner/operator of a hazardous waste facility upon the discovery that there has been a leak involving hazardous wastes.

land treatment unit A type of TSD facility at which hazardous waste will be treated but not stored permanently or disposed of.

closure process The process an owner/operator goes through after a facility has ceased to operate. A demonstration of financial planning is a prerequisite to closure.

otherwise escape from the facility. These must be designed to minimize the amount of leachate remaining after the facility is closed. 40 C.F.R. §§ 264.221 (surface impoundments), 264.251 (waste piles), 264.301 (landfills).

The EPA regulations are particularly rigorous for **surface impoundments**. A settling pond is an example of a surface impoundment unit. Large amounts of liquid sludge contaminated with hazardous wastes are dumped into these ponds. The hazardous wastes settle out and sink to the bottom. The remaining liquid that flows out of the surface impoundment is actually relatively clean. By their nature, these facilities handle such large quantities of liquids that the leachate collection and removal systems used at landfills are not adequate. At any given time, a facility like this may contain several hundred thousand gallons of contaminated liquid. If a serious rupture in the containment system occurs, no drainage collection system could contain the huge quantities of liquid that would be released. For these facilities, at closure, the owner/operator must remove or solidify all remaining liquid waste to protect against postclosure leaching. 40 C.F.R. § 264.228.

Waste piles and surface impoundments cannot be used as permanent disposal facilities. At closure, all wastes and waste residues must be removed from these facilities. 40 C.F.R. §§ 264.228 (surface impoundments), 264.258 (waste piles).

Landfills, and other disposal facilities intended to be closed with wastes still in them, must be capped at closure. They must then be maintained and monitored for groundwater contamination throughout the postclosure care period. 40 C.F.R. § 264.310. The normal monitoring period is 30 years, but the EPA can shorten or extend it to ensure that no hazardous waste will escape from the facility. 40 C.F.R. § 264.117.

The Land-Ban Rules and Predisposal Treatment

The Hazardous and Solid Waste Amendments of 1984 (HSWA) represent a major strengthening of RCRA. Under the HSWA, Congress phased in a presumption against land disposal of untreated hazardous wastes. To do this, it divided hazardous waste into categories. For each category, it set up a deadline, after which placing that type of waste untreated in land disposal facilities was prohibited. RCRA § 1002(b)(7); 42 U.S.C. § 6901(b)(7). This **land-ban** forced TSD facilities to treat hazardous wastes rather than merely burying them.

LEGAL TERMS

surface impoundments A type of TSD facility, such as a settling pond, in which large amounts of liquid hazardous waste are placed for temporary storage and treatment. By regulation, a surface impoundment is not allowed to be a permanent storage facility.

land-ban The centerpiece of the changes to RCRA brought about by HSWA, by which the land disposal of many untreated hazardous wastes is prohibited.

Phases of the Land-Ban

HSWA imposed a phased ban on land disposal of untreated wastes. The EPA was given 32 months (until July 8, 1987) to promulgate regulations for the constituents on a list used by the State of California, known as the “California list.” See RCRA § 3004(d), 42 U.S.C. § 6924(d). The EPA was to promulgate regulations for dioxin-containing wastes and listed solvents within 24 months of the adoption of HSWA, by November 8, 1986. See RCRA § 3004(e), 42 U.S.C. § 6924(e). Eventually, the EPA did promulgate final regulations for many of the substances on the California list (40 C.F.R. § 268.32), but it declined to issue regulations for certain heavy metals and free cyanides. The EPA concluded that these substances are so dangerous that they always pose a risk to human health and the environment. By refusing to issue regulations covering the disposal of these substances, the EPA left them subject to the statutory land-ban. Thus, no land disposal of these substances is allowed. Heavy metals and free cyanides must be treated.

The EPA also issued regulations prohibiting land disposal of solvents and dioxin-tainted wastes except under narrow and highly specialized circumstances. 40 C.F.R. § 268.30.

HSWA also required the EPA to establish priorities for all remaining listed hazardous wastes and to issue regulations for them in a three-stage process. To do this, the EPA was to divide all RCRA listed wastes into thirds. In making this determination, it was to determine the “intrinsic hazard” posed by the waste and deal with the most hazardous wastes first. RCRA § 3004(g), 42 U.S.C. § 6924(g). The regulations the EPA subsequently adopted are popularly known in the hazardous waste industry as the First-Third, Second-Third, and Third-Third regulations. The First-Third regulations were to be in effect by August 8, 1988; the Second-Third by June 8, 1989; and the Third-Third by May 8, 1990. RCRA § 3004(g)(4), 42 U.S.C. § 6924(g)(4).

Provisions Compelling EPA Compliance: The “Hammers”

To compel the EPA to act, Congress imposed *hammers*—deadlines that would come into effect automatically if the EPA had not acted by the statutory deadlines. Two hammers were adopted concerning the land-ban restrictions. If the EPA failed to act within the time periods set forth in the various statutory provisions, the statute would bar land disposal except under extremely stringent conditions. Because the statute did allow some exceptions, however limited, this provision was called a “soft” hammer, although most parties familiar with it felt that its terms were not soft at all. If the EPA failed to promulgate regulations for a particular waste within 66 months of the enactment of the HSWA (by May 8, 1990), then *all* land disposal of that waste would be prohibited outright. This was labelled the “hard” hammer. Waste initially listed as hazardous after the November 8, 1984 adoption of HSWA were exempted from the hard hammer. The EPA was to promulgate regulations concerning disposal within six

months of listing, but there were no automatic restrictions if the EPA missed that deadline. RCRA § 3004(g)(6), 42 U.S.C. § 6924(g)(6).

Regulations for Treatment of Hazardous Waste

The land-ban rules were intended to require that hazardous wastes be treated rather than merely disposed of. To this end, when the EPA issued regulations prohibiting a method of land disposal for a particular waste, it was also to promulgate regulations specifying the levels and methods of treatment that would substantially diminish the toxicity of the waste, or would substantially reduce the likelihood of migration of hazardous components from the waste, so that the short-term and long term risks to human health and the environment would be reduced. (The EPA was not required to issue these regulations if there were no adequate means for reducing toxicity or mobility.) If the EPA did issue such regulations and the waste was treated in compliance with these regulations, then the waste or the resulting residue would not be subject to the land-ban prohibition. RCRA § 3004(m)(2), 42 U.S.C. § 6924(m)(2). These regulations were intended to compel generators and owner/operators of TSD facilities to “pretreat” their waste to make it nonhazardous before they disposed of it.

In setting out the land-ban requirements, Congress was also concerned that generators and owners/operators would attempt to evade these restrictions by “temporarily” storing wastes, where storage would effectively become permanent. Therefore, Congress prohibited the storage of any wastes subject to the land-ban regime unless the storage was solely for the purposes of facilitating proper recovery, treatment, or disposal. RCRA § 3004(j), 42 U.S.C. § 6924(j). Congress based this provision on its view that to allow long-term storage as a means of forestalling treatment would pose a threat to health and the environment at least as serious as land disposal.

EPA regulations concerning the treatment and disposal of hazardous waste are extremely rigorous. Essentially, the EPA mandated the adoption of stringent standards based on the Best Demonstrated Available Technology (BDAT). Critics challenged this standard, charging that it called for regulating waste beyond anything necessary to eliminate any real risk to human health and the environment. For example, if the use of BDAT means that the owner/operator could treat a hazardous material so that it was 100 times cleaner than necessary to protect human health or the environment, the owner/operator is still required to undertake this treatment. Critics said that this amounted to treatment for treatment’s sake. The only way that an owner/operator can avoid this is to petition the EPA to allow the use of alternative treatments. In this petition, it must demonstrate that the alternative treatment would still provide full protection to human health and the environment. 40 C.F.R. § 268.42(b).

Despite the claim that requiring compliance with the BDAT standards set in the EPA regulations amounts to treatment for the sake of treatment, the courts upheld the EPA. Treatment of wastes is based on a need to minimize both short-term and long-term threat to human health and the environment. Rigorous standards for treatment and disposal of hazardous wastes are appropriate.

They are efforts to deal with the substantial and very real uncertainty involved with environmental problems. For example, in the case of carcinogenic solvents, there is arguably no safe exposure level. Extraordinarily minute amounts of these chemicals apparently pose a risk of cancer.

Ban on Disposal of Uncontainerized Liquid Waste

One of the most restrictive portions of HSWA was an outright ban on the disposal of **uncontainerized liquid hazardous wastes**. Under RCRA § 3004(c)(1), 42 U.S.C. § 6924(c)(1), after May 8, 1985, it is illegal to place uncontainerized liquid wastes in land disposal facilities. Various other restrictions are designed to force all generators and owner/operators of land disposal facilities to eliminate the disposal of liquid wastes.

Results of the Land-Ban Regulations

For wastes other than “California list” and solvent and dioxin list wastes, the EPA adopted regulations setting up the First-Third, Second-Third, and Third-Third lists. The resulting regulations cover four and a half pages in the current Code of Federal Regulations. 40 C.F.R. §§ 268.33–268.35. They are a maze of C.F.R. cross-references and code numbers, but the results can be stated with relative ease and clarity. For a great many hazardous substances, land disposal of the untreated substances is no longer an allowable option.

Further, at 40 C.F.R. §§ 268.40 to 268.45, the EPA set up a plan for hazardous waste treatment. These regulations prescribe the legally allowable treatment for various wastes, giving guidelines based on concentrations in waste extracts and treatment standards using specific technologies. 40 C.F.R. §§ 268.41–268.42.

The point of this treatment, of course, is to eliminate the hazard in hazardous waste. If waste is properly treated according to the regulations, the resulting residue is not a hazardous waste.

Limited Exceptions to the Land-Ban Regulations

Congress recognized that the land-ban as adopted in the 1984 HSWA was an extremely ambitious plan. It called for a substantial revamping of the way hazardous wastes were being dealt with. Acknowledging the bold scope of the plan, Congress did create certain limited exceptions to the prohibition it had adopted.

LEGAL TERMS

uncontainerized liquid hazardous wastes Liquid wastes not placed in any container, and therefore free to settle in a landfill, presenting a greater risk of leaching. Under HSWA, owner/operators of land disposal facilities are not allowed to accept uncontainerized liquid wastes.

The primary exception is not really an exception; instead, it reflects the overall goal of the land-ban. Waste can be placed in landfills if it is first treated so that it is no longer hazardous. RCRA § 3004(m), 42 U.S.C. § 6924(m).

Second, waste can be placed in a landfill where it will not pose a threat to human health or the environment because it cannot migrate into that environment at any time while it remains hazardous. RCRA §§ 3004(d)(1), 3004(e)(1), and 3004(g)(5); 42 U.S.C. §§ 6924(d)(1), 6924(e)(1), and 6924(g)(5). This is the key exception to the ban on land disposal of untreated wastes. The EPA must expressly find that the owner/operator proposes to dispose of a particular waste using a method of land disposal that will protect human health and the environment for as long as the particular waste remains hazardous. In deciding that a specific method is safe for a particular waste, the EPA is to take into account the uncertainties associated with land disposal (uncertainties that are exacerbated because of the very long time spans involved); the strong congressional preference for managing wastes and rendering them nonhazardous from the outset; and the characteristics that make the particular waste dangerous, including toxicity, persistence, mobility, and propensity to accumulate in biological organisms. Under RCRA, the EPA cannot approve a method of land disposal for any particular waste unless it is shown to a reasonable degree of certainty that there will be *no migration* of hazardous constituents from the disposal site so long as the wastes remain hazardous. RCRA § 3004(d)(1), 42 U.S.C. § 6924(d)(1). This means that the exception is not available for all wastes. Some wastes will never be nonhazardous, so land disposal of such wastes remains prohibited.

HSWA does allow one other window which various owner/operators have sought to use so that they can dispose of wastes otherwise covered by the land-ban rules. If the EPA determines that no adequate treatment, recovery, or disposal capacity for a particular waste is available, it may allow "national capacity" variances for up to two years. This does not mean that the EPA will allow unrestricted land disposal. Before land disposal will be allowed even under the national capacity variance program, the land disposal facility must meet the minimum technology requirements of RCRA § 3004(o), 42 U.S.C. § 6924(o): double liners, leachate collection systems, and groundwater monitoring systems.

These exceptions do allow some relief from the land-ban, but they have been construed very narrowly. The fundamental goal reflected in RCRA remains firmly set in the legal system: hazardous waste is to be treated rather than just buried.

EPA Actions under the Land-Ban Regulations

Following adoption of the Hazardous and Solid Waste Amendment in 1984, the EPA acted aggressively to increase its management of TSD facilities. It construed HSWA to require owner/operators of land disposal facilities to treat leachate from listed wastes as a hazardous waste, even if the waste in the facility was disposed of long before the materials were listed under RCRA. This meant that owner/operators of existing facilities had to install groundwater monitoring and corrective action systems in existing facilities that had not previously

been required to have them. In some cases, owner/operators had operated landfills for many years. Long before RCRA was enacted, they had accepted materials now listed under RCRA as hazardous waste—but groundwater and rainwater falling on the property still create leachate. The new EPA rules adopted in light of HSWA require owner/operators to install monitoring systems. Before it can dispose of leachate material, the owner/operator must either prove that the leachate is not hazardous or treat it as a hazardous waste. Additionally, soil and groundwater that are contaminated with hazardous wastes become hazardous wastes themselves by virtue of this contamination. 40 C.F.R. Part 264, Subpart F.

The EPA's approach to leachate and contaminated soil reflects the Agency's continuing adherence to the mixture rule. Hazardous waste is still hazardous even if it is diluted with nonhazardous material. If an owner/operator contends that its leachate is not hazardous, it must go through the delisting process to establish this. 40 C.F.R. § 268.3. Dilution is not a substitute for treatment; absent delisting, a combination that contains hazardous waste is presumed to retain the hazardous characteristics.

Who Must Test Wastes under the Land-Ban Regulations

The land-ban regulations would accomplish little unless there were effective controls for identifying what is shipped to TSD facilities. As discussed previously regarding generators, the EPA regulations do not require generators to conduct tests on their wastes. A generator must determine what its wastes are and whether its wastes must be treated prior to disposal, but the regulations allow the generator to make this determination based on its knowledge of the waste stream rather than actual testing. 40 C.F.R. § 268.7. The EPA has imposed a great incentive to make this determination accurately. A generator that forwards its wastes directly to a disposal facility, certifying that the wastes do not have to be treated, can be held criminally liable for making a false certification. Nevertheless, certifying the makeup of wastes based on "knowledge" is less burdensome than testing the wastes.

If the generator determines that its wastes must be treated before they can be legally disposed of, the generator must send its wastes to a treatment facility and it must notify the treatment facility of the appropriate treatment standards. After the wastes are treated, the treatment facility must test any residue to be certain that the residue meets controlling standards before it is transported to a land disposal facility. 40 C.F.R. § 268.7.

If the generator determines that its wastes already meet all controlling standards, so that they can be placed directly in a land disposal facility without further treatment, the generator can ship these wastes directly to the land disposal facility. 40 C.F.R. §§ 268.8(a)(3), (a)(4). The owner/operator of the land disposal facility must test the wastes to ensure that they do in fact meet the controlling testing standards. 40 C.F.R. § 268.8(c).

Whether it ships waste to a treatment facility or directly to a disposal facility, the generator does not have to undertake actual testing. Generators are permitted to make their certifications based on knowledge of their wastes. By contrast,

treatment facilities must test the materials they ship to TSD facilities, and land disposal facilities must test materials they receive.

Environmental activists criticized this system as being inadequate to ensure that the true nature of waste materials is known, but the courts have rejected these challenges. As the courts noted, many wastes are generated during industrial processes in which the generator knows precisely what the waste materials are. The EPA rules do not allow generators to claim knowledge of the contents of wastes based on guesses or speculation. Knowledge must be empirical or analytical, based on fact. If a generator has this level of information, it would be superfluous to require actual detailed testing to confirm the nature of wastes.

Nor did the courts find it unreasonable to allow generators to rely on knowledge while requiring treatment facilities to undertake actual tests. A generator generally handles only a limited range of wastes. It is reasonable to assume that a generator will be familiar with the specific nature of its wastes. By contrast, a treatment facility often handles a wide variety of wastes. Further, it is the treatment facility's task to transform wastes into a form sufficiently safe that they can be disposed of safely. Given this task, the courts held that it was reasonable to insist that treatment facilities undertake testing to ensure that this has been accomplished.

The EPA system makes the final receipt of wastes at the disposal facility the critical stage. This is when the wastes must be tested rigorously, to intercept any improperly labelled wastes and protect against placing these wastes in facilities where they will be left permanently. Given the EPA's focus on this stage of the disposal process as critical, the courts have ruled that it is reasonable to impose lesser restrictions on other stages of the disposal process. The testing and knowledge requirements imposed at other stages of the regulatory process give reasonable confidence that the process is being carried out properly.

Incinerators

One of the most common means of disposing of hazardous wastes is **incineration**. Indeed, it is one of the few methods that can destroy certain chemical wastes. When burned at sufficiently high temperatures, almost any hazardous wastes break down into relatively harmless components. Because incineration is a commonly used means of disposing of wastes, the EPA has issued special regulations covering incinerators. 40 C.F.R. §§ 264.340–.351, §§ 265.340–.352.

A facility is treated as an incinerator if it burns hazardous wastes. It is an incinerator whether or not the burning is done solely to destroy wastes. 40 C.F.R. § 260.10. The owner/operator of an incinerator must conduct continuing analyses

LEGAL TERMS

incineration Burning, especially burning in a closed container in which extremely high temperatures can be achieved.

of the waste feed to verify the makeup of the waste. 40 C.F.R. §§ 264.341, 265.341. From these analyses, the owner/operator is to designate the **Principal Organic Hazardous Constituents** (POHCs) in the waste feed. 40 C.F.R. §§ 264.342, 265.342. The owner/operator must designate the chemical compounds that are the most difficult to break down in the incineration process. The incinerator must destroy 99.99 percent of all POHCs. If the POHCs are listed "F" wastes, the incinerator must destroy 99.9999 percent of these wastes. 40 C.F.R. §§ 264.343, 265.343. Additionally, the owner/operator must maintain ongoing monitoring. It must continuously monitor combustion temperature, waste feed rate, emission gas velocity, and carbon monoxide levels. 40 C.F.R. §§ 264.347(a)(1)–(2), §§ 265.347(a)(1)–(2). It must analyze the waste and exhaust emission at the request of the EPA Administrator. 40 C.F.R. §§ 264.347(a), 265.347(a). It must inspect its equipment according to rigorous schedules. 40 C.F.R. §§ 264.347(b), 265.347(b).

Currently, incinerator regulations do not allow variances, which might allow the operator greater leeway in regulatory standards, even upon a showing that the emissions would not harm the surrounding area. Partly, this reflects the fact that air migrates. Unlike buried hazardous wastes, hazardous components released into the area are not confined to any particular air. Further, the emissions standards of 99.99 percent or even 99.9999 percent destruction mean that some air pollution is allowed under the current regulations.

Permits for Hazardous Waste Disposal Facilities

Permits for TSD Facilities

Section 3005 of RCRA establishes a regulatory scheme under which the EPA issues permits for hazardous waste treatment, storage, and disposal facilities. RCRA § 3005, 42 U.S.C. § 6925. By imposing a permit system, the government created a means of making individual regulatory judgments. By granting or denying a permit application, the government can ensure compliance with RCRA's statutory mandates. Through this process, it can tailor general requirements to fit specific situations. Further, because the permitting process has been largely delegated to the states (as explained later in this chapter), the process allows the states to make individual siting decisions and, generally, to impose more stringent requirements than those called for under federal law.

LEGAL TERMS

Principal Organic Hazardous Constituents (POHCs) In a hazardous waste or combination of wastes, the most significant chemical. Generally, this designates the chemical most resistant to breakdown in an incinerator. Destruction of the POHC shows that the entire waste has been destroyed.

Interim Permits

When RCRA was first enacted in 1976, there were many facilities throughout the nation disposing of hazardous wastes. It would have been unworkable to shut down all these facilities while the EPA dragged through the process of working out a full-blown permit system. Rather than invite such an exercise in futility, Congress allowed the EPA to grant temporary “interim” permits to all disposal facilities. RCRA § 3005(e), 42 U.S.C. § 6925(e). Any facility could obtain an **interim status permit** merely by applying for it. The application, known as a **Part A application**, did little more than notify the EPA of the facility’s existence and identify the wastes it was handling. RCRA §§ 3005(e), 3010(a), 42 U.S.C. §§ 6925(e), 6030(a); 40 C.F.R. § 270.70.

Interim standards went into effect in 1980, with a wide range of provisions, including administrative requirements, closure and postclosure plans and standards, waste analysis and groundwater monitoring requirements, and many others. 40 C.F.R. Part 265. The EPA particularly stressed closure requirements for various types of facilities. 40 C.F.R. §§ 265.110–120, 265.197, 265.228, 265.258, 265.280, 265.310, 265.351, 265.381, 265.404, 265.445, 265.1102.

Unfortunately, the EPA found that it had to use enforcement actions against a number of facilities that violated the interim status requirements or never applied for interim status permits. One of the more common arguments in these cases was the owner/operator’s claim that it was unaware that it was operating a facility subject to RCRA regulation. The courts have been reluctant to accept this argument, at least in the civil litigation context. *See, e.g., United States v. T&S Brass & Bronze Works, Inc.*, 681 F. Supp. 314 (D.S.C. 1988).

Loss of Interim Status

The EPA’s interim permit system allowed any existing facility that filed a Part A application and met certain minimal standards to obtain an interim status permit. “Interim status” was never intended to be permanent. It was to last only until the EPA issued its final rules for TSD facilities. RCRA § 3005(e), 42 U.S.C. § 6925(e). The requirements of these regulations were then to be reflected in **Part B permits**. 40 C.F.R. § 270.73.

The EPA did promulgate final rules for treatment and disposal facilities, but industry was very slow to file Part B permit applications. By 1984, barely one-third

LEGAL TERMS

interim status permit A permit to be issued to a TSD facility that was already operating when RCRA was first adopted, authorizing the continuing operation of that TSD facility.

Part A application An application filed by the owner/operator of a TSD facility to obtain an interim status permit. This application was noted for the comparative ease with which it could be completed, in contrast to the extremely onerous Part B requirements.

Part B permit A permit authorizing a TSD facility to continue to operate on a permanent basis, as opposed to a temporary, interim permit. The owner/operator must apply for the Part B permit.

of all interim status facilities had even applied for Part B applications, and less than 2 percent of these facilities had been granted final permits.

Faced with this recalcitrance, Congress grew impatient. In 1984, in HSWA, it amended RCRA to provide that all facilities would lose their interim status on November 8, 1985 unless they submitted Part B applications and certified that they were complying with all applicable groundwater monitoring and financial responsibility requirements. RCRA § 3005(e)(2), 42 U.S.C. § 6925; 40 C.F.R. § 270.73.

In the wake of the November 8, 1985 deadline, the EPA moved against facilities that had failed to comply with the statutory requirements. It forced these facilities to shut down. It issued determinations that facilities not meeting the statutory requirements had lost their interim status and therefore could no longer operate. In many cases, the EPA took a very strict stance, refusing to consider late submissions.

Loss of interim status is not a complex issue. It involves bright-line tests, so the EPA almost always wins.

One of the most onerous requirements that the HSWA changes imposed was proof of financial responsibility for closure and postclosure plans. The owner/operator of a facility cannot wait until it has shut down before taking steps to cover the cost of closure. Once a facility has closed, it has no revenue, but it will have extensive closure and postclosure costs. The owner/operator must show that it has the financial wherewithal to bear these costs before the EPA will allow permits for the TSD facility. The facility can do this by establishing a dedicated trust fund, obtaining a surety bond or letter of credit, procuring insurance, self-insuring, or a combination of these. RCRA § 3004(t)(1), 42 U.S.C. § 6924(t)(1); 40 C.F.R. §§ 264.140–.151, 265.140–.150.

A number of facilities argued that it was impossible for them to obtain insurance coverage. Some courts expressed sympathy for this problem, but nevertheless rejected the argument. The financial responsibility requirements may force many facilities to discontinue their hazardous waste operations. But this does not make it impossible for the facility to comply with the requirements of the regulations, so it is appropriate for the EPA to terminate interim status. Indeed, the EPA allows facilities that have lost interim status as hazardous waste facilities to continue to accept nonhazardous waste. Notably, all existing facilities had a full year's notice that they would be subject to these requirements. The prevailing attitude in the courts is that a facility's inability to get insurance is probably due in no small part to past noncompliance with RCRA.

If a facility loses its interim status, it must do one of two things. If the facility wants to return to operation, it must file a full Part B application. If it wishes to close down, it must submit a closure plan within 15 days of losing interim status. 40 C.F.R. § 270.73.

The end of interim status has had a profound impact on the hazardous waste disposal industry. By the end of 1988, some 90 percent of the facilities that had accepted hazardous waste in 1984 had shut down. This tremendous decline in the availability of hazardous waste facilities has meant price increases and increased difficulty in disposing of such wastes.

Closure

Any facility will eventually reach its capacity to hold waste. Then it must be closed. Indeed, as the interim status regime came to an end, hundreds of facilities were forced to close down.

The EPA's **closure regulations** require that any land disposal facility going through closure install a highly impermeable cap over the facility and maintain groundwater and leachate collection systems for at least 30 years. 40 C.F.R. §§ 264.117, 265.117. One of the nagging questions in the environmental law system is how the public can be guaranteed that monitoring and collection systems will be kept in effective operation not merely for some set period but for as long as hazardous waste remains dangerous.

To obtain a **closure permit**, an operator must demonstrate the financial capability to implement closure requirements. An operator can do this through proper proof of financial responsibility. Further, the applicant must submit a postclosure plan showing that groundwater will be monitored for the 30-year minimum period called for under RCRA. 40 C.F.R. §§ 264.110–.120, 265.110–.120.

State and Local Control

Authorized State Permitting Programs

Under RCRA § 3006(e), 42 U.S.C. § 6926(e), the EPA can authorize state permitting programs in lieu of federal permitting programs for TSD facilities. Once such a program is authorized, the federal government has merely a general supervisory role. It may withdraw authorization of the state program on a showing that the state is not administering or enforcing the program in accordance with RCRA requirements. At present, only four states do not have authorized state permitting programs: California, Wyoming, Connecticut, and Iowa.

The EPA's authority is a broad supervisory power rather than a right to question specific permit choices. Thus, even when the EPA had made an initial decision to deny a closure permit and revoke a facility's interim status, if the EPA then delegated permitting authority to the state, it was for the state rather than the federal government to determine what closure requirements would apply to the facility. *Northside Sanitary Landfill Inc. v. Thomas*, 804 F.2d 371 (7th Cir. 1986).

LEGAL TERMS

closure regulations EPA regulations covering the steps which the owner/operator of a land disposal facility must carry out after the facility ceases to accept additional hazardous materials. Normally, these require monitoring the facility for leaks for 30 years.

closure permit A permit allowing a TSD facility to undertake closure. Most importantly, this permit indicates that the EPA accepts the facility's showing of financial responsibility as sufficient to prove that it can meet all post-closure responsibilities.

The EPA does retain the authority to issue orders under RCRA § 3013 (42 U.S.C. § 6934) requiring the owner of a facility to conduct monitoring, testing, analysis, and reporting, even in states that do have operating state programs.

State Attempts to Prohibit TSD Facilities

State administration has not meant public acceptance of hazardous waste facilities. Indeed, there has been a great deal of local resistance to siting hazardous waste facilities in almost any community.

SIDEBAR

The “NIMBY” (*not in my back yard*) syndrome is the name for the tendency of individuals or groups to argue that even if facilities such as TSD facilities should exist somewhere, they should be placed elsewhere—preferably far, far away. The problem is that everyone argues this, so there is no (uncontested) place left to put such facilities.

Sometimes dubbed the *NIMBY syndrome* (“not in my back yard”), this resistance has led many communities to adopt stringent zoning restrictions to limit where hazardous waste facilities can be located. This has raised complex questions of how far RCRA preempts states’ rights to bar hazardous waste facilities, and what burdens a state can impose on interstate commerce.

States have generally relied on their police power to regulate hazardous waste facilities. To do this, they rely on their **zoning power**. Zoning power has been given very broad ranges in many areas, although there appears to be a growing trend for courts to hold that jurisdictions cannot use zoning plans to exclude uses entirely. Cases accepting this theory have held that communities must accept some fair share of the burden of hazardous waste disposal. A hazardous waste facility cannot automatically be excluded as a nuisance, because a properly maintained facility does not give off noxious odors, disturb the tranquility of an area, cause a release of toxic chemicals, or have any other clearly deleterious effects on a population. The mere possibility that such adverse effects may occur is not sufficient to allow zoning laws to exclude TSD facilities, an otherwise legitimate industrial use, from entire areas. *See, e.g., General Battery Corp. v. Zoning Hearing Board*, 29 Pa. Commw. 498, 371 A.2d 1030 (1977); *Earth Management, Inc. v. Heard County*, 248 Ga. 442, 283 S.E.2d 455 (1981).

LEGAL TERMS

zoning † The creation and application of structural, size, and use restrictions imposed upon the owners of real estate within districts or zones in accordance with zoning regulations or ordinances. Although authorized by state statutes, zoning is generally legislated and regulated by local government. Zoning is a form of land use regulation and is generally of two types: regulations having to do with structural and architectural design; and regulations specifying the use(s) to which designated districts may be put.

zoning power The power of a jurisdiction to regulate the uses to which land is dedicated. Wisely used, this helps maintain land values and protects certain uses from potential encroachment. Less wisely used, it has been a basis by which jurisdictions attempt to ban certain uses or individuals from a community.

Persons wishing to open new facilities have argued that if the new facility complies with all applicable federal laws, RCRA should be construed to preempt state or local restrictions. **Preemption** is controlled by RCRA § 3009, 42 U.S.C. § 6929, which says that no state may impose any less stringent restriction, but specifically provides that nothing in RCRA prohibits the states from imposing more stringent regulations. Thus, the states are free to increase the burdens on hazardous waste facilities. Balanced against this is the language of RCRA § 3006(b), 42 U.S.C. § 6926(b), requiring the Administrator of the EPA to deny a state authorization to administer its own hazardous waste programs if the Administrator finds that the state program “is not equivalent to the Federal program” or “is not consistent with the Federal or State programs applicable in other States.” Particularly this second phrase, suggesting that a state program must be consistent with other programs, implies that a state may not be excessively restrictive.

In its regulations, the EPA provides that no state program can unreasonably impede the free movement of hazardous wastes across state lines. Further, any state law or program that has no basis in human health and the environment, and effectively prohibits the treatment, storage, and disposal of hazardous material, may be deemed inconsistent with RCRA. RCRA § 3006, 42 U.S.C. § 6926; 40 C.F.R. § 271.4.

Some states have attempted to ban new facilities. These actions have prompted other states to adopt retaliatory measures. To prevent the spread of such policies, the EPA has invoked a provision from CERCLA, the Superfund statute, which allows the EPA to withhold Superfund monies unless the state can certify that it has sufficient waste disposal capacity.

One of the underlying arguments against state prohibition is the commerce clause of the United States Constitution, which reserves the regulation of interstate commerce to the federal government. The Supreme Court has held that one state cannot refuse to accept garbage from other states. In voiding a New Jersey statute on the issue, the Court rejected the argument that the state had only very limited landfill capacity. *City of Philadelphia v. New Jersey*, 437 U.S. 617 (1978). Current interpretations of RCRA appear to continue the rule established in this case, by prohibiting states and their political subdivisions from imposing outright bans on hazardous waste disposal activities, or imposing requirements for which there is no rational justification.

State Control over Federal Facilities

Some of the most dangerous facilities in the nation are operated by federal agencies, particularly the Department of Defense and the Department of Energy. Under RCRA § 6001, 42 U.S.C. § 6962, the federal government and all its agencies

LEGAL TERMS

preemption † The doctrine that once Congress has enacted legislation in a given field, a state may not enact a law inconsistent with the federal statute.

are subject to state sanctions and must comply with all relevant state standards under authorized state programs. The courts have in several cases held that this provision amounts to a waiver of **sovereign immunity**. This means that federal departments are subject to injunctive relief, civil penalties, damages, and declaratory relief. *Ohio v. United States Department of Energy*, 689 F. Supp. 760 (S.D. Ohio 1988); *Colorado v. United States Department of Army*, 707 F. Supp. 413 (D.N.J. 1988).

Corrective Action

The EPA presumes that any landfill will, sooner or later, leak hazardous wastes into surrounding soil and groundwater. The Agency has estimated that at least 1,000 TSD facilities require corrective action and that the cost of such action will be some \$14 billion. Indeed, the EPA expects that virtually all existing facilities will need to undertake some corrective action before they will be able to obtain full-fledged RCRA permits.

Under RCRA § 3004(u), 42 U.S.C. § 6924(u), any permit issued after November 8, 1984 must include provisions requiring corrective actions for all releases of hazardous wastes or constituents from any part of the facility, regardless of when these wastes were placed in the facility. The facility permit must include a schedule for completion of corrective actions and assurances of financial responsibility.

In the resulting regulations under this provision, the EPA adopted a fence-line-to-fence-line definition of *facility*, so that cleanup is not merely confined to areas where solid waste was initially placed. Further, under RCRA § 3004(v), 42 U.S.C. § 6924(v), the EPA can require the owner/operator to undertake cleanup actions beyond the boundaries of the facility if necessary to protect human health and the environment, unless the owner or operator can show that it has been denied necessary access to the surrounding properties. The EPA determines on a case-by-case basis what action of this sort is necessary.

Generally, corrective action is called for only when necessary to protect human health or the environment. When corrective action is called for, the normal regulatory standard which the owner/operator must achieve is *background level*—that is, the owner/operator must reduce contaminant levels in groundwater to no higher than what is detected in groundwater unaffected by the facility.

HSWA also authorized the EPA to issue corrective action orders to interim status operators. Under these orders, the EPA can suspend or revoke an interim status permit, or condition continuation of the permit on corrective action being undertaken. *Chemical Waste Management, Inc. v. EPA*, 873 F.2d 1477 (D.C. Cir. 1989).

LEGAL TERMS

sovereign immunity † The principle that the government—specifically, the United States or any state of the United States—is immune from suit except when it consents to be sued.

Summary

The Resource Conservation and Recovery Act addressed the problem of unmanaged hazardous waste. The central tenet of RCRA is cradle-to-grave management; that is, a hazardous waste is regulated as long as it is hazardous.

RCRA gave the EPA a series of general commands, calling for (1) identifying hazardous wastes; (2) regulating generators; (3) regulating transporters; (4) regulating treatment, storage, or disposal of hazardous wastes; (5) regulating permits for treatment, storage, and disposal (TSD) facilities; and (6) authorizing state programs to regulate TSD facilities.

RCRA regulates all solid wastes. A solid waste, which can be in any physical state except uncontainerized gas, is anything discarded from industrial or similar processes. A hazardous waste is any solid waste that shows any of the EPA's hazardous characteristics or is specifically listed waste.

The EPA also regulates recycling. If material is reused in an original industrial process, it is not hazardous waste.

A waste is characteristic based on four criteria: ignitability, corrosivity, reactivity, and toxicity. If a solid waste shows any of these four characteristics, it is hazardous. The toxicity test assumes that the waste leaks from a landfill into surrounding waters, and gauges toxicity based on the presence of chemicals regulated by the Safe Drinking Water Act and various known or suspected carcinogens.

Listed waste can be either generic, which is hazardous regardless of the source; industry-specific, with only wastes from listed industries regulated; or subject to special rules fitting the particular waste. If a generator claims that its waste is not hazardous, it can delist it by showing that it has no hazardous characteristics. Merely mixing a hazardous waste with benign material does not exempt it from regulation. Substances derived from hazardous wastes are hazardous until delisted.

A hazardous waste generator must have an EPA identification number. It must identify its hazardous wastes. It must not accumulate wastes for more than 90 days at a time. Pending shipment, it must store wastes properly. It must ship all wastes under a Uniform Hazardous Waste Manifest, using licensed transporters to take wastes to licensed TSD facilities. It must maintain records. Certain regulations are waived for small-quantity generators.

Transporters are regulated under RCRA and the Hazardous Materials Transportation Act. A transporter must have an EPA identification number. It must ship wastes under Uniform Hazardous Waste Manifests. It is allowed only a 10-day stopover along the trip. It must take wastes to another transporter or to a licensed TSD facility.

RCRA regulates TSD facilities. Landfill disposal is discouraged. The EPA regulates both TSD facilities existing when RCRA was adopted and new TSD facilities. A facility not complying with these regulations can be closed.

Critical to TSD facility regulation is groundwater monitoring. At all TSD facilities, owners must install monitoring wells and a leachate collection system, as well as double liners in the facility. If any leaks are detected, they must be repaired, and monitoring must show no leaks for three years thereafter.

In addition to groundwater monitoring for all facilities, the EPA has regulations applicable to each type of facility. For treatment units, at closure the area must be cleaned to background level. For actual disposal facilities, closure includes a series of steps to minimize the possibility of any release of hazardous wastes.

With the 1984 HSWA, the EPA phased in a presumption against disposal of untreated hazardous wastes. HSWA required the EPA to regulate predisposal treatments for hazardous

wastes. So long as TSD facilities treat wastes to the level prescribed using Best Demonstrated Available Technology, the resulting residue may be disposed of. HSWA also banned uncontainerized liquid wastes in landfills.

The land-ban rules are a maze of regulatory material, but clearly forbid disposal of untreated hazardous waste, with only very limited exemptions.

Under HSWA, the EPA increased its management of TSD facilities, requiring that leachate be treated as a hazardous waste and forcing existing facilities to install ground-water monitoring systems.

Under the land-ban, generators may identify their hazardous wastes based on their knowledge. TSD facilities must test waste.

Any facility that burns hazardous wastes is an incinerator. It must monitor the principal organic hazardous constituents of its wastes. It must destroy 99.99 percent of all POHCs and 99.9999 percent of any "F" wastes. It also must monitor combustion temperature, waste feed rate, and other items.

The EPA issues permits for TSD facilities. Any facility operating in 1976 was allowed an interim permit. After 1980, the EPA increased its regulation to bring these facilities under new facility requirements. Any facility that fails to apply for a Part B permit to allow continued operations can be ordered closed.

Closure is rigorously regulated. At closure, a landfill must be sealed, and monitoring must continue for at least 30 years.

RCRA authorizes the states to administer RCRA programs, subject to general EPA supervision. State regulation can be more (but never less) rigorous than federal regulation under RCRA. Some states have attempted to prohibit TSD facilities, but there is growing recognition that states and local communities cannot prohibit TSD facilities. States are allowed to regulate federal facilities within their borders.

Review Questions

1. What is the controlling concept for the management of hazardous wastes?
2. What six key points are covered in RCRA?
3. What characteristics will cause a substance to be listed as a hazardous waste?
4. What four characteristics will cause the EPA to list a chemical as a hazardous waste?
5. What does RCRA require a generator to have?
6. What act regulates the transportation of hazardous wastes?
7. What is leaching?
8. What must all TSD facilities have?
9. What must the owner do when it closes a surface impoundment facility?
10. What are the three exceptions to the land-ban rule?



CHAPTER 6

THE COMPREHENSIVE ENVIRONMENTAL RESPONSIBILITY, COMPENSATION, AND LIABILITY ACT

CHAPTER OUTLINE	Introduction
	The Inadequacy of the Common Law
	CERCLA

Introduction

One of the most significant—and controversial—environmental statutes is the **Comprehensive Environmental Responsibility, Compensation, and Liability Act**, 42 U.S.C. §§ 9601 to 9675, known by its acronym *CERCLA*, and as *Superfund*, after the fund the statute established to help pay the costs of environmental cleanups. CERCLA was adopted primarily to address the problem of old, abandoned sites containing hazardous materials.

There are hundreds of old dumpsites throughout the United States. Many of these are chemical nightmares. Some sites contain the results of years of operation in which waste materials were dumped, often with little or no regard for the environment. Some of these are the result of questionable or even illegal activities, although often the parties being held legally responsible are not the primary wrongdoers. Other sites are the result of practices that were reasonable when undertaken, but are now recognized as unsound. These sites often threaten human health; leaks from such sites can contaminate surrounding land and water, endangering recreational use, drinking water, and habitats. CERCLA is the legal system's primary response to these problem sites.

In addition to addressing these old waste sites, CERCLA has affected many other areas. The statute and the practices that now surround it have spawned a major new industry—**environmental assessments**—and have shaped real estate lending and purchasing because parties involved in these transactions need to avoid liability.

Additionally, CERCLA has other effects on current waste management and industrial practices. Along with RCRA, CERCLA helps prevent the creation of new sites. This is a continuing problem because, as other forms of pollution are gradually reduced, the only alternative is often an increase in the volume and toxicity of solid waste. Indeed, CERCLA is often a driving force in waste minimization efforts, as companies try to avoid liability that could follow from being connected with a hazardous waste site.

The Inadequacy of the Common Law

CERCLA is a poorly drafted statute. It was passed as a compromise thrown together from several proposals. The result is a statute unlike other environmental

LEGAL TERMS

Comprehensive Environmental Responsibility, Compensation, and Liability Act (CERCLA or "Superfund") 42 U.S.C. §§ 9601 to 9675; the primary federal law ordering the cleanup of all sites at which there has been a release or threatened release of hazardous substances.

environmental assessment An investigation of real property made to determine if there has been a release or threatened release of hazardous substances from the property.

acts such as RCRA, which establish detailed regulatory regimes. Some provisions of CERCLA have spawned regulatory material, but CERCLA has developed primarily because of the causes of action it created. These give plaintiffs and the courts a broad framework, but leave the details to be filled in by cases. Working from the general statutory framework, the parties and the courts have shaped various concepts set out in CERCLA §§ 104 to 107, 42 U.S.C. §§ 9604 to 9607. The process has worked like the development of the common law.

Although CERCLA is not part of the common law, an understanding of the weakness of the common law as a means of addressing abandoned waste sites helps to illuminate CERCLA.

Common Law and Its Limitations

Many of the concepts that Congress incorporated into CERCLA have antecedents in the common law action for **nuisance**. At common law, a nuisance action was one of the few means available for addressing the problem of hazardous wastes leaking from a site. However, plaintiffs found that nuisance actions were inadequate to address the complex problems posed by hazardous waste sites. By recognizing the weaknesses of the nuisance action, a legal professional can understand how these weaknesses forced Congress to develop a more effective response.

A key issue in a nuisance action is generally the degree of causation the plaintiff must establish to link the defendant's release of material to subsequent harms. Is the mere presence of hazardous substances in soil, without more, sufficient harm to entitle a plaintiff to some relief? As a practical matter, common law nuisance actions could not address this issue, so such actions were inadequate to deal with modern hazardous waste problems. As a result, nuisance suits remain subject to many complications and uncertainties that make them an unsuitable vehicle for general protection of the environment.

There are also questions as to the scope of remedies available in a common law nuisance action. Even assuming that the defendant can be held liable in a nuisance action, the remedies available often are not effective in dealing with the problems presented by modern hazardous waste sites. For instance, nuisance law generally does not provide for cleanups.

State common law can enjoin activities that damage the public's rights. In some cases, courts have held that odors emanating from a facility are enough, but in other cases the courts have demanded more specific harms. Further, so long as the problem remains confined to the defendant's property, there is arguably no basis for legal action, regardless of potential future problems.

Additionally, nuisance actions depend on the availability of a suitable and willing plaintiff. If an industry is in an area before the plaintiff arrives, courts

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nuisance A common law tort action that could be brought by a landowner for wrongful interference with the use and enjoyment of its property. This was the common law action closest to CERCLA, but it proved inadequate as a legal tool to order cleanups.

have held that the industry has a right to continue activities that might otherwise be subject to a nuisance action because the plaintiff has “come to the nuisance.” This effectively bars the plaintiff from bringing a common law action to enjoin the release of hazardous wastes.

Common Law of Interstate Pollution

Another problem for which the common law is inadequate is interstate pollution. The United States is a nation of multiple sovereigns under a federal system. The common law is fundamentally a state law system. It lacks the means to deal effectively with situations in which a source in one state causes pollution in another. This problem is complicated by conflicting state standards.

An equally perplexing problem is possible federal law **preemption**, which involves a host of complex issues. Assume that Congress adopts legislation arguably affecting an entire field of law. What if the statute is silent on preemption? Does the silence mean only silence? Or is the entire area preempted? Such questions often make it difficult for states to protect their own interests if that means using state actions to address interstate problems. If federal law is intended to preempt an area of law, how total is the preemption? Who decides this? On what basis? Using what degree of scrutiny? All these questions must be addressed by a state that wishes to use common law actions to address environmental problems. The weight of the problems was so great that by 1980, virtually all authorities agreed that a solution dependent on common law nuisance actions could not deal with the nation’s hazardous waste sites.

RCRA Section 7003

The Resource Conservation and Recovery Act (RCRA) offered another potential solution for hazardous waste sites. Rigorously applied, RCRA would reduce the amount of hazardous materials being placed in sites, thereby limiting their creation and growth. But this still would not help clean up existing sites, which were beyond the scope of existing statutes.

By 1980, it was widely acknowledged that the problem of existing and abandoned sites could not be ignored. Many hazardous waste sites are in appalling condition. Additionally, there were problems with attempts to apply RCRA to existing sites. For example, did RCRA apply retroactively to allow the EPA to order the cleanup of wastes deposited before the statute was enacted? Did RCRA create its own cause of action, or did it merely allow common law suits to be brought?

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preemption The doctrine that once Congress has enacted legislation in a given field, a state may not enact a law inconsistent with the federal statute. ... A similar doctrine also governs the relationship between the state government and local government.

In 1980, Congress concluded that existing law for dealing with waste sites was not adequate to deal with old hazardous wastes sites. It responded by adopting CERCLA.

Notably, a 1984 amendment made clear that RCRA § 7003 does create substantive law that courts can use to remedy past disposal. Even as amended, however, RCRA still has limitations that prevent its use as a major statutory base for cleanups. RCRA allows the EPA to bring actions to abate any site that presents an **imminent and substantial endangerment**. RCRA does not define this phrase. How is a court to decide if a site presents an imminent and substantial endangerment? To resolve this, the courts must decide both what is a valid scientific basis for determining what constitutes an endangerment and what is an adequate factual showing that the scientific test has been met. There was also uncertainty surrounding enforcement. Do tests that establish an endangerment also control in determining what is an adequate remedy, or can the courts consider different factors in imposing a remedy? Finally, RCRA is subject to procedural challenges that make it ineffective.

These weaknesses make RCRA unsuitable as the primary legal authority for a cleanup program. Nevertheless, the EPA does use RCRA § 7003 in conjunction with CERCLA in some cases. In the 1984 amendments, Congress made it clear that RCRA does apply to past disposers: the statute now refers specifically to “past or present actions.” RCRA § 7003, 42 U.S.C. § 6973. Several courts have also construed it to impose liability on nonnegligent off-site generators. RCRA also makes corporate officers liable if they were personally involved in or directly responsible for violations of RCRA. See *United States v. Northeastern Pharmaceutical & Chemical Co.*, 810 F.2d 726 (8th Cir. 1986), *cert. denied*, 484 U.S. 848 (1987). Section 7003 has also been used to recover costs for cleanup actions that are already complete, although this strains the meaning of “imminent and substantial endangerment.”

CERCLA

By 1980, Congress acknowledged that the common law, even as augmented by RCRA, left a major gap. Existing statutes stressed the prevention of present and future waste disposal, but were inadequate to clean up sites where wastes had already accumulated. To respond to this problem, Congress adopted the Comprehensive Environmental Responsibility, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. §§ 9601 to 9675.

Unlike many other acts, CERCLA does not establish a comprehensive regulatory regime. Instead, it creates a system of causes of action. The civil actions

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imminent and substantial endangerment The standard the EPA had to meet before it could take action under RCRA § 7003.

created under CERCLA are the primary means for remedying past wrongs. Originally, the statute imposed a special tax on the oil and chemical industries to finance a **Hazardous Substance Response Fund**, which could be used to finance cleanups. This tax, however, was repealed in 1986. See Pub. L. No. 99-499, tit. V, § 517(c)(1), Oct. 17, 1986, 100 Stat. 1774, repealing CERCLA §§ 131–133, 42 U.S.C. §§ 9631–9633.

Applicability

By its terms, CERCLA mandated the cleanup of any **facility** from which there is a “release” or “substantial threat of ... a release” of a “hazardous substance.” CERCLA § 104(a), 42 U.S.C. § 9604(a).

CERCLA § 101(9), 42 U.S.C. § 9601(9), defines *facility* expansively to include any location where hazardous substances are found. A facility is not limited by property boundaries, but is anywhere that a hazardous substance has come to be located. *Tanglewood East Homeowners v. Charles-Thomas, Inc.*, 849 F.2d 1568 (9th Cir. 1988). Section 101(9) makes an exception from the definition of *facility* for a location where a consumer product is in consumer use. Further, if the release is from products that were part of a residential or commercial structure—such as asbestos in walls of a building—CERCLA § 104(a)(3)(B), 42 U.S.C. § 9604(a)(3)(B), grants another exception. The government cannot recover removal or remedial costs for cleaning up the structure.

As defined in CERCLA § 101(22), 42 U.S.C. § 9601(22), and construed by the courts, a **release** is any movement of hazardous substances into the environment. A *release* includes any “spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment.” The hazardous substance need not leave the original property on which it was placed to constitute a release. The courts have created a partial exemption to this definition for releases confined to enclosed buildings. Although some decisions have taken a contrary position, most courts hold that the release of a hazardous substance within an enclosed building is not a release “into the environment” under CERCLA § 101(22). See *Covalt v. Carey Canada, Inc.*, 860 F.2d 1434 (7th Cir. 1988); but see *Amland Properties v. ALCOA*, 711 F. Supp. 784 (D.N.J. 1989) (disposal of PCBs within a plant was a release).

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Hazardous Substance Response Fund A special fund established by Congress under CERCLA to pay for the costs of environmental cleanups. It is known by its nickname, *Superfund*.

facility A parcel of property, a building, or any other location where a release of any hazardous substance has occurred.

release The passing of any hazardous substance into the environment. This includes any spill, seepage, drainage, or passage by any other means.

A **threatened release** occurs whenever a hazardous substance is found at a facility and there is evidence that the responsible party is unwilling to remedy the condition or otherwise control the hazardous substance. *New York v. Shore Realty Corp.*, 759 F.2d 1032 (2d Cir. 1985).

CERCLA does not contain its own specific definition of *hazardous substances*. Rather, it incorporates definitions contained in several other environmental statutes: §§ 311(b)(2)(A) or 307(a) of the Clean Water Act, 33 U.S.C. §§ 1321(b)(2)(A) and 1317(a); § 3001 of RCRA, 42 U.S.C. § 6921; § 112 of the Clean Air Act, 42 U.S.C. § 7412; and § 7 of TOSCA, 15 U.S.C. § 2606. Additionally, the EPA can designate other substances as hazardous. CERCLA § 102, 42 U.S.C. § 9602. The threshold level is minimal. Any release of more than one pound of a hazardous substance (or of any quantity that would be reportable under the Ocean Dumping Act) is reportable under CERCLA. CERCLA § 102(b), 42 U.S.C. § 9602. Further, any compound is classified as hazardous for CERCLA purposes if it contains any listed substance or pollutant, regardless of the concentration or quantity. *Eagle-Picher Industries v. United States*, 759 F.2d 922 (D.C. Cir. 1985). Thus, even if a substance is benign, if it contains traces of hazardous substances, it is classified as a hazardous substance under CERCLA. The one major exception that Congress carved out in CERCLA is oil and petroleum products, which are not classified as hazardous under CERCLA. CERCLA § 101(14), 42 U.S.C. § 9601(14). This exemption is construed narrowly, so oil containing hazardous substances is itself a hazardous substance. *United States v. Alcan Aluminum Corp.*, 964 F.2d 252 (3d Cir. 1992).

Reporting

An initial problem that Congress sought to address under CERCLA was the determination of which sites needed action. To facilitate this determination, Congress ordered a comprehensive record of hazardous waste sites assembled. CERCLA § 103(c), 42 U.S.C. § 9603(c), requires the past and present owners of any site where hazardous substances were deposited, and all persons who have transported hazardous substances, to report to the EPA the description of the site, the quantity of the wastes, and the nature of the activities conducted there. This report can be the basis for listing the site and naming the reporting party as a defendant in a cleanup action.

CERCLA § 103(b), 42 U.S.C. § 9603(b), makes failing to report or knowingly submitting a materially false report a federal crime punishable by up to three years' imprisonment. CERCLA states that the person in charge of a facility failing to report the release of a reportable quantity of hazardous waste is criminally liable. *Person in charge* does not mean merely the person who holds a certain

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threatened release Occurs any time hazardous substances are found on a property in a manner showing that it is reasonably likely that they will pass into the environment, and the current owner or operator is not willing to address this threat in a prompt and effective manner.

corporate office. Any person who is in a position to detect, prevent, and abate a release of hazardous substances is a person in charge and must report the release. *United States v. Carr*, 880 F.2d 1550 (2d Cir. 1989).

Releases of hazardous substances must be reported. Given the sweeping breadth of the term *hazardous substance* as defined by the statute, and the comparative minimal amount (a pound), the statute calls for reports on a tremendous range of substances and releases. Note that the quantity prompting a report does not vary with the receiving medium, even though the effect may be very different from one medium to another. For example, a pound of hazardous waste dumped onto a concrete floor of a building may contaminate nothing more than a few square feet of the floor. A pound of the same material dumped into sandy, wet soil may spread over a very wide area. Both releases must be reported.

Under the reporting system, the EPA and state environmental agencies have received reports of thousands of hazardous waste releases. Very few of these are subject to full-scale CERCLA cleanup actions. Rather, this information becomes useful to persons buying property, because they know whether the property is potentially subject to cleanup actions.

The Hazard Ranking System

Cleanup actions are expensive. Cleanup costs are so high that there is simply not enough money to clean up every reported release. To determine which sites pose hazards serious enough to warrant remedial actions, CERCLA required the adoption of a **National Contingency Plan (NCP)**. CERCLA § 105, 42 U.S.C. § 9605. The National Contingency Plan requires the EPA to evaluate releases of hazardous substances according to the **Hazard Ranking System (HRS)**, which is set out in 40 C.F.R. Part 300, Appendix A. The Hazard Ranking System sets out criteria and methods the EPA is to use to evaluate the relative risk posed by various sites and to estimate the threat posed by any given site. It analyzes four potential pathways: groundwater migration, surface water migration, soil exposure, and air migration. The HRS weighs each of these factors to reflect the likelihood of a release, the hazardous characteristics of a release, and the pollution or sensitive environment threatened. CERCLA § 105(c), 42 U.S.C. § 9605(c). The result is a numerical rating of the risk posed by a particular site. The EPA uses this Hazard Ranking System to determine which sites warrant cleanup actions.

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National Contingency Plan (NCP) The regulatory plan for addressing releases or threatened releases of hazardous substances. Originally adopted under the Clean Water Act, this regulatory plan is now used under CERCLA. To be eligible for contribution actions or for reimbursement from the Hazardous Substance Response Fund, remedial actions must be consistent with the National Contingency Plan.

Hazard Ranking System (HRS) A system developed by the EPA for determining the degree of hazard posed by a release or threatened release at a given facility. Based on the numerical score given to a particular site, the EPA will consider each site for placement on the National Priorities List, where it will be ranked for priority cleanup.

Although this model has limitations, the courts have held that it is a reasonable device by which the EPA can make an inexpensive initial determination of which sites should be remediated first. *Eagle-Picher Industries, Inc. v. Environmental Protection Agency*, 759 F.2d 905 (D.C. Cir. 1985). In addition to regular evaluations, each state may designate one site for special priority, and the EPA may assign a special priority for sites that pose such a significant threat to the public health as to make remediation more appropriate than removal. CERCLA § 105(a)(8)(B), 42 U.S.C. § 9605(a)(8)(B).

Under a provision added by the **Superfund Amendment and Reauthorization Act (SARA)**, and now codified as CERCLA § 105(d), 42 U.S.C. § 9605(d), citizens can now petition to have sites evaluated under the HRS. The EPA must conduct a preliminary assessment of a release or threatened release; if it poses a threat to human health or the environment, the EPA must evaluate the site under the HRS for possible inclusion on the National Priorities List.

The presence of hazardous substances is sufficient to warrant HRS evaluation, regardless of concentration or quantity. CERCLA § 101(14), 102; 42 U.S.C. §§ 9601(14), 9602.

The National Priorities List

The EPA uses the Hazard Ranking System to evaluate reports of sites required under CERCLA § 103, 42 U.S.C. § 9603, to compile the **National Priorities List (NPL)**. This list ranks uncontrolled hazardous waste sites—in theory, the most contaminated sites in the nation. The NPL, found at 40 C.F.R. Part 300, Appendix B, currently lists more than 1,000 sites.

There has been considerable litigation over the National Priorities List, but the courts have upheld the EPA's use of this list. The NPL was intended to enable the EPA to respond to the most hazardous sites, as required under CERCLA § 105(a)(8), 42 U.S.C. § 9605(a)(8). The EPA does not have to show that any given site presents an imminent and substantial danger to justify listing; nor does inclusion on the NPL, without more, require cleanup or any other action by site owners. It is merely a preliminary list of priorities, assembled quickly in response to a congressional call for action. NPL listing is one step in a process of examination of each site to decide what action is necessary. The EPA will undertake a cleanup if it finds an imminent and substantial danger to human health or the environment. However, barring a showing that it has violated its own procedural guidelines, the EPA can include on the NPL any site containing pollutants

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Superfund Amendment and Reauthorization Act (SARA) An amendment to CERCLA, which clarified the law on a number of positions, particularly upholding the retroactive application of CERCLA and clarifying the terms of the third-party and innocent landowner defenses.

National Priorities List (NPL) A list established under CERCLA of the sites at which releases of hazardous substances have occurred, indicating that these sites are most in need of response action under CERCLA. The current version of the list includes more than a thousand sites.

or contaminants. *Eagle-Picher Industries, Inc. v. Environmental Protection Agency*, 822 F.2d 132 (D.C. Cir. 1987); *Northside Sanitary Landfill, Inc. v. Thomas*, 849 F.2d 516 (D.C. Cir. 1988).

NORTHSIDE SANITARY LANDFILL, INC.

v.

THOMAS

United States Court of Appeals,
District of Columbia Circuit
849 F.2d 1516 (D.C. Cir. 1988)

Petitioner, Northside Sanitary Landfill, Inc. (Northside), seeks review of an order of the Environmental Protection Agency (the EPA or agency) which placed a hazardous waste site owned by Northside on the National Priorities List (NPL), and thereby made the site eligible for Superfund-financed remedial action pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).

In deciding whether a given site belongs on the NPL, the EPA employs the "Hazardous Ranking System" (HRS), a scientific model designed to determine the relative hazard which that site presents. ... A score of 28.5 or more leads to the inclusion of the site on the NPL.

When the EPA orders a site to be placed on the NPL, that site becomes eligible for remedial action financed by the Superfund, although the mere listing of the site on the NPL does not mean that the EPA will take such remedial action. However, should the EPA take remedial action against a site listed on the NPL, past and present owners of the site become liable for the cost of the cleanup. The initial version of the NPL was promulgated as a final rule of the EPA on September 8, 1983. The list, as required by Congress, is revised to include new sites "no less often than annually."

FACTS

Northside owns and operates a 131-acre hazardous waste site near Zionsville, Indiana (the Northside site). The Northside site was included as part of the EPA's first annual revision to the NPL, which was published in the form of a proposed rule on September 8, 1983. Pursuant to 5 U.S.C. § 553(c),

the EPA allowed interested parties, including Northside, to comment upon the proposed revision, and gave them until November 7, 1983 to do so.

Despite the November 7, 1983 deadline, Northside did not comment upon its site's inclusion in the NPL revision until more than two and one-half months after the comment period had officially closed. On January 31, 1984, the EPA received from Northside 420 pages of documents.

After reviewing Northside's comments, the EPA confirmed its previous conclusion that "the site has been properly scored as proposed and is eligible for listing on the NPL." ...

DISCUSSION

Northside challenges the EPA's order on a variety of substantive and procedural grounds.

While Northside did submit 420 pages of documents to the EPA, it made no attempt to specify why it considered those documents or anything in them relevant to the rulemaking procedure. ... [C]ommon sense and case law dictate that Northside should have assumed at least a modicum of responsibility for flagging the relevant issues which its documentary submissions presented.

We hold that when Northside submitted its comments to the EPA, Northside should have been specific as to why and how it thought the 420 pages of documents were relevant to the scoring of the Northside site. We are not suggesting that Northside should have commented in great detail on every study, but we do conclude that Northside could and should have done far more than it did do to alert the EPA to its positions, which would have then required and allowed the EPA fully to consider Northside's version of the facts, and to act upon them appropriately. ... We agree with the EPA that Northside never presented its

objections to the agency in a way which could reasonably have permitted the agency to examine those contentions.

Because Northside did not properly present its objections to the EPA during the rulemaking process, we will not address the merits of those

objections. However, we note that were we to reach those merits, we would still deny Northside's petition for review because the EPA's decision to place the Northside site on the NPL finds ample support in the record before us. Thus, in our view, the EPA's decision was in no way arbitrary or capricious.

Case Questions

1. What had the EPA done that brought this matter to court?
2. What system did the EPA use to rank hazardous waste sites?
3. How often must the EPA revise the National Priorities List?
4. What type of procedure did the EPA use to decide whether to include the Northside site on the NPL?
5. Procedurally, what two things had the plaintiff done that gave the EPA the right not to accept the plaintiff's comments?
6. What would the plaintiff have to show before it could overturn a decision to list a site on the NPL?

Response Actions Under CERCLA Section 104

The primary authority for ordering cleanup is CERCLA § 104, 42 U.S.C. § 9604. This section authorizes the President—who has delegated this authority to the EPA—to remove and remediate hazardous substances any time there is a release or substantial threat of the release of hazardous substances into the environment.

CERCLA provides an important limitation dictating what type of response action the EPA must undertake: the response action must be consistent with the National Contingency Plan. *See* CERCLA § 104(a), 42 U.S.C. § 9604(a). To determine what responses are consistent with the National Contingency Plan, CERCLA directs the decision maker planning a response under CERCLA § 104 to select a response appropriate to the site and the hazardous substances it contains. Under CERCLA, the determination of the response to be undertaken at a given site is a critical issue because the choice of remedy largely determines how much money the responsible parties must spend at the site.

Because many important questions turn on what remedy is chosen, a legal professional working with environmental law must understand the process that CERCLA has established for the selection of remedies. The EPA selects remedies at most sites. It then either orders the responsible parties to carry out the cleanup or directs the cleanup itself, as the situation requires. CERCLA allows private parties to initiate cleanups, but private parties seldom do this. Because government-directed cleanups are the norm, this discussion assumes that the decision maker is the EPA rather than a private party.

The student should note, however, that CERCLA does not restrict the right to initiate cleanup actions to the government. Private parties can initiate cleanups, or can carry out a cleanup and then sue other responsible parties for contribution or petition for reimbursement from the Hazardous Substances Trust Fund. To get reimbursement from the Fund, though, the private party must get prior government approval for its cleanup actions. It does not need prior approval of its actions to be able to sue private parties, but in selecting a remedy it must adhere to all requirements of the National Contingency Plan, meeting all of its analytical and community relations tests. 40 C.F.R. § 300.700.

The National Contingency Plan

In adopting CERCLA, Congress required the EPA to respond to the problem of releases of hazardous substances. *See* CERCLA § 104, 42 U.S.C. § 9604. The cornerstone of the EPA response program under CERCLA is the National Contingency Plan (NCP), which serves as the basis for carrying out the responsibilities called for in CERCLA by § 105, 42 U.S.C. § 9605. Section 105 directs the President to act. The President has delegated the duty and authority to act under CERCLA to the Environmental Protection Agency. Using the National Contingency Plan, the EPA establishes priorities and responses for sites listed on the NPL.

All governmental action under CERCLA must be consistent with the NCP. If a response action is not consistent with the NCP, the government cannot hold private parties liable for the resulting costs. CERCLA § 107(a)(A), 42 U.S.C. § 9607(a)(A). Similarly, any private party that seeks reimbursement for cleanup costs, whether from other private parties or from the Hazardous Substances Trust Fund, must show that its actions were both procedurally and substantively consistent with the NCP. CERCLA § 107(a)(B), 42 U.S.C. § 9607(a)(B).

Because compliance with the NCP is essential both to government claims that private parties are liable and to private party claims that other parties are liable, a legal professional must understand the National Contingency Plan and the remedy selection process it imposes. The National Contingency Plan was not an original creation of CERCLA. It was first established by the 1972 amendments to the Clean Water Act, although CERCLA called for wholesale revision of the NCP to address cleanup problems. Pursuant to CERCLA, the current plan was published in 1982, with major amendments in 1985 and 1990. 40 C.F.R. Part 300.

Removal Actions and Remedial Actions

CERCLA and the National Contingency Plan dictate the steps that a decision maker must go through to determine what is required to clean up releases or threatened releases of hazardous substances into the environment. CERCLA § 122, 42 U.S.C. § 9622; 40 C.F.R. Part 300. Responses to releases or threatened releases can generally be undertaken either by public authorities (the EPA or its state counterparts), or by private parties. CERCLA classifies these response actions

into two categories: **removal actions** and **remedial actions**. At a basic level, a removal action involves taking hazardous material from a site. A remedial action involves a more comprehensive effort to clean up the site. Note, however, that no bright line separates the two types of response actions; a removal action is sometimes the first step in a more comprehensive remedial process. Whether the action is removal or remedial, governmental or private, it must still be consistent with the NCP.

Preliminary Assessment and Site Investigation

Before any action is undertaken at a site, the EPA will perform a **Preliminary Assessment and Site Investigation (PA/SI)**. The precise scope of a PA/SI will vary depending on whether the Agency expects to undertake a removal or a remedial action. A removal action is generally undertaken because of pressing circumstances. It is supported by a quick assessment, often involving only an assessment of conditions at the site in which the EPA determines the source of the release, site conditions, and other readily available data. For a remedial action, the Agency presumably has more time, so an assessment and investigation can be more comprehensive and structured. As a result of this evaluation, the EPA may take a variety of actions, ranging all the way from removing the site from further consideration (because it poses no threat to public health or the environment) to proposing a full-scale action to remediate conditions at the site.

Notably, the preliminary assessment/site investigation process is intended to be brief and entirely preliminary in nature. It is not an open forum. Private parties, even those who face potential liability if a removal or remedial action is undertaken, are not involved in this process.

Removal Actions

Removal actions are intended to be short-term responses to releases or threatened releases, with the typical action lasting at most 12 months and

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removal actions One of the two types of response actions (the other being remedial actions). Removal actions are intended to be short-term and relatively low cost, to address immediate problems primarily through the removal or neutralization of hazardous substances. They are disfavored because they often merely move the problem from one site to another.

remedial actions One of the two types of response actions (the other being removal actions). Remedial actions are large, lengthy, complex, and invariably expensive. Because of the complexity and costs involved, remedial actions require rigorous adherence to the requirements of the National Contingency Plan.

Preliminary Assessment and Site Investigation (PA/SI) A preliminary investigation conducted by the EPA as a first step in any selection of a response action. Its scope will vary depending on the complexity of the problems and the range of options under consideration. Intended to be brief, this investigation is not an open forum, and potentially responsible parties do not have a right to participate.

spending no more than \$2 million in Hazardous Substances Trust Fund money. 40 C.F.R. § 300.415(a)(5). These actions are taken to protect human populations, animals, or drinking water supplies, or otherwise to deal with any situation requiring an immediate response to control a release or potential release that could become much more serious if not addressed promptly. A site need not be listed on the NPL for the EPA to undertake a removal action, although the removal action must be consistent with the NCP. 40 C.F.R. § 300.415(a)(5).

Often a removal action is the first step in a remedial action. To carry out the remedial action efficiently, the EPA must ensure that the removal action is consistent with longer-term remedial actions. Because of their emergency nature, removal actions are not subject to the same legal standards as remedial actions. Nevertheless, in carrying out a removal action, the EPA must determine the applicable legal standards and conform to them to the greatest degree possible. Similarly, the EPA must solicit public comment, although this can be done on a limited basis to meet time demands.

The typical removal action might involve erecting fences or other site-control measures to limit site access; installing drainage devices to control migration of contaminants from the site; stabilizing dikes, drainage systems, or berms; capping contaminated soil; and/or containing, treating, or incinerating contaminants.

Remedial Actions and the RI/FS Process

The emphasis in removal action is containment and removal, temporary measures that control but often do not eliminate hazardous wastes. By contrast, the emphasis in remedial actions is the permanent neutralization or elimination of dangerous waste products found at the site. Whereas removal actions are relatively small and short-term, remedial actions are larger, longer-term, and almost invariably very expensive. As an indication of the scope of these actions, the EPA cannot undertake a remedial action unless the site is listed on the National Priorities List. 40 C.F.R. § 300.425(a).

A remedial action begins with the preparation of a **Remedial Investigation** and a **Feasibility Study**. The Remedial Investigation is intended to gather data about the site to determine an appropriate response. It includes characterization of the contamination at the site and identification of pathways of exposure to the surrounding environment. 40 C.F.R. § 300.430(d). The Feasibility Study is intended to develop and analyze possible alternative responses to site conditions. 40 C.F.R. § 300.430(e). These often-overlapping processes are reported in

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Remedial Investigation A gathering of the data needed to support a sound choice of remedial options. It includes characterization of the contamination at the site and identification of pathways of exposure to the surrounding environment. Often it overlaps with the Feasibility Study.

Feasibility Study A study intended to develop and analyze possible alternative responses to site conditions. Often it overlaps with the Remedial Investigation.

a single document, labelled an RI/FS. Although the EPA must consider a wide range of factors before it can adopt a plan based on an RI/FS, the goals of the remedy selection process are the same in all RI/FS decisions: (1) to protect human health and the environment; (2) to maintain protection over time; and (3) to minimize untreated waste. Given these goals, the EPA must favor treatment options that are genuinely remedial. It must eliminate hazardous wastes instead of merely containing and isolating them. 40 C.F.R. § 300.430(f). This means that in adopting a remedial plan, the EPA will use treatment technologies whenever feasible. Before it can resort to procedures such as containment, the EPA must find that the risks posed by untreated, contained hazardous materials will be relatively low over the long term, and that remediating these hazardous substances is impracticable.

The RI/FS must assess conditions at the site. This includes determining the scope of the remediation project and data collection. It must then evaluate alternatives to select a remedy. This process involves treatability studies, risk assessment, and analysis of alternatives. The goal is to present the decision maker with a detailed evaluation of appropriate remedial alternatives and provide relevant information so that the best remedy can be selected.

Preparation of an RI/FS does not occur in a vacuum. The sites needing remediation are located in real communities. Ordinary people, many of them frightened or enraged by the specter of a hazardous waste site, are caught in this process. This means that, besides the technical issues, the EPA must consider community relations. It must allow the public a voice in the RI/FS process, to be certain that affected persons feel comfortable with the results. These are complicated and often highly technical processes, but the EPA has established a goal of completing the entire RI/FS process within 24 months of commencement.

The RI/FS Process

Threshold Criteria The NCP requires a decision maker to use several criteria to evaluate an RI/FS and select a final remedy from among the alternatives presented. The NCP designates two of these as threshold requirements: protection of human health and the environment, and attainment of relevant or applicable requirements. This means that even if a remedial alternative is very attractive in other ways, if the alternative fails to meet these two criteria, the EPA cannot adopt it. The alternative must protect human health and the environment in both the short term and the long term from unacceptable risks posed by hazardous substances. It must do this by eliminating, reducing, or controlling exposure to levels consistent with goals set under the NCP.

LEGAL TERMS

RI/FS A single investigation, combining in one action the Remedial Investigation and the Feasibility Study. It includes characterization of the contamination at a facility and identification of pathways of exposure to the environment, as well as an analysis of the available responses to site conditions.

Additionally, the remedial alternative must attain all **Applicable or Relevant and Appropriate Requirements (ARARs)**; that is, the remedial alternative must meet any requirement established by federal environmental, state environmental, or state facility siting law that is applicable to the site or is relevant and appropriate to the site. This means that the site must be brought into compliance with all applicable environmental laws. Exceptions are allowed only if the legal requirements are waived. Indeed, controversy over the use of this ARAR standard has centered on the scope of the EPA's discretion and the application of these standards to private-party cleanup actions.

These two criteria are legal thresholds. Unless a remedial alternative satisfies both of these criteria, a decision maker cannot consider it. Notably, in the context of CERCLA actions, a critical factor to the parties who face potential liability is completely excluded from this preliminary selection process: how much will a given alternative cost? In the preliminary selection of remedial alternatives, cost is not a valid consideration. 40 C.F.R. § 300.430(f).

Primary Balancing Criteria Assuming that a remedial alternative meets the two preliminary criteria, the decision maker must then weigh five "primary balancing criteria." These are long-term effectiveness and permanence; reduction of toxicity, mobility, or volume through treatment; short-term effectiveness; implementability; and cost. 40 C.F.R. § 300.430(f).

The goal of CERCLA is not merely the containment of hazardous wastes but the remediation of sites, to make them safe for future use. To this end, a remedial alternative must be assessed to determine long-term effectiveness and permanence. Does it make the site safe? In making this assessment, the decision maker must determine what risk will remain from any residue that is left untreated or from any treatment residues. In assessing this risk, the decision maker must take into account the volume, toxicity, and mobility of the residue, and its propensity to accumulate in biological organisms. The decision maker must also consider the adequacy and reliability of any controls, such as containment systems, needed to manage treatment residues or untreated waste. What uncertainties are associated with using a containment or management system? What possibility is there that a containment system or components will have to be replaced? What risks of exposure will be posed if such replacement becomes necessary?

CERCLA emphasizes treatment. Removal of wastes from one site to another does not eliminate the problem of hazardous wastes; it just moves it to someone else's back yard. Under CERCLA, remedial actions must stress treatment. In considering a remedial alternative, a decision maker is to assess the effectiveness of the treatment as a means of reducing the toxicity, mobility, and volume of hazardous waste. In assessing an alternative, the decision maker is to consider

LEGAL TERMS

Applicable or Relevant and Appropriate Requirements (ARARs) Any requirement established by federal environmental statute or regulation or by state environmental or facility siting law which is applicable to a facility or is relevant and appropriate to the facility.

what treatment processes are available; the amount of hazardous material that will be treated, destroyed, or recycled; the expected degree by which the toxicity, mobility, and volume of waste will be reduced; the degree to which treatment is irreversible; the type of treatment residuals that will be produced, considering the toxicity, mobility, and propensity for bioaccumulation of those residuals; and the degree to which treatment reduces the inherent hazards posed by the site.

Assessing the short-term effectiveness of a remedial alternative involves an additional complicating factor: workers must often increase the risk of exposure to hazardous material while they implement remedial actions. Consider a simple example. If the soil on a site is contaminated, walking across the soil can expose the walker to contaminants. Digging or other action that disturbs the soil may raise contaminated dust. Also, any remedial alternative may itself have environmental impacts. For example, installing a drainage system in a hazardous waste facility may require altering drainage networks around the facility. Because of this, the decision maker must consider the potential impact of remedial measures on the community, the potential impact on workers and the reliability of protective measures, the potential environmental impact of the remedial alternative, and the time these short-term risks will exist before the alternative can achieve protection.

In considering implementability, the decision maker must determine what alternatives will work to remedy a hazardous waste problem. Some remedial alternatives rely on well-established methods; others require use of new and untried technologies. This means the decision maker must assess such factors as the technical feasibility of a given alternative, the reliability of technology, the ease of monitoring, unknowns, the ease of adopting alternatives, the feasibility of maintaining proper administrative oversight, and the availability of necessary resources (such as services, materials, equipment, capacities, specialists, and the like).

Finally, the decision maker is to consider cost, including direct and indirect capital costs, maintenance and operating costs, and the present value of all such costs. Note that this factor—often the most important one to the parties who must bear the expense—comes into play only after a remedial alternative has been shown to meet the two threshold criteria, protecting human health and the environment and meeting all ARARs. An alternative that does not protect human health or the environment or does not attain all ARARs must be rejected even if it is far more cost-effective. Among alternatives that do meet these criteria, the decision maker is to weigh cost-effectiveness, but it is only one of five primary balancing criteria.

Modifying Criteria In addition to the two threshold criteria and the five primary factors, the decision maker is required to consider two other factors: state acceptance and community acceptance. Labelled “modifying criteria,” these may be a basis for modifying other factors, but they are not necessarily balanced against other criteria. As noted earlier, the RI/FS process is partly a process of public relations. The goal is to select an alternative that achieves the

various technical standards required by the statute and is acceptable to the community as a whole. Often, community relations involve a clash between those who may be affected by a release of hazardous substances and those who have to pay for the remedial alternative. Those affected generally want all problems eliminated entirely. Those who must pay for the cleanup would prefer more limited alternatives.

The selection of remedial alternative based on an RI/FS is part of an administrative process. Therefore, the RI/FS and the proposed remedial alternative must be made available for public comment.

Selection of Remedies Remedy selection is controlled by CERCLA § 121, 42 U.S.C. § 9621. The EPA must clean up the site according to the ARARs, state and federal standards that are “appropriate” or “relevant and appropriate” regulations. CERCLA § 121(d)(2)(A), 42 U.S.C. § 9621(d)(2)(A).

In selecting remedies, the EPA must favor remediation over removal. One of the EPA’s worst embarrassments came when it allowed hazardous material to be removed from one site to a new location and then ordered a cleanup of the new location—in short, it ordered cleanup of a problem it had helped create. To prevent further problems, the Agency now allows removals only to sites that have no RCRA or other environmental law violations and pose no significant threat of releases. This policy is codified in CERCLA § 121(d)(3), 42 U.S.C. § 9621(d)(3).

The Record of Decision After entertaining public comment, the lead agency makes a decision selecting the final remedy. It then documents its decision in a **record of decision (ROD)**, which must show how the selected remedial alternative protects human health and the environment; how the selected alternative eliminates, reduces, or controls exposure to humans; the environmental law requirements that the remedy will meet; the legal requirements that will not be met and waiver or justification therefor; how the remedy is cost-effective; how the remedy will produce permanent remediation at the site; and whether the preferred alternative permanently and significantly reduces the toxicity, mobility, or volume of the hazardous substances, or an explanation of why an alternative that would achieve such results was not selected. The process then moves to the **remedial design/remedial action (RD/RA)** stage, which includes the actual design and implementation of the selected remedial alternative.

The RI/FS process can be used for either of the types of actions authorized under CERCLA. The EPA may wish to undertake its own abatement action, seeking reimbursement from the Hazardous Substances Trust Fund. Such actions

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record of decision (ROD) A document showing the development of the Remedial Investigation and Feasibility Study and the selection of the appropriate response alternative based thereon.

remedial design/remedial action (RD/RA) The process by which the final cleanup plan is prepared and put into action.

are authorized under CERCLA § 104, 42 U.S.C. § 9604. Alternatively, the EPA may order the parties to implement a cleanup. This is authorized under CERCLA § 106, 42 U.S.C. § 9606.

Judicial Review of EPA Remedy Selections

The EPA selects a remedy. It then orders the responsible parties to implement the selected remedy, or to pay for it if the EPA implements it. Often, the responsible parties contest the selection of remedy in court. There is no doubt that judicial review is available to ensure that EPA response actions are legal.

A party threatened with liability can contest liability, can contest the process by which the remedy was selected, and can contest the remedy itself. Issues with regard to judicial review of EPA response actions have centered on three questions: When is judicial review appropriate? What is the scope of judicial review? What relief is available if the EPA acts unlawfully?

The Prohibition of Preenforcement Review

Preenforcement review of an EPA response action is not available. The EPA has statutory authority under CERCLA § 104, 42 U.S.C. § 9604, to undertake removal actions whenever there is a release or substantial threat of a release of hazardous substances.

Any argument that preenforcement review of agency actions was available on a general basis was eliminated in 1986 with SARA, which added CERCLA § 113(h), 42 U.S.C. § 9613(h). CERCLA § 113(h) states that the federal courts lack subject matter jurisdiction for preenforcement review of EPA cleanup actions undertaken under CERCLA § 104. Only when the EPA brings a cost recovery action under § 107, 42 U.S.C. § 9607, can the courts review the EPA's selection of a remedy. *In re CMC Heartland Partners*, 966 F.2d 1143 (7th Cir. 1992); *Solid State Circuits, Inc. v. United States*, 812 F.2d 383 (8th Cir. 1987).

Even before this amendment was adopted, courts that had analyzed CERCLA had repeatedly held that preenforcement review is inconsistent with CERCLA. CERCLA is intended to provide for prompt cleanup of hazardous waste sites. If potentially responsible parties could stop the response process while they litigated questions about the choice of remedies, the delays would be interminable. The delay that preenforcement review would cause is not consistent with the purposes of CERCLA. *Wagner Seed v. Daggett*, 800 F.2d 310 (2d Cir. 1986); *Aminoil, Inc. v. United States Environmental Protection Agency*, 599 F. Supp. 69 (C.D. Cal. 1984); *Lone Pine Steering Committee v. United States Environmental Protection Agency*, 777 F.2d 882 (3d Cir. 1985).

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preenforcement review Judicial review of a response action selected by the EPA, before the response action is carried out. Under CERCLA, the federal courts are denied jurisdiction to hear any action involving preenforcement review. They cannot hear a challenge to the EPA's choice of a response action until after the response has been implemented.

LONE PINE STEERING COMMITTEE

v.

**UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY****United States Court of Appeals, Third Circuit
777 F.2d 882 (3d Cir. 1985)**

To prevent harm from a toxic waste dump, the EPA planned construction to contain the contaminants and process ground water. On completion of the work, the EPA intends to bring suit for the costs incurred. Contending that the project was unnecessarily extensive, some of the parties allegedly responsible for the site condition sought an injunction. The district court dismissed the suit on the basis that pre-enforcement judicial review was contrary to statutory intent. We agree and affirm.

* * *

On appeal, plaintiffs contend that they will be prejudiced in a post hoc recovery action because it will be impossible at that time to show that the response action was excessive. If the EPA's remedial action is effective, plaintiffs will not be able to demonstrate that their less comprehensive proposal would also have been adequate for the task. ... Moreover, they assert that denial of pre-enforcement judicial scrutiny is not justified because the EPA has conceded that no emergency action is required at the Lone Pine landfill.

In response, the EPA urges that Congress intended to preclude pre-cost recovery review of all response actions—removal as well as remedial measures. ...

We begin with the general proposition that parties aggrieved by final agency rulings shall have access to the courts. ... In some instances, however, particularly when the public health is threatened, an administrative agency is permitted to act first and litigate later.

* * *

In property deprivation cases, due process does not require access to the courts before final administrative action. Likewise, a statute, at least in a public health area, may prohibit pre-enforcement judicial review.

CERCLA was enacted in response to concerns about the danger to public health presented by

hazardous waste sites and the slow reaction by the EPA to solve the problem. Congress wanted the parties responsible for the hazardous conditions to perform the abatement. However, because cooperation is often difficult or impossible to obtain, Congress empowered the EPA to take clean up action when necessary.

* * *

Section 9604(s), (§ 104(a) of the Act), provides that whenever any hazardous substance is released into the environment or there is a substantial threat of such release, the President (who has delegated the authority to the EPA) may "act, consistent with the national contingency plan, to remove or arrange for the removal of, and provide for remedial action relating to such hazardous substance"

Section 9607 provides that the responsible party "shall be liable for ... all costs of removal or remedial action incurred by the United States Government or a State not inconsistent with the National Contingency Plan." That provision requires that the remedial action be "cost effective." See 42 U.S.C. § 9604(d).

CERCLA does not set out differing limitations on removal or remedial activities. Although plaintiffs assert that the remedial action contemplated here could be performed as litigation continues, that may not always be true in other situations. The legal question of when judicial review is available should not depend on the peculiar facts of each case. ...

It is significant that § 9604 permits the EPA to proceed without an express determination identifying the responsible parties. Circumstances may arise in which the finding of liability could not be reached until after lengthy judicial proceedings. In the meanwhile, a threat to public health and environment might evolve into actual harm and existing damages might increase. ...

The statutory approach to the problem of hazardous waste is inconsistent with the delay that would accompany pre-enforcement review. Thus, although not explicitly stated in the statute, we find in § 9604 an implicit disapproval of pre-enforcement judicial review. That policy decision is not limited to emergency situations but applies to remedial actions as well.

Section 9607 provides an adequate opportunity for the alleged responsible parties to object to the cost and adequacy of response actions. Plaintiffs here contend they may be at a disadvantage in contesting the extent of the remedy after the fact, but we do not find that to be a constitutional deficiency. It is a problem shared with defendants in many civil actions where damages are sought. Indeed, we believe that alleged responsible parties under the statute may be in a somewhat better position to mitigate damages than a defendant in the routine civil case.

Under § 9604, the EPA has an obligation to work with the responsible parties in developing appropriate measures. The courts are not unaware of bureaucratic excesses and will undoubtedly look carefully at the claims made by the government when suit for reimbursement is brought under § 9607. We note that the Steering Committee has been consulted by the EPA throughout these proceedings, has secured its own cost estimates of

proposed work, and has submitted plans to do some of the project. We assume all of these matters have or will become part of the agency record.

* * *

We observe further that the financial impact is felt immediately in § 9601 cases, when the responsible parties are directed to abate a hazardous condition. However, when action is taken under § 9604, as in this case, there is no actual property deprivation until after the suit for reimbursement. For that reason also, deferral of judicial review to that time is defensible.

* * *

We conclude that the district court properly denied the plaintiffs' request for an injunction to prohibit the EPA from taking remedial action under § 9604. Although we recognize the importance of judicial review of agency action, we are persuaded that the purpose of the statute would be frustrated if review is allowed at this stage.

Case Questions

1. What did the plaintiffs in this case want the trial court to issue?
2. Why did the plaintiffs insist they needed to have preenforcement review?
3. What topic is subject to exceptions to preenforcement review?

Judicial review is granted when the EPA sues to recover costs under CERCLA § 107, 42 U.S.C. § 9607, *after* the remedy has been implemented. The EPA can recover its costs only to the extent they are consistent with the NCP. CERCLA § 104(a)(1), 42 U.S.C. § 9604(a)(1). Further, the EPA must show that its response actions were cost-effective. CERCLA § 105(a)(7), 42 U.S.C. § 9605(a)(7).

Judicial Enforcement of Section 106 Orders

If it finds that an actual or threatened release poses an imminent and substantial threat to human health or welfare or the environment, the EPA can order a cleanup under CERCLA § 106, 42 U.S.C. § 9606. A party confronted with such an order may refuse to comply. If this occurs, the EPA can get an injunction ordering compliance. If it is required to seek injunctive relief, the EPA can ask the court to impose fines of up to \$25,000 per day and treble damages if the EPA must spend its own funds carrying out the cleanup. These penalties are discretionary; they are imposed by the court; and they can be assessed only after

a hearing. The courts have held that fines are inappropriate if the party acted in good faith in refusing to carry out an EPA-ordered cleanup. *Wagner Seed Co. v. Daggett*, 800 F.2d 310 (2d Cir. 1986).

Judicial Enforcement of EPA Entry and Inspection Powers

Under CERCLA § 104(e), 42 U.S.C. § 9604(e), the EPA can gather information on those who disposed of wastes. Indeed, many potentially responsible parties (PRP) learn that they are potentially subject to EPA actions when they receive a CERCLA § 104(e) letter. Such a letter seeks information about the wastes that the PRP generated, the location where the wastes were sent, the PRP's relationship with the site owner or operator, and the PRP's insurance coverage.

CERCLA also gives the EPA broad powers to enter sites to undertake remedial actions. CERCLA § 104(e), 42 U.S.C. § 9604(e). CERCLA requires the courts to use their injunctive powers to prevent any interference with EPA actions unless the EPA actions are arbitrary and capricious, an abuse of discretion, or otherwise unlawful. CERCLA § 104(e)(5)(B)(i), 42 U.S.C. § 9604(e)(5)(B)(i). Somewhat more questionable is the right of private parties to enter property to carry out a cleanup agreed to in a settlement with the EPA. This has not been fully resolved.

Abatement Actions under CERCLA Section 106

CERCLA § 104, 42 U.S.C. § 9604, provides the primary legislative authority for responding to the release or threatened release of hazardous substances. In addition, whenever a site poses an imminent and substantial threat to human health or welfare or the environment, CERCLA § 106, 42 U.S.C. § 9606, gives the federal government the power to order an abatement action. If the EPA finds that a site poses an imminent and substantial threat, it can order an immediate cleanup, and it can go to court to enjoin parties to comply with those orders.

A party receiving an abatement order has few alternatives to performing the cleanup as ordered. But what if the party believes that the abatement order is excessive or illegal? If it refuses to undertake a cleanup, the courts can impose fines of up to \$25,000 per day. As an alternative, the party can comply with the order and then sue the EPA for reimbursement. To win reimbursement under CERCLA § 106(b)(2), 42 U.S.C. § 9606(b)(2), the party must show either that it would not have been liable for response costs under § 107 (CERCLA's liability provision) and that the costs it incurred were reasonable; or that the abatement order was arbitrary and capricious. It is extremely difficult to make either of these showings. Given the sweeping scope of liability that CERCLA imposes, it is very difficult to escape CERCLA § 107 liability, and the courts require a very strong showing before they will find that an order was arbitrary and capricious.

Because § 106 abatement orders are so severe, the courts have read § 106(a) relatively narrowly. The courts do not allow the EPA to use § 106 to avoid the safeguards that § 104 allows. Specifically, § 104 allows the EPA to impose liability

on nonnegligent off-site generators whose past practices of disposing of hazardous wastes created a present hazard. For example, assume a generator used a disposal company to dispose of its wastes. Unknown to the generator, the disposal company was dumping these wastes illegally. Even though the generator was not negligent in its practices, it can be held liable under CERCLA § 104, 42 U.S.C. § 9604. The EPA is not allowed to use § 106 to impose substantive liability on this generator, even if its hazardous wastes created a present imminent hazard; the EPA must use CERCLA § 104.

This policy disappoints some environmental advocates, who have argued that CERCLA § 106 should be given the same sweep as CERCLA § 104. This would mean that any party that might be held liable under § 107 could be subjected to the force of an abatement order. However useful this approach might be for coercing recalcitrant polluters, the courts do not allow it. The language of § 106 is different from the language of § 104. The courts have ruled that in using different language, Congress gave these two sections different scopes. Additionally, Congress recently amended RCRA § 7003 so that it now covers nonnegligent off-site generators. In adopting this amendment, Congress did not amend CERCLA § 106. This indicates that Congress accepts earlier judicial decisions limiting the use of abatement actions.

Private Liability for Response Costs

Cleaning up Superfund sites is a multibillion-dollar proposition. Because of the expense, the greatest single issue in CERCLA is who must pay the costs. CERCLA § 107(a), 42 U.S.C. § 9607(a), imposes liability for cleanups. This provision is so sweeping in its scope that it warrants extended quotation:

Notwithstanding any other provision or rule of law, and subject only to the defenses set forth in subsection (b) of this section—

- (1) the owner and operator of a ... facility,
- (2) any person who at the time of the disposal of any hazardous substance owned or operated any facility at which such hazardous substances were disposed of,
- (3) [any generator of hazardous substances], and
- (4) [any transporter of hazardous substances] shall be liable for
 - (A) all costs of removal or remedial action incurred by the United States Government or a State or an Indian tribe not inconsistent with the national contingency plan;
 - (B) any other necessary cost of response incurred by any other person consistent with the national contingency plan

CERCLA did establish the “Superfund,” the Hazardous Substances Trust Fund, to which Congress has made periodic additions. The trust fund, however, is not an unlimited supply of money, and CERCLA clearly contemplates that the public monies in the fund are not the primary source for paying the costs of cleaning up hazardous waste sites. Rather, the private parties who are liable under § 107(a) are to pay these cleanup costs. Indeed, the statute requires the

federal government to try to arrange for private parties to carry out the actual cleanup work, subject to governmental supervision.

Section 107 imposes joint and several liability for cleanup costs on all owners and operators, current and past, as well as generators and transporters. Anyone falling into any of these categories is a **potentially responsible party (PRP)** liable for all cleanup costs. This liability cannot be avoided by private agreement. Indemnity agreements are valid among PRPs, but are not binding on the government. CERCLA liability is strict liability. The government does not need to show any fault, and the statute allows defenses only for acts of God, acts of war, and acts by totally unrelated third parties.

In this liability plan, CERCLA directs the government to undertake cleanups, or to arrange for private parties to undertake them under government supervision, and then to secure reimbursement for costs through liability actions and through the industry taxes imposed under CERCLA.

Liability under CERCLA has generated a great deal of litigation, as parties faced with massive liability have tried to avoid the costs of cleanups.

Present Owners and Operators

Any current owner or operator of any facility from which there has been a release of hazardous substances is liable under CERCLA § 107(a), 42 U.S.C. § 9607(a). There has been a good deal of litigation over the precise scope of this liability, but the cases are firm: all owners and operators of CERCLA sites are strictly liable, even if they did no specific act to cause or contribute to the release of hazardous substances. That an owner or operator did not cause the release is not a defense.

In adopting this severe liability system, Congress intended to prevent any shell game parties might try to use to avoid CERCLA liability. If a current owner could avoid liability merely by showing that it did not actively cause a release, it could easily do so. There would never be anyone to pay the tremendous costs of hazardous substance cleanups. The owner or operator of a facility could merely cease operations and sell the site to a new owner, which could claim that it did not cause the release of hazardous substances. If the prior owners then became insolvent or deceased, the new owner could act with effective impunity, and only public money would be available to fund cleanups. Because the owners and operators of CERCLA facilities are often corporations, the simple expedient of dissolving the corporation would leave massive cleanup costs orphaned. CERCLA prohibits this tactic by imposing liability on the present owners and operators, even if they had no role in disposing of hazardous substances on the property. Also, an owner is strictly liable for activities of its lessee.

The courts have also construed the term *operator* expansively. A lessee that has control over decisions concerning the disposal of hazardous substances at

LEGAL TERMS

potentially responsible party (PRP) Anyone who is potentially liable for cleanup costs under CERCLA.

the site is liable as an operator. Any person who actively participates in managing the facility is also an operator. This activity may include managing facility employees, managing daily business operations, maintaining environmental controls at the facility, or receiving a financial benefit from the facility. Notably, the fact that a manager is also a corporate officer acting in a corporate capacity does not necessarily provide immunity from liability. Individuals can be individually liable for acts entirely within their corporate capacities.

Liability under CERCLA § 107 is liability for the costs of removing or remediating hazardous substances. Under CERCLA § 104, 42 U.S.C. § 9604, CERCLA requires removal or remediation of hazardous substances any time there has been a release of such substances. As noted earlier, however, the term *release* as defined in § 101(22) and used in § 104 has been construed very expansively. It means any uncontrolled passage of hazardous substances into the environment. Even if the hazardous substances are confined to the owner or operator's property, there has been a release, and a release creates liability under § 107.

Similarly, **treatment** is defined under CERCLA § 103(34), 42 U.S.C. § 9603(34), to include any activity intended to change the character or composition of hazardous waste so as to make it less hazardous or more easily dealt with. This means that activity such as storing or encapsulating wastes, incomplete treatment, or any other manipulation of the wastes is a disposal, a treatment, or both. For example, merely grading or filling a site in a way that disturbs hazardous materials in the soil makes a developer subject to liability.

Rulings such as this mean that developers who disturb hazardous waste, even inadvertently, face CERCLA liability. Because of this, developers often insist that sellers agree to indemnify the developers for environmental liability arising from the property. Between parties of comparable bargaining power, these agreements are valid. However, these agreements do not bind the government, which can sue any PRP, including a developer. CERCLA § 107(e), 42 U.S.C. § 9607(e).

The courts have also held that CERCLA liability is liability for restitution, not damages. This means that a § 107 action is a case "in equity"; the trial is before a judge sitting alone. There is no right to a jury trial. Skillful lawyers cannot play on jury sympathy for their clients against the EPA.

Prior Owners and Operators

Just as a current owner or operator is held strictly liable, if a person owned or operated the facility at the time any hazardous substance was disposed of there, that person is also strictly liable. CERCLA § 107, 42 U.S.C. § 9607.

In this regard, the language of CERCLA suggests a distinction between current owners/operators and prior owners/operators. CERCLA states that prior owners and operators are held liable if they owned or operated the facility at the time the hazardous substances were disposed of. This language appears to

LEGAL TERMS

treatment As defined in CERCLA, any activity intended to change the character or composition of hazardous waste so as make it less hazardous or more easily dealt with.

exempt "interim" owners and operators, that is, those who owned or operated a facility between the time of a disposal and the present time.

However, interim owners or operators have been held liable under two theories. These theories turn on the meaning of *disposal*. CERCLA does not define this term, but it incorporates the definition from RCRA. Under that definition, *disposal* includes any "discharge, deposit, injection, dumping, spilling, leaking, or placing" of hazardous substances into or on land so that hazardous substances enter the environment. CERCLA § 101(29), 42 U.S.C. § 9601(29). Using this definition, the courts hold that any owner or operator's action to disturb hazardous substances already on the site constitutes a "re"-disposal, bringing the owner within the scope of CERCLA. Courts have adopted this expansive construction, ruling that when hazardous substances are moved, dispersed, or released, such as during excavation, there is a disposal under CERCLA. Under this rule, anyone who develops a site containing hazardous wastes would be subject to potential liability. *Guidace v. BFG Electroplating & Manufacturing Co.*, 732 F. Supp. 556 (W.D. Pa. 1989).

Under a second, even more expansive theory, courts impose liability on an owner or operator that plays no active role in moving the hazardous substances. Under this theory, if any hazardous substance leaks through ground or groundwater, this is a disposal or a release, even if the owner or operator did nothing and was entirely unaware of the leaking. Disposal does not require any active human conduct. It can be accomplished entirely through natural migration from the site. Notably, while some courts have adopted this definition of *disposal*, others have rejected it, holding that mere passive ownership does not render one an owner at the time of a disposal. *Nurad, Inc. v. Hooper & Sons Co.*, 966 F.2d 837, 844 (4th Cir. 1992); *but see Ecodyne Corp. v. Shah*, 718 F. Supp. 1454 (N.D. Cal. 1989) (holding that passive ownership at the time of disposal does not make one an owner at the time of the disposal).

In holding prior owners and operators liable in governmental actions, the courts have rejected various defenses that might have protected prior owners in other types of private suits. For example, under traditional real property law, a buyer is barred by the doctrine of *caveat emptor* ("let the buyer beware") from bringing actions against the seller for any condition existing on the property at the time of the sale, unless the seller fraudulently concealed that condition. Under CERCLA, the defense of *caveat emptor* is not available. The courts have ruled that it is inconsistent with the congressional purposes set forth in CERCLA's liability provisions. As a federal statute, CERCLA overrides any inconsistent common law defenses. To allow *caveat emptor* might not contradict the explicit language of CERCLA, but would clearly be inconsistent with its purposes.

Caveat emptor would frustrate efforts to facilitate private cleanups because the most common party leading such cleanup efforts is the current owner. A current owner would not voluntarily clean up the site, but would wait for the EPA to order a cleanup in the hope the EPA would order prior owners to participate in the cleanup. *Caveat emptor* would also frustrate EPA policies. The EPA often sues only select PRPs, leaving them to seek equitable shares from other responsible parties through separate lawsuits. If other parties could claim *caveat*

emptor, they could block such contribution actions. The only way to hold them liable would be for the EPA to sue everyone.

Although the courts do not allow the defense of *caveat emptor* as such, the idea behind it has a place in CERCLA litigation. A buyer that pays only a “low-ball” price for property, because it contains hazardous waste, is not allowed equitable relief in cost-sharing actions. Notably, if the buyer takes property “as is,” and a release of hazardous substances is later found there, CERCLA allows the buyer to recover response costs from the seller, notwithstanding any disclaimers of warranty.

Generators

The purpose of CERCLA is to impose liability on those responsible for the dangers created by hazardous waste sites. Generators are a key group of responsible parties. Under CERCLA § 107(a)(3), 42 U.S.C. § 9607(a)(3), a **generator** is “any person who arranged ... for disposal ... of hazardous substances ... at any facility.”

The difficulty in proving generator liability is causation. It is often physically impossible to link hazardous waste to a particular generator. If CERCLA were construed to require that a plaintiff establish a generator’s identity with complete certainty, generator liability could never be proven. Rather than make plaintiffs do the impossible, the courts have adopted a less stringent standard. To prove that a generator is liable, the plaintiff need only prove that hazardous substances like those found in the generator’s waste are present at the site, and that the generator’s wastes were disposed at the site. Proof of these two elements makes the generator liable under CERCLA. The courts have rejected arguments that would require the government to link cleanup costs to a generator’s specific wastes. If there is a release of any hazardous substance, CERCLA does not require that the release contain the defendant’s specific wastes. A CERCLA cleanup attempts to clean out all the wastes at an entire site, not just wastes that have leaked. If the defendant has disposed of waste at the site, and waste of that type is found at the site, the defendant is liable for response costs.

CERCLA causation can be attenuated. If a generator’s wastes have been disposed of at a site, and there is a release from the site, the generator is liable even if the release does not involve the generator’s waste.

Liability under CERCLA is joint and several. This means that any one generator can be held liable for the cost of cleaning up an entire facility, even if the cost is completely disproportionate to the amount of waste that the generator contributed to the site.

The courts impose joint and several liability unless a defendant shows a reasonable basis for apportioning the harm. A defendant arguing that liability can be apportioned bears a heavy burden. Courts reject simple volumetric apportionment. Volume does not necessarily correspond to the gravity or type of

LEGAL TERMS

generator Any person who arranged for disposal of hazardous substances at any facility.

risk, or the costs of cleaning up a particular waste. A large quantity of waste may contain small quantities of hazardous substances, or vice versa, so there is no necessary correspondence between the volume of waste and the resulting cleanup cost. Additionally, many cleanups must address complex problems of chemical interactions.

Joint and several liability can be terribly burdensome to a party that has contributed only a small amount of waste to a given site. To lessen potentially unreasonable burdens, the EPA is empowered to settle with any *de minimis contributors*. A settlement with the government gives a generator a shield from further liability while allowing the settling generator to sue other parties for contribution if it chooses to. CERCLA §§ 113(f), 122(g); 42 U.S.C. §§ 9613(f), 9622(g). Many well-publicized charges of abuse under CERCLA have involved contentions that a defendant is a *de minimis* contributor, but is threatened with either full joint and several liability or with an unreasonably onerous settlement.

Another hotly contested issue is the retroactive application of CERCLA. If a release has occurred, generators are liable for cleanup costs even if the release is the result of dumping that occurred long before CERCLA was enacted. This can mean that generators become liable for activity that was entirely legal and may even have been openly encouraged by state and local authorities at the time it was undertaken. Although there has been much controversy over the issue, the courts have uniformly held that CERCLA does apply retroactively, and that retroactive application is constitutional. *United States v. Hooker Chemical*, 680 F. Supp. 546 (W.D.N.Y. 1988).

The courts have also held that costs incurred in a CERCLA cleanup are not covered by standard general liability insurance policies. The courts taking this position held that cleanup costs are equitable; as such, they are not "damages" within the meaning of insurance policies. This was a controversial ruling. From the standpoint of the insured, the distinction between equitable costs and damages was nonsensically esoteric. To the insured, the real issue was why an insurance policy did not provide insurance. Questions of insurance coverage remain dependent on the language of the individual policy.

One provision of CERCLA that has generated considerable litigation is the distinction between the seller of products (who is not liable for CERCLA costs) and the generator that disposes of hazardous waste (who is liable). Courts have had difficulty drawing a principled distinction. For example, much old electrical equipment contains PCBs, which are suspected carcinogens. If a party sells electrical equipment containing PCBs, is this a disposal of a hazardous substance? The courts have held that such a sale is not a disposal absent proof that the seller knew that the equipment was leaking PCBs. By contrast, a party that sold PCB-tainted oil to a dragstrip, where the oil was used as a dust-control agent, was

LEGAL TERMS

de minimis contributors Generators who contributed only minimal amounts of hazardous substances to a facility, these amounts being so small that it is unfair to saddle these generators with full joint and several liability. To allow them a reasonable option, these generators are allowed to settle with the EPA for fixed, reasonable amounts.

O'NEIL
v.
PICILLO

United States Court of Appeals, First Circuit
883 F.2d 176 (1st Cir. 1989)

In July of 1977, the Picillos agreed to allow part of their pig farm in Coventry, Rhode Island to be used as a disposal site for drummed and bulk waste. That decision proved to be disastrous. Thousands of barrels of hazardous waste were dumped on the farm, culminating later that year in a monstrous fire ripping through the site. In 1979, the state and the Environmental Protection Agency (EPA) jointly undertook to clean up the area. What they found, in the words of the district court, were massive trenches and pits "filled with free-flowing, multi-colored, pungent liquid wastes" and thousands of "dented and corroded drums containing a veritable potpourri of toxic fluids." *O'Neil v. Picillo*, 682 F.Supp. 706, 709, 725 (D.R.I.1988).

This case involves the State of Rhode Island's attempt to recover the clean-up costs it incurred between 1979 and 1982 and to hold responsible parties liable for all future costs associated with the site. ... After a month-long bench trial, the district court, in a thorough and well reasoned opinion, found three of the remaining five companies jointly and severally liable under section 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. § 9601 *et seq.* ("CERCLA") for all of the State's past clean-up costs not covered by settlement agreements, as well as for all costs that may become necessary in the future. ...

Two ... companies held liable at trial ... have taken this appeal. Both are so-called "generators" of waste, as opposed to transporters or site owners. See § 107(a)(3), 42 U.S.C. § 9607. Neither takes issue with the district court's finding that some of their waste made its way to the Picillo site. Rather, they contend that their contribution to the disaster was insubstantial and that it was, therefore, unfair to hold them jointly and severally liable for all of the state's past expenses not covered by settlements. ... After a careful review of the record, we conclude that none of these

arguments suffices to warrant reversal of the judgment below.

Joint and Several Liability

Statutory Background

It is by now well settled that Congress intended that the federal courts develop a uniform approach governing the use of joint and several liability in CERCLA actions. The rule adopted by the majority of courts, and the one we adopt, is based on the Restatement (Second) of Torts: damages should be apportioned only if the *defendant* can demonstrate that the harm is divisible.

The practical effect of placing the burden on defendants has been that responsible parties rarely escape joint and several liability, courts regularly finding that where wastes of varying (and unknown) degrees of toxicity and migratory potential commingle, it simply is impossible to determine the amount of environmental harm caused by each party. It has not gone unnoticed that holding defendants jointly and severally liable in such situations may often result in defendants paying for more than their share of the harm. Nevertheless, courts have continued to impose joint and several liability on a regular basis, reasoning that where all of the contributing causes cannot fairly be traced, Congress intended for those proven at least partially culpable to bear the cost of the uncertainty.

In enacting the Superfund Amendments and Reauthorization Act of 1986 ("SARA"), Congress had occasion to examine this case law. Rather than add a provision dealing explicitly with joint and several liability, it chose to leave the issue with the courts, to be resolved as it had been—a case by case basis according to the predominant "divisibility" rule. Congress did, however, add two important provisions designed to mitigate the harshness of joint and several liability. First, the 1986 Amendments direct the EPA to offer early settlements to defendants who the Agency believes are responsible for only a small portion of the harm, so-called *de minimis* settlements. See § 122(g). Second, the Amendments provide for a

statutory cause of action in contribution, codifying what most courts had concluded was implicit in the 1980 Act. See § 113(f)(1). Under this section, courts "may allocate response costs among liable parties using such equitable factors as the court determines are appropriate." ...

While a right of contribution undoubtedly softens the blow where parties cannot prove that the harm is divisible, it is not a complete panacea since it frequently will be difficult for defendants to locate a sufficient number of additional, solvent parties. Moreover, there are significant transaction costs involved in bringing other responsible parties to court. If it were possible to locate all responsible parties and to do so with little cost, the issue of joint and several liability obviously would be of only marginal significance. We, therefore, must examine carefully appellants' claim that they have met their burden of showing that the harm in this case is divisible.

Divisibility

The district court issued two rulings on joint and several liability. First, the court held appellants jointly and severally liable for all of the state's past costs not covered by settlements, roughly \$1.4 million including prejudgment interest. According to appellants, this money was spent exclusively on "removal" costs or "surface cleanup" (e.g., sampling the waste, contacting responsible parties, and ultimately, *removing* the barrels and contaminated soil), and not on remedying the alleged damage to groundwater and other natural resources ("remedial" costs). Second, the district court held appellants jointly and severally liable for all future removal costs to be incurred by the state, as well as for all cost-efficient remedial action the state (and EPA) may deem necessary after conducting further tests. The parties discuss the two holdings separately and we shall do likewise.

Past Costs

Appellants begin by stressing that the state's past costs involved only surface cleanup. They then argue that because it was possible to determine how many barrels of waste they contributed to the site, it is also possible to determine what proportion of the state's removal expenses are

attributable to each of them simply by estimating the cost of excavating a single barrel.

* * *

Removal Costs

The state's removal efforts proceeded in four phases (0-3), each phase corresponding roughly to the cleanup of a different trench. The trenches were located in different areas of the site, but neither party has told us the distance between trenches. Appellants contend that it is possible to apportion the state's removal costs because there was evidence detailing (1) the total number of barrels excavated in each phase, (2) the number of barrels in each phase attributable to them, and (3) the total cost associated with each phase. In support of their argument, they point us to a few portions of the record, but for the most part are content to rest on statements in the district court's opinion. Specifically, appellants point to the following two sentences in the opinion: (1) "I find that [American Cyanamid] is responsible for ten drums of toxic hazardous material found at the site;" and (2) as to Rohm and Haas, "I accept the state's estimate [of 49 drums and 303 five-gallon pails]." Appellants then add, without opposition from the government, that the ten barrels of American Cyanamid waste discussed by the district court were found exclusively in Phase II, and that the 303 pails and 49 drums of Rohm and Haas waste mentioned by the court were found exclusively in Phase III. They conclude, therefore, that American Cyanamid should bear only a minute percentage of the \$995,697.30 expended by the state during Phase II in excavating approximately 4,500 barrels and no share of the other phases, and that Rohm and Haas should be accountable for only a small portion of the \$58,237 spent during Phase III in removing roughly 3,300 barrels and no share of the other phases. We disagree.

The district court's statements concerning the waste attributable to each appellant were based on the testimony of John Leo, an engineer hired by the state to oversee the cleanup. ...

Mr. Leo testified that out of the approximately 10,000 barrels that were excavated during the four phases, only "three to four hundred of the drums contained markings which could potentially be

traced." This is not surprising considering that there had been an enormous fire at the site, that the barrels had been exposed to the elements for a number of years, and that a substantial amount of liquid waste had leaked and eaten away at the outsides of the barrels. Mr. Leo also testified that it was not simply the absence of legible markings that prevented the state from identifying the overwhelming majority of barrels, but also the danger involved in handling the barrels. ...

In light of the fact that most of the waste could not be identified, and that the appellants, and not the government, had the burden to account for all of this uncertainty, we think it plain that the district court did not err in holding them jointly and severally liable for the state's past removal costs. Perhaps in this situation the only way appellants could have demonstrated that they were

limited contributors would have been to present specific evidence documenting the whereabouts of their waste at all times after it left their facilities. But far from doing so, appellants deny all knowledge of how their waste made its way to the site. Moreover, the government presented evidence that much of Rohm and Haas' waste found at the site came from its laboratory in Spring House, Pennsylvania and that during the relevant years, this lab generated over two thousand drums of waste, all of which were consigned to a single transporter. Under these circumstances, where Rohm and Haas was entrusting substantial amounts of waste to a single transporter who ultimately proved unreliable, we simply cannot conclude, absent evidence to the contrary, that only a handful of the 2,000 or more barrels reached the site.

Case Questions

1. What did the defendants admit they were under CERCLA?
2. When are costs under CERCLA to be apportioned?
3. Why does the imposition of joint and several liability sometimes work unfairly?
4. What can the EPA offer to parties which it concludes have made only token contributions to a hazardous waste site?

held liable as a generator. The court rejected the argument that this was the sale of a product. The precise line between selling a product and disposing of hazardous substances remains unclear.

The risk that wastes will be unidentifiable makes it virtually impossible for generators to avoid liability by removing their own wastes from a site without participating in the broader cleanup. For example, if a defendant disposes of hazardous wastes at a site, but later removes its wastes, the defendant does not automatically avoid liability. If wastes of the same kind as the defendant's remain at the site, the defendant remains liable for cleanup costs. Plaintiffs do not have to prove that the remaining waste is the defendant's. The defendant is liable merely because similar substances are found at the site. To avoid liability, the defendant would have to prove that none of its wastes remained at the site. This amounts to adoption of the substantial factor test found in other tort law settings.

Transporters

CERCLA § 107(a)(4), 42 U.S.C. § 9607(a)(4), subjects transporters to strict liability, although other portions of the statute, as well as court cases, have

narrowed the application of this provision. A transporter will be liable if it selects the site to which hazardous substances are taken. Less clear is whether the transporter will be held liable if its only role is transporting waste to a disposal or treatment facility, but it does not otherwise cause or contribute to a release. There is some indication that a transporter is not liable absent some showing that it actually caused a release or threatened release.

Corporate Entities

Congress gave no clear indication as to how the liability of parent, dissolved, or successor corporations should be resolved; it left these questions to the courts. Courts have uniformly held that if a corporation ceases to exist because of a merger or consolidation, the successor corporation acquires the predecessor corporation's CERCLA liability. This is the concept of **successor liability**.

Under the doctrine of successor liability, a corporation that purchases the assets of another company assumes the selling company's liabilities if (1) it agrees expressly or impliedly to assume the selling company's liability; (2) the transaction amounts to a consolidation or merger; (3) the purchasing corporation is merely a continuation of the selling company; or (4) the transaction is a fraudulent attempt to escape liability. Courts have been very firm in applying these doctrines to avoid "orphaning" CERCLA liability.

This comports both with general principles of corporate law and with Congress's intent under CERCLA. The alternative would be to hold that the CERCLA liability of a corporation that ceases to do business is **orphaned liability** to be paid by taxpayers through the Hazardous Substances Trust Fund. The legislative record is clear that Congress did not intend this.

What if one corporation acquires the assets of another (dissolving) corporation, but both corporations state that the acquiring corporation does not assume the dissolving corporation's environmental liabilities? To resolve these cases, the courts have ruled that doctrines of successor liability apply despite the corporations' efforts to limit liability. Corporate successions can be reduced to mere paper transactions and legalistic sleight-of-hand. If the courts did not apply the doctrine of successor liability, corporations could avoid liability, leaving the government with no recourse if the predecessor corporation has disbanded and its assets have been dispersed.

Courts under CERCLA examine a transaction to determine if it amounts to a merger or consolidation, regardless of the label the parties give it. Particularly, the courts consider four factors:

LEGAL TERMS

successor liability The concept that a successor corporation must bear the liability for any wrongful actions taken by the predecessor corporation. In the context of CERCLA, this concept is pressed very aggressively so that corporations cannot use mergers, consolidations, or other manipulations to avoid liability.

orphaned liability Liability that is left when a corporation dissolves itself with no successor. The only source of money available to pay the debts left by the corporation is the public.

1. Is there a continuation of the enterprise, marked by continuity of management, personnel, location, and general business operations?
2. Is there a continuity of shareholders, with the old shareholders merely exchanging their shares for shares in the new company?
3. Does the old company cease all operations, liquidate, and dissolve as soon as possible?
4. Does the new corporation assume obligations necessary to carry on normal business without interruption?

No one of these factors is dispositive, and the court will not impose undue technicalities or formalities to undermine the reality of transactions.

Corporations have attempted various manipulations to try to avoid having transactions classified as mergers. The courts look beyond form to try to do justice.

If a parent corporation exercises pervasive control over a closely held subsidiary, the parent is liable for response cost incurred by a subsidiary. However, if the parent does not have total dominion, it is not liable. If a corporation has dissolved, it cannot be sued under CERCLA. However, a liquidating trust of a dissolved corporation can be held liable for CERCLA response costs.

Courts applying CERCLA have also been very aggressive in holding individual officers and directors of corporations personally liable for CERCLA response costs. If individuals have personal authority to control handling and disposal, they can be held personally liable as operators. They will not be allowed to escape liability merely by employing the corporate form. *United States v. Northeastern Pharmaceutical & Chemical Co.*, 810 F.2d 726, 743 (8th Cir. 1986).

PRP Settlement Groups

Congress intended that in enforcing CERCLA, the EPA should encourage settlements under which private parties would clean up facilities. To this end, CERCLA § 122, 42 U.S.C. § 9622, allows the EPA to enter into settlements with potentially responsible parties (PRPs). Under § 122(e), the EPA will notify PRPs of a “period of negotiation,” a 60-day period during which the EPA will not use its § 106 injunctive authority to compel cleanups. During this period, the PRPs are to develop proposals for undertaking and financing a cleanup. In the § 122(e) notice, the government is to advise PRPs of the identity of other PRPs and the volume of waste each PRP has contributed to the facility. The PRPs and the EPA (or its state counterpart) may then enter into a **consent decree** with cooperating PRPs. A court must approve the consent decree before it becomes effective. The court must ensure that the consent decree is “fair, adequate, and reasonable, and consistent with the Constitution and the mandate of Congress.”

LEGAL TERMS

consent decree A judicial decree reflecting a settlement of litigation consented to by the defendants. In CERCLA cases, defendants who are willing to accept the terms imposed by the EPA agree to the consent decree. This gives the settlement the force of a judicial order binding on all parties.

In CERCLA § 113(f), 42 U.S.C. Section 9613(f), Congress established several powerful inducements to settlements. Section 113(f)(1) allows PRPs to bring contribution actions against one another. Under § 113(f)(2), however, a party that has made a judicially or administratively approved settlement with the government is not liable for contribution for any matters covered in that settlement, but it can bring contribution actions against any nonsettling parties. In essence, § 113 means that a party that settles a CERCLA claim has capped its damages. Nonsettling parties cannot make settlors pay more than what they settled for.

In practice, § 122(e) notice letters have prompted PRPs to form cooperative groups to implement and fund cleanups, under EPA supervision. The PRPs must also cover the EPA's supervision costs.

PRPs complain that the EPA dictates settlements instead of negotiating them, demanding abject submission rather than constructive dialogue. Nevertheless, PRPs that refuse to join such groups face an even bleaker situation—they may be compelled to help pay for the implementation of remedial alternatives which they had no say in selecting. If they accept a consent decree agreed to by settling PRPs, nongroup members can be compelled to contribute as well to PRP group expense.

CERCLA §§ 122(k) and 113(f) are powerful tools for inducing settlements. Parties want security from contribution actions. To get this, they will settle with the EPA. In some cases, the EPA has given settling PRPs favorable settlements and has required nonsettling PRPs to pay the difference.

The EPA must get court approval for consent decrees. Often, nonsettling PRPs oppose the settlements set forth in these decrees, because the settlement will cap the liability of settling PRPs while leaving nonsettling PRPs exposed to unlimited increased liability. Although the courts consider a wide range of factors in reviewing proposed settlements, fairness to nonsettling parties is not a controlling concern. The courts consider such factors as the strength of the government's case in light of the amount of the settlement offer; the likely difficulty, length, and cost of litigation; and the stage of the proceedings and development of the entire case at the time settlement is proposed, as well as any opposition to the settlement by other affected parties.

Additionally, there are certain limits on the settlement terms a court can approve. It cannot approve a settlement agreement that would violate ARARs. A court will not approve a proposal that punishes nonsettling parties, but it may approve a fair and reasonable decree giving a premium to parties who settle in the early stages of litigation. In the courts' view, defendants who refuse to join early settlements have only themselves to blame if the government later refuses to allow them the same favorable terms. If this means that nonsettling parties pay a price beyond their proportionate share, so be it—CERCLA sanctions this result. Nonsettling parties cannot expect the government (and ultimately the public) to pay the difference. Being jointly and severally liable, the nonsettling parties may have to pay the entire cleanup cost. They will not be required to double-pay sums that settling parties have already paid, but they can be made to pay any other amounts, even if this means letting settling parties off for less than their true proportionate shares.

Although §§ 113 and 122 encourage settlements, critics argue that they are sources of abuse. If a PRP believes it is not responsible for conditions at a site, or that a settlement the EPA demands is unreasonable, that party cannot settle. But if it refuses to settle, it can be saddled with a disproportionate share of liability and no means of equalizing it through contribution actions. Arguably, this unfairness is inherent in joint and several liability in tort cases.

Often, parties' objections to proposed settlements fall into two groups: PRPs who feel that the EPA has offered them no reasonable settlement avenue, and neighboring landowners and environmental groups who feel that EPA remedies are inadequate. To address problems with the PRPs, the EPA has published settlement guidelines so that PRPs can forecast the range of the EPA's position. Neighboring landowners are often quite vociferous in their objections to settlements, calling for punishment of polluters and the absolute and immediate elimination of all pollutants, even when the propriety or possibility of such responses is questionable at best.

Defenses

CERCLA does allow three possible defenses: when the release is caused by an act of God, an act of war, or an act of a third party. CERCLA § 107(b), 42 U.S.C. § 9607(b).

The courts have construed these defenses very narrowly. For example, to show that a release was due to an act of God, the defendant must show that the act of God was the sole cause of the release. Unusually heavy but foreseeable rainfall, for example, is not an act of God.

There have apparently been no reported cases to date claiming that a release was the result of an act of war.

The **third-party defense** under CERCLA § 107(b)(3), 42 U.S.C. § 9607(b)(3), has generated the most litigation. The courts have rejected most claims asserting this defense. To make out a third-party defense, the defendant must show that a third party's actions were the sole cause of the release. If there are multiple causes, and some are outside the defense, the defense fails. The defendant has the burden of asserting this defense, and courts will not allow a defendant to rely on mere conclusory allegations that it took the due care and precautions that the statute requires. Further, a lessor cannot use the defense to try to protect itself from its lessee.

Many cases have arisen under CERCLA § 101(35), 42 U.S.C. § 9601(35), a definition section added in the Superfund Amendment and Reauthorization Act of 1986 (SARA) to clarify the third-party defense. It states that a party that

LEGAL TERMS

third-party defense A defense to CERCLA liability that is allowed to a defendant who can show that any activities giving rise to liability were carried out solely by third parties with whom the defendant had no contractual relationship whatsoever. It is construed very narrowly.

purchases a facility on which a release is discovered is an **innocent landowner**, not liable under CERCLA, if, at the time it acquired the facility, “the defendant did not know and had no reason to know that any hazardous substance ... was disposed of on, in, or at the facility.” To establish that it had no reason to know, the defendant “must have undertaken, at the time of acquisition, all appropriate inquiry into the previous ownership and uses of the property, consistent with good commercial or customary practice in an effort to minimize liability.” CERCLA § 101(35)(A), (B); 42 U.S.C. §§ 9601(35)(A), (B).

Because of this language, a great deal of attention has been focused on what is “appropriate inquiry ... consistent with good commercial or customary practice.” These practices vary depending on when the defendant acquired the property. A generation ago, a buyer might not undertake a physical inspection of property. Now that would be unthinkable. Indeed, the innocent landowner defense and the liability attendant to the purchase of contaminated real property have created a new industry, environmental assessments. As a practical matter, no one purchases commercial property without first undertaking an environmental assessment of that property.

Another question courts have dealt with is whether equitable defenses apply to limit the CERCLA liability provisions. The statute itself creates a defense of estoppel against the government. A defendant cannot be held liable for damage to natural resources if these damages were specifically identified in an environmental impact statement or a comparable environmental analysis, and the government authorized the defendant to proceed with the project. If the government knowingly allowed an irreversible commitment of natural resources, it cannot thereafter complain that the resources were damaged or destroyed precisely as planned.

The courts are divided on whether the doctrine of “unclean hands” applies to CERCLA contribution actions. Some courts have ruled that because CERCLA cost actions are equitable actions, the equitable doctrine of unclean hands does apply. This means that a party that caused significant contamination cannot recover from other parties. Other courts have held that unclean hands does not apply, because it would amount to revising the statute. These courts say that ideas of relative fault apply only to apportioning the amounts of damages.

Defenses to Cost Recovery Actions

Another frequently litigated CERCLA issue is the range of costs the government can recover. In most cases, PRPs decry EPA remedies as extravagant, excessively expensive, and inconsistent with the National Contingency Plan.

LEGAL TERMS

innocent landowner A person who acquired land on which a release of hazardous substances is found, but did so innocently, without any knowledge of the release and despite having undertaken, at the time of acquisition, all appropriate inquiry into the previous ownership and uses of the property, consistent with good commercial or customary practice, in an effort to minimize liability.

STATE OF WASHINGTON

v.

TIME OIL COMPANY

United States District Court, W.D. Washington
687 F. Supp. 529 (W.D. Wash. 1988)

[Defendant Time Oil and the United States government and the State of Washington each moved for summary judgment on the question of Time Oil's status as an "innocent landowner." In its motion, the governments argued that Time Oil could not be an innocent landowner.]

The Court now concludes the Governments' cross-motion should be granted. The Court's reasoning follows.

* * *

In the motion at bar, Time Oil has the burden to make a showing sufficient to establish the existence of each element in the innocent landowner defense on which Time Oil would bear the burden of proof at trial. A failure of proof offered by Time Oil concerning an essential element of the innocent landowner defense will result in summary judgment for the Governments. The evidence must be viewed in the light most favorable to Time Oil.

* * *

First, the court is satisfied that the underlying condition of a release of hazardous substance on the property has been shown.

* * *

It is undisputed that sampling done on the Time Oil property has revealed the presence of substances considered hazardous under CERCLA. ... The Court is satisfied that some of the contaminants found on the Time Oil property were found in amounts in excess of the amounts that would have occurred in petroleum during the oil refining process. Other substances found on the property would not have occurred due to the refining process. The "petroleum exclusion," CERCLA § 104(a)(2), will not operate to exclude Time Oil from liability.

* * *

The Court's ... review of the evidence indicating the presence of hazardous substances on the Time Oil property has resolved to the Court's satisfaction

that there clearly has been a "release" within the meaning of CERCLA on the subject property. ... It is enough that the substances are there, and it is not necessary for purposes of this motion to trace their release to one entity or another. Rather, it becomes Time Oil's burden in asserting the affirmative (b)(3) defense to present evidence sufficient to show the Court that there remain specific factual issues as to whether the releases of hazardous substances were caused solely by an act or omission of someone other than a Time Oil employee or agent, or someone other than a person acting in connection with a contractual relationship with Time Oil.

... Time Oil has raised issues as to whether Time Oil knew, or had reason to know, if the property was contaminated at the time of purchase. The defendant has also raised questions as to whether Time Oil's subsidiary, National Oil Company, contributed to the releases of hazardous substances; or whether Time Oil itself contributed to the releases of hazardous substances. The resolution of the issues of National Oil's and Time Oil's alleged contributions apparently will be primarily dependent upon this Court's resolution of whether the waste oil and other materials stored and used on the property contained the hazardous substances later found on the property. ... [I]t is not disputed that National Oil deposited filter cake on the property. It is alleged the filter cake contained lead, cadmium, and chromium. ... Time Oil cannot successfully assert the section (b)(3) defense with respect to the activities of National Oil because Time Oil cannot offer proof that the release was caused *solely* by a third party for whom Time Oil is not responsible.

The last operator on the property was Time Oil's sublessee, Drexler. As mentioned ... , the Court is satisfied Drexler was in an indirect contractual relationship with Time Oil. There is substantial evidence to indicate Drexler ran a sloppy operation It is clear that if the Court concludes that the waste oil and other substances handled by Drexler contained the hazardous substances later found on the property, Time Oil will be liable for the harm caused by Drexler's operation.

* * *

The final elements Time Oil must show in order to assert the innocent landowner defense are that it exercised due care and took precautions with respect to the hazardous substances concerned, taking into consideration the characteristics of the hazardous substances in light of all

relevant facts and circumstances. This is a burden Time Oil has failed to meet. ... Time Oil allowed Drexler to run a sloppy operation. Time Oil did not exercise due care to prevent the property from becoming contaminated by the sublessee.

Case Questions

1. What defense did Time Oil contend it was entitled to?
2. The court concluded that there had been a release of hazardous substances from the property. Given this, what did Time Oil have to show to establish its innocent landowner defense?
3. In this action, was Time Oil's claim that it was an innocent landowner defeated by the activities of its subsidiary?
4. What had Drexler done that defeated Time Oil's claim that it was an innocent landowner?
5. What had Time Oil done that defeated its claim that it was an innocent landowner?

CERCLA creates what amounts to an affirmative defense on this issue. A defendant wanting to reduce or avoid CERCLA costs that the EPA has incurred must show that these costs are inconsistent with the NCP. In the leading case on this issue, *United States v. Northeastern Pharmaceutical & Chemical Co*, 810 F.2d 726 (8th Cir. 1986), *cert. denied*, 484 U.S. 848 (1987) (*NEPACCO*), the court set a rigorous burden. The EPA's choice of remedies will be upheld unless the defendant shows it to be arbitrary and capricious. Mere questions of judgment in the selection of remedies are not a basis for relief. Costs not inconsistent with the National Contingency Plan are conclusively presumed to be reasonable.

The EPA can recover direct costs spent on the cleanup of the site itself. In addition, the EPA can recover indirect costs, such as office space for personnel working on projects related to the cleanup, payroll and benefits for EPA staff, and the like. The courts have held that CERCLA supports this liberal reading of the EPA's right to recover its costs.

Under CERCLA § 107(a), 42 U.S.C. § 9607(a), the EPA is allowed interest on all sums it is entitled to recover. Interest accrues from the later of the date the EPA made a written demand for the specified amount or the date the expenditure occurred.

Questions of the reasonableness of EPA expenditures are frequently emotionally charged, and PRPs often complain mightily that the law puts an excessive burden on them if they challenge EPA costs. The PRP must prove that the EPA's costs were inconsistent with the NCP. By contrast, when a private party brings a cost recovery action, the private-party plaintiff must prove that its cleanup costs were consistent with the NCP. CERCLA § 107(a)(4)(B), 42 U.S.C. § 9607(a)(4)(B).

Private Claims for Response Costs

CERCLA § 107(a), 42 U.S.C. § 9607(a), allows a private party to recover response costs from other responsible parties. Although CERCLA does not explicitly give private parties a cause of action, the court determined early on that the language of § 107 allowing the recovery of “costs of response incurred by any other person consistent with the National Contingency Plan” contemplated a private cause of action. Often private parties that have undertaken cleanup actions bring suits to recover their cleanup costs from other responsible parties. CERCLA allows a PRP to clean up a facility and then sue other PRPs for the response costs. For example, assume that hazardous substances have been released at a facility. Investigation shows that both the current owner and a prior owner disposed of or treated hazardous substances at the site, so that both are potentially responsible parties liable under § 107. If the current owner is forced to incur response costs, it can bring an action to recover an equitable share of those costs from the prior owner.

Besides being able to sue private parties, the PRP paying for a cleanup can sue governmental entities if it can establish that they are liable under CERCLA.

Private Causes of Action Against Other Parties

The courts have freely allowed private actions to recover response costs. They have upheld pleadings that did little more than track the statutory language. Further, under the National Contingency Plan, response costs are recoverable even if a site is not listed on the National Priorities List. The EPA does not have to approve the private response plan, although the plan must meet the requirements of the NCP. If the EPA does begin an RI/FS for a given site, the private party must obtain EPA approval of any remedial measures before it will be allowed to bring a recovery action against other private parties. This is to prevent PRPs from trying to impose remedies that conflict with the remedial alternatives selected through the RI/FS process.

Requiring a private party to comply with the National Contingency Plan imposes a heavy burden on any party hoping to bring a successful private recovery action against other PRPs. As a practical matter, any plaintiff in a private recovery action will need the help of attorneys and technical experts to comply with the NCP. Some courts have suggested a relatively lax standard that would allow recovery of response costs as long as the plaintiff’s remedial steps were in “substantial compliance” with the NCP. These courts have suggested that recovery is allowed as long as the plaintiff’s response actions promote the general purposes of the NCP. Other courts, however, have taken a much more rigorous position, demanding that any remedial undertaking for which a private party seeks recovery meet all the applicable requirements of the NCP, in terms of both procedural nuances and documentation. The courts are presently divided on which standard controls, but given the potential consequence—loss of the right to recover from other PRPs—the private party hoping for reimbursement should safeguard itself by exact compliance with the NCP.

Both removal actions (actions taken in response to immediate threats to public welfare or the environment and intended to provide short-term control of toxic waste hazards) and remedial actions (those providing long-term or permanent solutions) can be a basis for a private cost recovery action. However, the procedural requirements for these two types of actions are quite different. First, any action for which a PRP seeks recovery must be taken in response to a threat to health or the environment. This is true whether the PRP claims it was undertaking removal or remedial steps. Because of this, costs for general security measures or other measures undertaken incidental to land ownership, such as fencing facilities, without an awareness of a release or threat of release at the property, cannot be recovered.

The NCP requirements for removal actions are often relatively simple. Because removal actions often have an emergency element to them, they are not subject to the full requirements of the NCP, and the requirements that are imposed are not unreasonably difficult. After these requirements are met, the plaintiff PRP can sue for cost recovery, and the courts will allocate equitable shares among the PRPs. Nevertheless, a plaintiff generally needs the assistance of legal and technical experts throughout the process.

Notably, costs incurred in a *removal* process are recoverable even if the plaintiff does not have to undertake later remedial steps, or even if the plaintiff takes *remedial* steps and is not allowed to recover those costs.

By contrast, the NCP imposes complex procedural and substantive requirements on remedial actions, requirements sufficiently complex that they demand exacting planning and implementation. Costs of remedial action are recoverable, but the courts have held that the private party seeking recovery must adhere to the requirements of the NCP unless the party can show why specific NCP requirements do not apply to the facility or to the hazards found there. These requirements are set out in 40 C.F.R. Part 300. Under these regulations, a party must go through four steps:

1. Undertake an appropriate site investigation and an analysis of remedial alternatives
2. Undertake a feasibility study, analyzing the feasibility of alternatives suggested in the regulations
3. Select a cost-effective response
4. Provide an opportunity for public comment.

Each of these steps must be carefully documented. The remedial investigation must show the extent of any threat to public health or welfare or the environment posed by any release or threat of release; indicate the types of removal or remedial measures suitable to abate the threat; and set priorities for implementing these measures. In undertaking this process, the private party is to consider 15 enumerated factors (unless it can show that some of them are inappropriate). If the party contends that consideration of any of these factors is not appropriate, it must present that contention to a reviewing court.

In the feasibility study stage, the private party must weigh various alternatives: treatment at an off-site facility; treatment on site; attaining applicable remedial standards; and taking no action. Each of these alternatives is to be considered in light of cost, acceptable engineering practices, and effectiveness. If the private party concludes that any given alternative should be discarded, it must document its determination. In some cases, this will be relatively easy. If, for example, the EPA has ordered a cleanup, the no-action alternative can be eliminated quickly. Remaining alternatives must be subjected to careful analysis, including detailed cost estimating, refined evaluation of various available technologies, and the like. This analysis effectively requires the private party to employ technical professionals who can undertake each of the steps called for in 40 C.F.R. § 300.60. The result of this process is selection of the remedial alternative that will mitigate or minimize threats to public health and welfare and environment, and provide adequate protection, all in a cost-effective manner.

Once a remedial alternative is selected, the private party must allow public review and comment. Endorsement by governmental authorities is not a substitute for public comment. Members of the public often have perspectives different from those of the party proposing the remedial alternative, the government, and the private parties. These perspectives must be considered.

Response costs recoverable under CERCLA § 107 do not include economic damages. For example, properties near hazardous waste sites often lose value. These losses are not recoverable response costs. Similarly, remedial actions that disrupt an owner's economic use of its property do not give rise to response cost. The courts are divided on whether costs of medical monitoring are recoverable. If a resident wishes to move away from a hazardous waste site out of fear of exposure to a release or threatened release, the relocation costs are not recoverable remedial costs. *Colorado v. Idarado Mining Co.*, 916 F.2d 1486 (10th Cir. 1990).

Legal professionals dealing with private response actions can expect ongoing litigation in this area. Defendants almost invariably argue that the private plaintiff's remedial actions are far more elaborate than necessary to deal with any threat. Many questions in this area remain unanswered.

A preliminary question in private party actions is whether one PRP can sue other potentially responsible parties. The statute is open to conflicting interpretations. The courts have wrestled with the difficulties in the language and have construed CERCLA to allow recovery, even if the private-party plaintiff would be liable as a defendant to the government. The courts have also held that a private party can sue a state if it can show that the state played a role in creating the hazardous release. The Eleventh Amendment to the U.S. Constitution does not bar such actions.

CERCLA § 106, 42 U.S.C. § 9606, allows the EPA to seek injunctions in abatement actions. The courts have construed this section as giving such power exclusively to the EPA. This means that private parties cannot bring actions under CERCLA § 106. The courts have similarly ruled that private parties cannot obtain injunctions under CERCLA § 107. By granting injunctive powers in § 106, Congress demonstrated an intent to deny this power to parties acting under § 107.

For parties attempting to settle their liability with the government, a key concern is the right to seek contribution from other PRPs. One tool in facilitating settlements is a declaratory judgment to decide that other parties will be liable for CERCLA costs. Courts have ruled that such actions are available under CERCLA § 113, 42 U.S.C. § 9613, which provides that a court is to divide response costs “using such equitable factors as [it] deems appropriate.” Some courts have apportioned liability on a simple pro rata basis, relying on such factors as the volume of waste contributed. More sophisticated courts have attempted to apportion costs on a relative fault basis. In making this determination, some courts have looked to a list of factors (suggested by then-Congressman Albert Gore), including the severability of harm caused by the defendant’s actions; the amount of hazardous waste; the toxicity of the waste; the involvement of the parties in the generation, transportation, treatment, storage, or disposal of the hazardous waste; and the degree of cooperation the party has shown in dealing with the government. *Environmental Transportation Systems, Inc. v. Ensco, Inc.*, 969 F.2d 503 (7th Cir. 1992).

CERCLA does allow a PRP the right to recover its response costs from the Superfund. However, the statute imposes so many restrictions that this right is almost purely theoretical. CERCLA § 111(a)(2), 42 U.S.C. § 9611(a)(2).

Private Causes of Action Against the Government

When the EPA directs activities at a site, its activities can potentially cause environmental hazards. The courts have held that the EPA is not liable for injuries stemming from simple errors in judgment. If the EPA is carrying out discretionary functions, the agency is not liable under the Federal Tort Claims Act. 28 U.S.C. §§ 1346(b), 2671–2680(h).

Lender Liability

Under CERCLA, anyone who owns a facility from which there has been a release of hazardous substances is liable for the cleanup costs. This rule of liability has had a very profound effect on lenders. Lenders secure their loans by taking **security interests**. One of the most common forms of security interest is a **mortgage** in the borrower’s land. But what if this land is classified as a CERCLA facility; that is, as “[a]ny building, structure, installation, equipment, ... where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located”? CERCLA § 101(9), 42 U.S.C. § 9601(9).

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security interest A property interest given to a lender by a borrower that the lender may hold to compel payment of the debt. Typically the lender has the right to seize the property if the debt is not repaid according to its terms.

mortgage A security interest in real property. This gives the lender the right to take the real property in foreclosure if the debt is not repaid according to its terms.

If the borrower defaults on its loans, the lender's normal remedy is foreclosure on its security interest. It takes possession of the secured property and manages or sells the property to recoup its loan.

The Secured Party Exemption from Liability

According to CERCLA, merely taking a security interest, without more, does not make a lender an owner or operator. As CERCLA § 101(20)(A), 42 U.S.C. § 9601(20)(A), provides, the term *owner or operator* does not include a person, "who, without participating in the management of a vessel or facility, holds indicia of ownership primarily to protect his security interest in the vessel or facility." Thus, for example, if a lender secures its debt by taking a mortgage, the lender holds **indicia of ownership**. So long as the lender does not participate in managing the facility, it is not an owner or operator for CERCLA purposes. *In re Bergsoe Metal Corp.*, 910 F.2d 668 (9th Cir. 1990). The secured creditor seeking the benefit of this exemption must show that it did not participate in managing the facility.

Case Law on Secured Party Foreclosures

Merely holding a mortgage on property does not make a lender liable. However, a lender that forecloses on its security interest may be held liable. In *United States v. Maryland Bank & Trust Co.*, 632 F. Supp. 573 (D. Md. 1986), the bank loaned \$335,000, taking a mortgage in the borrower's land. When the borrower defaulted, the bank foreclosed and took title to the property. Environmental authorities then discovered that the land was a contaminated waste site and instituted a cleanup under CERCLA. The bank was held liable for the response costs, which totaled more than \$550,000. This meant that the bank was not only unable to recover its losses on the loan, but also incurred the additional costs of the cleanup and the attendant litigation.

Note, however, that other cases have indicated that a bank may foreclose on land and not be liable as an owner if it "expeditiously" resells the property. *Waterville Industries, Inc. v. Finance Authority*, 984 F.2d 549, 553 (1st Cir. 1993). In part, *Waterville* reflects the complexity and intricacy of lending arrangements. There, the lender had a purely nominal ownership interest in the property as part of financing secured through a sale-and-leaseback arrangement. In this arrangement, the borrower "sells" property to the lender, who immediately "leases" the property back to the borrower. The lease includes terms that allow the borrower to reacquire ownership for a nominal amount when the lease expires.

In *Waterville*, the borrower defaulted on the loan. Under the terms of the loan, ownership automatically reverted to the lender. In finding that the lender was

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indicia of ownership Indications that a person is the owner of property. Typically, this phrase is used when a lender is named as the owner of property, but in fact merely holds title as a means of protecting its security interest.

not an owner for CERCLA purposes, the court found that the lender held ownership in the sale-and-leaseback transaction as a means of providing financing to the operator and not in an effort to profit through prolonged ownership.

The *Fleet Factors* Case

How much can a lender do to protect its security interest without becoming liable under CERCLA? The answer is not clear. A case that raises grave concern among lenders is *United States v. Fleet Factors Corp.*, 901 F.2d 1550 (11th Cir. 1990). A cloth printer entered into a factoring arrangement with Fleet Factors. The cloth printer sold goods on credit, creating an account receivable from each customer for the money the customer owed. Fleet Factors advanced cash to the printer in exchange for an assignment of the accounts receivable. Fleet Factors also took a security interest in the owner's facility, equipment, inventory, and fixtures.

The printer filed bankruptcy. It continued to operate its business while in bankruptcy, and Fleet Factors continued its factoring arrangement over the accounts, with bankruptcy court approval. Eventually, the printer's business was liquidated. Fleet Factors helped liquidate the business.

Subsequently, hazardous material was found at the printer's facility. The EPA conducted a cleanup and then sued Fleet Factors to recover its response costs. The EPA alleged that Fleet Factors was an owner or operator under CERCLA § 107(a), 42 U.S.C. § 9607(a). Fleet Factors moved to be dismissed from the case, contending that it was not an owner or operator and therefore could not be held liable for CERCLA costs. The court refused to dismiss Fleet Factors, ruling that Fleet Factors could be considered a prior owner under § 107(a)(2), which would make it liable if it owned or operated the facility at the time any disposal occurred.

The court acknowledged that CERCLA exempts a creditor who holds indicia of ownership to protect its security interest while not participating in the management of the facility. But, holding that the language of the secured creditor exception was ambiguous, the court ruled that the ambiguity must be resolved in favor of finding liability. This was necessary to achieve CERCLA's remedial goals. Under the court's reasoning, a secured creditor could be held liable, even if it was never an operator, if its participation in the financial management of a facility showed it had the capacity to influence the owner's or operator's treatment of hazardous wastes. Actual involvement in day-to-day operations was not required, and the secured creditor did not have to participate in management decisions relating to hazardous waste. The secured creditor would be liable if its involvement was broad enough to affect decisions regarding the disposal of hazardous waste if it had chosen to do so.

The court in *Fleet Factors* acknowledged that this construction of CERCLA broke with earlier secured lender liability cases. The court insisted that the ruling left lenders adequate latitude for dealing with debtors without exposing them to liability. It dismissed as unfounded concerns that its ruling meant that lenders could not extend credit without risking CERCLA liability. The court reasoned that its ruling merely ensured that lenders would calculate possible

risks in loan decisions, and encouraged lenders to monitor their borrowers' treatment and disposal of hazardous wastes. The ruling would make lenders ensure that their borrowers addressed hazardous waste problems rather than ignoring them. The court noted that lenders routinely check the potential risks of hazardous waste problems before making loans, and urged that such caution was merely prudent policy.

In fact, Fleet Factors had exercised extensive actual control, particularly during the liquidation. It took effective control of all day-to-day operations, including pervasive control of management. Thus, Fleet Factors was an operator as the business was being wound up. The court rejected the claim that because Fleet Factors was trying to protect its security interests, it was exempt from CERCLA liability. The court ruled that Fleet Factors' involvement controlled, not its motive. A contrary ruling would allow lenders to be irresponsible and indifferent to hazardous waste problems.

The court in *Fleet Factors* urged that its ruling should not trouble lenders and merely asked them to be reasonable and prudent. The financial community, however, reacted much more strongly. Lenders feared that virtually any involvement in facility operations would lead to lender liability. As a result, lenders have redoubled the caution they were already showing about hazardous wastes. As a practical matter, a borrower must show affirmatively that its operations involve no hazardous materials before banks will accept land as collateral.

Fleet Factors is not the only ruling in this area. Shortly after *Fleet Factors*, another federal court of appeals indicated that capacity or right to control alone did not make a lender liable. In *In re Bergsoe Metals Corp.*, 910 F.2d 668 (9th Cir. 1990), the court suggested that the lender would not lose the benefits of the secured creditor exemption unless the secured creditor participated in the operational management of a facility.

The New EPA Rule on Lender Liability

Despite the *Fleet Factors* court's assurances that its ruling need not cause lenders undue concern, the ruling galvanized the financial community. It lobbied fiercely for a legislative change that would limit or eliminate lender liability. In an attempt to stave off possible legislation, the EPA issued a new regulation addressing some of the issues raised by *Fleet Factors*. See 57 Fed. Reg. 18,344 (Apr. 19, 1992). The rule purports to establish guidelines concerning several activities.

General Rules of Lender Liability Under the EPA rule, a secured lender is protected by the security interest exemption of CERCLA § 101(20), 42 U.S.C. § 9601(20), so long as it does not help manage the borrower's facility. The lender participates in management only if it (1) exercises decision-making control over the borrower's environmental compliance activities so thoroughly that it effectively takes responsibility for the borrower's hazardous substance handling and disposal practices; or (2) it exercises control to a degree comparable to that of a manager of the enterprise, so that it assumes or manifests responsibility for

managing the borrower's day-to-day operations to the point where it effectively controls environmental compliance decisions.

In adopting this position, the EPA stated that it will recognize a distinction between "control" and "influence." A lender that exercises control will lose the security interest exemption; a lender that merely has influence will not. The EPA now appears to accept the position that influence will not result in lender liability, no matter how great that influence is. This represents a significant retreat from the position that the court in *Fleet Factors* announced. Capacity to control, which the *Fleet Factors* court found adequate, is not enough. The lender must exercise actual control before it will be held liable.

Pretransaction Investigations The EPA now regards all pretransaction activities as essentially irrelevant to a determination of whether the lender participated in management of the borrower's facility after it entered into a loan transaction. Because of this, the lender is free to undertake an environmental assessment, and even to order cleanup of the borrower's property, before making loans, and these actions will not be deemed to be participation in the borrower's management.

The EPA considered adopting language that would have effectively mandated having an environmental assessment as a precondition to claiming the security interest exemption. It did not include this language in the final rule. This has largely been left to the market. As a practical matter, few commercial lenders will accept land as collateral without first having an environmental assessment of the property.

Policing Activities The EPA rule allows a secured party to undertake certain "policing" activities to protect its security interest without incurring liability. The lender can retain the right to perform ongoing audits, monitoring, or inspections throughout the term of the loan. The lender could also require the borrower to clean up the property, or could undertake its own response actions if it discovers that wastes have been released on the borrower's property, as long as these activities are consistent with the NCP. The lender can require that all environmental laws be obeyed. The EPA says it will not allow a lender to participate in management of the facility under the guise of policing, although the precise boundary between policing and management is not clear.

Workouts The EPA will allow the lender to retain its security interest exemption while going through workouts with troubled borrowers, as long as the lender acts to protect its security interest and does not undertake to actually manage the facility. Permissible workouts include restructuring loans, renegotiating loan terms, extending payment periods, and providing financial counseling, advice, guidance, or other activities necessary to protect the lender's security interest. A lender could be held independently liable if its activities contributed to contamination at the facility. The EPA rule does not address the question of whether the lender has an affirmative duty to address known risks of contamination.

Foreclosure and Liquidation Under the EPA rule, a lender can foreclose on property without becoming an owner if it promptly divests itself of the property. If there is an auction as part of the foreclosure process, the lender cannot try to outbid other parties and cannot reject bids of parties that offer fair consideration. The lender must also respond within 90 days to a good faith offer for fair consideration. *Fair consideration* is defined on the basis of the outstanding principal owed to the lender, not the value of the property. The lender must list the property with a broker within 12 months of acquiring it. 40 C.F.R. § 300.1100(b)(1).

If the borrower liquidates its business, the EPA allows the lender to take steps to prevent or minimize any releases of hazardous substances without being deemed to have participated in the borrower's management.

Courts' Responses to the EPA Rule The precise effect of the EPA lender liability rule is unclear. It involves complex issues touching the EPA's power to issue rules under CERCLA and the rights of parties to challenge these rules through lawsuits. Not surprisingly, the courts have not been consistent in their response to these rules. Some courts have given the EPA considerable deference, but have not accepted the rule as legally binding. Other courts appear to adhere to the EPA's position that the rule has the full force of law. *Compare Kelley v. Tiscornia*, 810 F. Supp. 901 (W.D. Mich. 1993) (suggesting the rule is binding), *with Ashland Oil, Inc. v. Sanford Products Corp.*, 801 F. Supp. 1057 (D. Minn. 1993) (suggesting the rule is entitled to deference).

The precise impact of the EPA rule remains uncertain. Several parties have filed challenges to the legality of the rule. The meaning of the rule is also complicated by internal inconsistencies, and by many suggestive changes made between the rule as proposed and the final rule. What is clear is that the EPA apparently will not press to make the test articulated in *Fleet Factors* the rule of law. However, just how far from *Fleet Factors* the line of lender liability will be drawn is not clear.

Bankruptcy

Under the United States Bankruptcy Code, if an individual or business files a **petition in bankruptcy**, the law imposes an **automatic stay**. This automatic stay bars any party from initiating or continuing any judicial or administrative action against the debtor. There are, however, certain exceptions, and one of the

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petition in bankruptcy A pleading by which a business or individual starts a bankruptcy proceeding. The filing of a petition starts the bankruptcy case, allowing the filing individual to be named as a debtor and to be given the special protections afforded by bankruptcy law.

automatic stay A type of automatic judicial injunction that precludes virtually all efforts by any creditor or person having the rights of a creditor from taking any action against the debtor. One of the few actions allowed to continue are actions under the police power taken to protect public health and welfare.

foremost of these is the **police power exception**. The government can commence or continue any action to enforce its police powers, and can enforce judgments other than money judgments based on the police power. Actions enforcing environmental laws such as CERCLA are police power actions. This means that the EPA and other governmental entities are free to act, even if the defendant files in bankruptcy. *Penn-Terra Ltd. v. Department of Environmental Resources*, 733 F.2d 267 (3d Cir. 1984).

The government can issue orders or enforce injunctions even if these will inherently force the defendant to spend money. The courts have held that such actions are injunctive police power actions, and not actions for the collection of damages, as long as they are intended to prevent future harm to human health or the environment. The government can even proceed with actions to establish the liability of the debtor for environmental damages, although attempts to execute the resulting judgment against the debtor will be stayed. If the debtor's duties have been reduced to merely a monetary obligation, an order to pay for a cleanup cannot be enforced.

When a debtor files in bankruptcy, a trustee is appointed to administer the debtor's estate in bankruptcy. The trustee must maximize the return to the debtor's creditors. To do this, the trustee has the power to abandon property that is burdensome or of no value to the estate. This raises a question: If the trustee abandons property on which there has been a release of hazardous substances, does the trustee avoid liability for the cleanup? The courts have ruled that the trustee in bankruptcy cannot abandon property if such abandonment would have the effect of contravening laws protecting public health and the environment. Even a trustee in a liquidation must comply with environmental laws. The courts have held that the trustee must comply with environmental laws when this is necessary to protect human health or the environment, but, as long as the trustee abates the risk to human health or the environment, it is free to abandon property. *Midlantic National Bank v. New Jersey Department of Environmental Protection*, 474 U.S. 494 (1986).

There are practical limits to the rule against abandonment. If the bankruptcy is a nonasset liquidation, property is abandoned by default, and the environmental laws cannot change the fact that the debtor has no money.

CERCLA also protects certain persons who would otherwise be owners. Notably, governmental entities that acquire facilities involuntarily are not liable under CERCLA. Thus, if a bankrupt abandons a hazardous waste site, no governmental entity can become liable, even if it acquires the property. CERCLA § 101(20)(d), 42 U.S.C. § 9601(20)(d).

Another important issue in bankruptcy is the priority to be given to the costs of an environmental cleanup. Cases addressing this question draw a distinction

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police power exception One of the exceptions to the automatic stay in bankruptcy. This exception allow governmental entities acting to protect public health and welfare to continue to enforce orders against a debtor even though the debtor has filed a bankruptcy petition.

between situations in which the debtor still has control of the facility and those in which the debtor does not have such control. If the debtor has control of the property, at least in some instances, some courts have treated cleanup costs as super-priority expenses. This means that these expenses come before even the claims of secured creditors who perfected their liens before the debtor filed its petition in bankruptcy. *Midlantic*, 494 U.S. at 516 (Rehnquist, J. dissenting) (arguing that the Court's ruling amounted to establishing a super-priority claim). Other courts have treated these expenses as coming behind the claims of secured creditors but before the claims of general, unsecured creditors. If the debtor does not have control of the facility, the courts hold that claims for cleanup costs are unsecured claims. *Southern Railway Co. v. Johnson Bronze Co.*, 758 F.2d 137 (3d Cir. 1985).

There is a split of authority on the dischargeability of environmental claims. Some courts hold that these claims are dischargeable; other courts hold that they are not. If the claims are not dischargeable, the debtor who reorganizes under Chapter 11 of the Bankruptcy Code could still be sued after the bankruptcy for claims arising before the debtor filed its bankruptcy.

If the bankruptcy is a reorganization, and the debtor retains contaminated land, injunctive orders under CERCLA § 106 are apparently not dischargeable. Orders under § 106 direct the owner of land to take emergency steps to control an imminent and substantial threat to human health or the environment. The courts have ruled that as long as the debtor retains the land, and the conditions on the land pose a threat warranting § 106 abatement orders, the debtor cannot avoid the effect of those orders through a reorganization in bankruptcy.

There is a great deal of uncertainty and complexity surrounding the interrelationship between environmental law and bankruptcy. In many instances, courts have not spoken clearly on the issues, or splits in authority have developed because courts adopted conflicting positions. In this area of law, there will undoubtedly be a great deal of ongoing activity, and legal professionals working with these issues need to be aware that many issues have not yet been resolved.

Environmental Assessments

As noted earlier, a party that purchases land can avoid liability for the cleanup costs if it can bring itself within the innocent purchaser exception. But, also as noted, this defense is construed very narrowly. Further, even if a party purchasing land can show that it should have the benefit of this defense, the party will be put to the expense, uncertainty, and anxiety of CERCLA litigation. Given the complexity and cost of CERCLA litigation, even winning a case still brings a heavy burden.

This means that, for most purchasers, establishing a defense is not an adequate alternative. The better course of action is to avoid any question of liability. Purchasers cannot afford to buy land on which there is any serious risk of contamination.

This need to avoid purchasing contaminated land has spawned a whole new industry: environmental assessments. The purpose of an environmental assessment of real property is to ascertain if any environmental problems are present on real property before the property is purchased or is accepted as collateral.

The exact parameters of an environmental assessment will vary with the property involved and the past activities conducted on the property. The following discussion is a general outline and should be regarded as the minimum that an assessment should involve. If any specific conditions at a facility suggest a need for further investigation, that investigation should be undertaken.

An environmental assessment is not a judicial procedure. Because of this, a paralegal or other nonlawyer can conduct an environmental assessment. No specific license or credentials are required for environmental assessments. The requisite skills are an understanding of environmental laws and the potential sources of hazardous materials, together with perseverance in investigating potential sources of contamination. Hence, this discussion refers to the person conducting an environmental assessment as a "consultant."

There is no specific classification of environmental assessments. Although such assessments are now performed in connection with almost any purchase of commercial or industrial real estate, there are as yet no prescribed standards for such assessments. There is, however, a generally accepted convention describing assessments as "Level I" or "Level II." A Level I assessment consists of an examination of pertinent records and a physical inspection of the subject property, but does not include sampling of soil, air, or water taken from the property. A Level II assessment includes such sampling.

Sampling is extremely expensive. Soil or groundwater samples can easily cost approximately \$500 each. Because a typical sampling protocol involves three or four samples for a given site, rudimentary sampling can easily cost \$1,500. Because of the high cost, sampling generally should be undertaken only if a Level I assessment indicates that there is a substantial risk that contaminants are present.

An environmental assessment of real property involves four phases: (1) historical investigation; (2) examination of relevant agency files; (3) an interview with present owner/operators; and (4) physical inspection of the facility and surrounding properties.

Historical Investigation

An historical investigation includes a title search. This search should review any transaction regarding use of the property suggesting that hazardous substances might be present. Much industrial property is owned by businesses that have operated facilities on the property. Names of past and present property owners often indicate if there were businesses on the property that would regularly have used hazardous substances. These include automotive body shops, service stations, metal working shops, and many others. If business names suggesting these activities appear in the chain of title, the property should be considered suspect.

The precise time period to be covered by the title search may vary with the history of the property. Minimally, sound practice requires that titles be reviewed for at least the past 40 years. As a practical matter, the search should go back through any use indicating the possibility that hazardous substances were used on the property.

A title search is not exciting. It is tedious, and a consultant undertaking this work may try to get through it as quickly as possible. This poses a danger. Often, title documents contain extremely important information, but its significance comes to light only upon careful study. A consultant should not depend on memory or cursory notes to follow the details of title documents. Whenever possible, these should be copied for review later in the process, to clarify details that may not seem important initially.

In addition to a review of basic title documents, the consultant should contact all planning or business permit departments to see what records are available on the historical uses of the property. This search should include a review of permits for underground storage tanks, business licenses reflecting the possible use of hazardous substances on the premises, health department permits, fire department permits, storm sewer records, and any other available records.

Whenever they are available, a consultant should review historical aerial photographs of the site and the surrounding property. These photographs, sometimes available through the Army Corps of Engineers or through local, county, state, or regional historical societies, often disclose a wealth of information on subjects such as past uses of the facility and surrounding properties, development patterns in the area, excavations or other changes in local topography, and many other details. As with title documents, copies of these photographs should be obtained where this is practical. These pictures are often worth more than a thousand words.

Examination of Relevant Agency Files

For at least the past 40 years, governmental agencies have gathered evidence pertinent to environmental assessments, including records maintained with health departments, fire departments, and emergency planning agencies. The development of environmental law has prompted the collection of extensive information relating to specific environmental concerns and the creation of several complex data bases dealing with specific environmental problems. These include the EPA's Resource Conservation and Recovery Act list of current or past sites storing, treating, or disposing of hazardous wastes; the CERCLIS (Comprehensive Environmental Responsibility, Compensation, and Liability Information System) list of sites under investigation for possible action under CERCLA, maintained by the EPA; the National Priorities List; state underground storage tank lists; and state leaking underground storage tank lists. This list of lists is merely suggestive. If a consultant finds other sources of relevant information, they should be checked. In reviewing any agency files, the consultant should check not only the client property, but also other properties in the surrounding area. As a rule of thumb, any entry within one mile of the

boundaries of the subject property should be examined. Entries reflecting concerns that are relatively far from the property will often not require any further examination, but a responsible assessment report should bring them to the client's attention. The consultant should also check with local utility companies for any possible PCB problems at or near the subject property. If possible, this check should include not only current PCB problems, but also should review steps taken to remove PCBs from properties near the subject property.

In addition to any agency data, the consultant should review any records available from current or prior owners. These include records of dealings with any governmental agency responsible for environmental matters, any records of the use of hazardous substances, and anything else suggesting the presence of environmental concerns.

Interviews with Present Owner/Operators

The interview with the present owners/operators of the facility should include a thorough consideration of the state of the facility, including any operation on the property that could raise environmental concerns. It will be a reasonably lengthy affair, and the consultant should schedule the interview so that she can meet with the person or persons who have the most comprehensive knowledge of the entire operation.

In the interview, the consultant should ask for a complete description of the operation carried on at the site, including a description of all products and services produced there. This should cover all processes carried on at the site, from the receipt of raw materials to storage, inventory control, processing, and shipment. Of course, this discussion includes all procedures for handling hazardous wastes.

Most underground storage tanks are used to store petroleum products. These are regulated under RCRA rather than CERCLA. The consultant should ask about such tanks, covering their location, design, materials, indicator and alarm systems, leak detection systems, and groundwater monitoring equipment. She should also cover the handling of materials stored in the tanks, including how materials are transported to and from the tanks.

The interview should also cover all pollution control equipment, including what equipment is operational at the facility, what is required or recommended by environmental agencies, and the status of all reports about this equipment. The consultant should ask about any soil tests that have been done, especially soil testing that could indicate possible environmental problems. The consultant should cross-check this information with any environmental agency records concerning testing at the site.

The consultant should use this interview to confirm data obtained through the title examination, such as when the facility was acquired, the identity of prior owner/operators, and the uses they carried on at the site.

Also, for any facility that does generate any hazardous wastes, the consultant should learn how these wastes are disposed of, including the identity of the

transporter and details concerning arrangements for transportation of hazardous wastes to a proper facility.

In short, the interview should be a thorough, probing discussion of any possible environmental concerns.

Physical Examination of the Facility and Surrounding Properties

Absent some indication of a need for further study or investigation, the physical examination of the property should be the last stage in the process. It should not be undertaken independent of these steps, but should be used to confirm or rebut what other sources have disclosed about the property.

There is no substitute for physical inspection of the entire property by a competent professional experienced in conducting site assessments. Photographs, videotapes, or examinations done by persons who are not alert to environmental problems are not adequate. This examination should include careful scrutiny of the entire facility, including work areas, storage space, basements, and any other area where environmental problems might be hidden. It will include an examination of the structure and any improvements to ascertain if asbestos is present. It will include an examination of floors for signs of spills or leaks. It will include an examination of any vegetation on the property for tell-tale signs of distress that might indicate the presence of chemicals on the site. The inspection will also include an examination of the surrounding area, going out for at least one-quarter of a mile in every direction, with special attention to any uses on surrounding properties that might cause environmental problems to migrate to the subject property.

In short, the inspection should check everything that has been discovered throughout all phases of the prior investigation, and discern if there are any other potential problems on or near the subject site.

The Written Report

The result of an environmental assessment should be set out in a written report. Often, a party asking for an environmental assessment has this report prepared for its attorney. This protects the report under the attorney work product doctrine, so that drafts can be reviewed without fear of premature disclosure.

Any environmental assessment report should meet two relatively simple tests: it should be clear and it should be complete. It should be a readable discussion of the property, containing a clear statement of any environmental concerns discovered in the investigation and a recommendation as to whether these concerns warrant further consideration. These should be stated in plain language and supported by discussion showing how the consultant reached those conclusions. The report should leave no unanswered question about the environmental status of the property.

Often, the initial task of a paralegal working with environmental assessment will be the review and preparation of environmental assessment reports. In this work, the paralegal should keep these two criteria in mind. Any report

should be completely readable and comprehensible to the reader, and it should be complete.

Level II Sampling

If the Level I investigation discloses any environmental concern compromising the integrity of the subject property, then Level II sampling and analysis should be undertaken before the client makes any decision regarding the property. In many instances, if the Level I investigation raises substantial concerns about the environmental integrity of the property, the client will not proceed. A potential purchaser may conclude that the risks involved in acquiring the property are too great to warrant any further costs involved in determining the nature of the problem. Lenders often will not accept as collateral any property on which testing and analysis is necessary; they feel that the need for testing shows that the property is not safe.

If a client proceeds, sampling and analysis should be coordinated by experienced environmental professionals, to ensure that the process is effective. The Level I investigation should guide sampling locations to allow the professional to gauge the existence, severity, and location of contamination. A sample protocol should be adopted to ensure the integrity of samples. Chemical analysis should be appropriate to the problems discovered at the site. Throughout, the client should be consulted, if for no other reason than because the costs of this undertaking will be substantial. If the client is aware of these costs in advance, it will be less upset at the bills as they materialize.

When samples are taken, they must be taken in ways that assure their integrity. This means using sterile equipment and cleaning all equipment after each sample. A chain of custody must be established and maintained for each sample. Laboratories used for the testing and analysis must have the special equipment and expertise to analyze samples. Often, the actionable levels for hazardous waste are measured in parts per million; for many of the most volatile chemicals, the concentration levels are in parts per billion or lower. It will do no good to analyze samples using equipment that cannot detect materials at these levels.

Again, a written report should detail the findings, including any recommendations for further action. It should meet the criteria for the Level I report: it should be clear and it should be complete.

Summary

The Comprehensive Environmental Responsibility, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9601–9675, (CERCLA) addresses the problem of abandoned waste sites. CERCLA causes of action supersede common law actions that were inadequate to deal with old waste sites. Congress adopted CERCLA to deal with old sites. Using the definition of *hazardous substances* from other statutes, CERCLA requires the cleanup of any facility where a release or threatened release of hazardous substances has occurred.

As a first step, CERCLA required the EPA to compile lists of sites. The EPA evaluated sites according to the National Contingency Plan (NCP) using the Hazard Ranking System to determine which sites should be remediated first. The EPA assembled a list of the most contaminated sites—the National Priorities List.

CERCLA § 104 allows the EPA to order removal or remediation. All actions must be consistent with the NCP. Removal actions involve taking hazardous wastes from a site. Remedial actions entail comprehensive cleanups. Initially, the EPA will do a Preliminary Assessment and Site Investigation (PA/SI), and then choose a response.

Removal actions last less than 12 months and cost less than \$2 million. They deal with threats of immediate release at sites that do not have to be listed on the NPL. Removal actions are not subject to rigorous NCP standards, but the EPA must allow public comment.

A remedial action is intended to clean a site permanently of hazardous wastes. It is long-term, expensive, and only for sites listed on the NPL. It begins with the preparation of a Remedial Investigation and Feasibility Study, collecting data and determining appropriate responses. The EPA must favor remedial rather than containment alternatives. The RI/FS assesses site conditions and remedial alternatives to find the best alternative. This process must include public comment.

At a threshold level, any proposal must protect human health and the environment and attain applicable or relevant and appropriate requirements (ARARs). Cost is not a threshold factor. Secondary factors are permanence, reduction of hazards through treatment, short-term effectiveness, implementability, cost, and state and community acceptance.

The RI/FS process leads to a Record of Decision showing how the selected alternative meets all the appropriate criteria. The process then moves to the Remedial Design/Remedial Assessment stage, in which the actual cleanup is carried out.

The EPA can carry out the cleanup or order private parties to do so. CERCLA specifically denies the courts jurisdiction to hear preenforcement review actions. This avoids interminable delays.

The EPA can enforce cleanup orders through injunctive action. The courts can impose fines of up to \$25,000 per day. The EPA also has extensive investigative powers. In cases of imminent and substantial danger, it can order an immediate response. Again, no preenforcement judicial review is allowed.

CERCLA imposes liability on any person who presently or when a disposal occurred owned or operated the facility, as well as anyone who generated the waste found at the facility, and any transporter. All owners and operators are strictly liable based solely on the fact of ownership. Anyone who participates in managing a facility is jointly and severally liable and responsible for all removal or remediation costs. Individual officers and employees are also personally liable if they control the handling and disposal of hazardous substances. Even someone who inadvertently disturbs the site is liable.

Prior owners are also strictly liable if they owned the property during any disposal. Disposal is defined to include any migration of wastes, so that virtually any prior owner is liable. The courts reject defenses such as *caveat emptor* that would frustrate the intent of CERCLA.

A generator is liable for cleanup costs if it disposes of wastes at a site and wastes containing the same chemicals are found there. The government is not required to link specific wastes to the defendant. The generator is liable for the entire cleanup cost, regardless of the amount of waste it produced. To protect small generators, the government can settle with *de minimis* generators. Generators are also liable retroactively for actions that were totally legal when taken.

If a transporter selects the site at which wastes are disposed of, it is liable for cleanup costs at that site.

If corporations merge, if one purchases all of the assets of the other, the successor acquires its predecessor's liability. A parent corporation is liable for the actions of its subsidiary.

The EPA encourages potentially responsible parties to settle. It will identify PRPs and try to work out settlements, entering into court-approved consent decrees with settling PRPs. A settlement caps the amount the settling PRP must pay. Parties settle to get security from contribution actions, leaving nonsettling parties with larger shares of liability. Unfortunately this burdens any party that believes that it is not responsible for conditions at a facility. Arrayed against the PRPs are surrounding landowners who often feel that any EPA settlement is not severe enough.

CERCLA allows three very narrow defenses when the release is caused by an act of God, an act of war, or an act of a third party. To make out a third-party defense, the defendant must show that the third party is the sole cause of the release. The defendant must have made an appropriate inquiry at the time it bought the property. This puts great emphasis on the appropriate inquiry and has given rise to the environmental assessment industry.

In its cost recovery actions, the EPA can recover costs consistent with the NCP. A party arguing that EPA costs were not consistent bears a heavy burden.

The courts have found an implied cause of action for private parties under CERCLA. Private party costs must be consistent with the NCP. As a practical rule, a plaintiff will need professionals to comply with the NCP, particularly if a court demands strict compliance. A plaintiff can recover removal and remedial costs. Economic damages, such as the loss of value stemming from the presence of hazardous releases, are not recoverable. In selecting a remedial alternative, the private party must go through a process not unlike the selection process the EPA undertakes, including submitting the preferred alternative for public comment.

In private actions, one PRP can recover from another. A PRP can also recover from state governments, but it cannot use injunctions.

When it carries out cleanup efforts at a given site, the EPA is not liable for simple errors of judgment and is not liable under the Federal Tort Claims Act.

Lender liability is a major concern because lenders enforce their security interests in borrowers' property by foreclosing and taking the property. If the lender seizes contaminated property, the lender may be deemed to be an owner or operator of the property.

CERCLA specifically exempts those who hold indicia of ownership solely to protect a security interest but do not participate in management of the facility. The limits of this policy are not clear. Some cases have held that if a borrower forecloses on property, it is liable under CERCLA. Other cases have held that a secured lender that forecloses is not an owner as long as it is merely acting to protect its lending interest.

The *Fleet Factors* case said that if a lender had the capacity to control the borrower's decisions regarding environmental matters, this potential control alone made the lender liable under CERCLA. The EPA's proposed rules would reverse this policy. Under the EPA rules, a lender would be liable only if it exercised actual control over a borrower's hazardous substance handling and disposal practices or if it acted as a manager of the facility. It is not clear, however, how widely the courts will follow the EPA rule as controlling law.

If the owner files in bankruptcy, the bankruptcy automatic stay does not stop CERCLA cleanup orders, which are police power actions. The government can order cleanups even if these force the debtor to spend money. A bankruptcy trustee cannot

abandon property if abandonment would create a risk to health and the environment. Whether CERCLA cleanup costs are a super-priority claim is a matter of debate, and it is not clear what environmental claims can be discharged in bankruptcy.

Besides changes in substantive law, CERCLA has forced changes in practice. To establish the innocent landowner defense, and to avoid liability altogether, the buyer in almost any modern commercial real estate purchase will insist that an environmental assessment be performed.

Environmental assessments are frequently categorized as Level I or Level II, with Level I being an examination of records concerning the property and a physical inspection of the property and Level II adding sample testing. The records investigation reviews all records regarding the property, including land records, health and fire department records, aerial photographs, and the like. It includes an examination of records of environmental agencies, interviews with the current owner/operators, and physical examination of the property and the surrounding area.

The results of this investigation are presented in a report to the client. The report should be clear and complete. If there was any concern about environmental problems at the property, soil and water samples should be taken, before the client proceeds, by specialists trained to ensure their integrity and analyzed by laboratories with training and equipment to detect contaminants at extremely low levels. Again, the results should be presented in a clear and complete report.

Review Questions

1. What problem was CERCLA adopted to address?
2. How did Congress define *hazardous substance* in CERCLA?
3. How does the Hazard Ranking System work to evaluate sites?
4. What is the purpose of the National Priorities List?
5. What is the distinction between a removal action and a remedial action?
6. What criteria must be used in preparing an RI/FS?
7. Explain the EPA's information-gathering powers under CERCLA.
8. What is the effect of an indemnity agreement under CERCLA?
9. What type of generators does CERCLA encourage the EPA to settle with on reasonably lenient terms?
10. Is CERCLA liability retroactive?
11. How are CERCLA damages classified so that they fall outside insurance coverage?
12. How has the doctrine of successor liability been applied to make merging and acquiring corporations liable for CERCLA costs?
13. What defenses to liability does CERCLA allow?
14. What must a defendant prove for a third-party defense under CERCLA?
15. What must a defendant prove to establish that EPA costs were not consistent with the NCP?

16. What four key steps does the NCP require a private party to carry out to be entitled to recover from other PRPs?
17. What damages is a private party not allowed to recover under CERCLA?
18. What does CERCLA § 113 call for the courts to do in contribution actions?
19. What does the “secured property” exemption provide?
20. In a Level I assessment, what sorts of records should be checked?

Background

The United States has a tremendous number of waterways. The great range of streams, rivers, and lakes throughout the country have supported national development in many ways. One way Americans have used these waterways is to treat them as dumps. In the past, people in this country took the attitude that waterways could carry away any refuse that anyone dumped in them.

Eventually, government began to intervene to protect the nation's waters. The first federal statute dealing with water pollution was the **Refuse Act of 1899**, 33 U.S.C. § 407. This limited statute prohibited the dumping of refuse that would obstruct navigation of navigable waters, except under a federal permit.

Coverage under the Refuse Act was eventually construed to reach any industrial waste. *United States v. Republic Steel Corp.*, 362 U.S. 482 (1960); *United States v. Standard Oil Co.*, 384 U.S. 224 (1966). In 1970, the first efforts were made to use this act to establish a program to control industrial pollution. At the time, there were no programs for issuing permits that might regulate the dumping of such waste.

To address this problem, President Richard Nixon issued an executive order under which the U.S. Army Corps of Engineers was to establish criteria for permits to regulate waste dumping. This program was phased out two years later when Congress adopted the foundations of modern clean water legislation. In 1972, Congress set up the **National Pollution Discharge Elimination System (NPDES)**, a program for cleaning up the nation's waters. The NPDES permits were to regulate the discharge of wastes into the nation's water system. The NPDES provisions were incorporated into the existing **Federal Water Pollution Control Act (FWPCA)**, 33 U.S.C. § 1251 *et seq.*, but the changes to the law were so extensive that, in recognition of the new direction forged in the 1970s, this act was renamed the Clean Water Act when it was amended in 1972.

SIDEBAR

Because the resulting legislation is most widely known by that title, these materials refer to the statute as the *Clean Water Act*.

LEGAL TERMS

Refuse Act of 1899 33 U.S.C. § 407; the first federal statute dealing with water pollution. The Refuse Act of 1899 prohibited the dumping of refuse that would obstruct navigation in navigable waters except under a federal permit. It was eventually construed to restrict dumping of industrial wastes. It was superseded by later water pollution laws.

National Pollution Discharge Elimination System (NPDES) The permit system established under the Clean Water Act. NPDES prohibits emission of pollutants from any point source into the nation's waters except as allowed under an NPDES permit. By regulating the conditions in a permit, the EPA can then control pollution.

Federal Water Pollution Control Act (FWPCA) 33 U.S.C. § 1251 *et seq.*; the first modern water pollution control act. In 1972, Congress passed amendments so extensive that they amounted to a new law. Acknowledging this, Congress renamed the law the Clean Water Act.

The NPDES Permit System and Technology-Based Standards

By 1972, Congress was deeply frustrated at inaction under then-existing legislation. Investigations of water pollution showed that existing pollution control programs were inadequate. To remedy this, Congress adopted new legislation in 1972, setting ambitious goals. This legislation became the **Clean Water Act**, 33 U.S.C. §§ 1251 to 1376. The fundamental goal was to eliminate all discharges of pollutants into the nation's navigable waters by 1985.

In the 1972 amendments to the Federal Water Pollution Control Act, Congress undertook a comprehensive revision of federal clean water legislation. In the new legislation, Congress shifted the focus of pollution control efforts. It made matters of technological capability the primary thrust of federally mandated pollution control efforts. The center of the technology-based effort is the National Pollution Discharge Elimination System permit program.

To understand how the NPDES permit program works under the Clean Water Act (CWA), a legal professional needs to understand the problem Congress confronted, and the way it structured programs to deal with pollution. Consider a dirty lake. The lake is dirty because, along its shores, various sources allow pollutants to flow into the lake. To control the pollution in the lake, the EPA (or its state counterparts carrying out authorized programs) could try to deal with the pollution in the lake itself, or it could deal with the sources.

The government could impose systems that would clean up the lake waters. This is called a **media-quality based approach**. Under this approach, the central thrust of the regulations looks to the quality of the medium—here, the quality of the water in the lake. The Clean Air Act is an example of a regulatory program that uses a media-quality based approach. The Clean Water Act, however, does not use a media-based approach as its primary thrust.

Alternatively, the EPA could look at the various sources that cause pollutants to flow into the lake. There are basically two types of sources. Some sources do not generate pollution from a discrete location. An example is farms located along the lake shore. Fertilizers from the farms may seep into the water along frontages several hundred yards wide. The Clean Water Act labels these

LEGAL TERMS

Clean Water Act 33 U.S.C. §§ 1251–1376; the primary federal law protecting the nation's waters from pollution.

media-quality based approach An approach to water pollution that addresses the problems of pollutants in a medium rather than at specific sources. For example, if a lake is polluted, a media-quality based approach would address the problem of pollutants in the lake rather than trying to deal with specific sources emitting pollutants that flow into the lake.

nonpoint sources. These are often very difficult to control, and much of the regulation addressed to dealing with them is media-quality based.

By contrast, many sources have isolated discrete outlets. A manufacturing or industrial plant, for example, generally has one drainpipe (or a very few, all coming from a single plant). The Clean Water Act focuses on these **point sources**. To do this, the 1972 legislation made two major changes in the methods used to set and enforce standards for water pollution. First, the EPA was ordered to establish **effluent** limitations for point sources. *Effluent* is water flowing from a given source. *Effluent limitations* are limits on the amount of pollutants that the water flowing from a given source can contain. Effluent limitations can restrict the quantities, rates, or concentrations of any polluting substance—chemical, physical, biological, or other constituent. A *point source* is any discrete conveyance through which effluent is discharged into a waterway. A common example is a drainpipe. By setting effluent limitations for point sources, Congress ordered the EPA to restrict the amount of any pollutant flowing from any drainpipe or other point source.

Effluent Limitations on Point Sources

By directing the control effort to point source pollution, the Clean Water Act moved away from media-quality based approaches. Earlier, unsuccessful efforts were largely media-quality based, so the 1972 statute shifted the EPA's effort to a more manageable point-source approach.

The restrictions imposed under the point source system are technology-based. Every point source must take certain defined steps to clean up the water flowing from it. All similar point sources must take the same steps. This avoids complaints of favoritism or discrimination.

Second, Congress established the National Pollution Discharge Elimination System permit program. Under NPDES, Congress declared it unlawful for any person to discharge any pollutant into the nation's navigable waters except under the terms of an NPDES permit. Conversely, any discharge that is within the terms of an NPDES permit is presumed lawful.

The EPA is to issue NPDES permits under CWA § 402(a)(1), 33 U.S.C. § 1342(a)(1). CWA § 402(a)(3), 33 U.S.C. § 1342(a)(3), requires the states, if they

LEGAL TERMS

nonpoint source A source of pollution that is not physically discrete, defined, or separated from the surrounding environment. A field abutting a stream is an example. If fertilizer residue flows from the field into the stream, the pollution may be coming from anywhere along the edge of the field, rather than from a discrete, isolated, and more easily regulated point.

point source A source of pollution that is physically discrete and separated from the surrounding environment, such as a drain pipe carrying wastewater from a factory. A point source is more easily regulated than a nonpoint source.

effluent Water flowing from a location.

are authorized to act in place of the EPA, to issue permits only under terms and conditions consistent with the Clean Water Act.

The NPDES permit system focuses on point sources. To do this, the EPA categorizes each point source according to the types of pollutants it generates. The EPA then determines what types of technology can control these particular pollutants, picking the type of technology most effective in dealing with specific pollutants. The EPA prescribes levels of pollutants to be achieved under this chosen technology and then issues a permit for each point source, allowing the source to discharge only the prescribed levels of pollutants. Because this approach is based on incorporating technology (or at least the benefits of technology) into the effort to control pollution, it is known as a *technology-based approach*. Notably, the EPA does not actually require that any member of a given industry adopt a particular technology. It requires instead that every member of the industry achieve the pollution-limiting results that can be achieved by using a given technology, but leaves the industry free to choose the method for doing so.

Using this approach, the EPA can regulate virtually every drainpipe that flows into the nation's streams, lakes, rivers, or oceans. The EPA has used this approach in its NPDES permit program, which includes national standards regulating the pollutant levels allowed from various types of point sources. The NPDES program forms the working basis for pollution efforts directed to cleaning up America's waters under the Clean Water Act.

Congress went on to authorize the states to establish their own programs, but only if the EPA approves the state's proposed program. The EPA retains the right to veto a state's issuance of any NPDES permit that does not comply with the Clean Water Act, and the EPA can withdraw authority for any state program that is not being administered in compliance with the Act. CWA § 402, 33 U.S.C. § 1342.

The Clean Water Act was amended in 1977 and in 1987, and original deadlines have been extended, but it remains the controlling source of law concerning water pollution.

National Effluent Standards as Rules of Law

After the 1972 amendments established the modern Clean Water Act regime, litigation dragged on for five years over the precise power Congress had granted the EPA. Did the 1972 amendments give the EPA the power to mandate nationally uniform effluent limitations, or did the EPA have only the power to issue nonbinding guidelines? If the EPA could issue only nonbinding guidelines, and the states were free to administer their own programs, then each state as the entity actually granting an individual permit could choose whether to follow or deviate from the EPA guidelines in issuing individual permits. The EPA argued that its effluent limitations were legally mandatory, allowing no room for state-sanctioned deviation.

The Supreme Court eventually upheld the EPA's position that its guidelines were binding rules of law, in *E.I. du Pont de Nemours & Co. v. Train*, 430 U.S. 112 (1977). That opinion includes a detailed analysis of the Clean Water Act.

E.I. du PONT de NEMOURS AND COMPANY
v.
TRAIN
United States Supreme Court
430 U.S. 112, 97 S. Ct. 965 (1977)

Section 301 is captioned "effluent limitations." Section 301(a) makes the discharge of any pollutant unlawful unless the discharge is in compliance with certain enumerated sections of the Act. The enumerated sections which are relevant to this case are § 301 itself, § 306, and § 402. A brief word about each of these sections is necessary.

Section 402 authorizes the Administrator to issue permits for individual point sources. ... Petitioner chemical companies' position in this litigation is that § 402 provides the only statutory authority for the issuance of enforceable limitations on the discharge of pollutants by existing plants. It is noteworthy, however, that although this section authorizes the imposition of limitations in individual permits, the section itself does not mandate either the Administrator or the States to use permits as the method of prescribing effluent limitations.

Section 301(c) authorizes the Administrator to grant variances from the 1963 limitations. Section 302(e) states that effluent limitations established pursuant to § 301 shall be applied to all point sources.

To summarize, § 301(b) requires the achievement of effluent limitations requiring use of the "best practicable" or "best available" technology. It refers to § 304 for a definition of these terms. Section 304 requires the publication of "regulations, providing guidelines for effluent limitations." Finally, permits issued under § 402 must require compliance with § 301 effluent limitations. Nowhere are we told who sets the § 301 effluent limitations, or precisely how they relate to § 304 guidelines and § 402 permits.

[P]etitioners contend that § 301 is not an independent source of authority for setting effluent limitations by regulation. Instead, § 301 is seen as merely a description of the effluent limitations which are set for each plant on an individual basis during the permit-issuance process. Under the industry view, the § 304 guidelines serve the function of guiding the permit issuer in setting the effluent limitations.

We think § 301 itself is the key to the problem. The statutory language ... leaves no doubt that these limitations are to be set by regulation. Subsection (b)(2)(A) of § 301 states that by 1983 "effluent limitations for categories and classes of point sources" are to be achieved which will require "application of the best available technology economically achievable for such category or class." These effluent limitations are to require elimination of all discharges if "such elimination is technologically and economically achievable for a category or class of point sources." This is "language difficult to reconcile with the view that individual effluent limitations are to be set when each permit is issued." ...

Thus, we find that § 301 unambiguously provides for the use of regulations to establish the 1983 effluent limitations. ... We conclude that the statute authorizes the 1977 limitations as well as the 1983 limitations to be set by regulation, so long as some allowance is made for variations in individual plants, as EPA has done by including a variance clause in its 1977 limitations.

In sum, the language of the statute supports the view that § 301 limitations are to be adopted by the Administrator, that they are to be based primarily on classes and categories, and that they are to take the form of regulations.

This legislative history supports our reading of § 301 and makes it clear that the § 304 guidelines

are not merely aimed at guiding the discretion of permit issuers in setting limitations for individual plants.

* * *

We do not believe that Congress would have failed so conspicuously to provide EPA with the authority needed to achieve the statutory goals.

* * *

When, as in this litigation, the Agency's interpretation is also supported by thorough, scholarly opinions written by some of our finest judges, and has received the overwhelming support of the Courts of Appeals, we would be reluctant indeed to upset the Agency's judgment. Here, on the contrary, our independent examination confirms the correctness of the Agency's construction of the statute.

Consequently, we hold that EPA has the authority to issue regulations setting forth uniform effluent limitations for categories of plants.

* * *

It is clear that Congress intended these regulations to be absolute prohibitions. The use of the word "standards" implies as much. So does the description of the preferred standard as one "permitting *no* discharge of pollutants." It is "unlawful for *any* owner or operator of *any* new source to operate such source in violation of any standard of performance applicable to such source." In striking contrast to § 301(c), there is no statutory provision for variances, and a variance provision would be inappropriate in a standard that was intended to insure national uniformity and "maximum feasible control of new sources."

Case Questions

1. What does § 301(a) of the Clean Water Act provide?
2. What is the Administrator of the EPA to do under § 402 of the Clean Water Act?
3. What level of pollution control was to be achieved under § 301(b)(2)(A)?
4. Under § 301, the EPA set both 1977 and 1983 limitations. Which of these allowed for variations?

The key issue in the *du Pont* case was whether the various sections of the Act were to be read in isolation, or as creating a single, integrated program. As the Court explained, under § 304 of the Clean Water Act, 33 U.S.C. § 1314, the EPA was to publish technical data which would provide guidelines to help carry out the various requirements of the Act. The most important requirement was the regulations that the EPA was to issue. These regulations were to classify the various industrial plants throughout the nation and then specify the degree of effluent reduction that a plant in any given category was required to attain through the use of certain levels of technology. By 1977, every permittee was to obtain the level of pollution control that could be had with what the statute called the **best practicable technology** (BPT). Later, each permittee was required

LEGAL TERMS

best practicable technology (BPT) A basic level of technology-based control for water pollution. BPT is defined as the level of pollution control that can be achieved by using the technology of the plants constituting the average of the best plants in a given industrial category.

to upgrade its pollution control efforts to a higher level, the **best available technology** (BAT). The EPA was also to publish criteria for water quality. These criteria were to reflect current scientific knowledge, as well as technical information on factors necessary to restore water quality.

The Clean Water Act is not a model of clarity, as the Court conceded. Nonetheless, the Court ruled that the Act does present a unified whole. The Court began by looking at CWA § 301, 33 U.S.C. § 1311. CWA § 301 makes it unlawful to discharge any pollutant unless the discharge is in compliance with the standards of § 301 of the Act, as well as § 306, 33 U.S.C. § 1316, and § 402, 33 U.S.C. § 1342. This meant that §§ 301, 302, and 406 had to be read together.

CWA § 306 required the EPA to classify all sources, publish a list of categories of sources discharging pollutants, and then promulgate national effluent guidelines for each type of source.

CWA § 402 authorizes the EPA to issue permits for individual point sources and to review and approve the plans by which states would administer their own programs for issuing point-source permits. The EPA intended to incorporate the national effluent standards into the requirements for individual permits. To do this, the EPA was to make the effluent guidelines into obligations directly applicable to individual dischargers. The NPDES permits would generally include a schedule, requiring the point source to be brought within national effluent guidelines within a reasonable period of time as a condition of retaining the permit.

In allowing state permit programs, the EPA required the states to follow the same policy. Each state had to agree to make national effluent limitations mandatory before the EPA would let it administer its own program.

The petitioners in *du Pont* argued that CWA § 402 was the only basis on which the EPA could purport to issue permits or approve state programs. Because CWA § 402 did not specifically refer to the effluent guidelines called for in CWA § 302, the petitioners argued that the EPA could neither impose these as mandatory standards in permits issued under § 402, nor make the states impose them. They argued that the “guidelines” called for under CWA § 402 were to be just that—guidelines, not mandatory requirements.

The Supreme Court rejected this argument. The overall goal of the Clean Water Act was clear enough. It called for the total elimination of illegal discharges to the nation’s waters by 1985. To this end, the Clean Water Act called for national effluent guidelines to be imposed through NPDES permits. These were mandatory rather than merely advisory.

The Court also upheld EPA practices that did not follow the letter of the statute. The effluent limitations were to be imposed in two phases. By July 1, 1977, the effluent limitations were to require application of the best practicable

LEGAL TERMS

best available technology (BAT) A very high level of technology-based control for water pollution. BAT is defined as the level of pollution control that can be achieved by using the technology of the single plant demonstrating the best level of pollution control, operating under optimal conditions.

technology; by July 1, 1983, the limitations were to require the use of the best available technology economically achievable.

In practice, it had been impossible for the EPA to follow these statutory guidelines precisely as Congress drafted them. To achieve the best results it could within the statutory guidelines, the EPA adopted a policy somewhat different from that set out in the statute. The Clean Water Act called for the EPA to publish the extensive information called for in CWA § 304, 33 U.S.C. § 1314, and then separately set national effluent limitations for existing sources under CWA § 301(b), 33 U.S.C. § 1311(b), and national standards for new sources under CWA § 306, 33 U.S.C. § 1316. Instead of taking each of these steps in a discrete process, the EPA moved directly to setting the effluent limitations, skipping the preliminary information-publishing steps.

To do this, the EPA established a system that categorized plants. The EPA then set effluent limitations for each source within any given category. To do this, the EPA measured the present levels of pollution being emitted by various plants in each industry. It then investigated plants with exceptionally good pollution records to determine what type of pollution control mechanisms these plants used. Based on these studies, the EPA estimated the degree of pollution control that could be achieved using the various levels of technology mandated by the statute. The EPA then set mandatory standards for pollution control for plants in each subcategory within an industry.

The Court ruled that CWA § 301, 33 U.S.C. § 1311, although poorly drafted, granted the EPA enough authority to act as it had. The EPA had the power to set standards for whole classes and categories of plants, rather than merely guidelines for individual plants. The Court also upheld the EPA's position that the best practicable technology (BPT) limitations, which were to go into effect in 1977, were subject to a variance exception. There were, however, to be no variances from the later and more demanding best available technology (BAT) limitations, which were to be in effect by 1983. The Court based this ruling on the idea that for the 1983 standards, the EPA was to allow variances based on the showings of individual plants. See CWA § 301(c), 33 U.S.C. § 1311(c). The Court reasoned that for this section to make sense, the Agency had to set national standards and then allow individual variations. The alternative of allowing individual plant standards would make variation completely unnecessary. The Court found that the provisions establishing BPT allowed a limited range of cost-benefit analysis. Thus, a bit of leeway was built into the 1977 BPT standards, reflecting the apparent intent of Congress. Senator Edmund Muskie, one of the bill's chief sponsors, had discussed limited cost-benefit allowances in support of the final version of the bill. See *du Pont*, 430 U.S. at 129–30.

In allowing the EPA to set effluent guidelines that are binding throughout the nation, the courts have followed several of the normal rules of statutory construction. Because of the EPA's clear expertise in the field, the court will defer to the Agency's interpretation of a statute when the interpretation is reasonable.

The *du Pont* Court also upheld the Agency on another of its interpretations of the Clean Water Act, that of allowing variances for existing sources but not

new sources. The EPA reasoned that new sources should have to comply fully and rigorously with the pollution limitations standards.

In short, the *du Pont* case empowered the EPA to impose sweeping programs to clean up the nation's waters.

The Technology-Based Effluent Limitations

The Clean Water Act calls for nationally uniform effluent limitations, but the statute itself does not explain in detail what the EPA is to use as the basis of these limitations. There were several possibilities. For one, the EPA could simply have ordered that all water pollution be eliminated.

Following the congressional plan, the EPA set up a program based on technological factors. It classified all industrial plants. The EPA then required each plant within a given industrial category to achieve certain discharge limitations, typically measured in terms of an amount of a specified chemical per time period. For example, a plant might be allowed to discharge an average of 10 gallons of a given pollutant per 1,000 gallons of wastewater in each 24-hour period.

This system has both advantages and disadvantages. The advantage is that all plants in the same industrial category are subject to the same basic requirements. The disadvantage is that the environmental impact of discharges from a given plant may vary. For areas with only a few point sources for a large body of water, the limitations can cause a dramatic reduction in pollution. For areas with many sources draining into a small body of water, the overall level of water pollution remains high even though the reduction in pollutants may be significant.

As noted previously, the reduction of water pollution was originally envisioned as a two-stage process. The EPA was first to establish guidelines bringing all sources to the "best practicable technology currently available," known by the initials BPT, BPTCA, or BPCTCA. (This book uses the most common of these abbreviations, BPT.) All point sources were to achieve the level of pollution control possible with this best practicable technology by 1977.

In setting BPT limitations, the EPA was to look to the average of the best levels of performance by existing plants in a given subcategory. The factors and considerations to be used in achieving BPT were specified in CWA § 304(b)(1)(B), 33 U.S.C. § 1314(b)(1)(B). This section specifically ordered the EPA to consider the cost of achieving this degree of pollution control; the EPA's action was to include "consideration of the total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application." Other factors to be considered included age of the equipment involved, processes employed, engineering aspects of the various control techniques, process changes, impacts on parts of the environment other than water, and such other factors as the EPA elected to consider. Thus, because the Clean Water Act made cost a prominent factor in determining BPT, it was not surprising that much of the litigation resulting from the establishment of BPT centered on the cost-benefit analysis.

A more stringent set of standards was proposed for implementation by 1983. Under the original Act, by 1983, limitations were to be based on the best available technology economically achievable (BAT). As the Clean Water Act was originally drafted, BAT was to apply to all sources. In later amendments, Congress carved out specific exceptions for toxic pollutants and the so-called gray pollutants. Because of the special dangers these pollutants pose, sources generating these pollutants remain subject to the BAT requirement.

By 1977, Congress realized that the Clean Water Act imposed such massive demands on the EPA that the original deadlines were unrealistic. To allow the EPA to deal with the difficulties that water pollution problems presented, Congress amended the Act, delaying the 1983 deadlines to 1984. Further, it divided pollutants into two categories. For toxic and gray-area pollutants, the controlling standard would remain BAT, although the date for this was put off to 1984. For all other pollutants, now dubbed **conventional pollutants**, the controlling standard was modified to **best conventional pollution control technology** (BCT or BCPCT). CWA § 301(b)(2)(A), 33 U.S.C. § 1311(b)(2)(A). Congress postponed the implementation date for this standard to 1989. CWA § 301(b)(2)(E), 33 U.S.C. § 1311(b)(2)(E).

The statute also established a somewhat different regime for **publicly owned treatment works** (POTWs) and point sources that discharge effluents through POTWs. Dischargers who route their effluents through POTWs must still achieve the applicable controlling standard (BAT or BCT), but they are allowed to factor in the removals that POTW processing will achieve with their own efforts. As long as the point source introduces no pollutants that would contaminate the sludge produced in the POTW, the point source is allowed “removal credits” for the pollution removed by the POTW, and is allowed to count this along with its own efforts toward achieving the controlling technological standard.

Finally, there is a separate rule for new sources. These must achieve **best available demonstrated control technology** (BADT or BADCT).

BPT, BAT, BCT, or BADT are all established under the Clean Water Act. However, that Act does not set specific requirements for any of them. The statute

LEGAL TERMS

conventional pollutants Nontoxic pollutants that are not intrinsically dangerous, but that pollute water by fouling it with suspended solids, by adversely affecting the electrochemical balance (the pH factor), or by depleting biological oxygen.

best conventional pollution control technology (BCT or BCPCT) A moderate level of technology-based control for water pollution. BCT represents a compromise between the basic level (BPT) required of all sources, and the strict level of pollution control (BPT) required of sources emitting toxic pollutants.

publicly owned treatment works (POTWs) A sewage treatment plant or other similar facility that treats water to remove pollutants from that water.

best available demonstrated control technology (BADT or BADCT) The level of technology-based pollution control required of new sources under the Clean Water Act. It is generally approximately equal to BCT for existing sources, but is not subject to any FDF variances.

merely indicates that the EPA is to use certain listed factors in determining what the standard achievable under each best technology is. In other words, the EPA is ordered to define the appropriate technology for each of these standards, and then determine how good that technology can be for eliminating pollutants from a point source's effluent stream.

Cost-Benefit Analysis Under BPT and BCT

The list of factors to be used to determine BAT is different from the list used for BPT in one very significant way. It does not include the phrase "consideration of the total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application." Instead, CWA § 304(b)(2)(B), 33 U.S.C. § 1314(b)(2)(B), lists the other factors to be considered in determining the BPT, not referring to cost-benefit analysis but replacing it, deep in the list, with "the cost of achieving such effluent reduction." Although this shows that the EPA is to consider cost, it is a simple analysis of cost rather than a comparison of cost to the benefits to be achieved. Further, having this phrase as merely one of several (the fifth of seven) indicates that the cost factor is far less important in setting the BAT than it was in setting BPT.

In construing the statute, the courts have held that in determining the BPT, the first level to be achieved, the EPA is to balance total cost against the resulting benefit measured in terms of effluent pollutant reduction. In applying the later, higher standards, BAT and BCT, the EPA must consider cost, but it is not to treat this as a separate factor apart from the others listed in the statute.

The Clean Water Act did not specify the precise weight that the EPA was to give to any factor in the balancing test, and the courts have construed the Act as giving the EPA wide discretion in this area. The basic controlling standard that the Agency must meet is central to administrative law: the Agency must consider all of the statutory factors, giving each of them a serious examination. (*See* Chapter 1 on the "hard look" doctrine.) However, the EPA is not required to accord any particular weight to any given factor, and it can be faulted only if it completely fails to consider a particular factor.

Procedures for Setting the Standards

To set any particular standard for a given type of source, the EPA must categorize the source and the pollutants that it will discharge in its effluent. Once it has categorized the source and determined which pollutants the source will discharge, the EPA must then set controlling standards. If it is a new source, the source must achieve BACT. If it is an existing source discharging conventional pollutants, the source must achieve BCT. If it is an existing source discharging toxic or gray-area pollutants, it must achieve BAT. If it discharges through a POTW, it is allowed to use removal credits in determining if it has met the controlling standard.

To say that an existing source discharging conventional pollutants must achieve a standard such as BCT leads to the next question: What is the BCT for

a source in a particular category? Because different types of sources discharge different pollutants and can use different technologies to clean their effluent streams, the EPA had to categorize all of the various point sources. Additionally, merely assigning standards to different categories of plants means virtually nothing. The next step, which applies these standards on the local level, is to issue permits. Each permit must incorporate the appropriate BPT/BCT/BAT/BADT standard.

SIDEBAR

Which standard is tougher? The second letter is the key. The closer that letter is to the beginning of the alphabet, the tougher the standard is. BCT is tougher than BPT. BAT is the toughest of all. BADT is generally somewhere between BAT and BCT.

This involved a monumental information-collecting process. First, the EPA divided all of American industry into categories. In this task, the EPA generally relied on such commonly used indicia as **Standard Industrial Classification (SIC)** codes. Then, for each industry, the Agency undertook a massive information-gathering project. It identified the various plants coming within any given industrial category. Then it compiled information on the pollutants that these plants discharged, the industrial processes that they used, the treatment technologies in use or available to these plants, the treatability of the various pollutants, and the economics of the industry. Often the EPA discovered significant differences among various segments of the industry in terms of the pollutants that different plants produced. The Agency often established subcategories to reflect different situations.

In some cases, the number of categories and subcategories has been remarkable. The wood products industry includes subcategories for barking, wet storage, log washing, and particleboard manufacturing. In the sugar processing industry, the EPA eventually developed more than 40 different categories—some critics contended that the EPA had replaced the supposedly national pollution control standards with standards that were almost unique to each plant. In other industries, the EPA has had to consider extremely diverse factors. As an example, the Agency has had to consider whether a given technology can produce different results in areas of the nation with significantly different climatic patterns.

Industrial groups often attempted to get the EPA to define even smaller, more specialized categories. Carried to its extreme, this would make the ostensibly national standards plant-specific. The Clean Water Act requires the EPA to recognize a separate subcategory for a group of plants only when they are so fundamentally different from other plants that they cannot practicably achieve the effluent limitations developed from the average of the best plants for the industry. To show that it should not be classified in a given category, a plant must show

LEGAL TERMS

Standard Industrial Classification (SIC) codes A code numbering system used to classify industrial operations into various standardized categories. The EPA used SIC codes as a starting point for devising permit requirements for different industrial categories.

that it is “fundamentally” different with respect to statutory categories. Absent a test of this nature, every plant could contend that its differences mean it should not be included in an industry-wide category. This test does reduce the problems of classification, although there is still a problem as to how much difference makes a plant “fundamentally” different.

From all of this data about plant technology and pollutant output, the EPA is to choose what it decides is the model technology for removing pollution from effluent flows. For example, assume that the EPA studies a particular plant and finds that the effluent contains suspended solids, particles of dirt drifting in the water flowing out the drainpipe. The EPA might conclude that a series of filter screens would effectively remove a large percentage of these dirt particles, leaving the water comparatively clean. The EPA might select filter screens as the model technology.

The EPA would then develop a model, based on use of that technology, showing **achievable effluent limitations**. The *achievable effluent limitations* are the levels of pollutant removal that the EPA finds can be achieved using the model technology. To develop this, the EPA uses a combination of statistical evaluations and engineering judgments. These achievable effluent limitations are generally stated in terms of maximum daily and monthly outputs for designated pollutants for each point source. Alternatively, the limits can be stated in terms of an amount of pollutant per liter of wastewater. For example, the EPA might require that the plant in question maintain the total suspended solids in its wastewater at a daily maximum of 10 milligrams of solids per liter of wastewater, with a 30-day average maximum of 5 milligrams per liter of wastewater.

As this summary suggests, the entire process of setting effluent limitations is extremely cumbersome. It often takes several years to gather the necessary data, evaluate the parameters, and develop the models that will lead to the final statement of a sound effluent limitation.

Notably, the Clean Water Act and the EPA's regulations issued pursuant to that Act do not require a plant to adopt the specific technology that the EPA uses as its model technology. The plant must only meet the effluent limitations, the specific restrictions on the amount of material contained in the wastewater flowing from the plant. So long as the plant meets the EPA's effluent limitations, the choice of technology is left up to the individual plant. So, assume that the EPA adopts filter screens as the model technology. A second plant finds that by using settling tanks, it can reduce the pollutants in its effluent stream to prescribed levels. That second plant is free to use settling tanks.

Often, however, the EPA's selection of a particular technology as the model technology virtually compels its adoption throughout an industry. The EPA's model technology is frequently the most efficient and effective way to meet the

LEGAL TERMS

achievable effluent limitations The levels of pollutant removal that can be achieved using a particular model technology. This is based on a combination of statistical evaluations and engineering judgments, and is generally stated in terms of maximum daily and monthly outputs for designated pollutants for each point source.

agency's clean-up requirements. In many cases, it is the only workable technology that will allow a plant to achieve a prescribed effluent level, so the plants in the industry have no choice. They must adopt the model technology to meet their NPDES permit requirements.

Conventional Pollutants

Fortunately, most pollutants are merely dirt in one form or another. These pollutants make water unusable for drinking, swimming, or similar purposes, and they prevent the water from supporting many fragile forms of aquatic life, but they are not in and of themselves toxic. The most critical chemical danger these pollutants pose is that, as they break down, they use the oxygen normally found in the water. If they deplete this oxygen, it is not available for other biological organisms. Because these pollutants "demand" oxygen in this way, the EPA classifies such chemicals according to the amount of biological oxygen they use.

Nontoxic pollutants are labelled *conventional pollutants*. Conventional pollutants generally show three characteristics that are relatively easily monitored. First, the pollutants are by and large solid particles suspended in water, so their presence can be measured in terms of total suspended solids (TSS) in a given volume of water. Second, these pollutants affect the pH balance of the water—the balance between the positive and the negative electrical charges in the water—which again can be easily measured. Third, these pollutants put an unnatural demand on the supply of biologically available oxygen, which can be measured in terms of **biological oxygen demand**. This is measured over a five-day period, and is labelled *BOD5*. By and large, *BOD5* substances are organic compounds. In water, they gradually break down into harmless substances (usually water and carbon dioxide), but they use up the oxygen suspended in the water as they do so.

In dealing with these conventional pollutants, the EPA has been able to write a large number of Clean Water Act effluent limitations using three standards:

BOD5—Stated in parts per thousand or similar measures

TSS—Stated in parts per thousand or similar measures

pH—Stated on a 1.0 to 13.0 scale, on which 7.0 is pH neutral

The Meaning of "Best Practicable Technology" for Existing Sources

The meanings of the various environmental standards and how they are to be determined have been the subject of much litigation, often resulting in huge and extremely cumbersome opinions.

LEGAL TERMS

biological oxygen demand (BOD5) The tendency of a substance to deplete the natural oxygen in water, thus destroying the capacity of the water to support aquatic life. It is measured over a five-day period.

One critical issue on which the cases have turned is the cost-effectiveness test suggested by CWA § 304(b)(1)(B), 33 U.S.C. § 1314(b)(1)(B). In setting BPT, the EPA was required to determine that any effluent limitation reflected a balancing between the costs of imposing the technology and the resulting benefit.

In determining cost-effectiveness, the EPA has generally used what is called a *knee-of-the-curve test*, which has been upheld as valid in court.

SIDEBAR

The *knee-of-the-curve test* gauges the cost-effectiveness of water pollution controls. The EPA graphs cost on one axis and the amount of pollutant removed on the other axis. Initially, small additional increments of cost will remove large amounts of pollutants. At some point, however, the amount of pollutant removed with each additional element of costs begins to fall, so that each additional unit of cost removes less and less additional pollutant. At the point where the increase in cost of each additional unit of pollutant removed changes dramatically, the graphed line turns sharply. This is the “knee” of the curve. The knee-of-the-curve test says that pollution controls are cost-effective at least to the knee of the curve.

To figure out where the knee of the curve is, the EPA (or the party disputing the EPA’s assessment) draws a graph showing cost on one axis and the amount of pollutant removed on the other axis. In virtually all situations, the curve has a fairly common shape. Relatively small additions to cost will remove large amounts of common pollutants. Each addition to cost produces a large incremental increase in the amount of pollutant removed. The curve showing cost and pollutant removed will stay fairly close to the cost axis.

At some point, however, the amount of pollutant removed with each additional element of cost begins to fall. Each additional unit of cost will remove less and less additional pollutant. At the point where the increase in cost of each additional unit of pollutant removed changes dramatically, the curve showing the cost graphed against the amount of pollutant removed turns sharply—there is a “knee” in the curve.

Although the Clean Water Act does not mention the knee-of-the-curve test, it does require that the EPA consider “the total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application” in setting BPT. The courts that have reviewed challenges to the EPA’s analysis of cost-benefit matters have found that the knee-of-the-curve test complies with the dictates of Congress. The courts have also given the Agency wide discretion in considering the cost of pollution abatement in relation to the benefits to be achieved. In doing this, the courts have looked to the remarks of the Clean Water Act’s chief sponsor, Senator Muskie, who described the language of CWA § 304(b)(1)(B), 33 U.S.C. § 1314(b)(1)(B), as setting up a balancing test to preclude the EPA from requiring additional technology when the added degree of effluent removal would be “wholly out of proportion to the costs of achieving such marginal level[s] of reduction.” The key restriction the courts have imposed is to rule that the EPA may not make the cost consideration so significant in setting effluents that it excludes other relevant factors. *See Clean Water Act,*

1972 Legislative History at 170, quoted in *Chemical Manufacturers Ass'n v. Environmental Protection Agency*, 870 F.2d 177, n.80 (5th Cir. 1989).

As the courts have construed it, the wholly-out-of-proportion/knee-of-the-curve test applies only to BPT. In setting the higher best conventional technology (BCT) standard, the EPA must make the same sort of cost-effectiveness determination, but, so long as it concludes that the cost is reasonable in terms of the degree of environmental benefits, it can demand that industry bear that cost. For the highest standard, best available technology (BAT), as long as the EPA seriously considers cost factors, it can rule that a given technological level is achievable and require that industry achieve it. Although Congress did not want the EPA to disregard the cost of technological improvements in setting the BCT or BAT standards, it intended cost to be less significant in these calculations than in the calculations of BPT, a minimum standard.

In most cases, industry has not been able to show that the costs of removing additional pollutants as called for under EPA regulations are wholly disproportionate to the benefits of such removal. The courts have accorded the Agency considerable deference in determining the point at which returns on the cost of additional technology do not justify those costs. The Agency has been upheld, for example, in requiring industries to undertake removals estimated to have an average cost of \$10 or more per pound of effluent removal. *Chemical Manufacturers Ass'n v. Environmental Protection Agency*, 870 F.2d at n.103.

How does the EPA determine what is a given "best" technology? To a large degree, it does so by surveying the existing technologies. For example, the EPA (by itself or through a contractor hired to gather this information) determines what technologies are being used and what the results are. The EPA gathers much of its initial data by sending written questionnaires to all plants in a given category. After reviewing this written data, the EPA then visits various plants to determine the precise effluent characteristics achievable by using various technologies, based on field observations. It then computes effluent levels that reflect the *average of the best* characteristics achieved in the field.

SIDEBAR

The *average of the best* is the basis used by the EPA for setting best practicable technology, the standard required of all point sources under NPDES permits. It is the average level of pollution control achieved by the plants in a given industrial category using what the EPA has designated as the model technology.

In some instances, critics have challenged the resulting standards as excessively lax, contending that the EPA allows too many weak plants to be included in the "best" from which it computes its averages. First, only those plants with the technology that the EPA has identified as its model technology can be considered as being among the best plants, even if plants using other technologies are more effective at removing pollutants. Further, critics contend that the EPA often includes such a wide range of plants in its best group that the average is lowered to be little more than the average plant with the candidate technology. Despite these criticisms, the EPA's various policies have been upheld. The use of

the average-of-the-best standard is specifically sanctioned by the legislative history of the Clean Water Act, and the courts have generally accorded the EPA wide discretion in handling such matters.

Some industries, of course, have been very slow to adopt technologies on an industry-wide basis. As a result, using the average of the best for such an industry would only sanction bad practices. In such cases, the EPA will not look to what the industry itself is doing. Instead, it will set effluent limitations using technologies borrowed from other industries.

Industries have sometimes challenged this practice of borrowing technologies. Some courts have questioned the EPA's implementation of such standards when the EPA has not made an adequate administrative record to justify technology transfer arguments. Other courts have found the EPA's records adequate. No court appears to question the Agency's power to use this practice.

The Meaning of "Best Conventional Technology" for Existing Sources

The 1977 amendments to the Clean Water Act largely replaced BAT with the less demanding BCT (best conventional technology). The factors that the EPA is to use in identifying this technology are set forth in CWA § 304(b)(4)(B), 33 U.S.C. § 1314(b)(4)(B). When it came time to address BCT, the EPA elected not to attempt to set these limitations on an ad hoc basis. Rather, the EPA elected to write generic regulations describing how it would go about determining BCT and setting guidelines for state programs, showing what they should do to set BCT in individual permits. As has often been the case with the Clean Water Act, industry groups challenged the resulting regulations, specifically attacking the methodology that the Agency used in drafting these guidelines.

The decision to replace BAT with a less stringent BCT standard in part reflected the success that the EPA had achieved by forcing industries to adopt BPT. In its early Clean Water Act cases, the EPA had a very rocky start. Many times it was forced to drop proposed standards. Nevertheless, it pressed on. As it gained experience, the Agency compiled an impressive record, imposing BPT standards on the vast range of American industry. *See, e.g., American Petroleum Institute v. Environmental Protection Agency*, 858 F.2d 261 (5th Cir. 1988) (petroleum industry); *National Coal Ass'n v. Environmental Protection Agency*, 810 F.2d 431 (4th Cir. 1987) (coal mining industry). By 1977, Congress found that BPT had produced a remarkable improvement in water quality. BPT had brought about a significant reduction in biological oxygen-demanding substances, suspended solids, fecal coliform, pH chemicals, and oil and grease. Given these improvements, critics argued that requiring industry to implement BAT would not produce any significant benefit in the case of many conventional pollutants. Critics feared that imposing BAT would amount to treatment for the sake of treatment. The costs of implementing new technologies would be tremendous, with no corresponding benefit in terms of return on the investment.

Faced with these concerns, Congress amended the Clean Water Act, replacing BAT with the more lenient BCT. In setting BCT, the EPA may go beyond the exact knee of the curve if it finds that the increased cost is not unreasonable in

terms of the degree of environmental benefits. Further, in setting BCT, the statute requires that the EPA incorporate two new tests gauging cost-effectiveness. The first test compares the cost of having permittees remove additional pollutants against the cost of having publicly owned treatment works (POTWs) remove the same amount of pollutant. To make this comparison, the EPA must compare the cost of going from BPT to BCT against the cost of going from no treatment to BPT. This gives a numerical ratio. For example, assume that the cost of imposing BPT is \$3 per pound of pollutant removed, and the cost of moving to BCT is \$5 per pound of pollutant removed. This produces a ratio of 1.67. Then the EPA asks what a comparable ratio would be for a POTW to remove the same amount of pollutant. Assume that at a POTW, the cost of achieving BPT is \$4 per pound, whereas the cost of achieving BCT is \$6 per pound. This produces a ratio of 1.5. So long as the BCT/BPT ratio is higher than the POTW ratio, the EPA can adopt the proposed BCT standard.

The second test looks at the cost of upgrading industry versus the cost of upgrading POTWs. If it is less expensive to have industry adopt BCT than it is to have POTWs install **Advanced Secondary Treatment** systems, the EPA can order the industry to install BCT.

Advanced Secondary Treatment is a waste treatment technology used in POTWs to reduce BOD5 and TSS each to 10 milliliters per liter of water. The EPA justified the use of this standard, arguing that basic secondary treatment was roughly equivalent to BPT. Secondary treatment was the level that all POTWs were to have met by 1977, the deadline for industrial compliance with BPT. Because of this, the EPA reasoned that secondary treatment and BPT were to be considered roughly comparable. The enactment of the BCT standard clearly indicated that Congress intended industry to go beyond BPT. In the same manner, the EPA set a standard beyond the basic secondary treatment standard to serve as the comparative benchmark.

Notably, the EPA has determined that for fecal coliform and pH, BPT is the same as BCT. Therefore, for these pollutants, no improvement beyond BPT is mandated under the current statute.

Effluent Limitations for Conventional Pollutants in the Courts

As noted, the EPA rushed through many of the standards for BPT and had many of them overturned in the courts. In many cases during the 1970s, the courts held that the Agency had failed to follow the proper procedural steps necessary to promulgate valid regulations, so the BPT standards were overturned. The courts voided the resulting standards and remanded the cases to the EPA for further work. Often, the EPA did not undertake any further work on the national effluent standards. Rather, it adopted a two-part policy. First, to

LEGAL TERMS

Advanced Secondary Treatment Systems that must be installed in publicly owned treatments works to reduce BOD5 and TSS each to 10 milliliters per liter of water. This is designated the best conventional pollution control technology for POTWs.

impose some controls over plants, it used its best professional judgment, operating on a plant-by-plant basis. Although this was not efficient, and did not produce the national standards contemplated by the Clean Water Act, it did impose some controls on plants. Secondly, the EPA moved directly to writing the more rigorous BCT/BAT limitations.

The EPA also gradually became more skilled, both at the processes that the courts required it to undertake in writing regulations and at presenting the records of its actions in the courts. As a result, by the 1980s, the EPA had managed an increasingly strong track record in litigation. In the mid- to late-1980s, the EPA's effluent standards were upheld for such critical polluting industries as nonferrous metals, can-making, coal mining, placer mining, and oil drilling.

Among other things, this has raised a serious policy question. Has the EPA reached the effective limit of these standards on water pollution, so that it should concentrate on other areas, such as nonpoint sources?

Limitations on Toxic Pollutants from Existing Sources

During the 1970s, the EPA concentrated on the most prominent clean water problem: conventional pollutants. While it concentrated on this problem, the Agency moved relatively slowly in promulgating regulations to cover toxic pollutants. Conventional pollutants foul the waters of the nation, but are not, in and of themselves, generally especially dangerous. As a result, the Clean Water Act provisions dealing with conventional pollutants are based on a policy of removing pollutants by using technology. These provisions do not address health concerns directly.

This is not the case with Clean Water Act § 307, 33 U.S.C. § 1317. This section governs the regulation of toxic pollutants and pretreatment effluent standards.

CWA § 307(a)(1), 33 U.S.C. § 1317(a)(1), requires the EPA to publish an official list of toxic pollutants. In determining what substances are to be included in this list, the EPA is to take into account factors such as toxicity, persistence, degradability, the nature of organisms affected by the pollutant, and the like. Cost or cost-balancing factors are not to be considered. Under CWA § 307(a)(2), 33 U.S.C. § 1317(a)(2), the EPA is to publish effluent limitations for toxic pollutants. These limitations can include out-and-out prohibitions. Again, these are to be based on health factors such as toxicity, persistence, degradability, and one additional factor: the extent to which effective control is being achieved through other regulatory regimes. Again, cost is not a factor listed in the statute for consideration.

Because of the possibility that these standards would force entire industries to close down, Congress required the EPA to use formal procedures in establishing regulations on toxic pollutants. As a result, the EPA moved slowly—so slowly that environmental groups eventually sued to require more aggressive action. The suit was finally settled in an agreement under which the EPA was to declare 65 substances toxic for Clean Water Act purposes and the environmental groups agreed not to challenge feasibility-based limitations on these

substances. In the wake of this agreement, the EPA did promulgate some standards for toxic substances, although the courts still found several of these standards invalid because the EPA had failed to comply with the rigorous notice-and-comment rulemaking requirements that Congress set out in CWA § 307, 33 U.S.C. § 1317.

The **feasibility-based standard** that the statute requires for toxic pollutants is “best available technology” (BAT). As discussed earlier, this standard originally was to apply to all substances, including conventional pollutants, but is now applicable only to toxic pollutants and the so-called gray-area pollutants. Sources emitting conventional (non-toxic) pollutants now must meet only the best conventional technology (BCT) requirement.

The EPA began the process of setting BAT by using the same system it had used to develop standards for BPT. But whereas BPT is based on the average of the best plants in a given category, BAT is to be based on the performance of the single best-performing plant in a given industrial category. In other words, the EPA can canvass an entire industry, find the *one* plant with the best record of pollution control for a given pollutant, and use that as the legal standard. Further, the EPA is allowed to base its model technology on the most rigorous application of quality control measures. It can assume that the best plant in the industry will run at the highest efficiency possible through the use of quality control and equipment maintenance.

The use of this standard tends to press industries to adopt new and more sophisticated technologies. Further, in setting the BPT or other lower standards, the EPA can “transfer” technologies from one industry to another if it makes an administrative record showing that this is appropriate. It can also base its determination of BAT on data obtained at pilot plants, even if they have not become fully operational, or even on technologies that have not yet been fully implemented, if there is a reasonable basis for believing that the technology will be available by any regulatory deadlines.

As noted, cost is not as significant a factor in setting BAT as it was in setting BPT. In BPT, cost is a separate factor, a “comparison” factor. In BAT, it is merely a “consideration” factor, listed but not set out separately.

Generally, the EPA has divided BAT treatment processes into two types. First are those that treat wastewater only after it has gone through the plant’s industrial processes, immediately before discharging the effluent from the plant into a navigable stream—called **end-of-pipe processes**. Second are processes that begin while the wastewater is still going through plant processes—called **in-plant processes**.

LEGAL TERMS

feasibility-based standard A standard used for the control of toxic pollutants, taking into account the feasibility of imposing such controls.

end-of-pipe processes Processes that deal with water pollution only when the drainpipe or other point source passes out of the plant.

in-plant processes Processes that deal with water pollution inside a plant rather than waiting until the drainpipe passes out of the plant.

End-of-pipe processes generally use some sort of biological agent to remove pollutants from the water. To do this, special bacteria are put into the wastewater to attack certain toxic waste. The bacteria feed on the waste and then die off when they have destroyed all of their food supply. In-plant processes are more varied. Some involve biological treatment. Others add a process such as steam stripping, carbon-activated absorption, chemical precipitation, or alkaline chlorination. Notably, this distinction shows a key difference between BAT and the less intrusive BPT and BCT standards: BPT and BCT are exclusively end-of-pipe standards. BAT can reach back into an industrial process and require that steps be taken at intermediate stages along the way.

For many pollutants processed using in-plant methods, the EPA designated steam stripping as the model technology. *Steam stripping* reclaims wastewater by forcing a column of superheated steam through it. The heat from the steam causes many volatile chemicals to vaporize.

The EPA has been able to take advantage of certain chemical characteristics to lighten its workload. Although the basic list of toxic substances contains 65 substances, and both Congress and the EPA Administrator are empowered to add chemicals, many of these chemicals tend to occur in groups, all generated by common processes and all responding in similar manners. As a result, a pollution treatment process that eliminates one will often eliminate several. Taking advantage of this, the EPA has been able to opt for tracking surrogate or indicator chemicals. The courts have upheld this as an adequate measure of limitations if the agency makes an adequate showing that the surrogate phenomenon does occur.

Pretreatment Standards for Existing Sources

Many sources of water pollution do not discharge directly to the nation's waterways. Instead, they route their wastewater through publicly owned treatment works. Dischargers who route their wastewater through a POTW before releasing into navigable waters are known as **indirect dischargers**. POTWs treat conventional pollutants quite effectively, but toxic pollutants present a more serious problem. With this in mind, in CWA § 307, 33 U.S.C. § 1317, Congress ordered the EPA to regulate chemicals incompatible with POTW operations.

Incompatibility commonly occurs in one of three ways. First, virtually all POTWs use biological methods to break down pollutants. Typically a POTW includes a bacterial process in which bacteria "eat" conventional pollutants. Many toxic chemicals can kill the bacteria that carry out these processes. This means that sending the wrong toxic pollutants through can disrupt the entire POTW operation. Second, POTWs produce sludge. Properly treated, this sludge is useful and beneficial. It is excellent fertilizer. However, this sludge is useless and even

LEGAL TERMS

indirect dischargers Dischargers who route their wastewater through publicly owned treatment works. They are generally allowed credit for wastes that the POTW can remove in measuring the level of pollution control that they must achieve.

dangerous if it is contaminated with heavy metals such as lead or arsenic. Indeed, to combat this problem, the EPA issued regulations covering the use and disposal of sludges contaminated with heavy metals. Third, some toxic substances are not removed from wastewater by conventional POTW treatment. These substances pass through the POTW treatment process unaffected and continue into the water supply.

Any pollutant is classified as incompatible if it will destroy the biological agents used in POTWs, if it will make POTW sludge unusable as a fertilizer, or if it is not removed by POTW operations. Regulations now require that industrial dischargers cannot release discharges to POTWs if their discharges contain pollutants incompatible with POTW operations.

If the indirect discharger's waste contains no incompatible pollutants, the discharger is given an advantage in meeting BAT requirements. It is allowed to meet BAT standards by combining the removal it will accomplish before sending wastewaters to the POTW with the cleanup that the POTW will accomplish. The discharger is given "removal credit" for removals of toxic substances actually accomplished by the POTW. Under current EPA regulations, if an indirect discharger will achieve, through its own efforts and those of the POTW, the same level of effluent removal of toxic pollutants that the direct discharger is required to achieve, the indirect discharger is deemed to meet BAT.

To establish this standard, the EPA adopted a BAT comparison approach. It assumed that an indirect discharger sent untreated wastewater to a POTW, whereas a direct discharger had to achieve BAT. Unless the POTW could remove at least as much of the toxic pollutant as the plant using BAT, the pollutant was deemed to "pass through" the POTW, and the indirect discharger was required to install technology to reduce the level of the pollutant released by the POTW to at least the level of removal achieved by the plant using BAT.

In setting up this comparison model, the EPA made a number of assumptions. First, it based its BAT comparison on the nationwide average of the pollutant removed by well-operated POTWs rather than on any one actual POTW. Further, for substances that cannot be detected because of dilution problems, the EPA assumed that the substance does pass through the POTW.

The courts have upheld the EPA's analytical assumptions. The position the courts have taken is that the EPA is given discretionary authority to make determinations as called for in the Clean Water Act. If Congress did not specify the methods to be used in arriving at these determinations, the EPA is allowed to make the choices. As long as the EPA's choices are supported in the Agency's record as reflecting a reasonable professional judgment, the courts will uphold the Agency. The choices the EPA has adopted ensure that both direct and indirect dischargers will be treated comparably and that POTWs will be protected from incompatible or interfering pollutants.

Part of the difficulty of arriving at precise measurements in this field stems from the minute quantities in which some substances are toxic. Often, toxic substances are measured in terms of parts per million or per billion. For comparison purposes, one part per million is approximately one second out of twelve days. One part per billion is approximately one second out of thirty-two years.

When it must deal with contaminants at these levels, the EPA almost inherently must work on the basis of estimates. Exact measurement is often impossible.

The inability to measure pollutant levels in POTWs stems partly from the fact that POTWs typically receive combined wastewater streams from many sources. As a result, pollutants may become so diluted that they are undetectable in the wastewater stream. But dilution is not removal. Indeed, dilution of carcinogens is particularly dangerous. Dilution may prevent detection, but these chemicals remain hazardous even at undetectable levels, because they tend to accumulate in tissue. At the same time, the EPA must address certain other concerns. For example, can a POTW use techniques that extract toxic pollutants by vaporizing them from wastewater into the surrounding air? Generally, it can. But what if these chemicals would pose a health hazard to workers in the POTWs? This is merely an illustration of the many issues that the Agency must address in developing these standards.

One of the great sore spots in the regulation of toxic pollutants is that cost is not related to the size of the operation. In many industries, smaller producers face disproportionate costs. Often, the cost of pollution control equipment is roughly the same regardless of the size of the plant. Equipment to remove toxic pollutants from operations at a large plant may cost \$500,000; equipment to remove toxic pollutants from a small plant may cost the same \$500,000. But the small plant often cannot afford this \$500,000 outlay, whereas a large plant can. The cost of pollution equipment needed to meet BAT can drive smaller plants out of business and put people out of jobs.

The EPA has acknowledged this problem. The Clean Water Act requires that the Agency set limitations to compel plants to achieve the best available technology economically achievable (BAT). This standard does not require the Agency to undertake the sort of cost-benefit analysis involved in setting BPT. The Agency must consider the costs of any given technology, but it is not to give cost the same importance as in the computation of BPT. So long as the EPA carefully considers cost factors, if it determines that a given level of technology is economically achievable, that finding stands.

The EPA's own analyses have shown that there will be significant repercussions from the imposition of BAT limitations. In the plastics and synthetic fiber industry, 14 percent of all plants will close as a result of increased costs involved with regulating toxic pollutants. These will almost all be small plants, so that only 1.2 percent of the workers in the industry will be displaced, although this is no consolation to those people who fall into this small but very real category. *Chemical Manufacturers Ass'n v. Environmental Protection Agency*, 870 F.2d 177 (5th Cir. 1989). In the electroplating industry, an estimated 20 percent of the industry will have to shut down, at the cost of some 12,000 jobs. *National Ass'n of Metal Finishers v. Environmental Protection Agency*, 719 F.2d 624 (3d Cir. 1983). Some 14 percent of all integrated steel plants will be closed. *American Iron & Steel Institute v. Environmental Protection Agency*, 526 F.2d 1027 (3d Cir. 1975). In the seafood industry, 16 percent all direct dischargers will be shut down. *Association of Pacific Fisheries v. Environmental Protection Agency*, 615 F.2d 794 (9th Cir. 1980). The EPA has nevertheless imposed these costs and has been quite reluctant to

define small plants as being in separate categories, finding that this does not amount to the sort of fundamental difference that Congress had in mind. *Chemical Manufacturers Ass'n v. Environmental Protection Agency*, 870 F.2d at 177.

These are the costs that the EPA has decided must be borne as a cost of controlling toxic pollutants. The courts acknowledge that Congress has delegated the task of making these decisions to the EPA.

Cases litigating this issue are decided under the arbitrary and capricious standard. The EPA record must show that the Agency took a hard look at the issue. This standard of review gives the EPA a great deal of control. It must consider the cost of technology, along with the other factors that the statute requires. It must create an administrative record from which a reviewing court can see that the Agency took a hard look at the issue and that its conclusions were reasonable. If it has made a sufficient record, the EPA may force plant closure. It often faces situations in which that is the only workable alternative. In light of Congress's judgment giving the EPA responsibility for this difficult task, the courts have been reluctant to intercede, even when economic disruptions costs have been high.

New Source Performance Standards

Along with the various standards for existing sources, the Clean Water Act required the EPA to issue limitations governing new sources. For new sources, the controlling standard is best available demonstrated control technology, BACT.

When the EPA issued its **New Source Performance Standards** (NSPSs), it disappointed many environmental groups. Many of these standards were essentially identical to the standards for existing sources. Environmentalists wanted the standards to be much higher, but the standards were upheld as reasonable. The courts did require the EPA to reconsider part of its regulations because the Agency had completely failed to consider new technologies installed in new sources. These include recycling systems that essentially eliminate the discharge of all wastewater.

Congress did give one special consideration in the statute to new sources. Under CWA § 306(d), 33 U.S.C. § 1316(d), if construction of a new source begins on October 17, 1972 or later, and if the construction meets applicable environmental standards at the time it begins, the standards in effect on the date that construction is begun remain the only controlling standards for a period of 10 years. This protects those who build new sources from having technology constantly upgraded while construction is ongoing.

LEGAL TERMS

New Source Performance Standards (NSPSs) The standards for pollution control required under the Clean Water Act for new sources. The basic standard for new sources is best available demonstrated control technology (BACT).

Publicly Owned Treatment Works

Like other point sources, publicly owned treatment works are subject to the Clean Water Act. For toxic pollutants, POTWs must meet the same standards as private sources: BAT. For conventional pollutants, however, POTWs are subject to a somewhat different standard, because they must have "secondary treatment."

The key leverage that the EPA has over POTWs is funding. Up to 80 percent of funding for POTWs is federal. Because of this, POTWs are under pressure to comply with federal standards. However, POTWs face no pressure to go beyond federal standards. Indeed, the EPA has not been enthusiastic about funding experimental technologies even if they can go beyond the norms set by the Clean Water Act. Municipalities that ask to go beyond statutory requirements must justify any additional expenditures in terms of improvements to public health and water quality before the Agency will extend funding.

The EPA's primary problem has not been municipalities trying to go beyond the statutory requirements, but municipalities unwilling to meet these norms. Even with its funding leverage, the EPA has had to force municipalities to meet the statutory secondary treatment requirement. In the mid-1980s, hundreds of municipalities had not yet reached this standard. The EPA responded by launching a major initiative to bring POTWs into compliance, or at least put them on a schedule for achieving compliance. These efforts have produced some favorable results, but many POTWs have yet to achieve secondary treatment levels. Unfortunately, many of the areas where there is the greatest need for treatment show the greatest resistance to higher costs. Ratepayers and voters are reluctant to accept higher rates, even when necessary to avoid the fines that the EPA can impose on noncomplying facilities. Several communities have argued in court that the costs of achieving compliance are so high that it is impossible for them to comply with the Clean Water Act standards. The courts have refused to accept this claim. The cost of installing secondary treatment equipment is a burden, but it does not create a defense of impossibility. *See United States v. City of Hoboken*, 675 F. Supp. 189 (D.N.J. 1987).

Variations

The Clean Water Act shares one feature in common with all statutes. One of the purposes of the Clean Water Act is to set uniform standards, rather than allowing each industrial plant in the country to have its own standard based on whatever factors it considers important. Section 301 of the Clean Water Act, 33 U.S.C. § 1311, requires the EPA to promulgate standards for various categories of industries. Of necessity, such standards are written based on the norms of a given industry. They exclude or discount factors unique to a given plant.

To mitigate the hard-and-fast rules of statutes, the EPA frequently uses variances. Whether and when such variances should be allowed is a difficult question. On the one hand, variances can assure substantial justice to parties which would otherwise suffer unreasonable hardships if the statute was applied too

strictly. On the other hand, used too freely, variances can become loopholes that emasculate standards.

In setting the limitations under the Clean Water Act, the EPA moved very quickly through a tremendous range of information. The resulting standards were roughly crafted. To lessen the burdens on plants affected by these regulations, the EPA allowed for variances if a party could show factors fundamentally different from those that the EPA considered in setting the regulatory standards.

In an apparent effort to control the EPA's power to allow variances, in 1977 Congress adopted CWA § 301(l), 33 U.S.C. § 1311(l), which provides: "The Administrator may not modify any requirement of this section as it applies to any specific pollutant which is on the toxic pollutant list under § 1317(a)(1) of this title." Although this language appeared to preclude the use of **fundamentally different factor variances** (FDF) for sources generating toxic substances, the EPA continued its practices of allowing FDF variances.

In *Chemical Manufacturers Ass'n v. Natural Resources Defense Council, Inc.*, 470 U.S. 116 (1985), the Supreme Court specifically upheld the EPA's construction of § 301(l), 33 U.S.C. § 1311(l), holding that the prohibition against modifying the toxic pollutant limitations did not prohibit the EPA from allowing variances if a source could show fundamentally different factors.

Read literally, a bar against modifying standards would make it impossible for the EPA ever to revise its own standards—an absurdity because the Act orders the EPA to update its regulations. Based on this, the Court ruled that *modify* did not have a plain meaning, and deferred to the EPA, finding that Congress ordered the Agency to interpret and apply the statute. The Supreme Court analyzed the EPA's practice of allowing fundamentally different factor variances and found that this practice would not frustrate the statute. Indeed, it let the Agency do necessary fine-tuning.

The Court's decision was more practical than purely legal. Unless it could grant variances, the EPA would have to create hundreds of subcategories. This would mean de facto variances, but with much more work.

Environmentalists blasted this decision, saying it "deconstructed" CWA § 301(l). That section meant something; the language suggests that Congress intended to end the EPA's power to grant variances. Congress may well have recognized the dislocation that would come from barring variances and accepted these as a cost of cleaning up the nation's waters. Congress intended to force technology. That will not happen unless industry is forced to adopt new technology.

One feature Congress explicitly permitted in the Clean Water Act is that states can administer their own programs under general EPA supervision; any state can impose water quality standards higher than those called for by the EPA,

LEGAL TERMS

fundamentally different factor variances (FDF) An EPA variance which the EPA allows for existing sources. The EPA may modify permit requirements to reflect differences among sources based on a showing that a given source presents factors fundamentally different from those found at other sources.

CHEMICAL MANUFACTURERS ASSOCIATION
v.
NATURAL RESOURCES
DEFENSE COUNCIL, INC.
United States Supreme Court
470 U.S. 116 (1984)

These cases present the question whether the Environmental Protection Agency (EPA) may issue certain variances from toxic pollutant effluent limitations [proclaimed] under the Clean Water Act.

As part of a consolidated lawsuit, respondent Natural Resources Defense Council (NRDC) sought a declaration that § 301(l) of the Clean Water Act prohibited EPA from issuing "fundamentally different factor" (FDF) variances for pollutants listed as toxic under the Act. Petitioners EPA and Chemical Manufacturers Association (CMA) argued otherwise. To understand the nature of this controversy, some background with respect to the statute and the case law is necessary.

The Clean Water Act, the basic federal legislation dealing with water pollution, assumed its present form as the result of extensive amendments in 1972 and 1977. For direct dischargers—those who expel waste directly into navigable waters—the Act calls for a two-phase program of technology-based effluent limitations, commanding that dischargers comply with the best practicable control technology currently available (BPT) by July 1, 1977, and subsequently meet the generally more stringent effluent standard consistent with the best available technology economically achievable (BAT).

Indirect dischargers—those whose waste water passes through publicly owned treatment plants—are similarly required to comply with pretreatment standards promulgated by EPA under § 307 of the Act for pollutants not susceptible to treatment by sewage systems or which would interfere with the operation of those systems. ... EPA has set effluent limitations for indirect dischargers under the same two-phase approach applied to those discharging waste directly into navigable waters.

Thus, for both direct and indirect dischargers, EPA considers specific statutory factors and promulgates regulations creating categories and classes of sources and setting uniform discharge limitations

for those classes and categories. ... Some plants may find themselves classified within a category of sources from which they are, or claim to be, fundamentally different in terms of the statutory factors. As a result, EPA has developed its FDF variance as a mechanism for ensuring that its necessarily rough-hewn categories do not unfairly burden atypical plants. Any interested party may seek an FDF variance to make effluent limitations either more or less stringent if the standards applied to a given source, because of factors fundamentally different from those considered by EPA in setting the limitation, are either too lenient or too strict.

The 1977 amendments to the Clean Water Act reflected Congress'[s] increased concern with the dangers of toxic pollutants. The Act, as then amended, allows specific statutory modifications of effluent limitations for economic and water-quality reasons in §§ 301(c) and (g). Section 301(l), however, added by the 1977 amendments, provides:

"The Administrator may not modify any requirement of this section as it applies to any specific pollutant which is on the toxic pollutant list under section 307(a)(1) of this Act."

In the aftermath of the 1977 amendments, EPA continued its practice of occasionally granting FDF variances for BPT requirements. The Agency also promulgated regulations explicitly allowing FDF variances for pretreatment standards and BAT requirements. Under these regulations, EPA granted FDF variances, but infrequently.

* * *

Section 301(l) states that EPA may not "modify" any requirement of § 301 insofar as toxic materials are concerned. EPA insists that § 301(l) prohibits only those modifications expressly permitted by other provisions of § 301, namely, those that § 301(c) and § 301(g) would allow on economic or water-quality grounds. Section 301(l), it is urged, does not address the very different issue of FDF variances. This view of the agency charged with administering the statute is entitled to considerable deference; and to sustain it, we need not find that it is the only permissible construction

that EPA might have adopted but only that EPA's understanding of this very "complex statute" is a sufficiently rational one to preclude a court from substituting its judgment for that of EPA.

NRDC insists that the language of § 301(l) is itself enough to require affirmance of the Court of Appeals, since on its face it forbids any modifications of the effluent limitations that EPA must promulgate for toxic pollutants. If the word "modify" in § 301(l) is read in its broadest sense, that is, to encompass any change or alteration in the standards, NRDC is correct. But it makes little sense to construe the section to forbid EPA to amend its own standards, even to correct an error or to impose stricter requirements. ... Since EPA asserts that the FDF variance is more like a revision permitted by § 307 than it is like a § 301(c) or (g) modification, and since, as will become evident, we think there is a reasonable basis for such a position, we conclude that the statutory language does not foreclose the Agency's view of the statute. We should defer to that view unless the legislative history or the purpose and structure of the statute clearly reveal a contrary intent on the part of Congress.

After examining the wording and legislative history of the statute, we agree with EPA and CMA that the legislative history itself does not evince an unambiguous congressional intention to forbid all FDF waivers with respect to toxic materials.

Neither are we convinced that FDF variances threaten to frustrate the goals and operation of the statutory scheme set up by Congress. The nature of FDF variances has been spelled out both by this Court and by the Agency itself. The regulation explains that its purpose is to remedy categories which were not accurately drawn because information was either not available to or not considered by the Administrator in setting the original categories and limitations. An FDF variance does not excuse compliance with a correct requirement, but instead represents an acknowledgment that not all relevant factors were taken sufficiently into account in framing that requirement originally, and that those relevant factors, properly considered, would have justified—indeed, required—the creation of a subcategory for the discharger in

question. ... It is, essentially, not an exception to the standard-setting process, but rather a more fine-tuned application of it. [Fn. 29: As EPA itself has explained:

"No discharger ... may be excused from the Act's requirement to meet ... a pretreatment standard through this variance clause. A discharger may instead receive an individualized definition of such a ... standard where the nationally prescribed limit is shown to be more or less stringent than appropriate for the discharger under the Act."]

We are not persuaded by NRDC's argument that granting FDF variances is inconsistent with the goal of uniform effluent limitations under the Act. Congress did intend uniformity among sources in the same category ... EPA, however, was admonished to take into account the diversity within each industry by establishing appropriate subcategories.

EPA and CMA point out that the availability of FDF variances makes bearable the enormous burden faced by EPA in promulgating categories of sources and setting effluent limitations. Acting under stringent timetables, EPA must collect and analyze large amounts of technical information concerning complex industrial categories. Understandably, EPA may not be apprised of and will fail to consider unique factors applicable to atypical plants during the categorical rulemaking process, and it is thus important that EPA's nationally binding categorical pretreatment standards for indirect dischargers be tempered with the flexibility that the FDF variance mechanism offers, a mechanism repugnant to neither the goals nor the operation of the Act.

Viewed in its entirety, neither the language nor the legislative history of the Act demonstrates a clear congressional intent to forbid EPA's sensible variance mechanism for tailoring the categories it promulgates. In the absence of a congressional directive to the contrary, we accept EPA's conclusion that § 301(l) does not prohibit FDF variances. That interpretation gives the term "modify" a consistent meaning in §§ 301(c), (g), and (l), and draws support from the legislative evolution of § 301(l) and from congressional silence on whether

it intended to forbid FDF variances altogether and thus to obviate our decision in *DuPont*.

Here we are not dealing with an agency's change of position with the advent of a different administration, but rather with EPA's consistent interpretation since the 1970's. ... [W]e do not sit

to judge the relative wisdom of competing statutory interpretations. Here EPA's construction, fairly understood, is not inconsistent with the language, goals, or operation of the Act. Nor does the administration of EPA's regulation undermine the will of Congress.

Case Questions

1. What did the NRDC want to prohibit the EPA from doing?
2. What does the Clean Water Act require direct discharges to comply with by what dates?
3. Why did the EPA develop FDF variances?
4. The Court ruled that the EPA's interpretation of the Clean Water Act is entitled to considerable deference. Why was the EPA entitled to this deference?
5. What does the Court indicate that it would have to find before it would overturn the EPA's reading of the Clean Water Act?

even if the cost is dislocation in the state's economy. This suggests that Congress understood and accepted the costs of the Clean Water Act, and that the courts should not allow the EPA to create variances if the statute does not support them.

In 1987, Congress amended the Clean Water Act to ratify the Supreme Court's holding in *Chemical Manufacturers Association*. The EPA's power to grant FDF variances is now codified in § 301(n), 33 U.S.C. § 1311(n). This provision allows the EPA a safety valve, sparing it from having to create separate subcategories whenever a facility shows that it is fundamentally different from other facilities in the same category. This power to grant variances allows the EPA to avoid administrative burdens of data collection and analysis, modification and repositioning of existing rules, and the like.

Although the EPA does grant variances for existing sources, it does not allow variances from New Source Performance Standards. The courts have upheld this position, ruling that Congress intended the rules for new sources to prohibit inferior technologies. The courts have found a marked difference between the language of CWA § 301, 33 U.S.C. § 1311, governing existing sources, and the more prohibitory language of CWA § 306, 33 U.S.C. § 1316, governing new sources. This is partly a matter of statutory interpretation, but also partly one of policy making. A new source should meet NSPS; if it cannot meet NSPS, it should not be built.

Mere economic difficulty is not enough to support a variance. The EPA insists that ability to pay for technology is not a factor in determining whether a source should be allowed an FDF variance, and the Supreme Court has upheld this position. The Court construed the Clean Water Act to require the EPA to demand that every point source achieve at least BPT based on the average of the best performers in that industrial category. Necessarily, this standard means that the

most pollution-prone segment of the industry will be required to install rigorous and potentially very expensive controls. In adopting this statutory requirement, Congress knew that many sources would have to shut down because they could not afford to comply with the statutory requirements. To grant a plant a variance because it cannot pay the cost of cleaning up its operations would perpetuate the problem the Clean Water Act was intended to remedy.

Another factor that the EPA will not consider as a basis for granting a variance is a claim that the quality of **influent** (the water flowing into a plant) is substantially different. Various facilities have argued that because the water they receive is already heavily polluted, they should be allowed to emit wastewater that is more polluted than would be allowed otherwise. Both the EPA and the courts have rejected this argument. *Appalachian Power Co. v. Environmental Protection Agency*, 671 F.2d 801 (4th Cir. 1982); *Crown Simpson Pulp Co. v. Costle*, 642 F.2d 323 (9th Cir. 1981). The courts have also rejected a variant of this argument. Some POTWs claim that because the wastewater they receive is much cleaner than the norm, requiring them to install full secondary treatment equipment amounts to treatment for the sake of treatment. These POTWs asked the courts to excuse them from installing full secondary treatment. The courts rejected the request.

In the end, much of the debate about allowing variances was rendered moot when the EPA concluded that BPT for several industries was the equivalent of BAT. These industries included leather tanning, ore mining, and some categories in the petroleum industry. In many cases, the determination was made on the basis of findings that troubled environmentalists: that industry eliminated toxic substances through volatilization or through sludge precipitation in POTWs. With both of these processes, the toxic pollutant is merely transferred from one medium to another. It is not rendered nontoxic.

Excursion and Upsets

Sooner or later, any technology will fail. Because breakdowns are inevitable, technology-based systems such as those imposed by the Clean Water Act must accommodate technological failures. However, because the goal of the Clean Water Act is to achieve the highest degree of cleanup possible, allowances under the statute must be narrow. They must not be so sweeping that they open the door to the erosion of statutory standards.

The EPA has always recognized that it must make some provision for breakdowns. If a pollution control system fails through no fault of the permittee, enforcement fines should not be used as they would be if the permittee were at fault. In its regulations, the EPA has provided for two types of breakdowns: by-passes and upsets.

LEGAL TERMS

influent The water flowing to a plant, into which the plant will discharge its wastes. The water then flows from the plant as effluent.

A **bypass** occurs when a source intentionally diverts a waste stream from a treatment facility. Note that a *bypass* is defined as the diversion of a waste stream from *any portion* of a treatment facility. Bypasses can occur on a scheduled basis, as part of planned maintenance; or on an unscheduled basis, such as when a treatment system breaks down.

An **upset** is an incident in which there is an unintentional and temporary noncompliance with technology-based limitations because of factors beyond the control of the source. For example, assume that one day the influent water a plant receives is far more polluted than usual, and for that day the plant cannot meet its effluent limitations. This is an upset. An *upset* is defined to exclude noncompliance due to operational error, improper design of treatment facilities, inadequacy of facilities, lack of preventive maintenance, or careless or improper operation.

The Clean Water Act anticipates that in some incidents a permittee will exceed permit guidelines. The statute specifically directed the EPA, in setting limitations, to consider the age of equipment and facilities involved, engineering aspects, and process changes. Given these statutory guidelines, the courts have held that the EPA must make some allowances for exceptional situations in which a permittee violates its guidelines through no fault of its own.

Originally, however, the EPA sought to deal with bypasses and upsets without formalizing its policies in the regulations. It promised that it would exercise prosecutorial discretion in handling permit violations when the permittee claimed an upset or bypass. Permittees contended that this amounted to no more than a pledge that the EPA would be nice. Legally, it guaranteed nothing. The courts agreed, ruling that the statute required the EPA to develop formal policies that would be binding on the Agency as well as on outsiders. *Marathon Oil Co. v. Environmental Protection Agency*, 564 F.2d 1253 (9th Cir. 1977).

The EPA responded by putting rules for bypasses and upsets into the general NPDES regulations, rather than in the guidelines for each specific industry. This meant that the final permit issuer (generally a state agency or an EPA regional office) would have discretionary authority in applying the standards. Industry groups objected, claiming that this gave too much discretion to permit issuers. The courts upheld the EPA placement, ruling that the Agency had to provide some exceptions to regulatory mandates, but leaving the EPA the discretion to decide where these exceptions would be placed in its regulations. *American Petroleum Institute v. Environmental Protection Agency*, 661 F.2d 340 (5th Cir. 1981).

Putting rules for upsets and bypasses in the general NPDES guidelines was also procedurally workable. It allows an affirmative defense to any prosecutions under

LEGAL TERMS

bypass An intentional diversion of wastewater from a treatment facility or any portion thereof so that untreated or less-than-fully treated wastewater flows directly into a waterway. A bypass might occur because a permittee has to shut down equipment for maintenance.

upset An unintentional and temporary noncompliance with technology-based limitations because of factors beyond the control of the source. An upset could occur because the water that a plant receives is far more polluted than usual, so that for that one day the plant cannot meet its effluent limitations.

the Clean Water Act. This did not shift the burden to the EPA to prove at the outset that a permit violation was not a bypass or upset.

AMERICAN PETROLEUM INSTITUTE

v.

ENVIRONMENTAL PROTECTION AGENCY

United States Court of Appeals, Tenth Circuit
540 F.2d 1023 (10th Cir. 1976)

We consider both the statute and its legislative history. ... In the discussion which follows, the guiding star is the intent of Congress to improve and preserve the quality of the Nation's waters. All issues must be viewed in the light of that intent.

* * *

The grounds upon which the agency acted must be clearly disclosed in, and sustained by, the record. ... If the agency's construction of the controlling statute is "sufficiently reasonable", it should be accepted by the reviewing court.

* * *

The basic dispute between the Refineries and EPA is whether the regulations are § 301 effluent limitations or § 304 guidelines. EPA contends that the regulations are uniformly applicable throughout the nation and, with some exceptions, must be mechanically cranked into each permit by the issuer. The Refineries insist that the regulations are guidelines for the information and consideration of, but not binding on, the permit issuer [i.e., the state]. In essence, the conflict concerns national uniformity versus state power and responsibility.

The Act is ambivalent. Section 101(a) refers to the "integrity of the Nation's waters," "the national goal," and "the national policy." Section 101(b) declares the policy of Congress "to recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution." ...

The Act is ineffective unless somebody fixes effluent limitations. The Administrator has done so and we have upheld his authority. If the limitations must be applied automatically to each permit application, the Act destroys rather than preserves

the rights of the states which § 101(b) says that Congress protects. If each state may go its own way, the national policy declared by § 101(a) is inhibited. Some accommodation is necessary.

... EPA limitations are presumptively applicable and controlling unless rebutted by a permit applicant. The burden is thus placed on an applicant to convince the permit issuer that the general limitations do not apply to his particular situation.

* * *

Our holding is that the Administrator had authority to promulgate the limitations for existing sources and that the effect of the regulations so promulgated is not contrary to the Act. In particular instances, modification or variation may be necessary. ...

The regulations impose effluent limitations in terms of single numbers rather than in a range of numbers. The Refineries point out that § 304(b) requires EPA to publish "regulations, providing guidelines for effluent limitations."

* * *

The Refineries attack the 1977 step variance provisions These provisions are substantially identical to similar provisions found in each of the categories and subcategories covered by EPA regulations under the Act.

* * *

The Refineries do not make clear their reasons for attacking the regulatory variance regulations for the 1977 step. The statute says nothing about variances for that step. [T]he 1977 variance provisions are a valid exercise of EPA's rule-making authority under § 501(a). [V]ariations are appropriate to the regulatory process and ... the 1977 BPT technology may not be construed more stringently than the 1983 BAT technology.

* * *

The statutory mandate for 1977 is "best practicable control technology currently available."

Refineries say that EPA must look to the average of the industry and EPA says that it may look to the average of the best technology used in the industry.

With varying language the circuits agree that EPA may base its regulations on the results from the plants using the best technology.

Case Questions

1. What standard does this court articulate as the controlling standard for deference to administrative agency interpretations of statutes?
2. What was the conflict between §§ 101(a) and 101(b)?
3. Did the court give the authority to set binding effluent limitations to the state or to the EPA?
4. What outlet did the court allow for special cases?
5. What basis did the industry want to use for determining best practical technology standard?
6. What did the EPA want to use as the basis for setting the best practical technology standard?

In many cases, defendants have claimed that permit violations were caused by upsets and bypasses, thus asserting an affirmative defense. In some of these cases, the courts have shown little sympathy, because the record showed widespread and frequent violations stemming from failure to install or maintain pollution equipment rather from a legitimate bypass or excuse. In these cases, the courts have been understandably reluctant to find the sort of temporary or exceptional condition that the regulations contemplate. *Chesapeake Bay Foundation, Inc. v. Bethlehem Steel Corp.*, 652 F. Supp. 620 (D. Md. 1987); *Student Public Interest Research Group v. Jersey Central Power & Light Co.*, 642 F. Supp. 103 (D.N.J. 1986).

Part of the EPA's reluctance to allow bypasses, even under limited circumstances, is that any bypass means that wastewater is released without treatment. For a partial bypass, only part of the treatment process is lost. For a total bypass, though, wastewater is released entirely without treatment.

The EPA opposes bypasses even when they do not cause the permittee to exceed effluent limitations. The EPA has pressed this policy, arguing that any other position would not encourage the development of more effective technologies. Further, the Clean Water Act shows a clear underlying policy: water pollution is intolerable. Given this congressional directive, the EPA must try to eliminate pollution, not merely enforce compliance with permit standards. The courts have upheld this position. *National Resources Defense Council, Inc. v. United States Environmental Protection Agency*, 859 F.2d 156 (D.C. Cir. 1988).

The EPA regulations regarding bypasses provide only a limited affirmative defense. The permittee will be excused if it violates the technology-based limitations on its own point source permit, but will not be allowed to violate the water quality standards of the streams to which it discharges. This distinction may seem quite artificial, but the courts have upheld the EPA's position. When the EPA adopted this position, industry groups sued, demanding that the EPA treat upsets breaching plant effluent limitations and upsets breaching stream water quality standards in the same way. The courts responded by requiring these industry plaintiffs to show some suggestion in the language of the Clean Water

Act that Congress wanted to allow exceptions to the water quality standards. The courts found no such suggestion. Instead, Congress appeared determined to force all point source permittees to adopt technologies to eliminate discharges that would violate water quality standards. In this ruling, the courts accepted the EPA's interpretation of the statute as not allowing an exception to the water-quality based standards. *National Resources Defense Council, Inc. v. Environmental Protection Agency*, 822 F.2d 104 (D.C. Cir. 1987); *Chesapeake Bay Foundation Inc. v. Bethlehem Steel Corp.*, 652 F. Supp. 620 (D. Md. 1985).

By contrast, the courts did find that the EPA had erred in the procedure by which it denied defenses of this sort, showing that the courts continue to insist that the EPA follow proper administrative procedures. *National Resources Defense Council, Inc. v. United States Environmental Protection Agency*, 859 F.2d 156 (D.C. Cir 1988). Without discussing any record evidence to support its position, the EPA had dismissed the very idea of defenses to water quality standards as impractical, and summarily disallowed such defenses. Finding that the EPA had no evidence to support its conclusion, the courts ruled that the EPA had acted without adequate grounds. The Agency was ordered to reconsider its position.

The EPA also included in the regulations a very effective means of restricting the use of any affirmative defense concerning bypasses. To take advantage of the regulatory affirmative defense, a permittee must report any planned bypass at least 24 hours in advance, and any unplanned bypass or any upset within 24 hours of its occurrence. See *Public Interest Research Group v. United States Metals Refining Co.*, 681 F. Supp. 237 (D.N.J. 1987). This reporting requirement has helped limit use of this defense by showing which permittees have large numbers of upsets. Permittees must make a record of their failures and that record can be used to show that any given upset was not an unusual occurrence.

**STUDENT PUBLIC INTEREST RESEARCH
GROUP OF NEW JERSEY, INC.**

v.

JERSEY CENTRAL POWER & LIGHT COMPANY
United States District Court, D. New Jersey
642 F. Supp. 103 (D.N.J. 1986)

[Plaintiffs brought suit, claiming numerous Clean Water Act violations.]

The NPDES/NJPDES permits require that defendants submit monthly "Discharge Monitoring Reports" (DMR's), which defendants have been doing since 1977. In the event of a failure to comply with permit requirements, permit holders must notify EPA and NJDEP in writing within five days of becoming aware of the non-compliance. These are called Non-compliance Reports, (NCR's).

Plaintiffs presently move for partial summary judgment asserting that defendant's DMR's and NCR's demonstrate 257 violations of their permits. Plaintiffs contend that defendants have recognized the seriousness of their non-compliance, as evidenced by their filing on May 11, 1981 of an interoffice memo, stating that "non-compliance with our NPDES permit at Oyster Creek is a serious problem. ... [B]oth EPA and DEP have threatened JCPL with enforcement action if the current trend continues." Plaintiffs demonstrate 74 more violations of their permit subsequent to the date of this memorandum.

* * *

Defendants argue vigorously that both the conditions of their permit and the EPA's "upset"

regulation raise genuine issues of material fact as to whether permit violations upon which plaintiffs base this action are excused. Defendants assert that the vast majority (if not all) of the reflected violations are the result of either the unanticipated demand upon the Sewage Treatment Plant (STP) at Oyster Creek or the unanticipated corrosion problem with certain intake screens which affected intake velocity of water at the plant. ... This Court agrees with plaintiffs' argument that the only persuasive source of such law appears in the EPA "upset" regulation. Under 40 C.F.R. § 122.4(n), an "upset" is defined as:

[A]n exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include non-compliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

This Court determines that there is no genuine issue of material fact and that plaintiffs have established that there is nothing "temporary" about defendants' noncompliance with the "effluent limitations" of its permit. ... Furthermore, defendants' own argument demonstrates that the two major failures of its facility fall squarely within the provisions of the final sentence of the above regulation which sets forth what "[a]n upset does not include." Accordingly, no "upset" excuses or exclusions are available to the defendants to defeat the plaintiffs' summary judgment motion, either in whole or in part.

... Plaintiffs have successfully demonstrated that defendants' 257 violations of their NPDES/NJPDES permit are in violation of § 301 of the FWPCA, 33 U.S.C. § 1311. Accordingly, this Court shall grant plaintiffs' motion for partial summary judgment.

Case Questions

1. What two kinds of documents did the plaintiffs rely on to establish that the defendants had violated their NPDES permit?
2. According to the evidence that the plaintiffs presented, how many times had the defendants violated their NPDES permit?
3. What did the court say about the argument that the "upsets" at the defendants' facility were temporary?
4. Which provisions of the "does not include" material in the regulations did the defendants' violation come under that would have excluded them from the definition of *upsets*?

The Permit System

In the Clean Water Act, Congress declared that the discharge of any pollutant by any person was unlawful. That simple prohibition, contained in § 301 of the Clean Water Act, 33 U.S.C. § 1311, represents a long-term goal, not something to be achieved immediately.

To achieve the goal of eliminating water pollution, Congress included Clean Water Act § 402, 33 U.S.C. § 1342, which creates the National Pollution Discharge Elimination System (NPDES). Under NPDES, no pollutant can be released unless the release is authorized in an NPDES permit. Under CWA § 402(a), 33 U.S.C. § 1342(a), the EPA is empowered to issue permits. Anyone releasing pollutants either without a permit or in violation of permit terms is subject

to fines, criminal prosecution, and other sanctions. Under CWA § 402(b), 33 U.S.C. § 1342(b), the EPA can authorize any state to set up its own program, as long as the program meets conditions necessary to maintain consistency with the basic standards set out in the Clean Water Act. Under CWA § 402(d), 33 U.S.C. § 1342(b), the EPA can veto any state-issued permit that would contravene the Clean Water Act.

Every point source must have an NPDES permit. The effluent limitations established under the Clean Water Act are applicable to all point sources. This makes the definition of a point source one of the critical questions in defining the scope of the Clean Water Act.

Early on in the administration of the Clean Water Act, the EPA found it faced much more work implementing the various clean water programs than it had anticipated. The EPA responded to this onerous workload by attempting to limit the range of permits it had to issue. Initially, the Agency proposed regulations to exempt a wide variety of sources from having to have permits. The regulations exempted from permits essentially all wastewater arising from agricultural operations except irrigation operations covering more than 3,000 acres, and all storm sewer systems not servicing commercial or industrial activities.

In *Natural Resources Defense Council, Inc. v. Costle*, 568 F.2d 1369 (D.C. Cir. 1977), environmentalists sued the EPA, contending that the Agency did not have the discretion to exempt such sweeping ranges of sources from regulation. The EPA argued that the inclusion of these sources would cause a tremendous increase in the work that the Agency had to handle in issuing permits, putting an extraordinary burden on the Agency's limited resources. Further, the EPA argued that these sources were not suitable for regulation because the permittees had essentially no control over the amount of water they emitted. The sources largely were at the mercy of the weather, so output levels were very unpredictable.

In *NRDC v. Costle*, the court ruled that the EPA had abused its discretion in exempting so many sources. This ruling contrasts with the broad grants of discretion that the courts have allowed the EPA in many respects in its administration of the statute. The court in *Costle* ruled that Congress intended the Clean Water Act to be a comprehensive law, and this intent could not be reconciled with a permit system that completely exempted whole classes of point sources. Essentially, the discretion the courts have allowed the EPA is discretion to choose among various possible courses of action; this does not include discretion to refuse to act.

The court in *NRDC v. Costle* did allow the EPA some relief from normal bureaucratic burdens, however. Precise numerical effluent limitations are often infeasible because of the many variables contributing to certain sources. In such cases, the court said the EPA had the authority under CWA § 402(a), 33 U.S.C. § 1342(a), to set conditions necessary to reduce the level of effluent discharges to acceptable levels. This could take the form of opting for gross reductions in pollutant levels. What the EPA could not do, however, was to refuse to act. Notably, Congress has since amended the Clean Water Act to allow an exemption for agricultural storm water discharges and return flows from irrigated agriculture. See Clean Water Act § 502(14), 33 U.S.C. § 1362(14).

Further, the EPA was allowed to issue area or general permits covering many sources. The courts regarded this as definitively better than exemptions. An exemption would let entire classes of sources go without any action, whereas a permit would at least impose some controls. Further, because the maximum term for any permit is five years, even sources under general permits would be revisited periodically.

In upholding the permit system, and in requiring the EPA to administer it aggressively, the courts in *Costle* and many other cases have admitted that the power to issue a permit is in many cases the power to require certain technologies. Any limitation on the amount of pollutant a permittee may release forces the permittee to modify its operations. Many industrial plants at one time disposed of much of their refuse simply by washing it down the drain. Consider food processing plants. Often, any food product that was discarded went into drains to be washed away. Any restriction on this practice forces plants to modify their operations. The authority to require plants to meet cleanup standards based on the best practicable technology are often tantamount to forcing permittees to adopt that technology. This is the practical effect, even though the statute does not give the EPA specific authority to require the adoption of technologies.

In a variety of other cases, the courts have held that the definition of *point source* covers a wide range of activities. Although the courts have not been entirely consistent in their views, they have generally taken the position that the definition of *point source* is to be regarded as essentially universal. Anything that can be treated as a point source is.

Additionally, the courts have considered the definition of *navigable waters*, and have treated this term as covering essentially all waters, going everywhere. They have effectively eliminated the adjective *navigable* from the statute. The term is now construed to include wetlands, even ones that are not inundated or frequently flooded. It includes any waterway where water could reasonably end up in a public body of water, including underground water. This also gives the EPA the authority to monitor waste streams while they are entirely internal to a permittee's plant.

Many of the most troubling point sources are operated by municipalities: generally, POTWs and storm sewer systems. Stormwater often contains very high levels of conventional pollutants, such as biological oxygen demand compounds, fecal coliform, and various nutrients common to lawn fertilizers and other chemicals. It also often contains toxic elements, as when it carries runoff from chemical plants or similar manufacturing facilities.

Even after the ruling in *NRDC v. Costle*, the EPA continued to neglect municipal stormwater runoff. Congress eventually responded with CWA § 402(p), 33 U.S.C. § 1342(p), which requires NPDES permits for stormwater runoff from industrial sources. Even the statute acknowledges that this vastly expanded governmental authority over small businesses, so it allowed a moratorium on NPDES permits until 1992.

The EPA also took advantage of the court's suggestion in *Costle* by adopting a policy of allowing large groups of industrial users to have group permits. The EPA has been particularly willing to issue group permits in the oil and gas industry.

Notably, the courts have ruled that the Clean Water Act does not give the EPA regulatory authority over nuclear materials. These remain under the exclusive control of the Nuclear Regulatory Commission (NRC).

General Questions on Permit Issuance

The key thrust of governmental efforts under the Clean Water Act has been the issuance of permits to restrict pollution coming from point sources. This permitting program is a very ambitious undertaking that has met with considerable resistance from affected groups.

Part of that resistance has centered on the EPA's power to veto permits issued by state authorities. The Clean Water Act calls for the EPA to approve state permitting programs, so that the state becomes the primary entity administering permit applications and deciding on the specific terms for the permit. These terms include guidelines for the precise amounts of various pollutants that will be tolerated. The Clean Water Act also says that the EPA is to retain a certain level of control over the state programs, but it does not indicate how this control is to be exercised. Given these ambiguities, a key issue in the NPDES system is the EPA's oversight role in state programs.

In establishing the NPDES system under the Clean Water Act, Congress tried to balance state and federal interests. On the one hand, it prescribed national effluent standards and empowered the EPA to establish detailed regulatory standards. On the other hand, it clearly showed that it wanted the states to play the primary role in issuing NPDES permits, leaving states "the primary responsibilities and rights ... to prevent, reduce, and to eliminate pollution."

As discussed earlier, the requirements that the Clean Water Act imposed on the EPA for developing various national effluent standards proved far more daunting and complex than either Congress or the EPA had initially anticipated. It was several years before the Agency could develop the detailed national effluent standards that the Act called for. Further, after many of the national effluent standards were proposed, industry groups challenged them in court. The courts remanded the standards to the EPA, which usually chose to start the process over, rather than attempt to resubmit challenged regulations for further court scrutiny.

The absence of national effluent limitations did not mean either that there was no pollution, or that there were no standards regulating the release of pollutants. Instead, permitting authorities acting under the NPDES permit regime continued to issue permits, and under their permitting authority they continued to set limits on pollutants. They based these permits on their **best professional judgment (BPJ)**. However, because the exercise of best professional judgment was on a case-by-case basis, plants could often negotiate individualized standards. The result was a relatively comfortable permit under which the plant did not face unduly stringent limitations and pollution levels sometimes remained frustratingly high. For plants with relatively sophisticated pollution control

LEGAL TERMS

best professional judgment (BPJ) The standard used by the EPA in setting early permits.

technologies, permits imposed limits little different from those the plant would have received under a permit based on a national effluent standard. Plants with less effective pollution control equipment were able to bargain for permits imposing more lax requirements. The resulting permit system did not have the national uniformity called for under the Clean Water Act, but it did make some progress in terms of controlling pollution while the EPA gradually developed its system for promulgating standards.

Before the EPA could complete the national effluent standards, many states were ready to assume responsibility for issuing NPDES permits. As called for in the Clean Water Act, the EPA authorized these states to administer their own programs. State programs were required to follow certain guidelines, including guidelines concerning procedural regularity. For example, the state authorities were required to give notice of any proposed permits and to conduct public hearings. These were often quite informal, as the Clean Water Act did not require formal evidentiary hearings.

The EPA did retain supervisory authority over state programs. Under CWA § 402(c), 33 U.S.C. § 1342(c), the EPA can revoke its approval of a state permitting program if it determines that the state is not acting in accordance with the requirements of CWA § 402, 33 U.S.C. § 1342(c). This was an extreme penalty, to be used only on a showing of egregious refusal to comply with the CWA's strictures. Nevertheless, this broad grant of the power to revoke state programs implied the power to intervene in lesser ways. For example, if the EPA concluded that a state was not addressing issues such as interstate implications of a particular permit, it could take over issuance of that permit.

Most states now have approved programs under which they issue NPDES permits. Many of these impose certain procedural and substantive requirements beyond those called for in federally issued permits. Because of this, any legal professional addressing questions of the issuance or modification of permits must learn what both state and federal regulations require. In administering their permit programs, the states must be at least as stringent as the federal government, but each state has the power, under CWA § 510, 33 U.S.C. § 1370, to impose restrictions more stringent than those of federal law. The state authority has a "ratchet" feature: the states cannot lower standards, but they can raise them.

In granting the states authority to administer permit programs, the EPA did not give the states complete free rein. The EPA retains supervisory authority and, through its regional administrators, can veto any state-issued permit. Early on, however, this policy faced a problem. Because complete national effluent standards had not yet been promulgated, the EPA regional administrators had to rely on ad hoc applications of their best professional judgment. EPA regional administrators vetoed state permits that they concluded were too lax. Industry groups challenged these vetos. These groups wanted the states to have essentially independent authority for issuing permits. They apparently felt that a state, standing alone, would tend to heed industry arguments more than the EPA regional authorities would. They argued that once a state program was authorized to issue NPDES permits, each state was free to make its own determinations of what did or did not comport with the Clean Water Act, and claimed that the

EPA could not interfere with that determination until it had established complete effluent limitations.

Initially, the courts sided with industry, holding that the EPA's power to restrict the issuance of permits would have to await full promulgation of national effluent guidelines. The courts said that best professional judgment alone was not a valid basis for vetoing a permit issued by a state. Then, in *National Resources Defense Council, Inc. v. Environmental Protection Agency*, 859 F.2d 156 (D.C. Cir. 1988), the court reversed this view. The court ruled that, through its regional administrators, the EPA retained oversight and veto powers based on best professional judgment. In reaching this conclusion, the court noted the Clean Water Act's mandate that, in any permits the EPA issued, the Agency exercise best professional judgment even in the absence of formally promulgated effluent limitations guidelines. States issuing permits stand in the shoes of the Agency. Therefore, the court reasoned, the states are bound to exercise the same authority. From this stricture in the Act, the court inferred that Congress intended for the EPA to retain supervisory authority, even if this was not specified in the Act, especially because technical complexities had forced the EPA to administer the Clean Water Act in ways not entirely intended by Congress when it initially adopted the Act.

In most cases in which the EPA set permit standards based on best professional judgment and a national effluent standard was later established, the national effluent standard was higher than the levels prescribed in the permit. However, in some case the permit level was higher. Recognizing this, Congress adopted CWA § 402(o), 33 U.S.C. § 1342(o), which specifically prohibits "backsliding." A permittee that had accepted a permit containing standards higher than those later formalized in regulations is not allowed to revert to the lower national effluent limitations levels.

Industry groups challenged the EPA's construction of CWA § 402(o), arguing that this provision should be applied prospectively only, so that no rules prohibiting backsliding could govern any permit issued before § 402(o) was adopted. The courts found that the Clean Water Act gave no precise indication as to whether the Congress intended § 402(o) to be retroactive. Relying on concepts of general administrative law, they ruled that the EPA acted reasonably in construing the Clean Water Act to give it the authority to prohibit backsliding. In taking this position, the courts have ruled that the EPA was not unreasonable in concluding that individual permits may be more accurate than rough-hewn national standards, but that the national standards do represent minimum levels imposed on all of industry. Further, the antibacksliding rules are clearly an effort to conform to the overall goal of the Clean Water Act, namely, cleaning up the nation's waters. Antibacksliding does undercut one of the goals of the Clean Water Act—that of national uniformity—but uniformity is a secondary goal, and it is reasonable that the EPA should sacrifice that goal in favor of the more important one, the cleaning up of the nation's waters. *National Resources Defense Council, Inc. v. Environmental Protection Agency*, 859 F.2d 156 (D.C. Cir. 1988).

The national effluent standards represent a floor. Any source with a permit that reflects its particular conditions must adhere to the more stringent of either the permit conditions set on the basis of best professional judgment or

the national standards. It is allowed to revert from the best professional judgment standards only if it can meet the stringent requirements of the “totally disproportionate” test for exceptions to Clean Water Act standards.

In practice, the presence of CWA § 402(o) may have an effect different from what Congress intended. Congress apparently intended this provision to serve as a ratchet. In practice, what it may do is make permit issuers more cautious than they would be otherwise. The argument for uniformity is not merely one of legal or administrative aesthetics. Often it reflects real-world considerations such as economics. A plant with a permit imposing standards substantially higher than those imposed on the plant’s competitors may be put at a serious economic disadvantage. To avoid this, permitting authorities have been cautious in setting permit standards, relying on the statute to bring them up to the national effluent limitations, but reluctant to go beyond those.

An NPDES permit is not a permanent license. The Clean Water Act specifically limits the term of a permit to five years. The purpose of this policy is to require the inclusion of new technologies in permits when they are renewed. In another administrative bottleneck which Congress had not specifically addressed, the EPA faced a huge backlog of renewal applications after the NPDES program had been in place for approximately five years. Unless these permits were extended, any discharge of any pollutant would become illegal, so that the source could be subjected to enforcement actions and penalties. To avoid this, the EPA adopted a blanket policy of “continuing” all permits that had come up for renewal. Although the Agency is not allowed to use continuances to eliminate the renewal requirements, it is allowed to use them until it has the resources to address the renewal problem.

The EPA has lessened part of the burden of renewals by adopting regulations stating that at least some regulatory requirements adopted while a permit is in effect are automatically incorporated into any renewal of the permit.

Administrative Issues

When the EPA or an authorized state agency acts on a party’s permit application, a party that is dissatisfied with the action can challenge it through judicial review. To do so, the party files an application for a hearing. This application must be filed within 90 days of the agency action or it will be considered untimely.

In this hearing, the party has the burden of showing that the agency action did not follow the Clean Water Act or the regulations. In the application, the party must raise a material issue of fact that some regulation or statute was violated. Once an application for a hearing has been filed, all administrative actions are stayed pending the hearing.

Members of the public can also petition for a hearing on any permit. A public application will not invoke a stay of a permit or other agency action unless the applicant for a hearing can show that irreparable harm will result unless a stay is issued.

An environmental impact statement is required in two cases: when there is federal financial assistance for the construction of POTWs and when a permit is issued for a new source. Environmental impact statements are not required for the issuance of permits on existing sources.

Water Quality Standards

Before adoption of the 1972 amendments that created the Clean Water Act, the emphasis of the law was on **water quality standards**. As explained earlier, the modern point source program concentrates on preventing sources from putting pollutants into the nation's waters. The pre-1972 law looked at dealing directly with those waters. Initially, Congress and various other groups apparently believed that the regulation of pollution sources through technology-based limitations would alleviate the problem of water pollution. However, by 1990, as the EPA finished promulgating various standards applying the technology-based approach, it became clear that many of the nation's most heavily used waterways remained polluted. In many situations, technology-based standards reduced the level of toxic pollutants coming from single sources, but there were so many sources that even aggressive controls over point sources did not protect water quality. When many sources dumped toxic pollutants into a small body of water, the result was pollution so severe that the waters were unusable except for basic navigation and heavy industry. Additionally, although the point-source program reduced point-source pollution dramatically, it did nothing to control nonpoint-source pollution.

In this situation, attention turned back to water-quality-based programs, that is, pollution programs based directly on the amount of pollution found in any given waterway. The key legislative provision driving this effort is CWA § 303, 33 U.S.C. § 1313, which authorizes the states to promulgate water quality standards.

A state water quality program involves a series of steps. First, a state divides all its waterways into designated segments. The state then designates a use for each segment. These uses vary from drinking, fishing, and other uses requiring very pure water to navigation and heavy industrial uses in which high levels of pollution are tolerable. The state then computes a "maximum daily load," the largest amount of pollutants that it will allow into the waterway in any given day. This load must be set so that it is compatible with the designated use. Finally, the state engages in an ongoing planning and permitting process in

LEGAL TERMS

water quality standards Media-quality based standards that look to quality in a specific body of water rather than to controls over discrete sources emitting pollution to the body of water.

which it translates the water quality standards into maximum daily loads allowable from each source along the segment of the waterway.

Designated Uses

Setting up segments and designating allowable uses for those segments is, in many ways, like a giant effort at zoning an entire city. States have developed complex systems for rating uses of waters, ranging from waters to be preserved in a state clean enough for drinking to industrial uses that will not support any aquatic life. The standards under which the states operate (CWA § 303, 33 U.S.C. § 1313) allow enough leeway for states to abandon some waterways to industrial and navigational uses only. For example, some major ship channels are so fouled that no fish can survive in them, but the surrounding commercial and industrial uses are so heavy that state authorities have concluded that the best way to address the problem is by relegating these waterways to uses that do not require the survival of any life forms. Generally, states have struggled to balance commercial and industrial uses with competing needs, trying to preserve or reclaim waterways as much as possible.

A designated use is part of a water quality standard. The EPA has review authority over all water quality standards. Presumably the EPA can intercede if it feels a state is being too lax in its handling of water quality standard issues. In setting water quality standards, states are to follow the criteria set out in CWA § 303(c)(2)(A), 33 U.S.C. § 1313(c)(2)(A), which calls for the authorities setting the standards to consider the value of waters for public water supplies, propagation of fish and wildlife, recreation, agriculture, industry, and navigation. Clearly, many of these uses conflict. Fish and wildlife generally cannot exist in waters heavily used by industry. The states promulgating regulations under this program have a great deal of leeway, which is needed to balance competing interests.

The overall national goal of the Clean Water Act is to make the waters of the nation fishable and swimmable, wherever this goal is attainable. Presumably, the EPA could intervene if a state disregarded this goal.

One of the most litigated problems with designated uses is that rivers flow from one state to another. Absent legal controls, upstream states have great power, which could be abused. By setting its water quality standards very low, an upstream state could effectively foul the waters of all downstream states. However, the states are sovereign. What right does a downstream state have to prohibit the upstream state from developing its own industry? To resolve this issue, the courts have adopted the interpretation that once the EPA approves the water quality standards of a downstream state, the standards become part of federal rather than state law. Using this rule, the EPA can require all upstream states to restrict any discharge that will cause the waters of an interstate stream to violate the downstream state's water quality standards at the state border. Also, because the EPA can disapprove the downstream state's proposed water quality standards, it can prevent them from becoming excessively burdensome on upstream states.

Similarly, where a river forms a common border between two states, it appears that the state that adopts the more stringent requirements will control, subject to the EPA's power to review and approve (or disapprove) state water quality standards.

Degradation of Waters

From as early as 1968, the federal government has taken the position that if a state designates water for a particular level of use, it may downgrade that use only on a showing of compelling social or economic need. Any new source discharging to such waters is required to incorporate the highest and best degree of waste treatment available under existing technology as a prerequisite to allowing the water to be degraded.

Current regulations have somewhat softened the absolutist attitude reflected in earlier regulations. A state now may not downgrade a designated use if that use is being met, or if it can be achieved through the use of technology-based standards along with the implementation of the best management practices for nonpoint source control. By contrast, a state may downgrade if it can show that it cannot attain the designated use. The EPA's regulations allow several scenarios for showing that a designated use cannot be attained. These include showing that naturally occurring pollutants prevent attainment of the designated use; that flow is not steady enough to allow for attainment; or that human conditions prevent attainment of the use and cannot be remedied, or can be remedied only by causing greater environmental damages than leaving current conditions in place.

Water Quality Criteria

Once the state has set a designation for a given segment of its waters, it must establish specific water quality criteria to achieve that designated use. These standards are usually expressed in terms of allowable numerical concentrations of pollutants. One of the most common concentrations stated in these standards is the amount of dissolved oxygen, because dissolved oxygen is a critical gauge of the health of water. Alternatively, states can give their water quality criteria in narrative form, although this carries a risk with it—language is subjective. What does water have to taste like to have an “unacceptable taste”?

The water quality criteria are intended to gauge overall water quality, not merely to be another means of controlling point sources. To this end, for various sources, the EPA has designated *mixing zones* in which it prohibits sampling. This does tend to weaken enforcement, because it means that in at least some areas, there are violations of the strict water quality standards. The EPA argues that

water quality standards are to measure **ambient** pollution (the pollution in the area surrounding the sources). Mixing-zone concentrations are necessary to assure that water quality measures gauge the ambient quality of the water rather than the quality of the particular sources mixing in pollutants.

The states must submit all proposed water quality standards to the EPA for approval. Further, each state must review all its standards every three years and submit the results of this review to the EPA. If a recalcitrant state fails to fulfill these responsibilities, the EPA can step in and impose standards.

Maximum Daily Loads

Once the state has established a water quality standard for a given segment, it must then establish the total maximum daily load for pollutants. This maximum daily load must be set to implement the water quality standard, although the standard must allow for seasonal variations and give a margin of safety. CWA § 303(d)(1)(C), 33 U.S.C. § 1313(d)(1)(C).

All this may sound like it involves a simple, straightforward calculation, in which the relevant state authorities compute the volume of water in the segment of the waterway and then set maximum daily loads based on that computation. In fact, it is a much more difficult process. Authorities must develop models that take into account such diverse factors as salinity levels and flow rates, because these and many other factors will affect dispersion. Often the best model involves a great deal of speculation. Because of the difficulty of this work, the states have not computed maximum daily loads for many of the most polluted streams in the nation. Partly, this stems from the fact that the calculations are so intimidating in their complexity that they invite authorities not to decide on anything.

All total maximum daily loads are subject to approval by the EPA, and the EPA can also impose its own maximum daily loads if the state proves recalcitrant. CWA § 303(d)(2), 33 U.S.C. § 1313(d)(2). Further, the state cannot revise a maximum daily load unless the revision is consistent with the antidegradation policy established in the EPA's regulations. This means that if the state underestimates the amount of pollution, it faces the burdensome task of justifying a degradation.

State Planning

Setting designated uses, establishing water quality criteria, and setting maximum daily loads are all general policy matters. They do not impose any particular requirements on any individual plant discharging waste into a given stream. Indeed, one of the problems of using water-quality-based standards is that, as long as there is more than one user, each user can claim that others are at fault. Every potential source of pollution can always give reasons why someone else

LEGAL TERMS

ambient Surrounding, background. The ambient level of pollution is the level of pollution found in a specific body of water independent of the pollution being introduced by a specific source.

caused the real problem. Industry argued that POTWs were the real culprits. POTWs blamed industry. Both blamed nonpoint sources such as agricultural operations and storm runoff.

When it implemented technology-based standards in 1972, Congress did not entirely abandon the concept of water-quality-based controls. Rather, it incorporated them into the permitting authority delegated to the states. Under Clean Water Act § 303(e), 33 U.S.C. § 1313(e), each state is to incorporate water quality considerations into its permitting process. Individual discharge permits are to reflect the CWA § 303(e) plan.

These plans have faced a problem. The EPA has little control over state programs. Although it can disapprove programs, the Clean Water Act does not give it authority to impose wholesale plans. The only effective club that the EPA has over the states is that it can withhold a state's POTW money. This is hardly a realistic threat, because it punishes recalcitrance in cleaning up a state's waters by making those waters dirtier.

As an alternative, under CWA § 302, 33 U.S.C. § 1312, the EPA can establish effluent limitations for individual point sources. However, from an administrative standpoint, this is completely unworkable. EPA processes are much too cumbersome to allow it to intervene directly in individual point source decisions. The result would be administrative chaos. Not surprisingly, the EPA has never used CWA § 302 in this manner.

Toxic Hot Spots

The technology-based approach did not solve all of the problems that Congress confronted. As criticism mounted, Congress responded by adopting CWA § 304(l), 33 U.S.C. § 1314(l), which requires that the EPA and the states address **toxic hot spots**. That section requires states to submit three lists to the EPA. In the first list, mandated under CWA § 304(l)(1)(B), 33 U.S.C. § 1314(l)(1)(B), the states were to list waters where point source pollution was so serious that the state could not meet water quality standards, despite the implementation of technology-based limitations, because of releases of pollutants from point sources. A second, somewhat longer list, required under CWA § 304(l)(1)(A)(i), 33 U.S.C. § 1314(l)(1)(A)(i), was to include water polluted by these point sources plus waters not meeting water quality standards because of discharges from nonpoint sources. A third list was to include all waters from the first two lists, together with any waters that would not meet the water quality goals of the Act notwithstanding the use of technology-based limitations.

Once the states develop these lists of toxic hot spots, they must take steps to bring them into basic compliance with water quality standards. First, the states must submit a determination of the specific point sources that are preventing the attainment of water quality standards and the amount of each toxic pollutant

LEGAL TERMS

toxic hot spots Portions of waterways in which toxic pollutants are found in high concentrations.

discharged by each source. Then, each state is to formulate an individual control strategy to reduce the discharge of toxic pollutants far enough to achieve water quality standards within no more than three years. If the state fails to develop an adequate control strategy, the EPA must write one for the state. *See* CWA § 304(l)(1)(D), 33 U.S.C. § 1314(l)(1)(D).

Notably, the plan under CWA § 304, 33 U.S.C. § 1314, is less ambitious than the plan under CWA § 303(e), 33 U.S.C. § 1313(e). The goal in a § 303(e) plan is to make the waters of a given state fishable or swimmable. The goal in the CWA § 304 plan is merely to achieve basic water quality standards.

This program has been reasonably successful. All but one of the states had submitted the required lists by June 1989. Although the EPA had not approved all of them, it was clear that this program was having a high degree of success.

Flow Augmentation

One way a source can meet water-quality-based standards is to dilute waste by diverting huge quantities of water through a given plant. Carried to its extreme, this strategy will reduce the concentration levels below any given norm, but it will not reduce the actual amount of pollutants building up in the nation's waters. Very early on, the EPA sided with environmentalists in asserting that dilution is not the solution to pollution. Diversion and augmentation of flows merely for the purpose of dilution is now prohibited.

Nonpoint Source Pollution

Although the EPA has given its attention largely to point source problems, nonpoint sources are responsible for approximately half of all conventional pollutants. Forestry, agriculture, mining, construction of roads and buildings, dams, and urban runoff all generate large amounts of pollution. For example, suppose that a rancher waters a herd of cattle by letting them wander along a streambed. Merely by walking through the area, the cattle stir up mud. This upsets the oxygen balance in the water, potentially making it unsuitable for fish life. Additionally, animal wastes are carried into the stream. This is a typical nonpoint source of water pollution.

It is at best difficult to impose controls on this pollution. Technology-based remedies are largely impossible, because by definition there are no effective collection points at which technology could be situated. Similarly, water-quality-based measures are difficult because of the problem of measuring the effect of any particular nonpoint source on a given body of water.

The EPA has responded to this problem by attempting to define **best management practices** (BMP). The Clean Water Act, in § 208, 33 U.S.C. § 1288,

LEGAL TERMS

best management practices (BMP) Practices that will minimize the creation of water pollution from a nonpoint source.

directs the states to develop plans for the treatment of nonpoint-source pollution through the application of best management practices.

Unfortunately, § 208 has not been implemented aggressively. Both the EPA and the states have moved very slowly to accomplish the goals set out in this section, and there has been a frustrating lack of coordination. The result has been uncertainty, confusion, and delay. The key problem is that control of pollution from nonpoint sources will probably require the imposition of land use controls, something that neither the EPA or the states are eager to undertake. As a result, relatively little progress has been made in dealing with this situation.

Summary

To protect our waters, Congress set up a National Pollution Discharge Elimination System (NPDES) to regulate water pollution in the Federal Water Pollution Control Act, renamed the Clean Water Act. In the NPDES program, Congress imposed technology-based pollution controls through effluent limitations on point sources. Each point source needs an NPDES permit, which limits the pollutants the source may discharge.

The NPDES permit system includes standards. Every source must meet best practicable technology (BPT). Sources of nontoxic pollutants must upgrade to best conventional technology (BCT), an intermediate standard. Sources producing toxic pollutants must upgrade to best available technology (BAT), a high standard. Sources built after enactment of the Clean Water Act must meet best available demonstrated technology (BADT). Sources discharging effluent to publicly owned treatment works (POTWs) are allowed "removal credits," counting the pollutant removal that occurs at the POTW to meet BAT, BCT, BPT, or BADT. Cost-benefit analysis is a key in setting BPT, but is less significant in higher standards.

To set the standards, the EPA categorizes each source by the pollutants that source discharges. It identifies each category of sources, creating new categories if plants have fundamentally different factors. It then sets standards based on model technology. No plant is required to adopt a technology, but each plant must meet the resulting standard. For "conventional" pollutants, the standards cover total suspended solids (TSS), pH, and biological oxygen demand (BOD5).

The EPA can impose a standard as long as the cost is not wholly disproportionate to the benefit. BPT is based on the average of the best plants in an industrial category. For the higher BCT standard, the EPA can demand greater expenditures, as long as cost is not totally out of proportion to the benefit. POTWs must install advanced secondary treatment systems.

The EPA regulates some 65 toxic chemicals. Effluent limitations for toxics do not consider cost-effectiveness. Sources of toxic pollutants must achieve BAT. In setting this, the EPA has required all plants in a category to meet the standard achieved by the best single plant in that category. The EPA can also borrow technologies used in other industries and use technologies that are not yet fully implemented. BAT can use both end-of-the-pipe processes and in-plant processes. If a source routes its effluent to a POTW, it can take removal credits, but it must not discharge any incompatible toxic pollutant, any substance that makes POTW sludge unusable, or any pollutant that passes through a POTW without being removed. Often, requiring an industry to attain these standards will force many marginal plants out of business.

A new source must meet best available demonstrated control technology (BADT). This is often the same as BCT or BAT for existing sources.

POTWs must meet BAT for toxic chemicals and have advanced secondary treatment for conventional pollutants. If the POTW fails these standards, the EPA can withhold funds. Although communities resist efforts to require upgraded POTWs, the courts hold that large costs do not create a defense of impossibility.

To mitigate statutory standards, the EPA allows variances for existing sources—but not new sources—based on fundamentally different factors at a plant that cause it to fall outside norms. Cost is not a basis for a variance. POTWs cannot get variances to avoid installing advanced secondary treatment systems.

The EPA provides for bypasses and upsets, when pollutants are released without treatment. A bypass is an intentional diversion of waste from a treatment facility. An upset is accidental noncompliance with treatment standards. If a bypass or upset causes a violation of the technology-based standards of a source's NPDES permit, the EPA will overlook this. If the permittee violates the water-quality standards of the waterway where it discharges its waste, the EPA will not overlook this. A permittee planning a bypass must report it at least 24 hours in advance. Any upset or unplanned bypass must be reported within 24 hours.

The courts limit the EPA's power to classify point sources as outside the NPDES permit system. The EPA can veto state permits. It can also issue group permits. If permit standards change, the permittee is not allowed to backslide. A permit runs for five years, and the EPA can "continue" it if necessary.

The Clean Water Act empowers states to establish water-quality programs to augment point-source controls. A water-quality program divides a state's waterways into segments with designated uses. It then sets a maximum daily load for each use. The maximum daily load is the amount of pollutant any source putting pollutants into the segment of the waterway may discharge. The EPA supervises state water-quality programs. To allow interstate regulation of such matters, the EPA adopts state water-quality programs, making them enforceable as federal law.

Once a state designates a use for a segment of waters, it can degrade only for compelling need or if the use cannot be attained.

In its program, each state establishes water-quality criteria such as level of dissolved oxygen. Water quality must be measured in ways that measure the ambient quality rather than specific sources. EPA reviews state standards every three years.

The states must address toxic hot spots, where pollution from point sources is so great that technology-based permit programs do not bring it under control. The state must take steps to bring hot spots into compliance within three years.

No one can augment flows to meet water-quality standards.

Nonpoint sources remain a serious problem. These are to be controlled by imposing best management practices, but the program has not yet been aggressively administered.

Review Questions

1. What are conventional pollutants, grey-area pollutants, and toxic pollutants?
2. What standard of pollution control must a new source meet?
3. What three characteristics are generally monitored for nontoxic pollutants?
4. How does the EPA set BAT?

5. In what three conditions will a toxic pollutant be deemed incompatible with a POTW?
6. What must a source show before the EPA will issue a variance?
7. How often must NPDES permits be renewed?
8. In a dispute between two states that share a river as a common border, what rule controls?
9. How often must states review their water quality standards?
10. What does the EPA require to try to limit the amount of pollution coming from nonpoint sources?



CHAPTER 8

THE CLEAN AIR ACT

CHAPTER OUTLINE	Introduction
	National Ambient Air Quality Standards
	Legislation Against Interstate Pollution and Acid Rain
	New Source Performance Standards
	Operating Permits
	New Source Review
	Motor Vehicle Standards

Introduction

A discussion of the Clean Air Act (CAA) is unlike a discussion of other major environmental acts because the medium to which the Clean Air Act is directed is unique—the air. CERCLA regulates the cleanup of hazardous waste sites. If the client owns contaminated land, the client must pay the cost of cleanups, but this problem can be defined fairly well. RCRA regulates the disposal of hazardous materials. A client can determine whether it generates hazardous materials. If it does, it must be concerned with the proper disposal of those materials. Even water is a defined problem, and the Clean Water Act deals with problems that can be defined and limited.

All of this contrasts with the air. On a personal level, we might all agree that if one person pollutes the air, it affects everyone, at least on some level. Often, however, that level is so slight that only a scientist can detect it. For example, I go into the woods. I light a small campfire. The fire is not as smoke-free as I might make it, and the air is more polluted after my fire than it was before. Should the Congress of the United States unleash the Environmental Protection Agency to hunt me down and punish me? Most people would probably say no. But if I build an industrial plant that will belch fumes and blacken the sky for a hundred miles, this is a different matter. Most people would probably say that this is properly a subject for congressional action and EPA intrusion.

But where is the line between the innocuous act beyond regulation and the act that should be regulated? And how should the legal and political systems set and adjust that line?

The Clean Air Act must address these problems. As a result, much of the discussion of this act concerns how legislation like this works on a political and legal level. How are the lines drawn and redrawn?

National Ambient Air Quality Standards

The Clean Air Act, 42 U.S.C. §§ 7401 to 7671q, is the primary law in the United States addressed to air pollution problems. The Clean Air Act establishes four overarching air quality goals: (1) attaining nationwide clean air standards, called NAAQS; (2) preventing significant deterioration; (3) preserving natural visibility; and (4) avoiding significant risks from hazardous air pollutants. The key means of attaining these four goals are **State Implementation Plans (SIPs)**,

LEGAL TERMS

Clean Air Act 42 U.S.C. §§ 7401 to 7671q; the principal federal statute directed to control of air pollution.

State Implementation Plans (SIPs) Plans that each state is required to adopt and to revise periodically; a State Implementation Plan must show how the state will bring its air quality to levels set in the National Ambient Air Quality Standards.

which are addressed primarily to controlling pollution from **stationary sources**; and **federal emission standards**, addressed to automobile emission pollution.

The Clean Air Act's primary goal is the attainment of the **National Ambient Air Quality Standards (NAAQS)**. To ensure that the air around us is safe to breathe, even for individuals who are sensitive to air pollutants, Congress ordered the Environmental Protection Agency to set numerical standards for outdoor air. Outdoor air is labelled **ambient**—that is, the surrounding air, reflecting overall conditions in an area rather than at specific locations. The air at the top of a particular smokestack may not have to meet national standards, but the surrounding air in the region must meet them. The numerical standards set by the EPA, based on the latest scientific data, are the National Ambient Air Quality Standards, and one of the foremost goals of the Clean Air Act is bringing the entire nation into compliance with these standards.

These standards are national. The same standards apply in Los Angeles, in the Grand Canyon, and on the farms and fields of the Midwest.

Achieving the NAAQS has proved to be extremely difficult. Although the air in many locations meets these standards, in others it does not. The work done to date on cleaning the air has shown that air pollution problems are extremely complex. Air pollution is influenced by factors as diverse as topography and weather. EPA regulations cannot change the shape of hills and valleys, and they cannot compel the weather to cooperate, so other factors that can be controlled must bear greater burdens.

Although the NAAQS have not been achieved for the entire nation, Congress has not wavered in its determination to see these goals achieved. It has extended the deadlines for achieving these standards, but the NAAQS remain mandatory. Further, Congress has acknowledged that many related problems should be dealt with under clean air legislation. As amended, the Clean Air Act reflects this, requiring the EPA to take aggressive steps to control hazardous air pollutants, curtail acid rain, and eliminate emissions that damage the atmospheric ozone layer. To see how these various goals have evolved, we begin by considering the history of clean air legislation.

LEGAL TERMS

stationary source A source of air pollution that is not mobile. Typically, this is a factory, smelter, or other source of large amounts of air pollutants.

federal emission standards Standards set by the EPA, pursuant to the Clean Air Act, to regulate the amount of pollutants an automobile is allowed to emit.

National Ambient Air Quality Standards (NAAQS) Standards set by the EPA under the Clean Air Act. These standards prescribe the maximum amount of certain pollutants, setting levels low enough that the air is safe even for a sensitive person. These standards are to be enforced uniformly throughout the nation, so that a person in an urban area should have general air quality as good as a person in a very rural setting.

ambient Encircling, enveloping. In the context of the Clean Air Act, refers to air away from a particular source of pollutants; the surrounding air.

History of Clean Air Legislation

The Clean Air Act was first adopted in 1967. The then-controlling agency, the Department of Health, Education and Welfare (HEW), was to issue a list of air pollutants that should be controlled, and identify and recommend pollution control technologies. HEW was also to issue *air quality criteria*—that is, overall levels of pollution control that the states were to achieve. The states were then to set air quality standards, specific rules and regulations for achieving the levels of pollution control. If the states failed to set such standards, HEW could step in to do it for them.

This system had a critical weakness: any state could set different air quality standards for different regions within the state. This meant that a state could set very strict standards in an area where there was little pollution, while letting regions with serious pollution problems slip by with much lower standards. The state could claim it was meeting federal standards as long as overall pollution levels met the federal pollution control levels, even if people in polluted areas were exposed to dangerously unclean air.

By 1970, Congress conceded that the state standard system was a failure. To address the problem, it amended the Clean Air Act. Under the 1970 version of the Act, the newly created Environmental Protection Agency was given administrative control. The Act ordered the EPA to promulgate national ambient air quality standards for “criteria” pollutants. These standards were to include two levels of control. Primary standards were to be set so that they protected human health. Secondary standards were to protect a wider range of concerns, including visibility, climate, manmade materials, crops, economic values, and personal comfort.

The 1970 amendments represented a significant shift in the emphasis of the law, as the standards were made national rather than local. The Act guaranteed that air would be clean enough to be safe everywhere in the nation, rather than having one standard for Los Angeles and another for Iowa.

Setting the NAAQS Standards

The original NAAQS were put in place with remarkably little controversy. This is a marked contrast to the fierce struggles and litigation that have marked many later Clean Air Act programs. In setting the NAAQSs, the Clean Air Act required the EPA to set standards that protected public health, including a margin of safety. The Act does not mention cost or feasibility as factors for consideration, and the courts reviewing the Clean Air Act have construed this omission as a deliberate choice on the part of the Congress. Cost factors are subordinate to the overriding concern for human health. The NAAQS standards are strict: the EPA must set them at the lowest level of pollution at which scientists have identified adverse effects. Further, the EPA can set standards at even lower levels to ensure safety. However, the Act does not require that NAAQSs be set to eliminate every possible risk. The EPA is not to create standards based on speculative claims of possible adverse health effects.

Each NAAQS is stated in terms of how much of a given pollutant is found in outdoor air. The amount of pollutant is measured in micrograms of pollutant per cubic meter of air. The standards themselves are relatively simple, but the methods for measuring air quality are extremely complex and highly technical.

The Standard of Court Deference

The process of measuring air quality is extremely complex. A scientist takes a number of measurements and then uses various models to apply that data to the air throughout the nation. This process of trying to apply a limited range of measurements to the nation as a whole is called **extrapolation**. Because of the uncertainties inherent in the process, even scientists tend to dispute findings based on air quality measurements.

This creates a difficult situation for the courts. If the courts were to become heavily involved in the technical questions that go into setting the NAAQS, the burden on them would be extreme. To avoid this, the courts have adhered to a policy for reviewing NAAQS determinations, namely, that the EPA must follow procedural steps to ensure that it thoroughly reviews any scientific information on which it relies. To use the legal term of art, the EPA must *make a proper administrative record*. So long as the EPA decision is supported by a proper administrative record, the courts will defer to the EPA's decision setting final rules. The EPA cannot rely on mere guesswork; if the Agency has no data to support its decisions, its decisions cannot stand. But if the EPA has reviewed mixed data, some supporting the action and some against, the EPA can choose from among disputed data, and the courts will defer to its decisions. *American Petroleum Institute v. Costle*, 665 F.2d 1176 (D.C. Cir. 1981).

Pollutants Covered by NAAQS

Currently, there are NAAQS for six criteria pollutants: particulate matter, sulfur dioxide, ozone, nitrogen oxides, carbon monoxide, and lead. 40 C.F.R. Part 50. The Clean Air Act gives the EPA the power to set NAAQSs for other pollutants, but the Agency has not done this. This may reflect a bureaucratic unwillingness to take on a difficult task, or it may reflect concerns over the speculative nature of claims of harm from other pollutants. The EPA does have other pollutants under study, but has not issued any standards for them.

SIDEBAR

Substances covered by the National Ambient Air Quality Standards are particulate matter, sulfur dioxide, ozone, nitrogen oxides, carbon monoxide, and lead.

LEGAL TERMS

extrapolation Deduction, inference. In the context of pollution control law, the process of drawing general conclusions based on samples or models.

Revisions to NAAQS

The NAAQS are not set once and then never changed. When Congress amended the Clean Air Act in 1977, it directed the EPA to review the NAAQS periodically and revise them as needed. CAA § 109(d), 42 U.S.C. § 7409(d). The revisions process is long, slow, and contentious. It is contentious because these standards are not merely goals to be hoped for; they are legal commands. Because of the potential impact of these standards, parties pay close attention to them. Any proposed revision prompts intense interest from the states, regulated industries, environmentalists, and public health interests.

Generally, the revisions have relaxed the standards. One of the most sweeping changes came when the EPA revised the particulate matter standard, so that the NAAQS for **particulate matter** covered only particles small enough to be absorbed into human lungs.

Implementation of NAAQS

There are two primary means by which the NAAQS are carried into law. First, they can limit the creation of new pollution sources. Any time a new factory is built, or a new car is introduced into the market, it must meet air pollution standards. This means that because of the Clean Air Act, as the economy grows, it grows in ways that will make it cleaner.

The second means is State Implementation Plans (SIPs). Merely restricting the entry of new sources into the market is not adequate to address the serious air pollution problem in this country. Each state must address the problems of old sources and cars already on the road in order to bring air pollution from these sources under reasonable control.

To achieve this desired level of control, the nation is divided into **air quality control regions** (AQCRs). Each state must write a plan for each air quality control region within the state, showing how air pollution in the region will be controlled. Regions where the NAAQS have not been attained are labelled **nonattainment regions**. For nonattainment regions, the Clean Air Act requires that the state impose **reasonably available control technology** (RACT) on

LEGAL TERMS

particulate matter Solid particles floating in the air; dust, airborne dirt, and other substances that are airborne but are in fact solids.

air quality control regions (AQCRs) Regions established by the EPA for purposes of monitoring and controlling air quality throughout the United States. These reflect different factors contributing to air pollution and different controls for dealing with those factors. These regions can extend across state lines.

nonattainment regions Areas in which the NAAQS have not been met. Because of the nonattainment, controls under the Clean Air Act are more severe than in regions in which the NAAQS have been attained.

reasonably available control technology (RACT) A degree of technology-based pollution control that states must impose on existing sources in nonattainment regions in order to help these regions attain the NAAQS.

existing sources. CAA § 172(b)(2), 42 U.S.C. § 7502(b)(2). The greater the degree of nonattainment, the more widespread the use of RACT must be. Although each state must follow statutory and EPA regulatory controls, it is up to the state to devise plans for achieving the standards within these guidelines. In **attainment regions**, existing sources do not need this level of pollution control. *Train v. Natural Resources Defense Council, Inc.*, 421 U.S. 60 (1976).

Drafting a sound SIP is a politically troublesome process. Industry often opposes costly and burdensome controls. The Clean Air Act, however, makes SIPs mandatory. If a state does not produce an adequate SIP, the EPA can impose one. Further, once a SIP is put into place, the EPA can go to court to enforce it. CAA § 113, 42 U.S.C. § 7413.

With each of various successive amendments to the Clean Air Act, Congress has tried to find more effective mechanisms for dealing with pollutants. Each amendment to the Act has strengthened the EPA's hand.

Under the original 1967 Act, the states were to designate the areas that were air quality control regions, and the federal government had only an advisory role. The key contribution of the 1967 Act was to foster ongoing discussion. It was a first step in addressing the problem of identifying all the pre-1967 sources.

As mentioned, the 1970 amendments marked a major change. The federal advice and assistance of the 1967 Act were replaced with federal control. Standards were nationalized. Instead of individual states setting standards, the federal government imposed uniform ambient air quality standards throughout the nation. Further, the 1970 law quantified the goals for pollution control levels and imposed accountability by taking control of purse strings and setting deadlines.

Congress clearly meant to impose rigorous controls. The State Implementation Plans were critical in this because they provided a link between federal goals and enforcement against specific sources of pollution. Prior to 1970, enforcement against individual polluters had been unworkable. The law required that ambient air be cleaned to certain levels, but enforcement very often became bogged down in the argument that although one source might be a contributor, it could not be isolated as a cause. The SIP process made the states responsible for forcing reductions from individual sources. The SIPs also bound the states and the federal government together in a partnership.

Eventually, this partnership proved less effective than hoped, and in the 1990 amendments to the Clean Air Act, Congress opted to impose rigid controls directly on existing sources by requiring these sources to have operating permits. The State Implementation Plans, however, remain an important part of the effort to address air pollution.

The SIP process begins when the EPA issues each NAAQS. Each state must then draft (or revise) its SIP, to show how the state will attain (or maintain) the NAAQS. There is a separate SIP for each NAAQS, and separate sections within each SIP showing how the state will deal with each of its air quality control regions. The state can rely on any pollution reduction that it can show will occur

LEGAL TERMS

attainment regions Areas in which the NAAQS have been met.

as a result of other programs, but must still obtain the levels of pollution control set in the NAAQS. It can do this through adding new emission controls on stationary sources and the like.

The 1990 amendments also modified the air quality control regions. They were required to cover the entire nation, and the right to set boundaries was largely transferred to the EPA, to eliminate manipulation of boundaries and to allow for the creation of interstate regions. CAA § 107(c), 42 U.S.C. § 7607(c).

SIPs were required for all areas, including attainment regions (that is, regions where the air meets all applicable standards). Under CAA § 110, 42 U.S.C. § 7410, drafting a SIP involves a complex three-step process: defining the problem, setting emission limitations, and developing air quality models.

To define the air pollution problem, the state must measure what pollutants are in the air and determine the sources of those pollutants. This involves counting big sources, such as foundries and smelters, and estimating smaller sources. 40 C.F.R. § 51.13(f).

Once it has assembled its inventory of sources, the state develops control strategies. There are three primary control strategies: emissions limitations for stationary sources, transportation controls for automobiles, and new source reviews. The most important of these in SIPs is emissions limitations at stationary sources.

Theoretically, a state could set emissions limitations on an individual source basis. This is not practical. To maintain administrative order, the states set uniform limitations for broad categories of sources, weighing technological feasibility and cost. States are free to press extremely aggressive standards, which will produce cleaner air, or to set standards that impose less severe burdens, although the states must still meet basic NAAQS requirements.

The Clean Air Act leaves the states free to make their own choices as long as they actually attain the NAAQS. The states are also free to allow individual source variances from any category, so long as the SIP will still bring the area into compliance with NAAQS.

SIDEBAR

This is a significant difference between the Clean Air Act and the Clean Water Act. Under the Clean Air Act, states are free to grant variances. Under the Clean Water Act, states' power to grant variances is very narrowly circumscribed.

The Clean Air Act was intended to be **technology-forcing**. Congress wanted the law to set standards that could be achieved only by the development and widespread adoption of new technologies. Of course, this will work only if

LEGAL TERMS

technology-forcing A term used to describe statutes such as the Clean Air Act and the Clean Water Act, which set pollution control standards based on what can be achieved through the use of technology. The statutes do not actually require that any particular technology be used; instead, they require that the degree of pollution control that could be achieved using the technology be achieved.

business knows about new technologies. To be sure this happens, the EPA publishes information on technologies that are “reasonably available” to control NAAQS criteria pollutants. However, the Act does not require the states to adopt any particular technology; each state is free to choose its own course. As a result, the states have adopted a bewildering variety of provisions for emission limitations for their stationary sources.

Notably, the EPA has ruled that *emissions limitations* means just that: emissions must be limited. Strategies that will merely disperse emissions, spreading them over wider areas, are not acceptable. One simple dispersal technique was building a tall smokestack. This new rule means that unless a source can show that there is no reasonably available control technology that will actually reduce emissions, simple dispersal is not adequate. CAA § 123, 42 U.S.C. § 7423.

When a state submits a SIP to the EPA, it is merely a plan; it does not yet reflect actual practice. Before the EPA can approve a SIP, the state must show that the proposed SIP will bring the state within the NAAQS. To do this, the state will use models showing expected reductions in air pollution in each AQCR. The models must also show that anticipated growth will not push the area beyond a NAAQS. The simplest models assume a linear rollback: a 10 percent reduction in emissions will produce a 10 percent reduction in the pollution level. More complicated models take into account weather patterns, topography, diffusion patterns, and the like.

Even the most sophisticated model involves a great deal of speculation. Nevertheless, the courts have recognized that these models are the best tool the EPA has at this point to judge the adequacy of state implementation plans.

The states also must include in their SIPs some mechanism to ensure that individual sources will comply with the SIP. This can include regulations, permits, orders, or combinations of measures. CAA § 110(a)(2)(C), (D); 42 U.S.C. § 7410(a)(2)(C), (D).

Federal Control over SIPs

The SIP process initially worked reasonably well. Many states submitted SIPs in a timely manner. The SIPs called for controls that were not extremely expensive and imposed workable emission control requirements on many sources. They started the process of effective control over pollution. However, the process soon bogged down. Real reductions of air pollution required major changes in many basic industries, changes that involved major costs. The EPA lacked sufficient power to compel major changes, and its only option to state resistance was ineffective: it had to write the entire SIP if the state failed to provide an adequate one. This put such a burden on the EPA that it punished the Agency more than the balking states.

Although the SIP process is nominally a partnership, by 1970 Congress realized that the only entity committed to enforcing pollution controls is the EPA. The 1970 amendments gave the EPA substantial control over the state-federal partnership involved in the SIP process.

In developing SIPs, each state is free to use its own administrative processes, although these must include at least notices and public hearings to allow input from interested parties. Once the state has drafted a SIP, it submits the plan to the EPA. If the EPA approves the SIP, the SIP will be published in the *Federal Register*, giving it the force of federal law and making it fully enforceable by the state, by the EPA, and through citizen suits. If the EPA finds that it cannot approve a state's proposed SIP, the EPA can write a SIP of its own.

Because both the state and the EPA must approve every SIP, and every revision to a SIP, the adoption process is slow and cumbersome. The purpose of double approval was to prevent states from becoming too diverse in their approaches, but the result is a process that moves with almost glacial slowness.

Steel and Utilities

The primary mobile sources of nitrogen oxides and carbon monoxide are cars. For two other pollutants, sulfur dioxides and particulates, the primary sources are the heavy mills that produce steel and energy. These mills typically rely on burning huge amounts of coal. Sulfur is an especially troublesome pollutant because to date there is no cost-effective way to remove sulfur from the air.

The EPA has tried to force a switch from high-sulfur coal to low-sulfur fuel by rejecting parts of proposed SIPs.

SIDEBAR

High-sulfur coal contains large amounts of sulfur. This characteristic is very common in coal found throughout the American Midwest. High-sulfur coal generates the precursor chemicals that cause acid rain.

This meant that under § 110(c) of the Act, 42 U.S.C. § 7410(c), the EPA could write its own SIP. This proved more of a challenge than the Agency had planned. The Agency spent more than three years drafting one SIP, and another two years trying to defend it in court. *Cleveland Electric Illuminating Co. v. Environmental Protection Agency*, 572 F.2d 1150 (6th Cir. 1978). As a result, the EPA has effectively dropped all reliance on § 110(c)'s provisions allowing it to replace state SIPs.

The 1977 Amendments

The original SIPs were adopted under tremendous pressure because of congressional deadlines, both for adoption of the plans and for implementation once they were adopted. All plans were to be adopted and fully implemented by 1977. Although certain deadlines could be extended on very strong showings, there were no provisions dealing with what was soon recognized as the real problem: what would be done if states failed to meet the deadlines? The measures suggested by the Clean Air Act were extremely severe, and the procedures for imposing them were not clear.

**CLEVELAND ELECTRIC ILLUMINATING
COMPANY**

v.

**ENVIRONMENTAL PROTECTION AGENCY
United States Court of Appeals, Sixth Circuit
572 F.2d 1150 (6th Cir. 1978)**

On July 13, 1977, the State of Ohio belatedly moved for leave to intervene in this proceeding. Its motion attacked the EPA sulfur dioxide emission control plan as having an adverse impact on the Ohio coal industry, and the Ohio economy as a whole. The motion also asserted that the State was developing a sulfur dioxide plan which would eliminate excessive abatement requirements which Ohio perceived to exist in the federal regulations. This court granted the motion for leave to intervene and has considered the brief and the reply brief filed by Ohio. Under this first disposition heading we consider only Ohio's suggestion that this court reject the United States Environmental Protection Agency's sulfur dioxide control plan and rely upon Ohio's implied promise to promulgate a state sulfur dioxide plan sometime in the future.

We reject this suggestion on the basis of a record of delay and default which has left Ohio in the position of being the only major industrialized state lacking an enforceable plan for control of sulfur dioxide.

It was clearly the intention of Congress to have a plan for control of sulfur dioxide emissions in place in all states in need of such control by the year 1972. It was equally clearly the intention of Congress that the preferred mechanism for establishment of such a plan was through the establishment and operation of a state environmental protection agency. On January 30, 1972, Ohio did submit a plan for approval by the Administrator of the United States Environmental Protection Agency under Section 110 of the Act and the Administrator approved that plan. That approval, however, was challenged in this court on the ground that such approval required a federal rule-making hearing prior to the required approval by the federal Administrator. Among other claims laid before this court in that petition was an attack on the sulfur dioxide control scheme contained in the

Ohio plan, claiming "there is presently no technologically feasible method of removing from their coal burning emissions an amount of sulfur sufficient to meet the standards." It was also petitioners' contention in that same litigation that they had not been allowed to document these claims of impossibility before the federal Administrator prior to his approval of the state plans. On analysis of these arguments, this court vacated the approval of the Ohio state plan and remanded the case to the Agency.

Clearly, the State of Ohio has failed to submit an implementation plan for sulfur dioxide for which a national ambient air quality primary standard has been prescribed. Equally clearly, five years have now elapsed beyond the date when such an implementation plan was called for under the Clean Air Act. Under these circumstances, we find no warrant, consistent with the purposes of the federal legislation, for giving heed to Ohio's petition for further delay.

[T]he legislative-type hearings conducted by the United States EPA concerning the Ohio SO₂ control plan were consistent with the provisions of the Clean Air Act and the Administrative Procedure Act, and we further conclude that the hearings are not inconsistent with the due process clause of the Fourteenth Amendment. Congress did not insert into the Clean Air Act the language requiring the Administrator to make determinations "on the record after an opportunity for an agency hearing" which the Supreme Court has held to trigger the requirement of an adjudicative hearing. And if there was a legitimate due process complaint arising from the fact that petitioners had not had a chance to comment upon the RAM model as employed by United States EPA in its Ohio SO₂ control plan, we believe it was surely cured by this court's remand for reopening of the administrative record and United States EPA's reconsideration thereafter.

We note, as petitioners encourage us to, that some cases in other circuits hold that it is the importance and complexity of the issues decided

by the administrative agency which should determine the kind of hearing procedures required rather than any formal classification of the process as either rulemaking or adjudicatory. Typically, however, it is important and complex problems which Congress assigns to administrative agencies. Thus far neither Congress nor the Supreme Court has elected to adopt such a flexible standard or to assign exclusive responsibility for the choice of agency hearing procedures to the federal courts.

* * *

It is, of course, no part of the responsibility of this court to determine whether the RAM model represents the best possible approach to determining standards for the control of sulfur dioxide emissions. Our standard of review of the actions of United States EPA is whether or not the action of the agency is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." Clean Air Act Amendments of 1977, § 305(a), to be codified as 42 U.S.C. § 7607(d)(9)(A). Thus, we are required to affirm if there is a rational basis for the agency action and we are not "empowered to substitute [our] judgment for that of the agency."

Case Questions

1. How far behind the schedule Congress had mandated in the Clean Air Act had Ohio fallen?
2. What two types of hearings did the court mention in its discussion? Which is more easily reviewed by a court?
3. Did the court find that the RAM model was the best possible model for determining the standards for the control of sulfur dioxide emissions?
4. What standard of review was the court to use in a Clean Air Act case?
5. What did the court find that required it to affirm?

As the 1977 deadline approached, the EPA faced a serious problem. Under the Act, it appeared that the EPA had no authority to allow the construction of any new sources of pollution if a state failed to meet the final SIP deadlines. On the eve of the 1977 deadline, the EPA adopted the **Offset Interpretive Ruling**, under which it allowed the construction of new sources in states that had failed to meet the SIP deadlines. A new source could be built if it had very efficient pollution control equipment *and* it offset any new pollution with greater than required reductions in pollution from other sources.

The response to the 1977 deadlines showed that the results of the Clean Air Act were, at best, mixed. On the one hand, the Act had caused the EPA to undertake a tremendous amount of regulatory activity, an amount largely unprecedented in the field of pollution control. Further, a great deal of money had been expended. On the other hand, the various goals set forth in the Act had not been met. Indeed, virtually every urban area in the nation remained in violation of at least one clean air standard. Whatever the cause of this failure, in 1977, the Congress restated its position. It gave the EPA a bigger stick.

LEGAL TERMS

Offset Interpretive Ruling A ruling, adopted by the EPA in 1977, that allows the building of new sources, even if these cause air pollution, as long as there are at least offset reductions from other sources. This is also called a *bubble rule*.

Congress did extend the various deadlines for adopting SIPs, allowing the states through 1982 to achieve full compliance. If a state could show that it had smog problems so serious that it was unable to attain the 1982 deadline despite imposition of all reasonably available control technology, the EPA could extend deadlines to 1987. The amendments also increased the potential penalties for failing to adopt SIPs. Congress also gave the EPA more power to deal with SIP matters. It established two new levels of requirements for stationary sources: the nonattainment program and the prevention of significant deterioration (PSD) program. Unfortunately, because these were merely added to the existing regulatory framework, rather than being truly integrated into it, they did not fit.

The nonattainment program had four parts. First, all nonattainment areas had to be identified. The states were required under the 1977 Act to designate all areas that would not attain air quality standards. From these lists, the EPA was to develop a list of official nonattainment regions. A nonattainment area was to include the area with polluted air and all areas with significant concentrations of sources contributing to that pollution, even if they were located far away. CAA § 107, 42 U.S.C. § 7407.

Second, the state had to adopt revisions to the SIP to reflect problems in nonattainment areas. At a minimum, these SIPs had to impose reasonably available control technology on existing sources, and tough new source standards, and show that reasonable further progress would be made toward attaining clean air goals. Any state seeking an extension from the 1982 completion date to 1987 was required to add to these measures rigorous mobile source inspection and maintenance programs. CAA § 110, 42 U.S.C. § 7410.

Third, the state had to follow certain guidelines in dealing with nonattainment areas. CAA §§ 171–78, 42 U.S.C. §§ 7501–7508.

Fourth, a schedule of deadlines was imposed for state adoption and federal review and promulgation of the revised SIPs, which would reflect the changes called for under the amendments. CAA § 172, 42 U.S.C. § 7502. The states were given until January 1, 1979, to completely review and adopt their SIPs and submit them to the EPA for review. Any state that failed to make a timely submission faced serious penalties. The EPA was empowered to impose a construction moratorium which would prohibit construction of any major new sources. Further, the EPA could cut off highway funds if a state continued its defiance. In short, the complicated Clean Air Act was made even more complicated.

Implementing the 1977 Amendments

One of the key issues the 1977 SIPs had to address was smog control. Unfortunately, this required reaching sources that had been left largely untouched by SIPs issued under the 1970 Act. Many were small sources—dry cleaners, gas stations, print shops, and the like. These sources, along with the larger traditional sources, were ordered to adopt reasonably available control technology (RACT).

Thus, the 1977 amendments caused new intrusions on the states' powers. The amendments required the states to make their existing sources adopt RACT,

as well as mandatory vehicle inspections for nonattainment areas. The EPA found that it had to force states to adopt these measures, because virtually no states were willing to accept them voluntarily.

The requirement that existing sources in nonattainment areas adopt RACT meant the EPA was imposing uniform federal standards on old facilities. Many of these facilities had avoided direct regulation until this point. The EPA issued **control techniques guidelines** (CTGs) which, although not having the force of law, were extremely influential because the EPA announced that it would presume that CTGs were a reasonably available control technology. If a state wanted to use some other technology, it would have to demonstrate that its preferred alternative actually met the statutory requirements. *National Steel Corp. v. Gorsuch*, 700 F.2d 314 (6th Cir. 1983).

SIP Deadlines and Compromises

The 1977 amendments imposed extremely ambitious deadlines and mandated a series of penalties sufficiently severe that if the deadlines were not met, the result would be serious disruption for the states and for affected industry. Almost from the outset, though, deadlines were not met. If the EPA had put all of the potential penalties into effect, the result would have been chaos. Instead, the EPA found innovative ways to compromise these deadlines.

Few states submitted full-scale SIPs meeting the 1977 amendment requirements by the deadline (January 1, 1979). Many of the plans submitted were clearly inadequate. The result was extensive delays while modifications and additions were worked out. However, the EPA accepted this as good faith progress, even though the Act seemed not to allow this.

The next deadline was July 1, 1979. By that time, every state's SIP was to have been approved. When the deadline came, only the SIP for Wyoming had been fully approved. The Clean Air Act called for the EPA to step in and write SIPs, but Congress clearly never intended to have the EPA take over the process wholesale. To avoid this, the EPA created a policy of conditional approvals. The courts reviewing this have allowed it to stand, although they have conditioned these rulings on the idea that the later deadlines would remain intact. As a practical matter, this has not happened.

By delaying a key step, the EPA took much of the force out of the SIP process; as a result, that process has largely failed. Critical deadlines came and went, with many SIPs in various stages falling far short of completion.

Faced with the crushing load of paperwork involved with the constant stream of revision requests, the EPA tried to find ways to simplify the SIP revision

LEGAL TERMS

control techniques guidelines (CTGs) Guidelines issued by the EPA suggesting techniques that could be used by existing sources to control pollution. The EPA made these guidelines extremely important by announcing that it would presume that these guidelines delineated reasonably available control technology; the states were thus required to compel the use of these technologies on existing sources in nonattainment areas.

NATIONAL STEEL CORPORATION,
GREAT LAKES STEEL DIVISION

v.

GORSUCH

United States Court of Appeals, Sixth Circuit
700 F.2d 314 (6th Cir. 1983)

The petitioner's first argument has several elements, all urging the conclusion that the EPA has overstepped its authority and acted arbitrarily in making its RACT determinations in this case.

First, petitioner claims that, since fugitive dust significantly contributes to nonattainment, the EPA should not require stationary sources to install RACT before Michigan completes its own studies concerning the relationship between fugitive dust and nonattainment and the possible methods for controlling that particular pollutant. Great Lakes Steel contends that it is unreasonable to interpret the statute as requiring mandatory RACT absent proof that the imposition of the installation cost will in any way contribute to attainment.

The EPA interprets the Act to unambiguously require installation of RACT at a *minimum* on existing sources in the nonattainment areas. While the EPA does not deny that it has itself adopted an administrative exemption to this otherwise "mandatory" requirement, it views that exemption as being narrowly tailored to fit within, and further, the spirit and goals of the Act. On the contrary, the EPA feels that the exemption suggested by Great Lakes Steel, i.e., to wait and see what the state studies show before requiring RACT, would altogether vitiate the mandates of § 172, thereby *undercutting* the purposes of the Act.

An agency's interpretation of the statute it has been created to implement is to be given considerable deference. That interpretation need not be the only one the agency could have permissibly adopted in order to be acceptable; it need only be reasonable.

* * *

[I]t is unclear to what extent each source of pollutants contributes to the nonattainment problem. All admit that the nature of the problem is too complex to allow for specific determinations of whether particular actions will or will not best

further the attainment goal. It cannot be debated that RACT on existing stationary sources will ensure that *those* sources are not contributing to or exacerbating nonattainment. It does not appear unreasonable for Congress to have granted the EPA the power to act with regard to known, identifiable sources of particulate matter, even though they remain unable to quantify the precise degree to which those sources are preventing the attainment of the NAAQS.

Section 172(b)(3) of the Act specifically states that a SIP "*shall ... require*" RACT in the circumstances it defines. There is nothing in the statute which indicates that these terms are not to be given their plain meaning. In addition, we could find nothing in the legislative history of these provisions which in any way contradicts the mandatory character of the language employed. In light of the wording, history and rationale of the statute and the complex nature of the problem facing the EPA, it does not appear that a realistic application of the § 172 criteria could do anything less than require RACT for existing sources in nonattainment areas. At minimum, we clearly cannot say, as petitioner would have us, that EPA's interpretation of the Act is *plainly unreasonable*.

* * *

The petitioner argues in the alternative that, assuming arguendo that the EPA may impose its own RACT standards on Michigan, the standards imposed were unreasonable. This argument has two branches. First, Great Lakes Steel claims that imposition of a RACT requirement on a given source *without* showing how that source contributes to nonattainment is unreasonable. Second, it contends that the technical standards set were unreasonable in light of the state of the iron and steel industry in Michigan.

The first argument is essentially a reiteration of that raised with regard to the imposition of *any* RACT standard, and can be dealt with similarly. The fact that there is insufficient technical knowledge to determine the precise degree to which *each* source contributes to nonattainment does not require that the EPA be prohibited from acting with regard to *all* sources. There is no doubt that iron and steel sources emit harmful particulate

matter into the ambient air. Michigan could have avoided RACT requirements for these stationary sources by otherwise demonstrating attainment “as expeditiously as practicable.” Michigan did not, or could not, do so with regard to these nonattainment areas. We find that it is wholly consistent with the scheme of the Act to place the burden on the state to show that RACT on its iron and steel sources is *not* necessary.

The second argument is aimed at the particular EPA-imposed limitations. Great Lakes Steel contends that it was unreasonable to disapprove the state emission limitations for blast furnaces, heating and reheating furnaces, and sinter plants and to insist on the conditions chosen for approval of the other iron and steel emission regulations.

* * *

Congress set minimum standards for acceptable air quality. If a SIP or Part D revision fails to meet

those standards it cannot be approved. Congress clearly recognized the possibility that these requirements may appear infeasible to those sources on whom they would be imposed. That fact however, was not deemed a sufficient justification for failing to impose even the strictest of standards:

In the Committee discussions, considerable concern was expressed regarding use of the concept of technical feasibility as the basis of ambient air standards. The Committee determined that 1) the health of people is more important than the question of whether the early achievement of ambient air quality standards protective of health is technically feasible; and 2) the growth of pollution load in many areas, even with application of available technology, would still be deleterious to public health. Therefore, the Committee determined that existing sources of pollutants either should meet the standard of the law or be closed down. ...

Case Questions

1. What must be true of an agency’s interpretation of a statute in its area of jurisdiction before a court will accept that interpretation as valid?
2. What test did the court impose on the EPA before upholding the EPA’s efforts to deal with air pollution in the Detroit area?
3. What does § 172(b)(3) say a state implementation plan was to require?
4. What standard did the court indicate the petitioner would have to show before the court would adopt the interpretation of the statute which the petitioner advocated?
5. If a source cannot meet the standards imposed by the Clean Air Act, what must the source do?

process. The Agency adopted the “**bubble**” rule, under which it could designate a relevant nonattainment area for purposes of SIP revision. A state was allowed to permit new sources, even if they would pollute the air, if it also required at least offsetting reductions from other sources. The EPA also began considering revisions to SIPs while they were still being processed at the state level, allowing for coordination rather than constant duplication. Through aggressive coordination and extensive dispute resolution, the EPA has gradually cleared out the revision backlog.

LEGAL TERMS

“bubble” rule A rule under which an area such as a city or a plant is treated as if it were covered by a bubble with a single outlet through which all pollution from inside the bubble passes. In the bubble, new sources can be built if reductions of air pollution from other sources create a net decrease in the amount of pollution. The required amount of decrease varies with the level of pollution; greater offset is required in areas of great nonattainment.

Most SIP revisions do not rise to the level of national policy issues. One, however, has reached that stage. Under the 1977 amendments, the EPA did allow states to revise SIPs for sulfur, to allow coal-burning plants in the Midwest to increase the amount of sulfur they released into the atmosphere. This came despite pleas from states farther east that this policy worsened the problem of acid rain. The EPA allowed the revisions because acid rain had not been specifically included as a component in any overriding NAAQS.

In the 1990 amendments to the Clean Air Act, the Congress ordered the EPA to address the acid rain problem. This will force the Agency to impose severe restrictions on coal-burning plants.

The EPA Compromise of 1982

The deadline of July 1, 1982, loomed large. By this date, all areas of the country were to have attained NAAQS. When the deadline arrived, the EPA again faced the problem of a statute that called for the Agency to ban all construction of new sources. After much internal struggling, the Agency adopted a policy that waived the construction ban for any state that had an approved SIP in place. Given its policy of conditional approvals, this allowed the Agency to approve almost any draft SIP, while calling for the state to make further revisions. It was a plausible reading of the statute, but it elevated form over substance. Congress had apparently meant the attainment deadline of 1982 to be a serious deadline, one that states could not avoid. By its policies, the EPA had managed to short-circuit the entire process, so that the deadline became a matter of EPA discretion.

When the initial 1982 deadline for compliance with the NAAQS passed, the EPA continued its policy of conditional approvals and paper compliance through the final deadline, 1987. In 1987, the state of California admitted that it had areas that it could not even then bring within compliance. The EPA responded by adopting a policy that it would not impose the extreme sanctions of cutting off Clean Air grants to the states so long as the SIP showed reasonable extra efforts to achieve attainment. So long as the EPA concluded that a state was making all possible efforts toward compliance, it would hold sanctions in abeyance. In a few instances, the EPA did impose construction bans, but by and large this was a last-ditch weapon. Meanwhile, the courts found endorsement of EPA policies increasingly difficult.

The 1990 Amendments

In 1990, Congress again returned to this issue, adopting new provisions for bringing nonattainment areas into compliance with the NAAQS. The key requirement of the amendments is a revision of the ozone SIP provision. Under this provision, all nonattainment areas are classified on a five-point scale ranging from Marginal to Extreme. The new provision allows progressively longer times for areas higher on the scale to come into compliance, but requires

increasingly severe measures to achieve attainment. Additionally, the new provision quantifies and formalizes the EPA's rule of reasonable progress. Areas that miss the statute's new milestones are now automatically required to adopt contingency measures to help achieve compliance. Further, an area where attainment is not achieved can be upgraded to a higher level on the classification scale, thus subjecting it to all the statutory requirements for that higher level of nonattainment area. CAA § 107, 42 U.S.C. § 7407.

The 1990 amendments also covered a great many other points. One example is that the amendments allowed the EPA to intercede in state attempts to declare an area in compliance. The EPA can now rule that an area is a nonattainment area, and this ruling is essentially preclusive.

The EPA also was allowed considerably longer deadlines for various phases of the process. For example, a state now has three years from the time a NAAQS is revised to submit a revised SIP. The EPA then has 12 months to review the SIP, and can respond with approval, partial approval, conditional approval, or disapproval. Partial approval means that the state has missed a deadline and will face penalties accordingly. Conditional approval gives the state one year to come into full compliance. If it fails to achieve full compliance, the SIP is automatically disapproved. CAA § 110(k), 42 U.S.C. § 7410(k).

The 1990 Guidelines for General SIPs and SIPs for Nonattainment Areas

As part of the 1990 guidelines, the EPA modified the sanctions it can impose. For SIPs covering areas that are not designated as nonattainment areas, Congress deleted the construction moratorium. However, it authorized the use of various other sanctions. States can still have their federal highway funding cut. Further, these amendments replaced the extreme sanction of a construction moratorium with the more workable remedy of an offsets policy: in any area that fails to attain the NAAQS, a new source is allowed only if any pollution increase it causes is offset by a twofold decrease from other sources. CAA §§ 110(m), 179(b); 42 U.S.C. §§ 7410, 7509(b). The EPA can still take over the job of writing a SIP if a state fails to issue an adequate plan.

Nonattainment areas are now designated as **Part D areas**. Under the Part D SIPs, the basic attainment deadline is five years, with a five-year extension possible. All SIPs must contain contingency measures, which will go into effect automatically if the state misses any milestone established under its SIP. New source review programs are to be more rigorous than in attainment areas. Once an area reaches attainment, the nonattainment SIP remains in force until the EPA approves a maintenance SIP, and the full nonattainment SIP must return to force automatically if the area regresses into nonattainment. If a state fails to comply with SIP deadlines, the EPA may impose funding cuts or offset sanctions; it *must* impose one of these sanctions if noncompliance continues for

LEGAL TERMS

Part D areas Nonattainment areas now under time constraints to achieve the NAAQS.

more than 18 months, and the other if the noncompliance continues for an additional 6 months. CAA § 172, 42 U.S.C. § 7502.

Ozone Nonattainment Areas

Under the amendments, the EPA is to classify ozone nonattainment areas. The classification is based on a “bad”-case scenario, the fourth highest monitored ozone level over the last three years. Further, if an area is within 5 percent of a cutoff for the next highest level, it will be classified in that higher level.

Congress has written very specific criteria for determining what is or is not an attainment area for ozone. Both the time allowed for achieving attainment and the severity of provisions in the SIP vary with the degree of nonattainment.

An area that is up to 15 percent over the NAAQS is classified as *marginal*. A SIP for such an area must include a revised emissions inventory, a RACT program, and a new source program with an offset ratio of 1.1 to 1. This means that for every new source producing one unit of ozone, controls on existing sources must reduce ozone by at least 1.1 times as much. The attainment deadline was November 15, 1993. CAA § 182(a), 42 U.S.C. § 7511a(a).

Areas with ozone 15 to 33 percent over the ozone NAAQS are classified as *moderate*. For such an area, the SIP must include everything called for in the SIP for marginal areas, plus: an attainment provision for reducing **volatile organic compound** (VOC) emissions by 15 percent before the attainment deadline, with specific goals for VOC and nitrogen oxide reductions; a RACT program applicable to all sources for which the EPA has issued CTGs and any other major sources of VOCs; an inspection and maintenance program for automobiles; mandatory gasoline recovery systems at larger service stations; and an offset ratio of at least 1.15 to 1 (controls on existing sources must reduce ozone by 1.15 times as much ozone as the new source will produce). The attainment deadline is November 15, 1996. CAA § 182(b), 42 U.S.C. § 7511a(b).

An area that has ozone at 33 to 50 percent over the NAAQS is classified as *serious*. The SIP for such an area must include everything mandated for moderate areas, plus a term defining a *major source* as anything emitting more than 50 tons (rather than the usual 100 tons) per year; a requirement for a 3 percent annual reduction in VOC emissions starting in the seventh year after enactment and continuing until attainment is achieved; more stringent contingency measures that will come into play automatically if milestones are not met; an “enhanced” inspection and maintenance program; transportation control measures; stringent limitations of the ability of new sources to “net out” of new source review; and emission offsets of 1.2 to 1. The attainment deadline for such areas is November 15, 1999. CAA § 182(c), 42 U.S.C. § 7511a(c).

An area in which ozone exceeds the NAAQS by 50 to 233 percent is classified as *severe*. Beyond those requirements for serious areas, several other provisions

LEGAL TERMS

volatile organic compounds (VOC) Any of various carbon-based chemical compounds that pass into the air through processes such as vaporization.

must be included in SIPs for severe areas: the definition of *major source* is pushed down to 25 tons per year; employers must be required to institute car pooling by employees to reduce emissions; an offset ratio of 1.3 to 1 is mandated; and if attainment is not achieved by the deadline, a VOC emissions fee of \$5,000 per ton for all VOC emissions in excess of 80 percent of the attainment goal is instituted. The attainment deadline for these areas is November 15, 2005. CAA § 182(d), 42 U.S.C. § 7511a(d).

Any area in which the ozone level is 233 percent of NAAQS or more is classified as *extreme*. Fortunately, there is only one extreme area in the nation at present, Los Angeles. A SIP for an extreme area must include all of the measures required for lesser areas, and it must set the threshold for major sources at 10 tons per year; preclude netting of VOC emissions from new sources; require catalytic systems on utility, industrial, and commercial boilers emitting more than 25 tons of nitrogen oxides per year; impose peak hour transportation controls; and impose offsets of 1.5 to 1 for VOCs. The attainment date for extreme areas is November 15, 2010. CAA § 182(d), 42 U.S.C. § 7511a(d). The Los Angeles area is already facing a crisis in which the economic burdens of cleanup are weighing against the feasibility of cleaning up the area.

Nonattainment SIPs for Pollutants Other Than OZONE

The 1990 amendments included new subparts covering carbon monoxide and particulate matter. For carbon dioxide, the amendments divide nonattainment areas into moderate and serious. Moderate nonattainment areas must achieve attainment by December 31, 1995. Serious areas must reach attainment levels by December 31, 2001. As with the ozone standards, the serious areas are subject to more severe constraints than moderate areas.

Particulate matter standards similarly differentiate between moderate and serious areas. The deadline for cleaning up moderate areas is December 31, 1994. The deadline for cleaning up serious areas is set at 10 years after the area is classified as serious. CAA §§ 191, 192; 42 U.S.C. §§ 7514, 7514a.

Judicial Review of SIPs

A state's decision to adopt particular provisions in its State Implementation Plan can have extraordinary impacts on industries and businesses in that state. Because of this, the judicial review of SIPs is a matter of concern. There are two routes for judicial review, and the route to be taken depends on the nature of the action being reviewed.

For nondiscretionary actions, the Clean Air Act authorizes citizen suits in the federal district courts. CAA § 304, 42 U.S.C. § 7404. Final actions are to be filed in the courts of appeal for the affected circuit. CAA § 307, 42 U.S.C. § 7607. State actions in adopting SIPs are reviewable according to state law provisions in the state courts. Although these divisions are theoretically clear, in practice they are frequently more complex than might otherwise be imagined. Whether,

when, and where a particular decision can be brought to court for review is often an extremely complicated question.

An examination of the suits in which SIP decisions have been challenged shows the nature of the controversies. Both affected industries and environmental groups have been extremely active in challenging SIP decisions, resulting in a complex body of judicial opinions concerning many aspects of the SIP process.

Stationary Source Enforcement

The complicated SIP process imposes legal standards for stationary sources. But even when a SIP is fully adopted and promulgated through publication in the *Federal Register*, so that it has the full force of federal law, it remains nothing more than a plan. To be effective, a plan must be enforced, and this means having someone—the EPA, the state, or interested citizens—bring actions to enforce the SIP provisions against alleged polluters.

This prompts five questions concerning enforcement:

1. Who can bring an enforcement action?
2. What limits can be enforced?
3. What authority is there to investigate and document violations?
4. What is the procedure for bringing an action on a violation?
5. What sanctions are available?

Almost anyone can bring an enforcement action. The law allows the EPA, the states, or members of the public to bring enforcement actions to enforce either state implementation plans or federal emissions limits.

Federal enforcement is often a key factor. The EPA has both the resources and the political insularity to make its enforcement actions effective. EPA action also maintains an element of continuity and national uniformity that would otherwise be lacking. During the early years of the Reagan Administration, critics charged that the EPA's enforcement capacity was being gutted through a combination of budget cuts that destroyed the EPA's capacity to bring suits, and policies that undercut legal action.

Partly in response to this, Congress opened the way for citizen enforcement actions by adopting § 304, 42 U.S.C. § 7604. Citizen enforcers must notify the violator and the EPA and must let the EPA bring an action if the Agency elects to do so. Citizens can intervene in such actions if they so desire. Citizen suits under other environmental acts have been very effective, and with budget cutting remaining a high priority item for Congress, citizen actions may be extremely important in future enforcement of the Clean Air Act.

Enforcement Requirements

The regulatory process differentiates between two types of legal actions: actions to challenge the validity of regulations and actions to enforce regulations.

In the context of the Clean Air Act, challenges to the validity of regulations cannot be raised in actions seeking enforcement. This keeps the litigation concerning the validity of these regulations in a limited number of courts, thus enforcing a certain order. Because of this, when an enforcement action is contemplated, the SIPs and the national emission limits present the parties with a discrete range of specific, measurable requirements for an individual emission point, so that it is much clearer who must do what under what circumstances. The statutory compliance and attainment deadlines give certainty on issues of when compliance must be achieved.

Unfortunately, the federalistic system injects an element of uncertainty into this process. For example, if a state failed to observe proper procedural formalities, then any resulting SIP is fatally flawed, even if the EPA later formally promulgated the SIP. However, once a SIP is formally promulgated, it remains the controlling law even after state authorities have approved a revised SIP. Questions of state as opposed to federal authority can be a source of delay and complication to the entire process.

To address some of these problems, the EPA now issues operating permits under the 1990 amendments. Ostensibly, these will provide a clear statement of what is required for a given source. Unfortunately, because SIPs remain independently enforceable unless they have been specifically preempted, the permits have not been as effective as first hoped for eliminating this source of bureaucratic delay and confusion.

Monitoring

Monitoring for violations of the Clean Air Act is, for the most part, a very complex and technical process. Often, the only point from which relevant data can be collected is the top of a smokestack—hardly an accessible place. Further, some new source performance standards require continuous emissions monitoring. Because of the difficulties in direct data gathering, many regulatory agencies rely on “surrogate data.” Approximations of emissions levels can be reached by measuring the opacity of smoke coming from a smokestack. *Opacity* is a measure of the extent to which a plume of smoke blocks out light. Sulfur can be measured based on the content of sulfur in the fuel, because burning merely changes sulfur from a solid form into sulfur dioxide, a gas. *Portland Cement Association v. Train*, 513 F.2d 505 (D.C. Cir. 1975).

Section 114 of the Clean Air Act, 42 U.S.C. § 7414, gives the EPA broad investigatory powers. The Agency can require an owner of an emission source, or anyone else subject to any requirement of the Act, to maintain records, and the EPA may enter the premises where such records are kept to review, inspect, and copy them, inspect any monitoring equipment, and sample emissions.

Further, under the 1990 amendments, the EPA may use administrative subpoenas under its enforcement provisions, and may pay rewards for information leading to the discovery or proof of violations. CAA § 113(f), 42 U.S.C. § 7413(f). As part of the permitting process for major sources, the EPA must require these sources to certify that they are in compliance with the law and to detail any lapses

PORTLAND CEMENT ASSOCIATION

v.

TRAIN

**United States Court of Appeals,
District of Columbia Circuit
513 F.2d 506 (D.C. Cir. 1975)**

At argument petitioner's counsel relied upon a formulation of positions which he handed to the court and which reads as follows:

* * *

Under what, if any, circumstances could economic considerations produce a standard lower than the highest technologically achievable? ...

How can plume opacity be [a] valid standard when pollution and plume opacity can not be reliably correlated and evaluations of the same plume by several qualified observers will vary substantially?

* * *

[S]ection 111 of the Act requires the Administrator to take into account the cost of achieving the emission reduction he prescribes. In our remanding opinion we did not require respondent to prepare a quantified cost-benefit analysis, showing the benefit to ambient air conditions as measured against the cost of the pollution control devices. We stated, however, that such studies as might be adduced in comments should be considered and that the Administrator should also consider contentions and presentations that the adopted standard unduly precludes the supply of cement, including whether it is unduly preclusive as to certain qualities, areas, or low-cost supplies. Though the Administrator found that "relating the cost of control to the benefits of the control at least at this time is a practical impossibility," he went on to state

that where the costs of meeting standards would be greater than the industry could bear and survive, such standards could not be implemented by the industry regardless of technological feasibility, and, moreover, that a gross disproportion between achievable reduction in emission and cost of the control technique would not be required. Here too we find no reason to disagree with the Administrator's disposition of this aspect of the remand. The industry has not shown inability to adjust itself in a healthy economic fashion to the end sought by the Act as represented by the standards prescribed.

* * *

[W]e have considered the detailed analysis by the Administrator of numerous factors involved in the use of plume opacity to determine whether or not a portland cement plant achieves a prescribed standard of pollution control. We are not warranted on the basis of his analysis to find that plume opacity is too unreliable to be used either as a measure of pollution or as an aid in controlling emissions.

The Administrator, using trained plume observers, has enlarged upon the tests previously utilized, in the effort to reach a reasonably accurate standard of measurement of opacity. He sets forth in detail the results which led to his 10% standard "as the standard which may not be exceeded by new kilns at Portland cement plants," with a relaxation, however, now permitted, to 20% opacity "to accommodate certain extreme circumstances." His conclusions in resolving the opacity problem and the achievability of the prescribed opacity standard are well reasoned. The court finds no sound basis for rejecting them, remembering the tempered review we exercise in these matters of non-judicial expertise

Case Questions

1. Is the Administrator allowed to disregard cost-benefit considerations in setting standards under the Clean Air Act?
2. When the Administrator claimed that he had taken cost factors into account and would re-evaluate these in the future, did the court show him substantial deference?
3. What sort of showing would it take to convince a court that an industry had shown that it could not adapt itself in an economically healthy fashion?

4. What burden did the administrator have in terms of showing that the use of plume opacity was legally permissible?
5. What test did the court use to decide whether the plume opacity standard was sound?

in compliance. CAA § 114(a)(3), 42 U.S.C. § 7414(a)(3). Based on experience with similar permitting requirements under the Clean Water Act, it appears that a certificate admitting to a violation will be taken as compelling evidence that a violation has occurred.

Enforcement Decision Making

The EPA has essentially unqualified discretion over whether to act on a given violation. The EPA has developed unified guidelines for the various regions and states, covering the selection of enforcement responses and specifying the types of actions on which the EPA will concentrate its attention. Second, the guidelines indicate what the EPA will consider a timely and diligent response from state and regional authorities to a perceived violation. Third, they outline the cases in which the EPA will regularly seek civil fines or comparable sanctions.

One problem of prosecutorial discretion under the Clean Air Act concerns individual sources that fall into technical noncompliance because of delays elsewhere in the regulatory process. For example, if a state issues a SIP with such tight deadlines that no source could reasonably come into compliance, those sources are not in compliance through circumstances largely or even entirely beyond their control.

Initially, the EPA's only answer to this situation was simply to decline to prosecute. In the 1977 amendments and the 1990 amendments, Congress sought to formalize these procedures. Currently, the EPA can issue an enforcement order with a compliance schedule running for up to one year. CAA § 113(a)(4), 42 U.S.C. § 7413(a)(4).

Sanctions

The Clean Air Act gives the EPA an extensive arsenal of sanctions, and additional sanctions were added under the 1990 amendments. The EPA can issue field citations and administrative orders. Some violations of the Clean Air Act were raised to felonies. Endangerment has been made a crime. Perhaps most sweeping of all, *person* and *operator* were redefined to include individual corporate officers, so these individuals are no longer allowed to claim immunity merely because they acted in a corporate capacity. CAA § 113(c)(6), (h); 42 U.S.C. § 7413(c)(6), (h).

The sanctions process requires that the EPA observe basic due process. To this end, sanctions must begin with notice to the violator. Generally, the violation concerns some SIP requirement or permit term. After 30 days, the EPA may issue an

administrative compliance or penalty order, or bring a civil action seeking either injunctive relief or civil penalties of up to \$25,000 per day per violation. Alternatively, field inspectors can issue citations imposing fines of up to \$5,000 per day. CAA § 113(b), 42 U.S.C. § 7413(b).

In deciding how much of a civil penalty to levy, the EPA attempts to take away any gain from violations. To arrive at a penalty, the EPA considers the economic benefit, the seriousness of the offense, and any mitigating circumstances. In some cases, penalties of more than \$1 million have been levied. The 1990 amendments add to the EPA's authority, allowing it to seek penalties for past violations, and establishing a presumption that once a notice of violation is received, the violation is deemed to continue until the violator shows that it has been corrected. This may make civil penalty action quite attractive, both to the EPA and to private citizens.

Additionally, for certain serious violations, the EPA is authorized to impose noncompliance penalties equal to the economic benefit gained from delayed compliance. Again, this is an effort to deprive violators of any gain from wrongful activities. These delay penalties, imposed under CAA § 120, 42 U.S.C. § 7420, are in addition to the regular civil penalties levied under CAA § 113, 42 U.S.C. § 7413.

If a violation continues for more than 30 days after the violator receives the notice of violation, and the violation is deemed to be a knowing violation, the EPA is authorized to seek criminal sanctions, including fines and jail terms. The 1990 amendments made these crimes felonies where they had been misdemeanors, and made "knowing endangerment" criminal. CAA § 113(c), 42 U.S.C. § 7413(c). The EPA can also bar certain violators from receiving any government contracts. CAA § 306, 42 U.S.C. § 7606.

In short, the EPA has more than adequate ranges of sanctions to deal with any violator. If enforcement efforts falter, it is not for lack of power to punish violators.

Emission Trading and the Bubble Concept

Virtually any law creates situations in which it works too broadly. The Clean Air Act is no exception. For administrative ease, the Act groups many types of pollution sources together and makes them all subject to a few overriding rules. From an administrative standpoint, it is easiest to treat all manufacturing sources alike. In practice, this does not work, because all sources are not alike. This builds great inefficiency and loss of potential pollution control into the system. For sources where control can easily be achieved, the law should impose a very high standard, whereas it should deal more lightly with sources that will have great difficulty achieving control.

The EPA has tried to use a "bubble" policy for variances. Under this policy, a new source will be allowed in a nonattainment area if existing sources curb pollution by at least as much as the new source will produce.

Despite its theoretical appeal, allowing variances under the Clean Air Act has never won favor with the EPA. Although the Agency began to consider a bubble policy as early as 1978, there were many strong disputes on the issue.

Partly this reflected difficulties and subtleties in the policy and uncertainties as to potential results. It appears that opportunities were lost because plants had to make massive investments in equipment necessary to meet existing polices, and were not likely to retool later merely to take advantage of a regulatory scheme.

Additionally, the policy has not been well received by the courts. In one case, *ASARCO, Inc. v. EPA*, 578 F.2d 319 (D.C. Cir. 1978), the court ruled that the Clean Air Act did not allow emission trading for new sources. In another context, however, the same court ruled that emissions trading was mandatory. *Alabama Power Co. v. Costle*, 636 F.2d 323 (D.C. Cir. 1979). It now appears that the courts will allow at least some emissions trading, although each trade may involve very complex analysis of data.

Congress added to the confusion by adopting provisions in the 1990 amendments that will foster emissions trading in some programs while banning it in others. Congress relied heavily on a market for emissions trading for controlling acid rain. In contrast, the ozone nonattainment program allows the use of offsets, but only in a very negative context, so that it comes into play essentially as a penalty for noncompliance rather than as an incentive. In short, outside the acid rain setting, the idea of emissions trading remains an idea, but little more.

Legislation Against Interstate Pollution and Acid Rain

Acid rain has been recognized as one of the great problems of air pollution, but until the 1990 amendments to the Clean Air Act, it remained a matter not effectively dealt with. When Congress finally turned to the problem in the 1990 amendments, it went entirely beyond the State Implementation Plan concept which is at the core of much of the Clean Air Act. The SIP process is directed at heavy, localized concentrations of pollution caused by large sources or large concentrations of sources. To this end, the entire process is focused on individual states. Acid rain is caused by complex chemical interactions involving sulfur dioxide (SO₂) and nitrogen oxides (NO_x), chemical reactions that can occur hundreds of miles from the original source of these pollutants.

SIDEBAR

Acid rain is a phenomenon caused by sulfuric air pollution. The burning of high-sulfur coal at power plants and factories in the Midwest causes large amounts of sulfur to rise into the atmosphere. This is carried to the east and north by prevailing winds. When rain falls in these areas, the rainwater picks up particles of sulfur. These combine chemically with the rainwater to form sulfuric acid, so that the rain is corrosive.

By 1977, Congress was confronted with evidence that pollutants carried by winds across state lines and even international borders were causing a serious

problem. In the 1977 amendments, Congress tried to address the problem through new provisions, but these proved ineffective for several reasons. First, the level of precursor pollution that had to be detected was so high that it almost never occurred, although the damage was apparently being triggered by much lower levels of pollution. Second, the modelling techniques then available to show the impact of pollution were not sophisticated enough to support the development of effective responses.

In 1990, Congress revisited the problem. First, it lowered the statutory threshold for impermissible levels of precursor chemicals. States were required to address interstate impacts of air pollutants occurring at levels that had in the past been allowed to pass without comment. Now SIPs must prohibit emissions that will contribute significantly to NAAQS nonattainment in other states. Second, the amendments created a new institution, regional councils of state and EPA officials, to review evidence of pollutant transport and recommend changes to SIPs to address this problem.

Acid rain was a very serious analytical problem under pre-1990 versions of the Clean Air Act. Acid rain is the deposition of sulfates. Often, these are drawn out of the air by rain or snow. Once they fall to earth, sulfates can have serious ecological consequences. Settling on lakes, they disrupt the oxygen content of the water, "killing" the lake. On land, they can kill forests and crops.

Sulfates remain hard to regulate because of their nature. In the air, they are a particulate, but in most cases the amount of migrating sulfates is not large enough to violate the particulate matter NAAQS. Alternatively, the NAAQS did not address sulfuric deposition. Further, modelling technology is not adequate to track pollution that may occur hundreds of miles from a source. International air pollution provisions have been similarly ineffective to deal with the problem.

Acid Rain

Throughout the 1980s, fierce political fights broke out over acid rain. Acid rain is caused by rainwater picking up trace amounts of sulfur dioxide, which can combine with water to form sulfuric acid. Tainted by sulfuric acid, the falling rain becomes a dangerous source of pollution.

The primary source of the sulfuric chemicals that form acid rain is power plants located throughout the Midwest. These plants have traditionally burned high-sulfur coal. There are ways to reduce the use of high-sulfur coal, and to remove some of the sulfur from the emissions from these plants, but any changes that would have a significant impact would be extremely expensive. If controls are imposed on these plants, the cost of electricity will rise, potentially worsening the bad economic conditions prevalent through the nation's "rust belt." If no controls are imposed, states to the north and east face continuing threats to their environment, such as widespread damage to forests throughout the region.

Finally, in 1990, after more than a decade of intense political struggle, Congress adopted provisions that attempt to address the problem. These provisions are innovative—whether they will work remains to be seen.

The new provisions designate coal- and oil-powered utility plants as **affected units**. CAA § 402(2), 42 U.S.C. § 7651a. Each affected unit must apply for a **federal operating permit**. CAA § 408, 42 U.S.C. § 7651g. The application must contain compliance plans, which will be enforceable even while the permit application is pending before the EPA. Each affected unit must install **continuous emission monitors** or equivalent systems. CAA § 412, 42 U.S.C. § 7651k. A continuous emissions monitor creates an ongoing, accurate record of the pollution produced by each affected unit.

Based on the permit, the EPA will issue each affected unit a certain number of allowances. For each allowance, an affected unit will be allowed to emit one ton of sulfur dioxide for the year. In 1995, when this system went fully into effect, there were approximately 19 million allowances. By the year 2000, the number of allowances will drop to just 8.9 million, meaning that industry will have to eliminate some 10 million tons of pollutant sulfur dioxide. CAA §§ 403, 404; 42 U.S.C. §§ 7651b, 7651c. Affected units can also earn bonus allowances for adopting creative means of eliminating pollutants.

Allowances can be used, held, traded, or sold. CAA § 403(b), 42 U.S.C. § 7651b(b). The availability of bonus allowances offers an added incentive for affected units to clean up their operations. Congress hopes that affected units will clean up their operations. If they do so, they will have extra allowances that they can then sell to other, more polluting plants. If affected units do not clean up their operations, they face penalties of a minimum of \$2,000 per ton of pollutant beyond their allowances. This \$2,000-per-ton cost is in addition to any other sanctions the EPA has, including shut-down orders. CAA § 411(a), 42 U.S.C. § 7651j.

The risk involved with this system is that there is no guarantee that there will be a market for allowances, or that enough plants will accept the incentive to clean up their operations. However, preliminary signs indicate that this system will work, and a market is developing for the allowances.

New Source Performance Standards

The major activity on the state level is the drafting and adoption of State Implementation Plans, which are directed at bringing air quality in metropolitan

LEGAL TERMS

affected units Coal-burning plants in the Midwest subject to special rules intended to control acid rain.

federal operating permit A permit now required of any affected unit, intended to allow the monitoring and control of processes that generate the pollutants that cause acid rain.

continuous emission monitors Monitoring equipment that now must be installed on any affected unit, to allow monitoring of pollutants that cause acid rain. Continuous monitoring is considered necessary for the administration of the new allowance system being used to control acid rain pollutants.

regions into compliance with the National Ambient Air Quality Standards (NAAQS). SIPs do not, however, specifically or directly address two other areas of air quality.

The first of these areas is new source performance standards (NSPS). The states are free to regulate existing sources under their SIPs, and they are allowed to grant variances to existing sources, as long as the states meet overall NAAQS requirements. For political reasons, the NSPS were kept under federal control. This is because new sources of pollution are very often powerful sources of economic growth and development. Consider a problem: A business offers to build a factory that will employ 1,000 persons. In return for locating the factory in a particular community, the business demands concessions. An economically strapped community may be pressured to grant concessions. If the states set new source performance standards, they would have powerful incentives to continually lower these standards. Federal standards are less subject to manipulation, because they mean that a company cannot get around air pollution controls by going to other states.

SIDEBAR

Recently, the willingness and ability of Mexico to enforce environmental controls for factories in that country was one of the most heated issues of the debate on the North American Free Trade Agreement. Frequently, the desire to evade environmental controls is cited as one of the least reputable reasons that some American companies have relocated manufacturing plants in other countries.

The idea behind federally mandated new source performance standards is to make new sources a means of driving technological advancement. For any industry listed under the Clean Air Act, all new sources are covered. Only sources that were under construction when the standards were first proposed are exempt. CAA § 111(a)(2), 42 U.S.C. § 7411(a)(2). All pollutants are regulated, whether or not they are also subject to other provisions of the Act. Thus, any time an old factory is dismantled and replaced with a new plant, the new plant must be cleaner than the old one. New plants built in areas that have attained the NAAQS are not allowed to cause significant deterioration. Because the standards are known in advance, planners can include the costs of meeting these standards when designing new plants.

With the 1977 amendments to the Clean Air Act, Congress modified the law in a way that might have made new source performance standards more effective. Under the 1977 amendments, **new source review programs** were established for all parts of the country. Under these programs, all sources had to meet standards at least as stringent as the NSPS, although the review could lead to more

LEGAL TERMS

new source review programs A program for the reviewing and permitting of new sources of air pollution. If a source is classified as a major source, it must have a permit issued pursuant to a new source review program.

stringent standards. However, in fact, most new source standards remained at the NSPS. State agencies and regional EPA offices found it much easier to adhere to these standards than to try to conduct more rigorous case-by-case review.

The basic requirements of the NSPS are set out in § 111 of the Clean Air Act, 42 U.S.C. § 7411. This section authorizes the EPA to establish standards of performance for new sources based on technology and cost. These are to apply to categories of new and modified stationary sources that contribute significantly to health- or welfare-threatening pollution. Thus, the first step in the regulatory process is the determination that a given category of stationary sources “causes or contributes significantly to air pollution which may reasonably be anticipated to endanger public health or welfare.” CAA § 111(b)(1)(A), 42 U.S.C. § 7411(b)(1)(A). The EPA has considerable discretion in determining what categories will cause or contribute to health problems, so it can list a category of plants as being subject to the NSPS if it thinks they will cause problems in the future, even if current SIP limits will eliminate any NAAQS violation. Further, Congress has clearly pressed the EPA to be inclusive in its listings of plants subject to the NSPS. The 1977 amendments specified this, requiring the EPA to identify all categories of major sources (that is, sources emitting more than 100 tons of pollutants per year).

Once a category is listed, the NSPS must set uniform emission limitations for the category. Generally, these limitations will be stated in terms of the maximum amount of emissions allowable per source. For some categories of sources, however, this is impractical. For example, assume that a plant does not have specific smokestacks. Instead, it carries on processes that emit pollutants throughout the plant. One example of this is a coke oven, which emits huge quantities of smoke but does not have a single, discrete stack. For sources such as these, the EPA may specify work-practice standards rather than setting specific maximum amounts of emissions.

The NSPS are based on specific technologies that the EPA has studied and analyzed. However, the actual standards do not require any source to adopt these technologies. The standards require that the source achieve the levels of cleanup called for in the standards, leaving to the individual source the decision on how these standards are to be achieved.

To set a specific standard, the EPA first identifies the available technologies. Next, it determines what levels of reduction these technologies can achieve. In this same process, the Agency must determine the financial and other costs associated with that technology. Much of this process is extremely technical, and it involves a large element of speculation because the EPA can consider technologies that are “available” even though they have not yet been adopted in a given category. The EPA may base its determinations on any technology that it can reasonably expect will work in the particular industry.

The determination of what reductions can be achieved in these situations is necessarily speculative. The courts reviewing EPA decisions in these areas have insisted that the Agency demonstrate that it has imposed considerable rigor in the decision-making process, including carefully considering the available data and demonstrating through the administrative record that it has taken all the

appropriate steps to make its determinations. If the Agency has made a suitable record, however, the court will give considerable deference to Agency determinations. *Sierra Club v. Costle*, 657 F.2d 298 (D.C. Cir. 1981).

The EPA can use technologies that are only theoretically available. In practice, however, it has generally looked to the plants in a given category to determine what technologies they use, classifying these as the available technologies. It has tried to find the most efficient controls that are truly available.

Once it identifies a technology as available, the EPA must calculate the percentage reductions and emission limitations that the technology can achieve. This is based on what the technology will do in actual practice rather than any theoretical figure, and the EPA bases these calculations on the actual performance of the technology at plants using it. The Agency must be able to show that any figures it adopts are a reliable and reasonable indicator of what the technology can achieve in real-world practice.

As part of the assessment process, the EPA must determine if a technology is cost-effective. To do this, the Agency calculates the capital and operating costs of a new plant with the preferred technology as compared to the costs of a new plant without such technology. It then asks if the new plant can operate profitably bearing the increased costs of the technology. If the plant can operate economically, then the technology is deemed to be cost-effective. CAA § 111, 42 U.S.C. § 7411.

New Sources

By definition, a NSPS applies to a new source. This makes the determination of what is a new source a critical issue. Obviously, this includes any new factory or furnace. Additionally, the EPA has ruled that it includes any physical alteration in an existing factory that increases emissions or adds a new pollutant to emissions. The EPA also includes certain changes in the way the source is operated, such as a change in the fuel used. The EPA does not include as a new source a change in the level of operation, such as going from one shift per day to two. Any physical modification of a facility that costs more than 50 percent of the cost of a replacement facility is also considered to be construction of a new source. 40 C.F.R. § 60.15. This encourages owners to build new facilities, rather than simply repairing out-of-date facilities, by taking away incentives to repair.

The NSPS apply to new sources. To protect owners who have made major investments in construction in good faith, these standards do not apply to existing sources. One of the key questions regarding how these rules apply is how far along the construction of a source had to be before it qualified as an existing source not subject to the NSPS. Congress answered this question, specifying in the Clean Air Act that the NSPS apply to any source for which the construction or modification was started after the date the NSPS were proposed. CAA § 111(a)(2), 42 U.S.C. § 7411(a)(2). The proposal date controls, even though it may be years before the standard is finalized, and even though the standard may be substantially modified in the review process. Commencing construction

requires that the owner of the facility have entered into contracts sufficiently binding that it will suffer a substantial liability if it breaks off construction. Further, the contract must relate to parts of the facility integrated with the emissions source. All these aspects of the test are intended to establish criteria to protect against evasion of the standards through false construction starts, while giving notice to the affected industry.

The term *source* includes “any building, structure, facility, or installation which emits or may emit any air pollutant.” CAA § 111(a)(3), 42 U.S.C. § 7411(a)(3). In the context of the NSPS program, the EPA uses a dual definition of *source*: the source is both the large facility, such as an entire plant, *and* each pollution-contributing component. Use of this dual definition protects the construction timing rule while it prevents a company from evading the law. By using the plant-wide definition, the EPA can keep companies from manipulating offsets to avoid the NSPS. By using the individual component definition, it can thwart efforts to avoid the construction timing rules.

The NSPS are to be kept up to date. In some instances, Congress has mandated revisions of the NSPS when necessary to maintain coordination with other provisions of the Act. For example, Congress mandated changes to the NSPS for oil, gas, and coal-burning plants to require that controls be installed, instead of allowing all affected sources to switch fuels. The result was an extremely contentious revision process. Further, the EPA is to revise all NSPS “from time to time.” CAA § 111(b)(1)(A), 42 U.S.C. § 7411(b)(1)(A).

The NSPS were intended to be technology-forcing. These standards were to compel and induce industries to adopt new technologies, gradually helping to control pollution. As technologies were proven through the NSPS, states could then adopt them into their SIP regimes.

Whether this program has been effective is open to question. Largely, the technologies that have been adopted under the NSPS were those already in existence. For example, the NSPS for coal-burning plants is based on scrubber technology. A *scrubber* is a device that can clean some of the pollutants out of the smokestack emissions at a coal-burning plant. Since this standard went into effect, scrubbers have been widely adopted. However, other more innovative and arguably more effective technologies have been overlooked in the process. Further, there is a plausible argument that the real impetus to adopt scrubbers was less their incorporation into the NSPS than the tremendous publicity generated by the whole process of regulating coal-fired plants. In some instances, the EPA has clearly adopted less than the best technology to avoid disputes about whether that technology is achievable. Given the slow pace of drafting and revision, other technologies have languished, waiting for someone to approve them.

Some critics have also argued that the pressure to install new equipment has caused lags in the economy. Available data has not borne this argument out. But even without this contention, the NSPS have not caused the advances in technology that some of its proponents felt it would.

Although the drafting of NSPS is a federal task, the EPA is free to delegate enforcement responsibility to the states, and it has done so. Every state now

has NSPS enforcement authority. 40 C.F.R § 60.4. The NSPS remain federally enforceable, and the full range of sanctions available under the Act is available for violations. CAA § 120, 42 U.S.C. § 7411(c)(2).

Regulation of Hazardous Pollutants

In addition to criteria pollutants—the common chemicals found in air pollution—a wide variety of other chemicals emitted into the air pose at least some threat to public health and welfare. These are designated *hazardous air pollutants*. The 1970 amendments had required the EPA to list hazardous air pollutants. However, the EPA's record in this area was lax at best.

In 1990, the Congress essentially replaced § 112 of the Clean Air Act, 42 U.S.C. § 7412. Under the new provisions, the EPA must issue technology-based emission limitations for any industry that emits certain listed hazardous air pollutants. These limitations will be similar to NSPS in that they will be based on the best available technology. For any source at which the residual risk of such pollutant exceeds the national acceptable risk, the EPA must require the source to install additional controls.

The 1990 Amendments also restricted the EPA's discretion in matters of listing. The EPA must list 189 specified substances, and there are special provisions concerning coke ovens, fossil-fuel-fired utility units, and solid waste incinerators.

Under the 1990 amendments, *hazardous air pollutant* was redefined to mean any of the 189 listed pollutants, and any substances other than criteria pollutants which the EPA finds "present or may present, through inhalation or other routes of exposure, a threat of adverse human health effects, ... or adverse environmental effects, whether through ambient concentrations, bioaccumulation, deposition, or otherwise." This means that any substance harmful to the environment is a hazardous air pollutant. Even if the harm occurs after a pollutant has settled out of the air, it remains a hazardous air pollutant. The EPA is allowed to delist substances only if it can show that there is no reasonable likelihood of any adverse effects to human health or the environment.

The new amendment also classifies the sources that the EPA must regulate for all hazardous air pollutants. For each listed hazardous air pollutant, the EPA must publish a list of all categories and subcategories of major sources. A *major source* for hazardous air pollutant purposes is any stationary source or plant that emits or has the potential to emit more than 10 tons per year of any one hazardous air pollutant or 25 tons per year of any combination of hazardous air pollutants. CAA § 112(a)(1); 42 U.S.C. § 7412(a)(1).

In addition, the EPA must list all categories and subcategories of *area sources*. These are stationary sources that do not emit the amounts necessary to be listed as major sources. The EPA lists must include the categories and subcategories that account for 90 percent of the urban area emissions of the 30 listed substances that create the gravest risk to health in the largest number of urban areas. In other words, the EPA must determine, for the 30 most dangerous

of the hazardous air pollutants, what categories and subcategories of plants generate 90 percent of each of these pollutants. CAA § 112(c), 42 U.S.C. § 7412(c).

Once the EPA has determined what these categories are, it will then develop emissions limitations for each category and subcategory. For major sources, the emissions limitations are to be based on the *maximum achievable control technology* (MACT). MACT is defined in terms that emphasize the severity of this standard. It is the greatest amount of reduction of hazardous air emissions that can be achieved, including the total prohibition of emissions if this can be achieved. In setting this standard, the EPA is to consider cost, health and environmental impacts, and energy requirements. To achieve these limitations, the EPA can consider the impacts of process changes, materials substitutions, enclosure of processes, collection, capture and treatment of emissions, or any combination of measures. CAA § 112(d), 42 U.S.C. § 7412(d).

For area sources, the EPA is not required to impose the MACT standard. It can elect to base emission limitations on "generally available control technology." CAA § 112(d), 42 U.S.C. § 7412(d).

MACT is a technology-based standard. It is to be based on what other, similar plants are doing to control pollution. For new sources, the reference point is the best-controlled source that the EPA determines is similar to the new source's category. In other words, all new sources must match the best plant in the market. For existing sources, the reference point is an average of the best sources. For categories with more than 30 sources, it is the best 12 percent. For categories with fewer than 30 sources, it is the average of the 5 best-performing sources.

The schedule for promulgating these emission standards is extremely ambitious. The standards for the 40 highest priority categories were to have been promulgated by November 15, 1991; the first 25 percent of listed categories by November 15, 1994; 50 percent of listed categories by November 15, 1997; and all listed categories by November 15, 2000.

In addition to these basic standards, residual standards are to be promulgated based on new studies called for under the 1990 amendments. The residual standard for health factors is to be set so that the cancer risk to a maximum exposed individual is less than one in a million. Further, the EPA is to set the residual risk standard below this health-based threshold if necessary to prevent adverse environmental effects.

Just as the categories covered by the new hazardous air pollutants are complex, the compliance schedule is equally complex, because it deals with new sources and existing sources for both major sources and area sources.

If an existing source undergoes "reconstruction," it must meet all the new source standards. If a change at a source is deemed to be a "modification," the source will be treated as an existing major source. A *modification* is a change that is less than a reconstruction, but causes more than a nominal increase in the emissions from the source. In a modification, a source can offset any increase in pollution emission with an equal or greater decrease in the same or a more hazardous substance.

For new major sources, hazardous pollutant standards are applicable as soon as they are issued. For existing major sources, the EPA will set a deadline

for compliance, but this deadline must be within three years of the time the hazardous pollutant standards are issued. It is not clear what the schedule for compliance for area sources is.

Existing sources can obtain a one-year extension on MACT deadlines and a three-year extension on residual risk deadlines. There can also be extraordinary extensions, reflecting the potential impact of this new program; among other exemptions, the President can extend deadlines for MACT or residual risk limitations for up to six years based on national security considerations.

Two heavy industry groups received special consideration under the 1990 amendments. A great deal of American steel is processed at massive plants called *coke oven batteries*. *Coke* is a refined fuel made from coal.

SIDEBAR

Coke oven batteries are large industrial plants used for making steel that use coke as fuel. These plants present monitoring difficulties because they do not have discrete smokestacks. *Coke*, a fuel derived from coal, is essentially refined coal, which will burn hotter and more forcefully than coal in processes such as steel-making.

Coke oven batteries have special significance for two reasons. First, steel-making is a basic industry, preliminary to hundreds of other industries. Steel-making in America has suffered serious setbacks because of foreign competition. Second, the capital investment in a coke oven is spectacularly high. To protect this industry and the investments that have been made in it, CAA § 112 includes special provisions for such units. The EPA can exempt coke oven batteries that comply with EPA emission limits and work practices standards until January 1, 2020.

Similarly, electric utility steam-generating units have been granted a special exemption. The EPA must study the effects of the pollution controls mandated under the acid rain provisions. If health and environmental hazards remain, then the EPA is to promulgate regulations bringing these plants under the CAA § 112 rubric.

The 1990 amendment also created a partial exemption for a third class of plants, solid waste incinerators. Not all incinerators are covered by this rule, but it does cover incinerators burning municipal waste; hospital, medical, or infectious waste; commercial and industrial waste, and other incinerators unless they are fully regulated under exclusive terms of some other environmental law. Although incinerators are subject to many of the standards of the hazardous air pollutant provisions, the provisions for these plants are to follow lines more closely akin to the NSPS program. The EPA is to set emissions standards for these plants for particulate matter, opacity, sulfur dioxide, hydrogen chloride, nitrogen oxides, carbon monoxide, lead, cadmium, mercury, dioxins, and dibenzofurans, basing these standards on MACT. The EPA is also to study if a residual standard for these substances is necessary to protect health and the environment. In addition, the incinerator NSPS must include siting provisions.

For new sources, these regulations will be effective six months after promulgation. Existing sources will have five years to comply. Further, the states are free to impose more stringent requirements on incinerators.

Finally, the EPA is not to treat ash from municipal waste incinerators as a hazardous air pollutant, although it may reopen this question any time after November 15, 1992.

Operating Permits

One of the more important and more muddled topics under the Clean Air Act is the subject of permits. Essentially, each of the Clean Air Act's programs has its own permit requirements. When obtaining a permit, the client's legal professionals will have to ensure that the client meets the requirements for all the applicable programs. The permit standard varies depending on the type of source involved, when it was built, and the area it is in. New sources are subject to the NSPS. Facilities generating large amounts of pollution are subject to major source standards. States have different requirements under their SIPs, and within a given SIP, standards vary depending on whether the facility is in an attainment or a nonattainment area.

All of this means that an application for a permit under the Clean Air Act must be prepared very carefully and checked thoroughly, because it is difficult to determine precisely what requirements are applicable to any given source. In conducting this work, legal professionals should not rely on memory or guesswork. The better policy, whenever practical, is to maintain copies of the applicable statutes and regulations in the files.

At least the following entities must obtain permits:

- Major sources (facilities with the potential to emit more than 100 tons of regulated pollutants per year)
- In nonattainment areas, sources with the potential to emit at little as 25 tons of regulated pollutants per year
- Coal-burning utility plants covered by the acid rain program
- New sources subject to the NSPS program
- Major hazardous air pollutant sources.

Although a legal professional must review specific state and federal regulations to determine what specific requirements apply to the client's situation, certain basic points are set out in the statutes. Permits must include all state and federal emissions limits and must provide for monitoring, inspection, and reporting. Permits may be for terms of up to five years, although permits for major sources must include a reopener provision after three years.

Because of federalism and the migratory nature of air pollution, a permit application must be submitted to the state that will issue the permit *and* to any contiguous state that will be affected by the air pollution. The permit must be approved by both the state and the EPA. At the state level, the public must

be given notice of the permit application, and a hearing must be held for public comment. Further, there must be a public comment period before the EPA approves the final permit, so a permit cannot be considered final until this public comment period has expired.

Once a permit is issued, the permit holder should use it as the exclusive guide for all matters that it covers. Because of its legal importance, the permit should be written to cover all possible issues of compliance and enforcement. Note one difficulty: if a permit fails to impose the terms of an applicable SIP or federal regulation, this does not create an exemption unless the permit specifically states that the permit holder is exempt. Therefore, compliance with the permit is not a defense to violation of a regulatory provision that is not specifically incorporated into the permit. To avoid this problem, the application should be drafted to include all applicable regulatory requirements.

New Source Review

In addition to regulating existing sources, SIPs have become important as a means for regulating the entry of new sources into the market. Section 110 of the Clean Air Act, 42 U.S.C. § 7410, requires that each SIP contain a program for regulating new stationary sources.

In dealing with any problem relating to new sources, the legal professional must keep in mind that the Clean Air Act provisions are merely the beginning. The Act provides the basic framework within which the states must act, but it does not set specific state terms. The states are free to be more stringent. Thus, a legal professional dealing with any new source problem must understand the federal rules and must also check all the applicable state rules. This often involves looking not only at the specific regulations, but also at the details of the interpretations of those rules.

History of New Source Review

New source review (NSR) is the product of two forces: the EPA's efforts to carry out its mandates under the Clean Air Act, and a remarkably aggressive decision by the court system. When Congress first amended the Clean Air Act in 1970, it included, in § 110 of the Act, 42 U.S.C. § 7410, language calling for a procedure for preconstruction review of the location of any source that would be subject to emissions regulations under CAA § 111, 42 U.S.C. § 7411. This was to prevent the construction of any source that would prevent attaining the NAAQS.

The resulting regulations now seem rudimentary, but they set a pattern followed ever since. In their SIPs, states must include procedures for determining if any proposed source would violate the SIP or interfere with attainment or maintenance of a NAAQS. Additionally, states must prohibit the construction of any source that would do either of these. To show that it meets new source

performance standards, an applicant must submit to a two-part review process. First, the new source is tested against technology-forcing requirements such as SIPs, the NSPS, or the like. Second, the new source is examined in light of its impact on the ambient air quality.

The states drafted SIPs that included provisions for this review, but in the meantime the courts entered the dispute with a remarkable decision in *Sierra Club v. Ruckleshaus*, 344 F. Supp. 253 (D.D.C. 1972). In *Sierra Club*, the court ruled that the language of the Clean Air Act, stating that it was the intent of Congress to “protect and enhance” air quality, meant that even in areas that had attained all NAAQS requirements, the Clean Air Act required regulation sufficient to prevent significant deterioration. To meet this requirement, the court ordered the EPA to require that every SIP include provisions to prevent significant deterioration of the air quality in any region that had attained the NAAQS.

This meant that new source performance standards could be applied in attainment areas to prevent significant deterioration. Thus, a judicial decision rather than legislative action gave rise to the prevention of significant deterioration (PSD) requirements in current regulations.

Eventually, the EPA set up regulations establishing a new source review program as part of the PSD regulations. In its regulations, the EPA lists 18 categories of sources. Anyone wishing to construct a source in one of these categories must obtain an EPA permit. To obtain a permit, an applicant must show that the new source will not cause or contribute to a violation of air quality deterioration limits, and that the proposed source would meet the limits of the **best available control technology (BACT)** for sulfur dioxide and for particulate matter. If the source is subject to the NSPS, the EPA equates BACT with the NSPS; for other sources, the EPA determines BACT on a case-by-case basis.

At the same time, the EPA had to deal with a separate question. The Clean Air Act had initially assumed that all states could attain the NAAQS by 1975, but it was soon apparent that this goal would not be achieved. This led to another question: could the EPA allow sources that would aggravate existing NAAQS violations? Eventually, the EPA elected to allow permits for sources in nonattainment areas, but only under strict terms. The applicant would have to show that the new source achieved the **lowest achievable emission rate (LAER)**; that any increase in emissions was more than offset by other reductions in emissions, so that there was net progress toward the NAAQS; and that all sources owned or operated by the same applicant met all SIP requirements.

In the 1977 amendments to the Clean Air Act, Congress included several changes to the new source requirements. These changes are highly technical and have been at least partially superseded by various subsequent developments,

LEGAL TERMS

best available control technology (BACT) The level of technology-based pollution control for new sources in PSD regions. The EPA will set a level it deems achievable, and any new source in a PSD region must have this level of control to get a new source permit.

lowest achievable emission rate (LAER) The standard of pollution control that a new source must achieve for a permit in a nonattainment area. This is a rigorous standard, reflecting the idea that new sources should achieve the lowest levels of pollution possible.

but they are of interest at this point less for their specific features than for the process by which the congressional terms were gradually pressed into a legal regime that applied in the field.

In the 1977 amendments, Congress adopted two critical provisions. First, for any nonattainment area, the state was required to have a new source permit program. If the state failed to adopt such a program, the EPA was ordered to impose an outright ban on the construction of new sources. For all attainment areas, Congress required the EPA to create a **prevention of significant deterioration (PSD)** program regulating the construction of new major sources. As part of these amendments, Congress expanded the definition of *major source*, making it more inclusive.

In response to these congressional directives, the EPA adopted a series of regulations. Various interested parties, including environmental groups, states, and industry elements, went to court to challenge these regulations. These cases were marvels of complexity that dragged on for several years. Some of the EPA regulations were not given final court approval until 1989. In several instances, regulatory drafting and litigation showed that the statutory framework did not address pollution problems effectively. As a result, by the time the EPA issued final regulations concerning new source permit requirements, it was also proposing legislative amendments to Congress.

Does this mean that there are fundamental flaws in the environmental law process? Does it show that the participants are corrupt? No. The process is not perfect. Every participant is self-interested, with its own goals. But the overall process reflects an evolution consistent with the complexity of the subject matter. Clean air problems are complex. They have taxed some of the finest legal and technical minds our society has. They have challenged our ability to find solutions. Even with the best efforts of everyone involved, the early drafts of statutes and regulations need repeated revision and refinement. The process requires the ongoing participation of Congress, administrative agencies, the courts, and especially the interested public. The result of this evolution is a workable environmental policy. Far from showing the failure or the weakness of the process, the development of regulations from 1977 to 1990 shows the ability of the process to adapt to the enormously complicated problems that it confronts.

The 1990 Amendments to the New Source Rules

The 1990 amendments to the Clean Air Act gave a new twist to the basis on which the EPA is to apply the onerous new source rules. If there is a significant increase in emissions from a new source, there must be new source review. Under the acid rain title added by the 1990 amendments, a source can increase

LEGAL TERMS

prevention of significant deterioration (PSD) The label given to a region that has attained the NAAQS. This reflects the goal of the Clean Air Act, which, after attainment is achieved, is to prevent an attainment region from suffering a degradation of air quality standards and reverting to nonattainment.

its emissions if it purchases sufficient allowances. How is new source review to be squared with allowances? There has been no clear resolution of the conflict between these two provisions.

In the 1990 amendments, Congress debated taking a stand on the question of how various sources are to be judged. In the end, however, it concluded that the best way to resolve the issue was to leave it with the EPA through the rule-making (and subsequent litigation) processes.

One rule of reductions is that a source is not allowed to get multiple credits for a single reduction. To this end, if Clean Air Act rules require a source to reduce its emissions, the source cannot rely on those same reductions as showing that there is no net increase for purposes of PSD review exemptions. Similarly, if a source claims reductions to get an initial permit, it cannot rely on these same reductions to avoid PSD review if it later modifies the source.

Further, the EPA requires that the net reductions be based on a true net decrease in the danger to the public health. For example, a source cannot claim credit for decreasing the emissions level of a relatively innocuous pollutant while it increases the emissions level of an extremely dangerous pollutant.

To trigger PSD review, the increase must be "significant." The EPA has adopted regulations setting certain levels for each of the six NAAQS pollutants:

carbon monoxide	100 tons per year (tpy)
sulfur dioxide	40 tpy
volatile organic compounds	40 tpy
nitrogen oxides	40 tpy
suspended particulates	15 tpy
lead	0.6 tpy

Additionally, PSD requirements apply to all regulated pollutants. As noted earlier, there is a wide variety of such substances. Some of the more significant levels are:

asbestos	0.007 tpy	fluorides	3.0 tpy
beryllium	0.0004 tpy	sulfuric acid mist	7.0 tpy
mercury	0.1 tpy	hydrogen sulfide	10.0 tpy
vinyl chloride	1.0 tpy		

For each of these regulated pollutants, the EPA has set specific levels that constitute significant increases. If the EPA has not set specific levels, then any increase is deemed significant.

Applicability

Federal clean air regulations are very complex. To make them more comprehensible, it is helpful to divide them into three layers.

- The first layer concerns *applicability*: which devices that emit pollutants are subject to federal regulations? This involves questions of potential amount of

pollutants a device can emit, locations of activities, possible exemptions due to age, and the like.

- A second layer of regulations embodies *substantive requirements*: if a device is subject to these regulations, what do the regulations require? The critical question here is what requirements a party must meet to obtain a federal permit.
- The third layer governs *procedures*: what requirements must be followed to bring about various actions in this regulatory regime? What processes must the agency follow in terms of application processing and public involvement to validate its decisions?

This, of course, is not the whole of regulatory control. The states have the ongoing duty to integrate federal controls into their State Implementation Plans. Many SIPs were developed before several critical features of the current regulatory regime were adopted, so they are subject to revision. Further, the states now are generally the starting point for all new source permits in PSD regions. This means that practitioners must learn the requirements imposed by state regulations.

The general requirement provisions of the regulatory regime apply to any source that would contribute to the significant deterioration of any attainment region. An owner must show, before construction, that the source will adhere to the SIP and will not cause or contribute to a NAAQS violation. Further, the public must be given notice and an opportunity to comment on the project.

Often, the regulatory regime becomes almost a nightmare, because there are interlocking requirements. For example, there are different regulations for attainment and for nonattainment areas. However, some of the regulations for attainment areas are modified if a source will have an impact on nonattainment areas. Thus, any attempt to determine the requirements for a new source permit requires diligent research. Further, given the continuing changes that Congress imposes through its periodic amendments to the Clean Air Act, by the time one set of regulations is finally clearly fixed, Congress compels revisions.

There are, however, a number of relatively stable definitions to serve as a starting point for all permit actions. First of all, the permit requirements apply only if the source is a "major stationary source." A *major stationary source* is a source that is stationary—that is, not moving—that emits or has the potential to emit an amount of pollution above a threshold level. If a source is in a nonattainment area, the general threshold level is 100 tons per year of a NAAQS pollutant. If the source is in a PSD region, then the general standard is 250 tons per year of a NAAQS pollutant. However, the EPA has designated 26 industrial categories, including such types of sources as iron and steel plants, large electric generating plants, refineries, and chemical process plants, for which the threshold is the same as in nonattainment areas: 100 tpy. For these same sources, fugitive emissions, such as dust, are also a regulated NAAQS pollutant, so the 100 tons-per-year standard applies for particulate matter suspended in the air. (Additionally, the states are free to set more stringent requirements, thereby lowering the threshold levels.)

These requirements apply to stationary sources. As the label indicates, *stationary sources* are sources that do not move. Additionally, *stationary source* has been given a “plant-wide” definition. All of the pollution-emitting activities located on contiguous or adjacent properties under the ownership or control of a single person are treated as a single source. Thus, if one steel company has four blast furnaces built on a single property, these are treated as one source rather than four. This would be true even if each blast furnace were in a separate building.

New source review is actually conducted while the source is in the planning stage, before construction begins. As a result, the determination of whether a source is a major source is based on its calculated “potential to emit” rather than actual measured emissions. In making this determination, the permit applicant is allowed to take into account pollution levels that will be achieved because of air pollution control equipment, if that equipment is mandated by a federally enforceable requirement. This allowance can be critical. For example, assume that a source as planned would emit 270 tons of a NAAQS pollutant per year if no air pollution control equipment were installed. This would mean that the source was a major source. But suppose that by installing pollution control equipment, the emissions could be cut to 90 tons per year. At this level, the source would not be a major source, so it would not come under the burdensome restrictions of the major source permit requirements. The owner would almost certainly prefer to avoid the major source label. However, if installation of the pollution control equipment is voluntary, the source will be treated as having the full potential to emit 270 tons of pollutant per year, and it will thus be classified as a major source. Therefore, one of the key factors in obtaining a permit for a new source is to find ways to make the installation of pollution control equipment federally enforceable.

A variety of mandates make the installation of equipment “federally enforceable.” For example, if the equipment is required under § 111 or § 112 of the Clean Air Act, it is federally mandated. A requirement is also federally enforceable if it is made part of a permit issued by a state agency as part of an EPA-approved operating permit program.

Because of this, it is quite common for the owners of new sources to approach state operating permit issuing agencies with offers to install pollution control equipment, so long as these requirements are listed in the state-issued new source permit. The source voluntarily agrees to install the equipment; the state lists the equipment as required in the new source permit; the source is not listed as a new major source.

Some criticize this as a game. However, if the owner of a new plant is willing to install pollution control equipment, and is willing to make that agreement federally enforceable, it is unreasonable to say that the source should be treated as if no such pollution control equipment had been installed.

Major Modifications

If the EPA had applied its regulations rigorously, it could have ruled that any modification to any stationary source which caused an increase in the level

of pollution would require that the owner undertake all of the steps of new source review. This would mean that virtually any attempt to increase the nation's industrial base would require the expensive and rigorous steps involved with new source review. Rather than impose this grave burden, the EPA has limited NSR to any nonroutine change that causes a significant increase in emissions.

For modifications, the EPA has carried over the plant-wide definition it adopted in the context of new sources. This "bubble" concept treats the entire plant as if it is encased in a bubble with a single opening through which all pollutants are directed. So long as the net level of pollutants is not increased significantly, new source review is not triggered.

In defining *major modification*, the EPA has excluded certain types of changes. For example, routine maintenance, repair, or replacement is not a change causing a major modification. Similarly, changes in production rates or operational hours are not a change, as long as these changes are not prohibited by a federally enforceable permit. This is true even if the changes actually result in a significant increase in emissions.

The EPA has viewed these exclusions very narrowly, and has tended to rule that many changes are not within the exclusions. The key case on this point is *Wisconsin Electric Power Company v. Reilly*, 893 F.2d 901 (7th Cir. 1990) (WEPCO).

WISCONSIN ELECTRIC POWER COMPANY

v.

REILLY

United States Court of Appeals, Seventh Circuit
893 F.2d 901 (7th Cir. 1990)

[WEPCO challenged an EPA determination that renovations at a power plant were covered by the New Source Performance Standards of the Clean Air Act.]

We must consider whether the EPA's construction comports with its statutory mandate and Congress's intent in enacting clean air legislation. But we cannot simply substitute our judgment for that of the EPA.

Further, we defer even more to an agency's construction of its own regulations. ... The principle of deference has particular force where, as is the case here, the subject being regulated is technical and complex.

[U]nder the plain terms of the Act, WEPCO's replacement program constitutes a "physical change." WEPCO proposes to replace rear steam drums on units 2, 3, 4 and 5; each of these steam drums measures 60 feet in length, 50.5 inches in diameter and 5.25 inches in thickness. In addition, WEPCO plans to replace another major component, the air heaters, in units 1-4. To implement this four-year program, WEPCO will need to make the replacements by taking the units successively out of service for nine-month periods. These steps clearly amount to a "physical change" in the Port Washington plant.

WEPCO does not dispute that its steam drum and air heater replacements will result in an altered plant. But WEPCO does assert that Congress did not intend for simple equipment replacement to constitute a physical change for purposes of the Clean Air Act's modification provisions.

What WEPCO calls "plain" is anything but plain and takes the definition far beyond the words enacted by Congress. Thus, whether the replacement of air heaters and steam drums is a "basic or

fundamental change" in the Port Washington plant is irrelevant for our purposes, given Congress's directions on the subject: "The term 'modification' means *any* physical change. ... " We follow Congress's definition of "modification"—not Webster's—when interpreting this term within the context of the Clean Air Act. ...

Nor can we find any support in the relevant case law for the narrow constructions of "modification" and "physical change" offered by WEPCO. ...

Further, to adopt WEPCO's definition of "physical change" would open vistas of indefinite immunity from the provisions of NSPS and PSD. Were we to hold that the replacement of major generating station systems—including steam drums and air heaters—does not constitute a physical change (and is therefore not a modification), the application of NSPS and PSD to important facilities might be postponed into the indefinite future. There is no reason to believe that such a result was intended by Congress.

* * *

Although we have determined that WEPCO's repair and replacement program satisfies the modification provisions of the Clean Air Act Amendments, this is not the end of our inquiry. WEPCO's attack focuses primarily on EPA regulations, which in a number of respects are narrower than the statute. WEPCO argues that the EPA applied its regulations arbitrarily and capriciously to the Port Washington project. ...

EPA regulations define "modification" as "any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies." ... However, the EPA has, in addition, used its regulations to exempt a number of activities from the broader definition. The exemption that may be relevant here is accomplished by the following language:

The following shall not, by themselves, be considered modifications under this part:

(1) Maintenance, repair, and replacement which the Administrator determines to be routine for a source category. ...

WEPCO relies on this language to argue that, even if its repair and replacement program amounts to a

physical change, it was specifically exempted by the regulations.

Again, we accord substantial deference to an agency's interpretation of its own regulations, especially with respect to technical and complex matters. In this connection, to determine whether proposed work at a facility is routine, "EPA makes a case-by-case determination by weighing the nature, extent, purpose, frequency, and cost of the work, as well as other relevant factors, to arrive at a common-sense finding." The EPA considered all these factors in determining that the Port Washington project was not routine.

* * *

Still, WEPCO asserts that the cost, magnitude and nature of its Port Washington project are irrelevant for purposes of the "routine" exception to NSPS and PSD. WEPCO contends that the EPA has already addressed these factors—including the perpetuation of existing sources—through its so-called "reconstruction" rule:

(a) An existing facility, upon reconstruction, becomes an affected facility [subject to NSPS], irrespective of any change in emission rate.

(b) "Reconstruction" means the replacement of components of an existing facility to such an extent that:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility. ...

WEPCO believes that, because the air heater replacements will presumably cost less than six percent of a wholly new facility, the reconstruction provisions are not triggered. Therefore, WEPCO argues that the cost and scope of the project are relevant only to a "reconstruction" analysis and are not material for purposes of the routine exception to the modification provisions.

WEPCO's analysis fails to note, however, the fundamental differences distinguishing the reconstruction and modification provisions. The reconstruction provision applies to any substantial replacement (more than 50% of the cost of a new facility) *even if the replacement causes no subsequent increase in emissions*. In sharp contrast, the modification provisions apply only when a physical change is accompanied *by an increase in*

emissions. To argue, therefore, that the reconstruction provision is the *exclusive* determinant of whether the cost, nature and magnitude of a project will require the application of NSPS is to ignore the substantially different objectives of the reconstruction and modification provisions: The reconstruction provision is aimed principally at "discourag[ing] the perpetuation of a facility, instead of replacing it at the end of its useful life with a newly constructed affected facility," *without regard to emissions*, while the modification provision applies to *any* physical change, without regard to cost, that causes an increase in emissions. Hence, we cannot agree that the EPA's consideration of the cost, magnitude and nature of the Port Washington project, for purposes of the modification provision of the regulations (and its "routine" exception), is somehow "preempted" by the reconstruction provisions of the regulations. The EPA's examination of these factors, therefore, was not arbitrary or capricious.

* * *

[Turning to the issue of measuring emissions, t]he first issue to be addressed is whether the EPA properly invoked the "potential to emit" concept in calculating the emissions increase. ... [T]he PSD regulations state that the EPA may rely upon a facility's potential to emit if the unit "has not *begun normal operations* on the particular date" (emphasis supplied). WEPCO argues that this phrase should be interpreted to include only those units that have never been in operation, while the EPA

urges that the phrase can be applied to both new and modified units.

The regulatory history of this phrase sheds little light on its proper interpretation. The EPA argues that it has always interpreted this phrase to include modified units; it asserts that its formulae for determining emissions increases have consistently assumed that "new or *modified units*" would be deemed to operate at maximum physical or federally enforceable levels (emphasis supplied). But the EPA's analysis here seems circular: in order to demonstrate that the Port Washington like-kind replacement project constitutes a modification, the EPA applies the potential to emit concept (to show an increase in emissions). And in order to apply the potential to emit concept to like-kind replacement, the EPA assumes that the plant is a "modified" unit. Although we accord great deference to an agency construing the statute it administers, and even more deference to an agency interpreting its own complex regulations, we cannot defer to agency interpretations that, as applied here, appear to assume what they seek to prove.

* * *

CONCLUSION

The EPA is entitled to substantial deference in interpreting the technical provisions of the Act and its own regulations. We cannot grant deference, however, where the EPA has attempted to implement the Act's lofty goals in contravention of its own statutory regime.

Case Questions

1. How much deference is the EPA entitled to when it is construing its own regulations?
2. If Congress uses a word in a way that carries a meaning different from the dictionary definition, which meaning controls?
3. Note the difference between the reconstruction provision and the modification provision of the EPA regulations. Do they have a substantial overlap?
4. As a practical matter, would someone have to devote substantial time and analysis to these regulations to decipher which of the many regulations an applicant must comply with in order to satisfy the EPA?
5. What logical flaw was fatal to the application of potential to emit concepts to the WEPCO plant?

In this case, WEPCO wanted to rehabilitate old facilities, restore lost generating capacity, and extend planned facilities' retirement dates. WEPCO wanted this classified as routine maintenance, but the EPA ruled that the massive capital investments involved in this program showed that it was not "routine," so the utility had to undergo NSR consistent with the PSD program for these changes.

The courts upheld the EPA, setting off a storm of criticism. It is not clear, however, just what the limits of this ruling are. Clearly, there are some projects involving capital stock turnover which raise such serious concerns about air quality that new source review should be required, particularly if the source is located in a nonattainment area. On the other hand, some capital stock turnover projects appear not to raise air quality concerns, and should be allowed without requiring this review.

If a source undergoes a major modification, review is required if the change will cause a significant increase in net emissions. This involves a comparison between the present actual emissions and future emissions, which can only be calculated rather than actually measured.

For purposes of this calculation, the EPA uses the potential to emit. This creates a problem. Most sources will not operate at their full potential, so comparing present actual emissions to future potential emissions for almost any modification will show a significant net increase in emissions. The EPA does allow sources to lessen the burden of these regulations with the federally enforceable restrictions rule. If the source agrees to install emissions control equipment, and this agreement is made federally enforceable, the source can calculate its potential emissions based on what they would be with the pollution control equipment.

Industry groups are still dissatisfied with these rules. The discrepancy between the actual emissions of present equipment and the potential emissions of proposed new equipment is often so significant that it makes virtually any attempt to upgrade equipment subject to PSD review. Responding to this, the court in the *WEPCO* case ruled that the EPA could not base its decisions solely on an actual-to-potential comparison, but had to move toward an actual-to-actual comparison.

One result of this shift has been to significantly change who bears the risks of error. In an actual-to-potential comparison, errors in projections almost invariably mean that the actual emissions of a modified source will be well below the levels the source is required to maintain. By contrast, an error in an actual-to-actual projection will result in actual emissions being above the levels projected—and the environment will suffer accordingly.

Industry has continued to press for codification of actual-to-actual comparison methods, but in the 1990 amendments to the Clean Air Act, Congress left the question of how this comparison was to be made to the EPA. This means that it is still unclear how this issue will finally be resolved.

Reactivated Sources

The EPA has consistently held that if a source is shut down permanently and then is reactivated, it is a new source for PSD purposes. The permanence of

a shutdown is judged on the totality of the circumstances. A shutdown lasting more than two years, or a shutdown that results in the source being removed from the state's emissions inventory, is presumed to be permanent, and the owner contending that it was not permanent has the burden of showing that the shutdown was only temporary.

Substantive Nonattainment New Source Review Requirements

The material in the preceding sections deal with applicability, that is, when is a source subject to regulation? Assuming that a source is subject to regulation, there are different applicable sets of regulations depending on whether the source is in a nonattainment or a PSD region. This first section on substantive regulations deals with sources in nonattainment regions.

The basic requirement in a nonattainment area is an offset. A new source will increase the amount of pollutants emitted. Before a permit for such a source will be approved, the applicant must show that by the time the proposed new source commences operations, it can produce a net decrease in air pollutant emissions. There must be enough of an overall reduction in total air pollutant emissions that the region makes "reasonable further progress" toward attainment of the NAAQS.

It is not sufficient for the reductions to equal the increase in the pollution level caused by the new major source. The reduction must *exceed* the increase from the new major source. Generally, this reduction is not subject to a particular ratio, although the EPA has set ratios for ozone, depending on the severity of the nonattainment. In areas of moderate nonattainment, a ratio of 1.15 to 1 is required. For serious nonattainment areas, the ratio is 1.2 to 1. It rises to 1.5 to 1 for extreme nonattainment areas. By and large, however, the specific ratios are set by the states as part of the SIP process, so a legal professional advising a client about the requirements for a new source permit in a nonattainment area will have to consult with state authorities to learn the specific offset ratio that the state requires as part of its SIP.

The states are required to follow certain EPA guidelines in setting these ratios. First, when states set up their SIP Part D plans, they generally use a combination of actual emissions and allowable emissions. The offset calculation must be based on the same combination. Otherwise applicants would be able to manipulate their figures to inflate calculated gains in ways that did not reflect actual reductions in emissions.

Second, interpollutant offsets are prohibited. Thus, to give an extreme case, a decrease in carbon monoxide pollution cannot be used to offset an increase in lead pollution. Further, simply shutting down facilities, or agreeing to reduce the use of those facilities, will not be calculated as a reduction.

Finally, there are certain restrictions on the location of sources of offsets, depending on the nature of the pollutant that the source will emit. This reflects a need to improve the overall air quality of the region. For example, volatile

organic compounds are readily transportable. Because of this, a reduction anywhere in the same air basin is treated as an applicable offset for a major new source. By contrast, sulfur dioxide and carbon monoxide are very site-dependent. Therefore, offsets for these substances must be very near the proposed site of the new source in order to count as offsetting the pollution from the new source.

Lowest Achievable Emissions Rate

Any new source built in a nonattainment area must meet the *lowest achievable emissions rate* (LAER), defined as the lowest emission rate contained in a SIP or achievable in practice. It requires a new source to achieve the lowest rate practical, although it does not require the source to achieve theoretical possibilities not yet used in practice. Cost can be considered to a limited degree; no technology will be required if it is so expensive that a source cannot operate profitably if it incorporates that technology.

Statewide Compliance

Anyone applying for a new source permit will be allowed to proceed with the new project only if it can show that any other major source that it owns or operates in the same state is in compliance with all Clean Air Act requirements.

Substantive Requirements for Permits in PSD Areas

Most states have PSD new source requirements in their SIPs. If a state has such requirements, the state is authorized to issue PSD permits for new sources. For the remaining states, the EPA issues the permits. The requirements, however, are so similar that they amount to a single set of permit requirements.

Under the Clean Air Act, a new source subject to PSD rules must demonstrate that it will not cause or contribute to a violation of the NAAQS in the area. If a source would cause or contribute to a NAAQS violation, the applicant must reduce the impact of the new source by reducing pollution from other sources by at least as much as the new source contributes. Generally, all that is required in this context is a 1-to-1 reduction.

To demonstrate that a new source will not cause or contribute to a NAAQS violation, the source must undertake actual testing. This will include preapplication monitoring and may also involve postconstruction testing to be certain that the proposed changes have not exceeded permit guidelines. The applicant must also provide analyses of any regulated pollutants other than the basic NAAQS pollutants, and an analysis of any impairment to visibility, soils, and vegetation caused by the proposed project, or by any change in commercial, residential, and industrial growth that are associated with the project.

Notably, any project that will adversely affect visibility in national park lands can be vetoed by the Department of the Interior for that reason alone.

In addition to maintaining the basic NAAQS levels, PSD regulations require that the applicant meet PSD increment levels. This is a complicated system in which each PSD area is classified as Class I, Class II, or Class III; new sources are allowed to cause only certain limited incremental increases in air pollution. As a result, merely showing that a source will not cause a PSD area to revert to violation of a NAAQS is often not enough. The applicant must show also that the PSD area will not violate its class increment. There are procedural steps by which a PSD area can change classes, but this requires notice-and-comment rulemaking.

Best Available Control Technology

For major projects under PSD permits, the controlling standard is best available control technology (BACT). To get a permit to build a major source in a PSD area, the applicant must agree to incorporate BACT into the project. BACT is determined on a case-by-case basis. This means that there is much more discretion, specifically as to the weighing of costs, in a PSD area as opposed to a nonattainment area.

A technology is considered "available" if it is added to the EPA's listing of BACT before the PSD permit is issued. For projects that are carried out in phases, a technology is considered available if it can be added until 18 months before a permit is issued.

The regulations surrounding BACT give states limited discretion. No state is compelled to require an applicant to incorporate a specific technology. The state is required to achieve BACT standards, but is relatively free to impose its own technological choices. However, recent decisions reflect concerns that PSD areas are close to being pushed into the nonattainment category. Under these decisions, an applicant selecting among possible technologies should favor the most effective technology, and opt for a lesser choice only if it shows that the top choice has significant disadvantages.

To this end, the EPA now requires that each state make its choices of alternative technologies in light of a "collateral source analysis." If a state finds that two technologies are equally effective in dealing with a primary pollutant, the state is to adopt the technology that is the more effective in controlling other targeted pollutants.

Further, in regulating municipal waste combustion facilities, the EPA Administrator has adopted a strict rule. Once the EPA identifies a particular technology as BACT, it will require any applicant wishing to use a lesser technology to demonstrate that significant economic factors compel the owner to use the lesser technology.

Procedural Requirements for PSD Permits

A PSD permit can be issued only after there has been a public hearing. Once a permit has been issued, the permittee must commence construction within 18 months, or apply for a new permit.

A permit for a source in a PSD area, even if issued entirely by a state agency, is nevertheless considered to be a federal permit. This means that grievances are a matter of federal rather than state law. Judicial review is based on the arbitrary and capricious standard, which allows the courts to uphold any administrative decision for which the agency had a reasonable basis.

Visibility Standards and New Source Permits

The visibility portions of the new source review standards illustrate administrative law processes in action. Many areas in this country are of such great natural beauty that the federal government has afforded them special protection. As a general rule, plumes of smoke are not to be generated so that they can be seen from these areas. Thirty-six states either contain such areas or are close enough that their activities potentially affect visibility in such areas. These areas include national parks and monuments and other areas of great national beauty.

In dealing with new source permits that could affect visibility, states are required to take special steps to protect these areas. At first glance, however, these steps appear to be so limited that they are almost pathetically weak. First, the state must notify the **Federal Law Manager (FLM)** any time an application is filed for a new source that would potentially affect the visibility of a protected area. The FLM may object that the new source would have an unacceptable impact on the visibility of a Class I area. This objection, however, is not automatically binding on the state. The state may reject the objection, but if it does, it must provide a written response to the FLM's objections.

It may seem that this process provides no real protection to the scenic areas that are precious to many people. This overlooks the power of the administrative law process, a process that the student should try to grasp.

Assume that an FLM has objected to a new source permit application. The affected state rejects this objection. This rejection must be given in a written response. The courts will review the adequacy of this response and demand that the rejection address the points raised by the FLM. The written response must be truly responsive. If the FLM has raised an objection to the new source permit application which, if true, would require that the state deny the permit, the written response must address that objection and show why it is unwarranted. If the written response fails to address such points, then the response is inadequate and the state's reliance on it is arbitrary and capricious. If a court finds that a state's rejection is arbitrary and capricious, then the court must stop the permit process until the state corrects the deficiencies.

So, consider an example. Assume that an FLM objects to a new source because it will cause plume blight. To someone looking out over a panoramic

LEGAL TERMS

Federal Law Manager (FLM) The federal official in charge of a national park or other place of great scenic beauty under federal jurisdiction. The federal law manager must be notified of any application of a new source that might cause plume blight.

view of a natural area, few things are more intrusive than the sight of a plume of smoke rising from the smokestack of a factory. In its written response, the state must provide an adequate response to this problem. It can contend that the objection is factually inaccurate, but to do this, the state must demonstrate that the new source will not damage the view by causing plume blight and must show a sound factual basis for its assertions. A simple "I don't believe it" is not adequate. Alternatively, the state can argue that offsetting advantages warrant allowing the permit, but to do this, it must show that federal law allows the permit notwithstanding the damage to the view caused by the blighting plume. Because federal law is clearly biased in favor of protecting the scenic value of national parks, this is an extremely difficult task, and a mere assertion that the state thinks it would be a good idea to allow the permit is, again, not adequate.

As a further safeguard, all of these documents are matters of public record. Once an FLM files an objection to a new source permit application, various environmental interest groups frequently join the struggle. Because the state's response is a public matter, the state often must respond effectively to much wider objections than those raised by the FLM. Given the tremendous public use of our national parks and other recreational areas, only a bold state will risk a major public outcry that the state is being insensitive to these areas.

Because of these rules of administrative law, what may at first blush seem almost trivial protection of national parks and other important natural resources is often an extremely effective, almost insurmountable protection that the states can overcome only through very arduous challenges.

Does this process guarantee that there will be no degradation of Class I areas? No, it does not. In practice, however, this system puts very serious pressure on any state that wishes to proceed in the face of an objection from a Federal Law Manager.

Motor Vehicle Standards

One of the most serious problems the EPA faced was in dealing with smog. Smog is caused by exposure of large amounts of nitrogen oxides and hydrocarbons to sunlight. The most significant chemical released in this process is the oxidant ozone. In the upper atmosphere, ozone is essential to protecting the Earth from harmful ultraviolet radiation. The deterioration of the ozone layer poses serious threats to public health. In metropolitan areas, this same ozone is itself a danger to public health, because ozone is poisonous.

The key source of smog-producing ozone in many cities is automobile exhaust. Thus, to cut down on ozone, the states must impose transportation control plans (TCPs). These, however, are extremely controversial. Somehow, every driver has some reason that any control plan should fall only on some other driver's shoulders. New car emissions standards will help, but in many areas,

the benefits of new car emissions will never be sufficient to bring the ozone level down to the NAAQS.

The TCP controversy eventually resulted in a deadlock. The EPA has been reluctant to proceed, because any attempt to impose TCPs meets with vicious political opposition. As a practical matter, Congress must move first on the matter, and congressional inaction largely reflects the feeling that controls over transportation are politically infeasible at this time. Could Los Angeles survive an enforced 80 percent reduction in freeway driving?

The politically feasible emissions standards for motor vehicles have been technology-forcing; they have forced manufacturers to install emission control equipment on cars. In the Clean Air Act of 1970, in § 202, Congress mandated a 90 percent reduction in hydrocarbon and carbon monoxide emissions by 1975. Nitrous oxide emissions were to be reduced by the same 90 percent by 1976. This was a prime example of a technology-forcing statute, because no technologies available at that time could meet the statutory standards.

Manufacturers managed respectable gains in reducing nitrous oxide pollution, but car owners complained that the efforts destroyed the performance of their cars. In early 1973, the Court of Appeals for the District of Columbia ruled that the EPA could not impose standards that could effectively shut down the entire automobile industry. If the EPA wanted to achieve certain emissions levels, it had to show that technology was available to do so. In the interim, the EPA granted manufacturers the waivers they had requested, although it did impose interim standards that forced many manufacturers to install catalytic converters.

All of the plans for controlling automobile-caused pollution were severely set back by the 1973 Arab oil embargo, which eventually forced Congress to relax the standards of the 1970 Act, primarily by delaying their implementation. Nevertheless, the EPA managed to stand firm in making catalytic converters standard equipment on cars, even though this forced car manufacturers to switch from leaded to unleaded gasolines.

By 1976, a crisis was at hand. The automobile industry contended that it could not meet the standards required for the 1978 model year. After extremely bitter debate and several failed compromise plans, Congress adopted the compromise embodied in the 1977 Clean Air Act by creating the **Corporate Average Fuel Economy program**. This program requires each manufacturer to show substantial improvement in the fuel efficiency of its fleet of cars. Congress also imposed the "gas guzzler" tax. As a result of these measures, manufacturers radically "downsized" their cars. Manufacturers also adopted the widespread use of the closed loop/three-way catalytic methodology and inboard computers to further reduce emissions.

LEGAL TERMS

Corporate Average Fuel Economy program A program by which the EPA allows automobile manufacturers to meet fuel economy standards based on the weighted average of the fuel economies of the manufacturer's entire line of cars rather than on the fuel economy of single cars. This allows manufacturers to make a certain number of "gas guzzlers" so long as they offset these with smaller, more fuel efficient cars.

The use of closed loop/three-way catalytic converters and unleaded gasolines has made possible dramatic improvements in emissions—improvements that many experts had considered impossible in the 1970s when they were first mandated. Through technical advances, manufacturers have achieved dramatic gains in pollution control while making only marginal sacrifices in drivability. The National Highway Transportation Safety Administration could point out that by 1990, the average American car would be able to achieve 27.5 miles per gallon, a figure once thought impossible given the emissions limitations that the law imposed.

Tampering

Many of the provisions of the Clean Air Act have little to do with the average person. Section 203(a)(3) of the Act, 42 U.S.C. § 7522(a)(3), however, applies to a broad range of ordinary people. That section makes it unlawful to tamper with emission control devices. Originally, this provision extended only to manufacturers, but in 1977, Congress extended this provision to automobile mechanics and fleet owners. The EPA has been very active in this area, bringing a wide range of actions against mechanics who willfully disable emission control devices. Notably, the Act is very strict. To prevail, the EPA does not have to prove any specific intent to disable an emission control device. It need only show that the activity was knowing. Thus, if a mechanic knows that he is removing a device from a car, he can be convicted of tampering if that device is an emission control device, even if the mechanic had no idea that it was an emission control device or that his activity would disable the emission control system. The EPA is also trying to hold the manufacturers of parts used to defeat emission controls liable for tampering. At least one circuit court has upheld the EPA's authority to use administrative search warrants to gather evidence in such cases. *Ced's, Inc. v. EPA*, 745 F.2d 1092 (7th Cir. 1984).

Fuel and Fuel Additives

Section 211 of the Clean Air Act, 42 U.S.C. § 7545(e), empowers the EPA to regulate fuels and fuel additives. Under CAA § 211(b), 42 U.S.C. § 7545(b), and regulations that essentially mirror the statutory provisions, the EPA requires that manufacturers register all motor vehicle fuels and fuel additives. This requires listing the commercial name of the fuel and information sufficient to show the chemical composition of the fuel and any additives it contains.

Since 1973, the catalytic converter has been the critical piece of equipment in emission control devices. However, catalytic converters have a weakness. Lead gasoline “poisons” them, destroying their effectiveness. To prevent the use of lead fuels, the EPA has established regulations that require petroleum companies to market unleaded fuels; to prevent people from using leaded fuels in cars with catalytic converters; and to impose liability for marketing as unleaded any gasoline containing excessive amounts of lead.

These unleaded gasoline regulations did more than just regulate the sale of leaded gasoline; they affirmatively required the marketing of unleaded fuels. The petroleum industry attacked these regulations, arguing that the Clean Air Act's use of the word "control" did not empower the EPA to require the petroleum industry to sell unleaded gasolines. The courts rejected this argument. In *Amoco Oil Co. v. EPA*, 501 F.2d 722 (D.C. Cir. 1974), the court ruled that requiring the sale of unleaded gasoline was an appropriate means of controlling the sale of leaded gasoline.

AMOCO OIL COMPANY
v.
ENVIRONMENTAL PROTECTION AGENCY
United States Court of Appeals,
District of Columbia Circuit
501 F.2d 722 (D.C. Cir. 1974)

[A]t the core of Section 211(c)(2)(B) we find a requirement that the Administrator state findings, drawn from a study of emission control devices in or near "general use," to the effect that fuel regulation is a necessary or otherwise advisable component in the Agency's overall strategy to meet the Section 202 emission standards. On this score the Statement accompanying the Fuel Regulations is candid and, we think, adequate. ... The Administrator expressly found that catalytic converters require a regulated fuel—unleaded gasoline; that converters will be in general use in the 1975 model year; and that no other emission control device or system will then be in general use. Taken together, these findings negative [sic] any possibility of meeting the 1975 emission standards without fuel regulation. These findings are amply supported by the record.

* * *

The Agency heard credible and uncontradicted testimony, informed by experimental evidence, to the effect that converters are poisoned by gasoline which averages more than 0.03 gram/gallon of lead. The Statement finds that a 0.05 gram/gallon ceiling is necessary to keep average lead content at or below 0.03 gram/gallon. The question before us is whether this conclusion was arbitrary or capricious, given that petitioners had urged the adequacy of a 0.07 gram/gallon ceiling,

a figure once recommended as a definition of "unleaded gasoline" by the American Society for Testing and Materials (ASTM).

For two reasons we must show considerable deference to the Agency's conclusion. First, the conclusion is in the nature of a prediction for which supporting data is necessarily sparse or absent. The average figure resulting from adoption of any given ceiling figure will depend entirely on how the oil companies respond to the chosen ceiling figure. If the companies decide to maintain lead levels well below the ceiling, the average will also be well below the ceiling; if the companies "hug" the ceiling, the average will be considerably higher. Exactly how the companies will choose to behave cannot be known before the Regulations go into effect. To a large degree, therefore, we are dealing with an informed hunch or guess. EPA is closer to the scene, and has more expertise in these matters, than the courts, and we must therefore hesitate before replacing the Agency's predictions with our own. The second reason for judicial deference is that the 0.05 gram/gallon ceiling expresses the Agency's attitude toward competing risks: If the ceiling is set too high, many converters will be poisoned; if the ceiling is unnecessarily low, the cleanup effort required of the oil industry will be larger than necessary. The Agency's decision therefore "rests in the final analysis on an essentially legislative policy judgment, rather than a factual determination, concerning the relative risks of underprotection as compared to overprotection."

Turning to the record, we find adequate support for the Agency's decision to select a ceiling figure no higher than 0.05 gram/gallon.

* * *

Finally, and most basically, petitioners argue that the Statement and the record are insufficient to support the Administrator's decision to require marketing rather than to rely on free market forces. The Statement meets this issue very tersely but, we think, adequately:

The regulations provide for the general availability of a lead-free and phosphorous-free gasoline * * *. It is the Administrator's determination that without regulatory action requiring retail outlets to market at least one grade of such gasoline availability of that product to the general public in all areas of the country would be uncertain, and may not be sufficient to assure the protection of catalytic control devices. * * *

Petitioners do not seriously deny that, absent the affirmative marketing requirement, the availability of unleaded gasoline "would be uncertain." No doubt there will eventually be enough converter-equipped cars on the road, and thus a sufficient demand for unleaded gasoline, to induce a conveniently distributed number of the nation's gas stations to provide at least one grade of unleaded fuel. But there is no guarantee, nor even a good reason to believe, that this result would materialize during the transition months of 1975 and 1976. New cars make up only about 10 per cent of the American automobile population. How many of these new cars will be converter-equipped in 1975 is impossible to predict with precision. The plans of the automakers are still developing; car buying habits are in an unsettled state. With the potential demand for unleaded gasoline in this state of flux and doubt, the supply response of the oil industry, and particularly of the retail stations, must necessarily be characterized as "uncertain."

* * *

The Regulations prohibit retailers from introducing leaded gasoline into converter-equipped cars. The offense gives rise to a mandatory "civil penalty" of \$10,000 per day. If the gasoline illegally introduced was taken from a pump normally used to dispense unleaded gasoline—*i.e.*, if the gasoline was "leaded" because of contamination—liability also runs beyond the retailer. If the retailer displayed a refiner's trademark, the refiner is vicariously liable for the retailer's offense. If no refiner's

trademark was displayed, vicarious liability attaches to any distributor who sold the retailer gasoline contained in the storage tank from which the contaminated product was taken. The refiner is vicariously liable "irrespective of [f] whether any refiner, distributor, or retailer, or the employee or agent of any refiner, distributor, or retailer may have caused or permitted the violation." ... Given that it would be extremely difficult for the Agency to locate the source of contamination in each instance, petitioners conceded that a presumption of liability would be reasonable with respect to the retail outlet's immediate supplier, or—in the case of branded gasoline—with respect to the refiner of the outlet's product. But, in petitioners' view, the presumption should be a rebuttable one. If a distributor can show it was not the cause of the contamination, liability should fall elsewhere. Likewise, if a refiner can show that it could not have prevented the contamination, it should not be liable.

* * *

EPA has, in our judgment, failed to explain why the presumption of liability ... should not be rebuttable in the circumstances outlined by petitioners. While the literal terms of the regulations do not appear to recognize rebuttability, the Statement seems to read this into the regulations, for it speaks not of strict vicarious liability but only of a "positive duty on the major brand refiner to prevent any violation of the unleaded gasoline standard at his retail outlets." At oral argument counsel for the Agency conceded that imposition of strict vicarious liability would be "unjust" in the circumstances isolated by petitioners. While suggesting that the Agency would "remit" penalties imposed in such circumstances, counsel was unable to explain why the regulations themselves should not be construed to preclude injustice in the first instance. In our view the record, the Statement, and the concessions of counsel support [the regulation] to the extent that these provisions create a rebuttable presumption of liability on, respectively, refiners and distributors. But there is insufficient support from these sources for excluding affirmative defenses to the liability imposed. In enforcement actions the provisions must be

construed accordingly. Refiners and distributors must have the opportunity to demonstrate freedom from fault. A distributor which can show that its employees and agents did not cause the contamination at issue may not be held liable ... A refiner which can show that its employees, agents, or lessees did not cause the contamination at issue, and that the contamination could not have

been prevented by a reasonable program of contractual oversight, may not be held liable.

* * *

The Agency may enforce the Fuel Regulations as of their effective date subject to the clarifications and exceptions noted in this opinion.

So ordered.

Case Questions

1. What emission control device did the Administrator find would be in general use by 1975?
2. What fuel must be used in catalytic converters?
3. What is the lowest average lead content that will poison catalytic converters?
4. What could oil companies do that would threaten the working of the unleaded fuel system?
5. In the final analysis, what sort of decision did the EPA have to make to set the proper level of lead that would be allowed in fuel?
6. Why did the EPA insist on requiring that oil companies market unleaded fuel rather than relying on market forces?
7. What modification of liability did the court require the EPA to make?

The law regulating the sale of unleaded gasoline was essentially the law of negligence. As long as a manufacturer took reasonable steps, it could not be held liable if it inadvertently sold leaded gasoline as unleaded. In the wake of the ruling in *Amoco Oil Co. v. EPA*, the EPA then tried to impose strict liability on manufacturers, but the courts rejected this argument, saying that the Clean Air Act does not warrant the replacement of common law concepts with strict liability. Because of this provision, to hold a manufacturer liable for marketing gasoline with excessive amounts of lead, a plaintiff must show that the manufacturer was negligent in allowing lead to be introduced into its gasoline.

If the EPA finds that a manufacturer has either failed to market unleaded fuels, or has marketed fuel containing excessive levels of lead, the Clean Air Act authorizes penalties of forfeiture of \$10,000 for each day of continuance of a violation. See CAA § 211(d), 42 U.S.C. § 7545(d).

That the Clean Air Act has helped reduce automobile emissions cannot be disputed. EPA data show that 1986 passenger cars at the prototype production stage had emissions levels for carbon monoxide at one-fortieth of the levels for 1968 automobiles and one-tenth of the levels for nitrogen oxides. Although these figures were based on prototype models, and actual performance figures were not as dramatic, there clearly have been improvements. Carbon monoxide emissions have dropped approximately 90 percent; hydrocarbon emissions have dropped approximately 88 percent; nitrogen oxide emissions have dropped 60 percent.

Another measure of the success of air quality standards is that the number and severity of violations of ambient carbon monoxide standards have dropped, despite continuing increases in both the number of vehicles being used and the number of miles being travelled. Similarly, ozone levels have dropped, even though ozone is one of the most complicated and difficult of air pollutants.

Another measure of the success of these programs is vehicle efficiency. In the late 1960s, it was common for American vehicles to have mileage ratings of no more than 12 miles per gallon. Since then, American manufacturers have achieved improvements of more than 10 miles per gallon, so that average efficiencies of more than 25 miles per gallon are commonplace. Import manufacturers have made similar improvements in their fuel efficiency.

The ongoing replacement of older, high-emissions vehicles with newer, more efficient vehicles brings a continuing decrease in the level of emissions. These emission levels have dropped because modern vehicles are equipped with newly developed devices to reduce emissions. Additionally, beyond the basic installation of these devices, automobile manufacturers have made significant progress in refining the application of these technologies.

What Can the EPA Do Under the Clean Air Act?

The Clean Air Act has established a comprehensive system for regulating mobile sources of pollution—that is, automobiles. The statute itself sets certain standards. Beyond these, the EPA is empowered to establish additional standards by regulation. In addition, the EPA is given sweeping enforcement powers to assure that the standards established in the Clean Air Act are met. These enforcement powers include the authority to review vehicle performance standards in the prototype, assembly line, and in-use stages. The EPA can also require that various warranty requirements be met and can order that vehicles be recalled. No manufacturer is allowed to sell a vehicle unless it is covered by a certificate of conformity. Further, tampering with any emissions control device or component is also prohibited. This antitampering provision applies to fleet owners and auto mechanics as well as manufacturers. These wide grants of authority allow the EPA to go beyond simply requiring that new cars be equipped with pollution control equipment, to an effort to maintain pollution control equipment on all operating vehicles.

The EPA's authority to set standards is established under § 202 of the Clean Air Act, 42 U.S.C. § 7521. This provision is frequently referred to as technology-forcing, but it actually requires the Agency to consider a variety of factors, including technological availability, environmental necessity, and cost-effectiveness. Section 202 contains a variety of standards, some of which were specifically set by Congress. Other parts of § 202 delegate great authority to the EPA, limiting it only by broad environmental considerations and the general requirements of administrative law, such as the arbitrary and capricious standard.

The EPA is required to set standards for all classes of motor vehicles for three pollutants: carbon monoxide, hydrocarbons, and nitrogen oxides. In addition, it can set emissions standards for any other pollutant. Under its general standard-setting authority, the Agency has added standards for particulate emissions for light-duty vehicles.

For several years, the EPA required each manufacturer to show that each of its vehicles met the applicable standards. Recently, however, the EPA promulgated regulations that allow manufacturers to show compliance by demonstrating that a "family" of vehicles meets a production weighted average. This means that manufacturers are actually being allowed to produce some vehicles that do not meet emissions criteria. To date, the courts have upheld this approach as reflecting the EPA's legitimate administrative choices.

The statute empowers the EPA to set standards for motor vehicles. The EPA has established a regulatory definition of *motor vehicle*: a vehicle is not subject to regulation under Clean Air Act § 202, 42 U.S.C. § 7521, unless the vehicle can reach speeds of more than 25 miles per hour over paved highways under its own power. Further, the EPA has established four classes of vehicles under the regulations: light-duty vehicles (passenger cars); light-duty trucks under 6,000 pounds gross vehicle weight rating; light-duty trucks between 6,000 and 8,500 pounds GVWR; and heavy-duty vehicles (over 8,500 pounds GVWR). There are certain variations within each of these classes.

The general authority included in § 202 allows the EPA to set standards applicable to any substance that the EPA concludes will cause or contribute to air pollution and thereby endanger public health or welfare. These standards are to be technology-based. The statute requires that the standards not go into effect until after a period that the EPA concludes will allow technology necessary to remedy the problem to be developed and applied. Agency attempts to set the period during which technology is to be developed have been the subject of intense litigation. In the leading case, *Natural Resources Defense Council, Inc., v. EPA*, 655 F.2d 318 (D.C. Cir.), *cert. denied*, 454 U.S. 1017 (1981), the Court of Appeals for the District of Columbia Circuit set out the criteria by which it will determine whether the EPA acted in a reasonable manner in projecting that technology will be available. The court ruled that the EPA had to show that it had a reasonable basis for its projection that a particular technology would be available, and could not rely on mere hope that the technology would appear. Relying on these general criteria, the court established three general principles that it would look to in evaluating the reasonableness of the EPA's technological predictions.

First, the Agency must identify the projected technology and answer any theoretical objections to use of the projected technology in meeting the standard

Second, the EPA must identify any major steps necessary to refine the technology

Third, the EPA must offer plausible reasons to believe that the necessary steps will be completed within the available lead time.

The most widely applicable standards are those for passenger cars. There are standards for the three key pollutants:

hydrocarbons	0.41 grams per mile
carbon monoxide	3.4 grams per mile
oxides of nitrogen	1.0 grams per mile

In general, the states are preempted from setting their own standards for emissions for new motor vehicles independent of the EPA standards. The Act creates an exception for any state that had set its own standards before 1966 if these remain in effect. The only state to have set such standards was California.

The EPA's Compliance Enforcement Program

To enforce compliance with its various programs, the EPA can take a number of steps. Its first line of defense is prototype certification. Before any manufacturer can market a vehicle, the manufacturer must obtain a certificate of conformance for the prototype. If a manufacturer markets or offers to sell a vehicle without a certificate of enforcement, or in violation of the terms of such a certificate, it faces fines of \$10,000 per vehicle.

To obtain a certificate, a manufacturer must subject a prototype representing an "engine family" to a 50,000-mile driving test under approved conditions. At each 5,000-mile interval, the vehicle is tested according to federal test procedures. From these tests, the EPA will calculate an emission deterioration factor. If the prototype emissions, taking into account the deterioration factor, are within applicable standards after 50,000 miles, the EPA will issue a certificate of conformity for that engine family.

The manufacturer must then produce vehicles essentially identical to the production prototype vehicle. For any part that reasonably could be expected to affect emission controls, use of parts different from those specified in the application is sufficient evidence to support a finding that the vehicle is not covered by the certificate, even if the emissions performance of the vehicle is not actually affected. Because the use of parts different from those specified in the application can have such staggering consequences, manufacturers have instituted rigorous quality control programs to prevent such "misbuilds." In 1972, for example, a misbuild cost Ford Motor Company \$7 million in fines when it was discovered that the company had been using parts that were not covered by an application.

Prototype testing was initially the EPA's primary means of enforcement, but the limitations of such testing quickly became apparent. The tests are conducted under rigorously controlled conditions, using expert mechanics, professional drivers, and the like. Further, the tests do not take into account time, weather, or actual road conditions. Because of these limitations, in the late 1970s the Agency shifted its emphasis to assembly-line and in-use certification.

In the 1970 amendments to the Clean Air Act, Congress added CAA § 206(b), 42 U.S.C. § 7525(b). Under this section, the EPA can test vehicles on the actual

assembly line. It can revoke or suspend a certificate of conformity if these vehicles do not conform to the standards set out in the certificate. To conduct these tests, the EPA issues a test order to a manufacturer, and then visits the manufacturer's assembly line and tests vehicles selected according to statistical models intended to allow the Agency to determine the performance of an "average" vehicle.

To market a vehicle, the manufacturer must warrant that the vehicle is designed, built, and equipped to conform with federal emissions requirements, and that it is free from any defects in materials and workmanship that would cause it to exceed these emissions standards for 5 years or 50,000 miles after the sale. CAA § 207(a), 42 U.S.C. § 7541(a).

This warranty means that if a vehicle fails a state emissions inspection within the warranty period, the manufacturer must repair the vehicle without cost to the owner. The EPA has also issued regulations under which owners' warranty claims are presumed to be valid. The manufacturer has the burden of challenging the validity of such a claim.

As part of this program, Congress required all states to adopt vehicle maintenance and inspection programs. Initially, these were viewed as extremely politically suspect, particularly given the debacle over proposed transportation control plans. The EPA's required inspection and maintenance programs were the first aimed at cars on the American road. Actually, once these were adopted, they often generated far less controversy than had been expected.

Clearly the most powerful tool that the Clean Air Act gives the EPA is the power to order the recall of any class of vehicles if it determines that a substantial number of those vehicles in use do not conform to the standards throughout their useful life, despite proper maintenance and use. Because this power is so sweeping, a determination to order a recall requires certain procedural safeguards. The EPA must target a particular class of vehicles. It must then procure five to ten vehicles and test them under the federal test procedures. If these tests show a high rate of noncompliance, the EPA will notify the manufacturer and schedule the class for confirmatory testing. In the confirmatory testing, the EPA must conduct testing on a sufficient range of vehicles to produce a statistical "average" vehicle. If it determines that the class is not conforming to emissions standards, it will order a recall.

To date, the exact percentage of vehicles that must violate emissions standards in order to justify a recall is not clear. In cases in which a manufacturer has contested a recall, the EPA has been able to show an extremely high failure rate.

Similarly, the exact scope of the recall remedy is not clear. A leading recall case is *Chrysler Corp. v. EPA*, 631 F.2d 865 (D.C. Cir. 1980). There, the court indicated that recall can be ordered if the manufacturer designs a car so that it should reasonably expect the car to be maintained in a way that will cause nonconformity. The court ruled that the manufacturer has the burden of designing an emission control system in such a way that it can withstand foreseeable in-use conditions.

Ideally, the recall provision is an incentive to manufacturers to plan and produce emission control systems that are durable enough to last throughout the effective life of the vehicle. Further, it provides a safeguard to the public, protecting the public from the effects of air pollution caused by manufacturers that do not undertake this task. However, to a degree this remedy goes beyond the bounds of the statute as originally drafted. As drafted, the statute relied on certificates of conformity issued based on manufacturers' prototypes. As the EPA shifted its emphasis to in-use enforcement, there was no reconsideration of the technological feasibility of the standards. What may be reasonable in testing a prototype driven by a professional driver under controlled conditions may be far less reasonable when driven by a regular consumer on the streets and roads of America.

One example of this is lead in fuels. Lead destroys the catalysts in emission control units. Much "unleaded" fuel contains some lead, although in concentrations lower than in leaded fuel and still within the legal limits for unleaded fuels. These fuels have lead in greater concentrations than do the fuels used in certification testing. To date, the EPA has insisted that manufacturers must design their emission control units to anticipate these higher lead amounts, the reasoning being that the manufacturer can control its design even if it cannot control the amount of lead found in gasolines.

However, if the manufacturer can show that an owner has intentionally switched fuels, by putting leaded gasoline in a car which legally was to take only unleaded fuel, the car cannot be used to test for nonconformity, because the car has not been properly used or maintained. However, the manufacturer bears the burden of identifying such cars in the testing. Although this can be done with cars that are chronically misfueled, identification is much more difficult with cars that are only occasionally misfueled, even though this can cause significant variances.

Developments from 1982 to 1990

From about 1982 on, the automobile industry pressed for relaxation of various clean air standards, but throughout the decade, there was little or no agreement, and the result was gridlock in which no changes were made to the law, despite widespread agreement that the existing law did not work well.

In 1989, the Bush Administration proposed amendments to the Clean Air Act. The critical part of these amendments was an alternative fuel program. As part of these proposals, the administration proposed adoption of the California standards, 0.25 grams per mile of hydrocarbon emission (HC) and 0.4 grams per mile of nitrogen oxides (NO_x). The administration proposal acknowledged that the number and use of vehicles would increase over time. To offset these increases, the administration proposed a requirement that one million alternative fuel vehicles be produced and sold each year beginning in 1995.

Various groups opposed these proposals. Environmental groups contended that the alternative fuel technologies were unproven and involved problems that

the administration had not considered. Similarly, the automobile industry contended that the administration proposals were unreasonable and infeasible.

Eventually, a compromise was reached. Standards for the additional reduction of tailpipe emissions were deferred pending comprehensive studies of what could be achieved. A modest plan for marketing of alternative fuel vehicles confined these requirements to the state of California and limited the levels to 150,000 vehicles for 1994, increasing to 300,000 per year by 1997.

This is the present situation. The vehicle emissions standards have been deferred pending further detailed studies. Modest proposals will bring alternative fuel vehicles into use. Undoubtedly, further changes will be made to the law.

Summary

The Clean Air Act, 42 U.S.C. §§ 7401 to 7671q, has four main goals: (1) attaining nationwide clean air standards (NAAQS); (2) preventing significant deterioration; (3) preserving visibility; and (4) avoiding risks from hazardous air pollutants.

The EPA has set National Ambient Air Quality Standards (NAAQS) for particulate matter, sulfur dioxide, ozone, nitrogen oxides, carbon monoxide, and lead. The NAAQS must protect human health, with cost a secondary factor. The NAAQS rely on technical tests and modelling. To defend its models, the EPA must make an administrative record; if it has done this, the courts defer to the EPA's standards.

To implement the NAAQS, each state must draft a state implementation plan (SIP) for controlling stationary source pollution in all air quality control regions (AQCRs). In nonattainment regions, where the NAAQS have not been attained, the state must impose reasonable available control technology (RACT) on existing sources. Existing sources must also have operating permits setting controlling standards for a source.

Drafting a SIP involves defining the problem, setting emissions limitations, and developing air quality models. Each state determines the sources of pollutants and develops control strategies. The states can use any strategies they want, but they must reduce emissions, not just disperse them. The EPA must approve state SIPs—a slow, cumbersome process.

CAA deadlines proved unworkable. To ease review bottlenecks and avoid draconian measures, the EPA allowed new sources in states that did not meet SIP deadlines if the source had modern pollution controls and offset pollution with reductions from other sources. The EPA also avoided imposing sanctions by allowing state SIPs if the SIPs were in place and the states were moving toward CAA compliance. The Act now requires states to bring nonattainment areas to attainment through increasing controls on smaller sources and vehicle inspection programs.

In 1990, Congress increased controls over states, imposing penalties on any state that fails to achieve the NAAQS in a timely manner. It set specific features to bring all areas into compliance with the ozone NAAQS, classifying nonattainment areas and setting increasing controls. It imposed similar controls on nonattainment areas for carbon dioxide and particulate matter.

The CAA encourages citizen enforcement actions to deal with violations. Violations can be shown by opacity testing, and the EPA has extensive investigation and enforcement powers. The CAA provides many sanctions, including prosecution, fines, and other means for taking away any benefit of a violation.

The 1990 amendments addressed acid rain caused by sulfur dioxide (SO₂). States must address problems of interstate pollution, limiting emissions contributing to NAAQS nonattainment in other states. Sulfur chemicals are emitted mostly by power plants in the Midwest. Cleaning them up is expensive and unpopular. The 1990 CAA amendments labelled these power plants affected units. Each unit must have an operating permit based on measured pollutant output and a compliance plan. Based on the permit, the EPA will issue allowances for emission of pollutants. The number of allowance units will gradually decrease. Units that exceed their allowed level will be fined and face other penalties.

New Source Performance Standards (NSPS), set by the federal government, require that any new source be cleaner than what it replaces. To set standards, the EPA picks sources to be regulated. Any facility with the potential to emit more than 100 tons of pollutants must be regulated. If the EPA decides to regulate a type of source, it sets an NSPS in terms of a maximum amount of pollution per source. It bases these standards on what can be achieved using existing technology. The EPA does not require adopting these technologies, but each source must achieve the emissions standards. Courts reviewing EPA standards require the Agency to make an administrative record, showing that it has used reliable, reasonable data showing what a technology can achieve in practice. The EPA must also show that chosen technologies are cost-effective.

The NSPS apply to new sources. A plant modification costing more than 50 percent of replacement cost is treated as a new source. The NSPS apply to any source for which the construction starts after the NSPS is proposed. The EPA uses a dual definition of *source*: the source is both the large facility such as an entire plant *and* each pollution-contributing component.

The CAA regulates hazardous pollutants. For industries emitting hazardous pollutants, the EPA must issue technology-based emissions limitations based on the best available technology. The CAA specifies both substances and sources to be regulated. For each listed pollutant, the EPA publishes a list of major sources. A major source is any stationary plant emitting more than 10 tons per year of any one pollutant or 25 tons per year of any combination of pollutants. Further, the EPA must determine, for the 30 most dangerous hazardous air pollutants, what plants generate 90 percent of each pollutant. The EPA must then set emissions limitations based on maximum achievable control technology (MACT). For new sources, this is the best-controlled source similar to sources in the new source's category. For existing sources, the reference point is an average of the best sources. For area sources, the EPA can elect to base emissions limitations on generally available control technology. The EPA's schedules for hazardous pollutants are complex and extremely aggressive. The goal, however, is simple: to control hazardous pollutants.

There are special rules for coal-burning utility plants, coke oven batteries, and certain other plants.

The CAA requires that many sources have permits. Overlaps and inconsistencies require that the legal professional carefully check what permit requirements apply. A permit application must be approved by the state where the source is located, by any affected state, and by the EPA. If a permit is faulty, adherence to the permit is not a defense to a claim of violation.

In its SIP, every state must regulate new sources. States can be more stringent than federal law requires. They must prohibit any new source violating a SIP or interfering with attaining or maintaining a NAAQS. In attainment areas, states must regulate new sources to prevent significant deterioration. Sources in 18 categories must meet best available control technology (BACT). A new source that significantly increases emissions must undergo new source review.

Federal clean air regulations can be divided into three layers. (1) Applicability: which devices are subject to federal regulations? (2) Substantive requirements: what do the regulations require? (3) Procedures: what must be done to bring an action? States can add their own controls.

CAA regulations apply to new major sources causing significant deterioration of an attainment area. The owner must show, before construction, that the source will not contribute to a NAAQS violation. A source with a potential to emit more than 100 tons per year is regulated. Potential to emit is reduced by any federally mandated reduction, so owners often agree to include reductions in federal permits.

New source rules apply to a modification that is a nonroutine change significantly increasing pollutants. This does not include routine maintenance or repair or changes in production rates or operational hours.

New source rules apply to any source that has shut down for more than two years and then is reactivated.

In substantive requirements, different regulations apply to different locations. Nonattainment areas have an offset requirement: any new source must be matched by reductions from existing sources. Interpollutant offsets are prohibited. A new source must achieve the Lowest Achievable Emissions Rate (LAER), the lowest emission rate in a SIP or achievable in practice.

In attainment areas, existing sources must reduce pollution equal to the increase caused by the new source. New sources must have the best available control technology, determined case-by-case based on controls achievable when construction begins.

In permit procedures, a PSD permit requires a public hearing, and construction must begin within 18 months of permit issuance.

The CAA gives special protection to national parks and other scenic sites. This protection affects any state from which a smoke plume is visible in a national park. The state must notify the Federal Law Manager of the national park of any new source that might create a visible smoke plume. The FLM may object to an unacceptable impact on visibility. Objections are not binding, but a state that rejects an objection must respond in writing to the objection. Most states simply do not allow the source.

Dealing with smog means dealing with cars. The most effective controls would limit transportation, but political opposition has barred these, leaving the EPA to use emissions controls. In 1970, the CAA mandated a 90 percent reduction in vehicle emissions. This was a technology-forcing act, because there was then no way to achieve these goals. This led to the development of catalytic converters. Converters and downsizing reduced emissions and boosted fuel economy. It is now a crime to tamper with any pollution-reduction device.

The EPA also regulates gasoline, including requiring the use of unleaded gasolines. Regulations cover four pollutants: carbon monoxide, hydrocarbons, nitrogen oxides, and particulate emissions. The EPA lets manufacturers meet standards for "families" of vehicles rather than specific models. It can force the use of technology if it can show that the technology is available. The EPA has forced dramatic improvements in gasoline mileage and air quality. Air pollution levels have dropped, despite increased use of cars.

The EPA requires manufacturers to have prototypes certified before they begin production. Certification testing checks engines every 5,000 miles for 50,000 miles. Cars must then be built conforming to the certificate, and all parts must be as specified in the certificate. The EPA has also added assembly-line and in-use testing. Shifting from prototype certification to in-use testing puts extra burdens on manufacturers. Prototype certification uses closed-track tests, not real road conditions. Manufacturers must

warrant cars to meet emissions standards for 5 years or 50,000 miles. If a car fails to do this, it must be repaired at no charge.

The EPA can order vehicle recall if an average vehicle fails emissions requirements, or if a manufacturer makes a car that will not meet emissions requirements with normal maintenance. Manufacturers are not liable for failures due to vehicle misuse.

The latest changes require marketing nongasoline-powered cars to balance the pollution caused by the increasing number of and use of cars.

Review Questions

1. What are the overarching goals of the Clean Air Act?
2. What are the two key means by which the goals of the Clean Air Act are to be attained?
3. What is a NAAQS intended to do?
4. What must a state require of existing sources in a nonattainment region?
5. What three steps will a state undertake to draft a SIP?
6. What is the "bubble" rule?
7. What is acid rain?
8. How much air pollutant must a source emit before it is classified as a major source?
9. How is lowest achievable emission rate (LAER) defined?
10. If an owner wishes to build a new source, what must be true of all existing sources?
11. What hazardous chemical does smog contain?
12. What does the Corporate Average Fuel Economy program allow?
13. What will the EPA do to test a prototype of a car?



CHAPTER 9

THE FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT

CHAPTER OUTLINE	Environmental Law and Toxic Substance Regulation
	FIFRA as a Barrier to the Environment
	FIFRA and Pesticide Registration
	Cancellations and Suspensions
	The Impact of FIFRA

Environmental Law and Toxic Substance Regulation

One of the gravest threats that modern human activity poses is the release of toxic substances into the environment. The catastrophe at the Union Carbide facility in Bhopal, India, showed the potential for disaster from such a release—7,000 dead and many more crippled because of a cyanide release. Despite the clear danger that toxic substances pose, environmental law agencies have only recently begun to focus on regulating these substances. Although there is a great deal of law in this area, it is not well organized. As a result, legal professionals confronting this issue have found overlapping and sometimes inconsistent sources of law. For example, food and drug additives that might be toxic are regulated by the Food and Drug Administration, although that entity does not cover tobacco products. Pesticides were initially regulated under the Office of Pesticide Programs, which was initially part of the Department of Agriculture.

Similarly, statutes created a piecemeal system. When the Clean Air Act and the Clean Water Act were first adopted, they addressed toxic substances almost as an afterthought. Section 112 of the Clean Air Act empowers the EPA to establish special standards for the regulation of hazardous pollutants, the **National Emissions Standards for Hazardous Air Pollutants** (NESHAPs). These have become an EPA program with only limited interconnection to the two other major Clean Air Act programs, the National Ambient Air Quality Standards and the State Implementation Plans.

Under the Clean Water Act, the EPA began regulating toxic substances when § 307(a) was added to the Act in 1972. The 1977 amendments to the Act ordered the EPA to integrate control of toxics into its standard-setting regime, and the 1987 amendments require the EPA to regulate toxic hot spots. These amendments show that Congress did not initially regard regulation of toxic substances as a major part of the EPA's duties. Nevertheless, the Agency has gradually undertaken toxics regulation as its mission has shifted from protecting the environment to protecting public health.

Environmental law presently is in a state of transition, changing from an emphasis on environmental cleanups to strategies to prevent pollution. The laws dealing with pollution prevention have largely used a balancing approach, weighing the environmental benefits against the costs of denying market access to a particular product.

Congress has made one exception to this, in the Delaney Clause of the Federal Food Drug & Cosmetic Act, 21 U.S.C. § 348(c)(3)(A). This law prohibits the sale of any food additive that is found to induce cancer. Even that clause has not been enforced rigorously. Saccharin is still allowed, and the ban on

LEGAL TERMS

National Emissions Standards for Hazardous Air Pollutants (NESHAPs) Standards imposed under the Clean Air Act, regulating hazardous air pollutants.

cyclamates has been criticized as being little more than a sweeping concession to the sugar industry.

FIFRA as a Barrier to the Environment

One of the most critical of the pollution prevention statutes is the **Federal Insecticide, Fungicide, and Rodenticide Act**, known as FIFRA, 7 U.S.C. §§ 136–136y. This statute is significantly different from cleanup acts such as CERCLA, because it places the burden of going forward on the industry itself. A manufacturer cannot introduce a fungicide, insecticide, or rodenticide into commerce unless it first complies with the statutory requirements of FIFRA. FIFRA requires the chemical industry to collect data, establish testing policies, and prove that products are safe. The government is not required to prove that any particular product is unsafe.

That our national lifestyle has benefited from the use of pesticides can hardly be doubted. We have an extremely productive agricultural system, partly because of the use of chemicals to control a wide range of pests. However, this use of chemicals is not without costs, especially in terms of overuse and adverse side effects. Concern over this problem has forced the nation to balance the benefits of pesticide use against the costs. This balancing involves a good deal of speculation because we do not have full knowledge of the long-term effects of many of the pesticides already in use, or of the long-term effects of new pesticides that manufacturers would like to introduce.

The History of Pesticide Control

Pesticide control is not new. The first federal pesticide law was the Insecticide Act, adopted in 1910. That act was primarily a consumer rights statute. It was intended to give consumers pure and effective products, free of deceptive labelling.

Pesticide control was not a major concern early on, because pesticide use was still relatively rare. Over time, however, pesticide use increased, and after World War II, Congress adopted statutes imposing more general regulation of pesticides. In 1947, Congress adopted the first version of FIFRA. This act sought to regulate all pesticides, called “economic poisons” in the statute. It required that all pesticides distributed in interstate commerce be registered with the U.S. Department of Agriculture (USDA). It also established rudimentary labelling

LEGAL TERMS

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) 7 U.S.C. §§ 136–136y; the federal statute that regulates pesticides. It requires that all pesticides be registered with the Environmental Protection Agency and properly labelled. It prohibits the registration or use of pesticides that pose an unreasonable risk to the environment.

requirements. Again, the primary emphasis was on preventing the sale of mislabelled pesticides, rather than on closing the market to potentially dangerous products.

As adopted in 1947, FIFRA soon showed major defects. Government actions over pesticides were confined to actions dealing with mislabelling. This meant that the government had no power to reject the registration of any pesticide, no matter how dangerous it was to the public. Further, the government could not legally restrict the use of pesticides.

The Emergence of FIFRA in the Modern Setting

In 1964, the USDA persuaded Congress to amend FIFRA to correct these defects. The 1964 amendments allowed the USDA to refuse to register a product or to cancel a registration if the product was unsafe. Further, and critically, it shifted to the applicant/registrant the burden of showing that a product was safe. This reversed the normal evidentiary burden. Up until this change in the law, the government had had to prove that a product was not safe before it could restrict its use. The 1964 changes shifted this burden, requiring the applicant to show that the product was safe.

Further, FIFRA put an outer limit on what substances could be registered. A pesticide could be registered only if it was properly labelled, not "misbranded." The labelling had to contain the directions necessary to ensure that the product was used safely. But for the first time, the law recognized that some pesticides were so dangerous that no label was sufficient to warn of the potential dangers. To deal with this, the statute included a provision stating that if a pesticide was so dangerous that a label containing safeguards sufficient to make its use safe could not be written, the pesticide could not be registered, and therefore could not be used. FIFRA § 2(a)(5), 7 U.S.C. § 135(a)(5).

With the growth of the environmental movement during the 1960s, activists brought increasing pressure on the Department of Agriculture and later the Environmental Protection Agency to cancel the registrations of pesticides that were shown to be particularly destructive of the environment. The battles over such chemicals as DDT and aldrin-dieldrin led to a spate of lawsuits.

One of the most important FIFRA cases was *Environmental Defense Fund v. Environmental Protection Agency*, 465 F.2d 528 (D.C. Cir. 1972) (EDFI). The Environmental Defense Fund (EDF) had filed petitions with the EPA, demanding that the Agency cancel the pesticide registrations for aldrin and dieldrin, two widely used but highly controversial pesticides. Responding to the petitions, the Administrator of the EPA issued notices cancelling the registrations. However, the suspension order that the Administrator used involved procedures that would take some two years before the EPA finally decided if the risk from these pesticides was sufficient to warrant a ban on their continued use.

FIFRA did allow the Administrator to issue such notices of cancellation, but it also allowed him to issue orders immediately suspending the use of the pesticides. The EDF sued, challenging the Administrator's action and arguing

that proper application of FIFRA required the immediate suspension of the pesticides.

Reviewing FIFRA and the EPA's own policies and regulations under FIFRA, the court found that the EPA's policies required the Administrator to assess the imminence of harm from a given pesticide before ruling on a petition for immediate suspension. The EDF charged that the EPA had mishandled the petitions on aldrin and dieldrin because the Agency had discussed only the hazards of these pesticides, while assuming that there were offsetting benefits from their continued use, even though the administrative record contained no evidence to support this conclusion. Critically, the Administrator based his analysis of the benefits of these pesticides on a crucial claim—that these were the only chemicals that could protect corn and citrus crops from a range of dangerous pests.

The court found this policy of taking the benefits of a pesticide as given left the entire procedure for responding to petitions fatally flawed. The Administrator cannot assume that there are benefits from a pesticide without providing data to support that finding. The registrants—the makers of the pesticides—had to *show* that there are benefits to offset the hazards the Administrator had discovered, namely, that aldrin and dieldrin were linked to cancer. As the court put it: "The interests at stake here are too important to permit the decisions to be sustained on the basis of speculative inference as to what the Administrator's findings and conclusions might have been regarding benefits."

Supporting this determination, the court noted that the EDF had offered to show that other, less dangerous pesticides could replace aldrin and dieldrin, with lower risk. This data was important because the Administrator had relied on industry claims that there were no effective substitutes for aldrin and dieldrin.

ENVIRONMENTAL DEFENSE FUND, INC.

v.

ENVIRONMENTAL PROTECTION AGENCY

United States Court of Appeals,

District of Columbia Circuit

465 F.2d 528 (D.C. Cir. 1972)

On December 3, 1970, petitioner Environmental Defense Fund (EDF) ... petitioned ... EPA under ... FIFRA for the immediate suspension and ultimate cancellation of all registered uses of aldrin and dieldrin On March 18, 1971, the Administrator of the EPA announced the issuance of "notices of cancellation" for aldrin and dieldrin because of "a substantial question as to the safety of the registered products which has not been

effectively countered by the registrant." He declined to order the interim remedy of suspension. ... EDF filed this petition to review the DPA's failure to suspend the registration.

* * *

The Statutory Framework of FIFRA

Aldrin and dieldrin are "economic poisons" under the definition in § 2 of FIFRA, 7 U.S.C. § 135(a)(1), and hence are required to be registered with EPA An economic poison may lawfully be registered only if it is properly labeled—not "misbranded." ... If an economic poison is such that a label with adequate safeguards cannot be written, it may not be registered or sold in interstate commerce.

The burden of establishing the safety of a product requisite for compliance with the labeling requirements, remains at all times on the applicant and registrant. Whenever it appears that a registered economic poison may be or has become "misbranded," the Administrator is required to issue a notice of cancellation.

* * *

[A] substantial time, likely to exceed one year, may lapse between issuance of notice of cancellation and final order of cancellation.

* * *

[A] refusal to suspend is a final order reviewable immediately.

* * *

The EPA's Statement points out that whereas a notice of cancellation is appropriate whenever there is "a substantial question as to the safety of a product," immediate suspension is authorized only in order to prevent an "imminent hazard to the public," and to protect the public by prohibiting shipment of an economic poison "so dangerous that its continued use should not be tolerated during the pendency of the administrative process."

* * *

Claim Based On Lack Of EPA Identification Of Benefits To Offset Possible Dangers

The EDF's main argument runs thus, briefly stated: [W]hen the EPA discussed aldrin and dieldrin, it inconsistently failed to identify any offsetting benefits, and limited itself to the reference of certain hazards.

The EPA concedes that the "thrust" of the Administrator's analysis related to the absence of any short run major hazards. But it parries that he "did refer to the purposes for which aldrin and dieldrin are used."

In light of his findings with respect to the absence of any foreseeable hazard, there was little need for the Administrator to go into detail in considering—as he had indicated he would do in suspension decisions ...—"the positive benefits."

* * *

By definition, a substantial question of safety exists when notices of cancellation issue. If there

is no offsetting claim of any benefit to the public, then the EPA has the burden of showing that the substantial safety question does not pose an "imminent hazard" to the public. ...

EDF is on sound ground in noting that while the EPA's general approach contemplates a decision as to suspension based on a balance of benefit and harm, the later discussion of aldrin and dieldrin relates only to harm.

The Administrator's mere mention of these products' major uses, emphasized by the EPA, cannot suffice as a discussion of benefits The interests at stake here are too important to permit the decision to be sustained on the basis of speculative inference as to what the Administrator's findings and conclusions might have been regarding benefits. ... [T]he specific decision must be explained, not merely explainable, in terms of the ingredients announced by the Administrator as comprising the Agency's policies and standards. ...

Our conclusion that a mere recitation of a pesticide's uses does not suffice as an analysis of benefits is fortified where, as here, there was a submission, by EDF, that alternative pest control mechanisms are available for such use. The analysis of benefit requires some consideration of whether such proposed alternatives are available or feasible, or whether such availability is in doubt. ...

The importance of an EPA analysis of benefits is underscored by the Administrator's flexibility, in both final decisions and suspension orders, to differentiate between uses of the product. ... [I]f there are dangers, and if the benefits of use may be satisfied within certain limits of use, the EPA should consider whether to exercise its authority to determine that the extent of use permitted pending final determination must be held within announced limits.

* * *

Articulation of Criteria

... Our own responsibility as a court is as a partner in the overall administrative process—acting with restraint, but providing supervision. We cannot discharge our role adequately unless we hold EPA to a high standard of articulation. The

EPA is charged with profoundly important tasks; reclamation and preservation of our environment is a national priority of the first rank. It is not an agency in the doldrums of the routine or familiar. The importance and difficulty of subject matter entail special responsibilities when the EPA undertakes to explain and defend its actions in court.

Environmental law marks out a domain where knowledge is hard to obtain and appraise, even in the administrative corridors; in the courtrooms,

difficulties of understanding are multiplied. But there is a will in the courts to study and understand what the agency puts before us. And there is a will to respect the agency's choices if it has taken a hard look at its hard problems. We emphasize again the judicial toleration of wide flexibility for response to developing situations. ... The court's concern is for elucidation of basis, not for restriction of EPA's latitude.

Case Questions

1. When is a notice of cancellation appropriate?
2. When is immediate suspension appropriate?
3. What is a court to do when evidence is disputed?

FIFRA and Pesticide Registration

In 1970, President Nixon established the Environmental Protection Agency. The Agency took over the job of pesticide registration, as well as the many lawsuits that had troubled the Department of Agriculture. With its emphasis on protecting the environment, the EPA has gradually toughened the enforcement of FIFRA.

In succeeding years, Congress has repeatedly amended FIFRA. With these amendments, the statute has brought some order to the pesticide registration process. Under the current regime, any product that is intended to be used as a pesticide must be registered with the EPA. The registration materials must include the complete formula for the product, the proposed label, and a full description of all tests on which the manufacturer relies as showing that the product is safe. FIFRA § 37 U.S.C. § 136a. These tests must include animal tests designed to show the probable effects of the product on human beings. The tests are very extensive; for a typical product, they cost \$5 to \$6 million.

If the registration materials are complete, the EPA must then determine three things: (1) Does the product perform as claimed? (2) Do the labels meet the requirements of FIFRA? (3) Will the product cause no unreasonable adverse effects to the environment? If the product meets all three of these tests, the EPA must issue a registration. FIFRA § 3(c)(5), 7 U.S.C. § 136a(c)(5). Thus, in granting registrations, the EPA acts largely as a licensing authority. However, if a product cannot be labelled so that it can be used safely, the EPA can refuse to register it. FIFRA § 2(a)(5), 7 U.S.C. § 135a(a)(5).

The critical test in this registration process is the finding that the product will not cause unreasonable adverse effects to the environment. FIFRA § 3(c)(5)(1), 7 U.S.C. § 136a(c)(5)(1). As defined in FIFRA, this means that the risks of the product are not unreasonable, taking into account the economic, social, and environmental costs and benefits of use of the product. FIFRA § 2(bb), 7 U.S.C. § 136(bb). This clearly indicates that there is to be a cost-benefit analysis for determining if a pesticide product is safe.

Registrations must be use-specific. To achieve this end, each registration must specify the crops on which the pesticide is to be used and the pests it is intended to control. Further, for each specified use, the applicant must submit test data demonstrating that the product is safe and effective for that use.

As an additional control over dangerous pesticides, the EPA may classify any pesticide for general or for restricted use. A pesticide classified for restricted use can be used only by certified applicators, and cannot be sold to the general public. FIFRA § 3(d), 7 U.S.C. § 136a(d).

Registrations are valid for five years. After five years, any registration will expire automatically unless an interested party files a petition for renewal of the registration. The EPA may request additional data on the safety and effectiveness of the product at renewal. FIFRA, § 6(a), 7 U.S.C. § 136d(a).

The bulk of this registration process was imposed under amendments to FIFRA adopted by Congress in 1972. Therefore, this legal regime does not cover chemicals registered under the much more lax standards in effect prior to 1972. For these chemicals, the EPA has required that chemicals be re-registered, using the more severe modern standards. Critics, however, have charged that the EPA has been entirely too slow in pressing for re-registration of these chemicals.

Related to this registration requirement are new provisions under the Federal Food, Drug, and Cosmetic Act. These provisions allow the seizure of raw agricultural products containing excessive levels of pesticide residue. These provisions also allow the EPA to set standards for what levels of residue will be deemed excessive. *See* 21 U.S.C. § 3462(a). In this area, the EPA plays a standard-setting role.

Cancellations and Suspensions

In addition to the power to register pesticides, the EPA has the power to take pesticides off the market. In this regard, FIFRA gives the EPA Administrator very broad discretion to set policy in the public interest. He can cancel a registration; he can suspend production and distribution; or he can issue emergency orders prohibiting the manufacture, sale, distribution, or use of a pesticide. FIFRA § 6, 7 U.S.C. § 136d.

Cancellation is the least aggressive course of action. A notice of cancellation starts the EPA's review process. It declares that the EPA will review the safety

of a registered product which is suspected of posing a substantial question of safety to the environment or to human health. The notice of cancellation initiates the review process. This process is lengthy and generally involves public hearings or referral to a scientific review committee. It often goes on for several years before the EPA Administrator makes a final decision. FIFRA § 6(b), 7 U.S.C. § 136d(b). While the cancellation is pending, and until the Administrator makes his final decision, the product can be freely manufactured, shipped, sold, and used.

More severe than cancellation is a suspension order. A suspension order can be issued if a product constitutes an "imminent hazard" to humans or the environment. Despite the dire tone of the name, a suspension order does not require a finding of an immediate crisis. A suspension order can be issued on a showing that there is a substantial likelihood of serious harm occurring within the one to two years that it would take to carry out the administrative steps required for a cancellation. FIFRA § 6(c), 7 U.S.C. § 136d(c). The manufacturer can ask for an expedited hearing, but often even an expedited hearing will last for several months. FIFRA § 6(c)(2), 7 U.S.C. § 136d(c)(2). If the Administrator issues a suspension order, the suspect product cannot be produced or distributed. However, existing stocks can still be sold and used.

The strongest weapon FIFRA gives the EPA is an emergency suspension order. To issue an emergency order, the Administrator must find that an emergency exists which is so severe that he cannot conduct a hearing before issuing a cancellation order. An emergency order prohibits the manufacture, distribution, sale, or use of the product. The party which had registered the pesticide is entitled to an expedited hearing. FIFRA § 6(c)(3), 7 U.S.C. § 136d(c)(3).

The courts are divided as to the standards required for issuing an emergency suspension order. Some courts have ruled that the Administrator's finding that there is an emergency means that the threat to human health and the environment is so severe that the court should uphold the Administrator's action on a minimal showing. Other courts have ruled that the Administrator's action in issuing an emergency order poses such severe burdens on the entire economic process of developing and marketing pesticides that an emergency order cannot be upheld without a relatively strong evidentiary showing. *Compare Love v. Thomas*, 858 F.2d 1347 (9th Cir.), cert. denied, 490 U.S. 1035 (1988), with *Nagel v. Thomas*, 666 F. Supp. 1002 (W.D. Mich. 1987). Whichever standard controls, the EPA has been very reluctant to use emergency orders. Primarily, it has issued them in response to claims that a pesticide causes cancer. The EPA issued its first emergency suspension order in 1979.

In making a determination to cancel or suspend the registration of a pesticide, the Administrator generally must rely entirely on tests done on animals. Despite criticism from manufacturers as to the validity of these test results, such tests are generally accepted, partly for want of viable alternatives. In these tests, mice and rats are exposed to the test pesticide. Often, this exposure involves extraordinarily high levels of chemicals. At the end of the test period, the test animals are killed and tissue samples from the brain, lungs, livers, and other organs are taken for microscopic examination.

Ideally, such tests should produce clear results. Unfortunately, the data is often far from conclusive. In many cases, scientists will find some tissue abnormalities in samples taken from test animals. If there are such abnormalities, however, does this show that the test pesticide caused them? Even assuming that the test pesticide was the cause, it is often extremely difficult to determine if the abnormality is cancerous. Finally, even assuming that massive doses of test pesticide administered for short periods of time do cause cancer in test animals, is it valid to extrapolate these results to humans receiving much lower doses of chemicals over much longer periods of time? These are questions on which even the best scientists often differ, so the final determination of whether the tests results indicate that the chemical causes cancer often involve speculation.

The EPA Administrator cannot use the power to cancel registrations arbitrarily. To justify cancellation, the Administrator's decision must be supported by scientific data, and the cancellation must be only as broad as the data justifies. Thus, cancellation of registration is sometimes phased in, allowing the registrant to use existing supplies but prohibiting further manufacture. Alternatively, cancellation may result merely in restrictions on use, such as requiring application by certified applicators. By contrast, if there is conflicting evidence as to whether a given pesticide should be removed from the market, the burden is on the registrant to show that the pesticide is at least safe enough to be kept on the market.

Often the result of a cancellation proceeding is less than a complete ban on the use of a product. In several instances, cancellation proceedings have resulted in restrictions on use. In other instances, manufacturers facing cancellation proceedings have removed pesticides from the market.

Much of the effect of cancellation proceedings has been a matter of signaling the unprofitability of particular pesticides. It appears that applicants often test the EPA to see if the Agency is serious about cancelling a registration. If the Agency is serious, the applicant will often concede the issue.

The Impact of FIFRA

Using FIFRA, the EPA has put the burden of registration on the manufacturer. By doing this, the EPA has shifted pollution control in the area of pesticides from use stage back to the manufacturing stage. Regulating manufacturing is much more effective than regulating use, although there remains a good deal of debate as to the ideal mix of production controls and regulations over use. Often, the effect of this statute has been to force companies that wish to manufacture pesticides to develop more sophisticated products that will attack only specific pests and will degrade rapidly into harmless substances, so that they work effectively as pesticides while posing less danger to the environment.

FIFRA has had a significant impact on the manufacture, sale, and use of pesticides. It represents a shift in the political balance, forcing the pesticide

industry to demonstrate the efficacy of its products before they reach the market. Reflecting the significance of the shift in political power that this represents, the opponents of FIFRA were able to press through a controversial amendment to the Act in 1972. Under this amendment, any time the EPA initiated a suspension proceeding, it was required to indemnify anyone holding quantities of pesticides which they were not allowed to use. This put the EPA in the impossible position of either allowing potentially dangerous pesticides to be used, or else having to buy up any stocks on hand. This effectively eliminated suspensions as a means of dealing with pesticides. In 1988, this provision was finally scaled back so that it applies only to end users. FIFRA § 15, 7 U.S.C. § 136m.

Another issue the courts have had to address is whether compliance with FIFRA is treated as a defense to other laws. For example, if a manufacturer has complied with FIFRA, can it be held liable for tort claims alleging inadequate labelling? The courts have generally held that FIFRA compliance is not a defense. (Notably, these rulings are contrary to the rulings on tobacco. Cases to date have held that the federal statutes mandating the warning labels on cigarettes are preclusive, so the state courts cannot hold these warning labels to be inadequate.) Similarly, the courts have held that FIFRA does not bar the states from enacting more severe standards, including potentially banning pesticides that are allowed under federal law.

FIFRA is certainly not without its flaws and weaknesses. One of the most troubling problems is that we do not yet know the long-term effects of continued pesticide exposure, which may be dangerous even at very low levels. Ideally, the requirement that pesticides be registered every five years is intended to address this problem by requiring ongoing reevaluation of data.

Summary

Toxic substances are essential to modern industry, but can be extremely dangerous. Environmental law has recently begun concentrating on these substances, but the resulting law is not well organized. A critical statute in this area is the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), 7 U.S.C. §§ 136–136y. This statute places the burden of going forward on the industry: a manufacturer must prove that its chemicals are safe before it can market them.

Pesticide control began with the Insecticide Act of 1910, which addressed mislabelled products. Control remained only a nominal problem until pesticide use became widespread during and after World War II; in 1947, Congress adopted the first version of FIFRA. This act required the registration of all pesticides and set rudimentary labelling requirements.

In 1964, Congress revised FIFRA, giving the Department of Agriculture (and later the EPA) the power to cancel the registration of any product that the Department concluded was unsafe. Any product must be labelled in a way that makes its use safe. The courts have now established rigorous standards for determining whether a product can be registered. One of the most important requirements is that the EPA cannot assume that a product provides benefits; it must document them.

In recent years, Congress has repeatedly amended FIFRA, bringing order to the pesticide registration process. In current practice, any pesticide must be registered with the EPA by providing the complete formula for the product, the proposed label, and a description of tests showing that the product is safe. For a typical product, these tests cost \$5 to \$6 million.

From the materials, the EPA determines if the product works as claimed, if it is labelled as FIFRA requires, and if it causes no unreasonable adverse effects to the environment. If a product meets these tests, the EPA issues a registration. Registrations are good for five years and expire automatically unless renewed. They are use-specific, and each use must be supported by test data showing that the product is safe and effective. If a product cannot be labelled so it can be used safely, the EPA can refuse to register it.

The key test is unreasonable adverse effect. The EPA must find that a product's risks are not unreasonable in light of the economic, social, and environmental costs and benefits of a product. The EPA may classify any pesticide for restricted use only by certified applicators and not for sale to the general public. The government can also seize agricultural products that contain excessive levels of pesticide residue.

This regime does not cover chemicals registered before 1972. For these chemicals, the EPA requires that chemicals be reregistered. Critics charge that the EPA has been slow in pressing reregistration.

FIFRA gives the EPA Administrator discretion to take pesticides off the market in the public interest. He can cancel a registration; he can suspend production and distribution; or he can issue emergency orders prohibiting the manufacture, sale, distribution, or use of a pesticide.

A notice of cancellation declares that the EPA will review a product's safety. Review can go on for years, and until the EPA finally decides, a product can be freely manufactured, shipped, sold, and used. Cancellation may restrict use.

A suspension order can be issued if a product constitutes an "imminent hazard," that is, if there is a substantial likelihood of serious harm before cancellation becomes effective. If the EPA issues a suspension order, a product cannot be produced or distributed, but stock on hand can be sold and used.

The EPA issues an emergency suspension order if it finds an emergency so severe that it cannot conduct a hearing before cancelling the registration. The order prohibits manufacture, distribution, sale, or use of the product. The manufacturer is entitled to an expedited hearing. The courts divide on the standards required for issuing an emergency suspension order and the EPA has used emergency orders reluctantly.

In cancelling registrations, the EPA cannot act arbitrarily; it must have scientific data, usually the results of animal tests. Data are often inconclusive, raising questions on which scientists differ.

Often, when faced with cancellation proceedings, the manufacturer will take the product off the market.

FIFRA puts the burden of registration on the manufacturer. This is much more effective than regulating use. FIFRA forces pesticide manufacturers to develop products that attack only specific pests and degrade rapidly into harmless substances.

Compliance with FIFRA is not a defense to other laws. FIFRA does not bar the states from enacting more severe standards, including potentially banning pesticides that are allowed under federal law.

FIFRA has its flaws and weaknesses, including our ignorance of the long-term effects of pesticide exposure. It may be dangerous at very low levels.

Review Questions

1. In addition to state law, what must a student check to understand the full consequences of environmental law?
2. What does the Delaney Clause provide?
3. What does FIFRA stand for?
4. Under FIFRA, who has the burden of going forward?
5. What administrative agency now has responsibility for actions under FIFRA?
6. How is the term “unreasonable adverse effects to the environment” defined in FIFRA?
7. What restriction can the EPA impose on dangerous pesticides short of refusing to register them?
8. Who has the burden of proof under FIFRA?
9. Is compliance with FIFRA a defense to state tort suits?



CHAPTER 10

THE TOXIC SUBSTANCES CONTROL ACT

CHAPTER OUTLINE	TOSCA and the Political Strategy of Prerelease Controls
	The Statutory Scheme of TOSCA
	TOSCA and Shifting the Burden of Proof
	TOSCA and Unreasonable Risk

TOSCA and the Political Strategy of Prerelease Controls

Within its limitations, FIFRA provides reasonably effective regulation of pesticides. However, it regulates only a minuscule portion of all chemicals, covering only substances used as pesticides. In 1976, Congress tried to implement a vastly more ambitious regulatory effort: it tried to bring the entire chemical industry under a regulatory regime. To do this, it adopted the **Toxic Substances Control Act**, codified as 15 U.S.C. §§ 2601–2629, often known by various permutations of its initials TOSCA, TSCA, or ToSCA. This was a bold effort, although it did not achieve the level of coverage that its sponsors had initially hoped to attain.

TOSCA was an attempt to establish a prerelease system for controlling chemicals. The goal was to prevent chemicals from ever entering the environment. To do this, TOSCA established a system of product registration, marketing restrictions, and the like to control chemicals. This prerelease approach is based on the idea that if the manufacturer must disclose information on the safety of a product before the product can be marketed, the manufacturer will be more inclined to disclose information. In essence, TOSCA makes disclosure a cost of bringing the product into the market. By contrast, if the manufacturer is not called upon to disclose information until after it has put a chemical into the marketplace, disclosure of information becomes a threat to continued marketing, so manufacturers are often reluctant to release information.

Further, the context in which information is released can affect the quality of information profoundly. In the premarketing context, the manufacturer wants information clearly showing that the product is safe. After release, the manufacturer often challenges allegations that the product is unsafe. Often, its best defense is research showing that no conclusive results can be drawn from anything.

Finally, premarket testing avoids the situation in which the general public becomes test subjects. Real testing and research on the safety of substances often did not begin until there was very strong suspicion that a chemical was unsafe, often after widespread exposure had occurred. Additionally, legal authority for cleanups was an ongoing problem. TOSCA is an effort to reverse this, so that chemicals are tested before they are put on the market. The requirements of testing and prerelease notification were the key features of this new law.

TOSCA was an extremely ambitious effort, and it carried with it the high hopes of a whole range of planners and drafters. Unfortunately, in many ways,

LEGAL TERMS

Toxic Substances Control Act (TOSCA, TSCA, or ToSCA) 15 U.S.C. §§ 2601–2629; the federal statute regulating the use of chemicals, which requires that they be registered with the Environmental Protection Agency. TOSCA allows the EPA to restrict or prohibit the use of chemicals that are unreasonably dangerous to the environment.

the proponents of TOSCA failed to realize just how large a project they were undertaking in trying to implement this statutory scheme. Not since the New Deal had the federal government tried to bring a major industry under a comparable program of immediate, complete regulation. Further, the chemical industry was a critical element of the American economy, involving 11,500 businesses with well over one million employees. The chemicals that these businesses produced and marketed made up more than 5 percent of the nation's gross national product, worth more than \$162 billion per year. If the statute had been fully and aggressively implemented, it could have resulted in compliance costs of more than \$8 billion per year.

Further, the businesses involved in this industry are often not social pariahs. Besides being some of the largest employers in the nation, these companies have traditionally been prominent corporate civic contributors. Put simply, this was a powerful, well-entrenched industry that could mount serious and effective opposition to any legislation that threatened it.

The clash between the chemical industry and environmentalists led to compromise legislation—an effort to include provisions acceptable to conflicting sides. The legislation gave considerable discretion to the Environmental Protection Agency, a body which carried on the policy of compromise, often with the result that already watered-down provisions in the Act were construed in ways that further weakened them. An additional difficulty of this statute is that it is filled with redundant provisions. Whatever the purpose of the complex statute, it tends to foster indecision and confusion.

As a result, TOSCA's noble effort has borne fewer results and more disappointments than its sponsors had hoped for.

The Statutory Scheme of TOSCA

One of the key provisions of TOSCA is that a manufacturer of chemicals must file a **pre-manufacturing notice (PMN)** before it engages in commerce in a new chemical or a chemical being put to a significant new use. This pre-manufacturing notice must be filed with the EPA at least 90 days before the manufacturer begins production and before the chemical is applied to any significant new use. With the PMN, the manufacturer must file test results regarding the chemical. TOSCA § 5(b); 15 U.S.C. § 2604(b). The EPA then determines if the new chemical may present an "unreasonable risk." If the data submitted is not sufficient to allow a reasoned conclusion about the health and environmental

LEGAL TERMS

pre-manufacturing notice (PMN) A notice that someone proposing to manufacture a chemical regulated by TOSCA must file with the Environmental Protection Agency at least 90 days before manufacture of the chemical commences. This is the regulatory device used by the Environmental Protection Agency to determine if a chemical is safe before it is marketed.

risks of allowing the chemical, the EPA will order that testing be conducted. TOSCA § 4, 15 U.S.C. § 2603.

The EPA must also compile an inventory of chemicals already in commerce. TOSCA § 8(b); 15 U.S.C. § 2607(b). Although the statute does not mention screening of these chemicals, the inventory would have no reasonable purpose absent some screening to determine which chemicals are hazardous. The inventory, which was finally completed in 1980, lists some 55,000 chemicals and chemical types.

If the EPA determines that a chemical poses an unreasonable risk, or if it determines that existing data is insufficient to allow an informed preliminary assessment to be made, the EPA can require the manufacturer, or others putting the chemical into commerce, to perform safety tests on both new and existing chemicals. TOSCA § 4, 15 U.S.C. § 2605. TOSCA § 4 specifically indicates that testing should be imposed for certain effects, such as the possibility that a chemical causes cancer (carcinogenicity) or other tissue mutations (mutagenicity).

TOSCA § 4 does not mandate particular tests. Given a basic inventory of more than 50,000 types of chemicals, it would be impractical for Congress to prescribe specific tests. Instead, TOSCA § 4 requires the EPA to use notice-and-comment rulemaking to adopt appropriate tests. TOSCA § 4(b), 15 U.S.C. § 2603(b). This procedure acknowledges the complexity involved in determining the safety of chemicals and the legal importance of using appropriate tests for any given chemical. By using notice-and-comment rulemaking, the EPA can adopt tests tailored to the characteristics of a particular chemical, and provide procedures that are open to parties beyond the particular applicant and the government. Rulemaking is a public procedure during which any interested person can comment. As a further requirement that this procedure reflect thorough, careful consideration, in order to impose a test rule, the EPA must meet a **substantial evidence test**. TOSCA § 4(b)(5), 15 U.S.C. § 2603(b)(5). This is more stringent than the usual arbitrary and capricious standard that prevails in most notice-and-comment rulemaking contexts.

Additionally, § 4(e) of TOSCA created an Interagency Testing Committee (ITC), which was to list chemicals for priority testing. After the ITC listed a chemical, the EPA Administrator was to begin testing within one year or publish reasons for declining to undertake tests. TOSCA § 4(e), 15 U.S.C. § 2603(e). In practice, the ITC list did little more than stand as a monument to what the EPA did not do. The Agency was finally required to begin to test listed chemicals, after lawsuits forced it to admit that it was failing to test and had no good reason for this failure.

LEGAL TERMS

substantial evidence test A standard of review that courts use in reviewing the decisions of administrative agencies. It is more rigorous than the normal arbitrary and capricious standard; an agency that must meet this test must make a stronger showing to justify its actions. The Environmental Protection Agency must meet this rule before it can impose a "test rule" under TOSCA.

If testing shows that a chemical does pose an unreasonable risk, the EPA can limit or forbid its manufacture. TOSCA § 6, 15 U.S.C. § 2605. This section gives the EPA great flexibility in responding to each case. It can ban the use of a chemical, impose production limitations, restrict a chemical to certain uses or concentrations, impose labelling requirements, or otherwise tailor its remedies.

One of the greatest problems in the application of TOSCA has been the fact that effective administration requires that chemical manufacturers divulge sensitive data. No manufacturer likes having to disclose trade secrets, but if TOSCA is to be effective, such materials must be disclosed so that the risks posed by a given chemical can be assessed.

In practice, the EPA has obtained much data from leaks. Plain envelopes, with no return address, arrive at EPA offices. They contain trade secrets or other confidential data. Although the EPA's use of such documents is not illegal, it raises problems. TOSCA is premised on cooperation between the EPA and the chemical industry. That the EPA continually obtains significant data through anonymous leaks shows that the relationship remains fundamentally antagonistic.

TOSCA and Shifting the Burden of Proof

The statutory plan in TOSCA was intended to shift the burden of proving that a given chemical does not pose any unreasonable risk to those who wanted to market the chemical. Under TOSCA, if the EPA calls on the manufacturer to prove that the chemical does not pose an unreasonable risk to health or the environment, it must do so before the new chemical can be marketed, or an old one allowed to remain on the market. In theory, at least, this means that the manufacturer bears the burden of proof in these hearings. This reversed the burden that existed prior to the enactment of TOSCA.

The analogy to a trial is not entirely accurate. The manufacturer is not under an affirmative duty at the outset to prove the safety of its chemicals. The EPA must initiate a challenge to a chemical before testing or other regulatory measures are required. Mandatory tasks, such as filing pre-manufacturing notices, are largely ministerial, and once these are accomplished, the manufacturer is entitled to manufacture and market its chemical unless and until the EPA challenges the safety of the chemical.

The statute actually empowers the EPA to move on a relatively low showing—that there is a more-than-theoretical basis for suspecting that a chemical presents an unreasonable risk to health. TOSCA § 4(a), 15 U.S.C. § 2603(a). Further, the courts allow the EPA to infer that there will be human exposure on the basis of inferences drawn from the circumstances under which the substance is used.

In practice, however, it is often the EPA that bears an inordinate burden of proving that chemicals are unsafe. Almost all PMNs are submitted without

supporting data from health or environmental testing, and critics charge that the EPA asks for such data only rarely.

TOSCA and Unreasonable Risk

One of the most cryptic portions of TOSCA is the often-repeated phrase “unreasonable risk.” This phrase occurs throughout the statute, but is not defined. One of the critical points over which environmentalists and industry advocates have quarrelled is whether a determination of unreasonable risk should consider the economic consequences of potential EPA actions, or merely look to health and safety factors. By and large, the EPA has ruled that in the context of TOSCA, the determination of unreasonable risk should include economic considerations.

Environmentalists presented their argument with special vehemence in the context of PCB litigation. Polychlorinated biphenyls (PCBs) have been used for many years in a variety of industrial contexts because of their remarkable stability under extreme conditions. For many years, they were used in electrical transformers, because, even given constant exposure to extraordinary electrical fields, they did not break down. Tragically, these chemicals are also highly toxic, posing a serious health risk even in extremely low concentrations. Indeed, some studies suggest that there is *no* safe level of PCB exposure—that exposure to any amount of PCBs, including concentrations measuring in the parts per billion, poses unreasonable risks. Because of the extraordinary risk that PCBs pose, the statute singled them out in § 6(e) of TOSCA, 33 U.S.C. § 2605(e). No other section of the statute addresses a single class of chemicals in this way. Despite this statutory attention, and the known risks of PCBs, the EPA continued to allow certain uses that could cause PCBs to be released into the environment, finding that the economic consequences of outright bans were too severe to bear.

The courts concluded that TOSCA does allow the EPA to take this approach. The courts found that the statute allowed the EPA to structure its rules so that they would serve as an incentive for disposing of PCBs, but without imposing the extraordinary burdens that an outright ban would involve.

Nevertheless, the United States Court of Appeals remanded certain rules dealing with PCBs to the Agency, criticizing the Agency’s chronic inaction on this subject:

Yet, we find that forty-six months after the effective date of an act designed to either totally ban or closely control the use of PCBs, 99% of the PCBs that were in use when the Act was passed are still in use in the United States. With information such as this in hand, timid souls have good reason to question the prospects for our continued survival, and cynics have just cause to sneer at the effectiveness of governmental regulation.

The EPA regulations can hardly be viewed as a bold step forward in the battle against life threatening chemicals. There is no substantial evidence in the record to support certain EPA regulatory enactments, and portions of the regulations are plainly contrary to law. Thus, the effort by EPA has, in certain respects fallen far short of the mark set by the Congressional mandate found in section 6(e) of the Toxic Substances Control Act.

Environmental Defense Fund v. Environmental Protection Agency, 636 F.2d 1267 (D.C. Cir. 1980) (EDF II). This sums up the view of many commentators on the impact of TOSCA. It has done much less than its sponsors had hoped for.

ENVIRONMENTAL DEFENSE FUND, INC.
v.
ENVIRONMENTAL PROTECTION AGENCY
United States Court of Appeals,
District of Columbia Circuit
636 F.2d 1267 (D.C. Cir. 1980)

In this case the Environmental Defense Fund (EDF) petitions for review of regulations ... governing the disposal, marking, manufacture, processing, distribution, and use of ... polychlorinated biphenyls (PCBs).

EDF ... challenges the determination by EPA that certain commercial uses of PCBs are "totally enclosed," a designation that exempts those uses from regulation under the Act. Second, it claims that the EPA acted contrary to law when it limited the applicability of the regulations to materials containing concentrations of PCBs greater than fifty parts per million (ppm). ...

From our examination of the record, we find that there is no substantial evidence to support the EPA determination to classify certain PCB uses as "totally enclosed." We also find that there is no substantial evidence in the record to support the EPA decision to exclude from regulation all materials containing concentrations of PCBs below fifty ppm. ...

We find, however, that there is substantial evidence in the record to support the EPA determination to allow continued use of the eleven non-totally enclosed uses.

Although [TOSCA] is generally designed to cover the regulation of all chemical substances, section 6(e) refers solely to the disposal, manufacture, processing, distribution, and use of PCBs. ...

The special attention accorded to PCBs in the Toxic Substances Control Act resulted from the recognized seriousness of the threat that PCBs pose to the environment and human health, ... not only because PCBs posed great dangers to the natural and human environments, but also because "the history of EPA is not one of vigorous and quick action."

As enacted, section 6(e) of the Act sets forth a detailed scheme to dispose of PCBs, to phase out the manufacture, processing, and distribution of PCBs, and to limit the use of PCBs. ... The statute sets forth only limited exceptions to these broad prohibitions.

EPA sought to implement section 6(e) through ... regulations. ... The final regulations defined all electrical capacitors, electromagnets, and non-railroad transformers as totally enclosed, thus automatically exempting them from regulation under the Act. In the final regulations the Administrator authorized eleven non-totally enclosed uses to continue, including the servicing of totally enclosed uses, based on his consideration of the health and environmental effects of PCBs, the exposure to PCBs resulting from these activities, the availability of substitutes for the PCBs, and the economic impact of restricting those uses.

USE AUTHORIZATIONS

Criteria for the "Unreasonable Risk" Determination

The Act permits the Administrator to authorize "by rule" non-totally enclosed uses of PCBs if he finds that such uses "will not present an unreasonable risk of injury to health or the environment." 15 U.S.C. § 2605(e)(2)(B). ... [T]he Administrator found that eleven non-totally enclosed uses did not present an unreasonable risk. On the basis of these findings, EPA authorized the continued use of the eleven non-totally enclosed uses here in dispute.

In attacking these use authorizations, EDF claims that the Administrator employed the wrong criteria in making his determinations concerning "unreasonable risk." [The court found that the Administrator's determinations concerning "unreasonable risk" were sound and were supported by the language of the statute.]

* * *

Furthermore, the particular economic factors that EPA took into account were plainly reasonable. The Administrator did not simply propose to consider the effect of the ban on industry, but also the effects on "the national economy, small business, technological innovation, the environment, and public health." This formulation, which considers a broad range of benefits and costs of the ban and use authorization, is entirely consistent with the section 2(c) requirement that the Administrator consider the economic and social impact on his actions. ...

EDF's final attack on the use authorizations is that the Administrator did not properly apply his own criteria in making the unreasonable risk determinations. Here, too, we reject EDF's position.

* * *

In order to balance the social and economic impact of a prohibition against the risks to health and the environment, the Administrator sought a solution that would permit continued use while promoting conversion to non-PCB dielectric fluid. In reaching his solution, the Administrator considered the ninety million dollars in costs associated with immediate conversion to non-PCB dielectrics and the undetermined safety risks associated with fire and explosion in using non-PCB dielectrics.

* * *

THE FIFTY PPM REGULATORY CUTOFF

As a part of the regulatory scheme for PCBs under section 6(e), EPA limited application of the Disposal and Ban Regulations to materials containing concentrations of at least fifty ppm of PCBs. ... [W]e find that ... there is no substantial evidence in the record to support the Administrator's decision to establish a regulatory cutoff at fifty ppm.

Throughout the rulemaking proceedings for both the Disposal and Ban Regulations, EPA assumed that it would adopt some sort of regulatory cutoff.

* * *

EPA concluded, we believe correctly, that despite Congress'[s] recognition that existing contamination of PCBs in the environment posed continuing risks to humans and wildlife, Congress did not design section 6(e) to regulate ambient sources of PCBs.

* * *

While some cutoff may be appropriate, we note that the Administrator did not explain why the regulation could not be designed expressly to exclude ambient sources, thus directly fulfilling congressional intent, rather than achieve that goal indirectly with a cutoff, thereby partly contravening congressional intent. Thus, a desire to exclude ambient sources of contamination, without more, cannot support the regulatory cutoff.

EPA also seeks to justify the regulatory cutoff on the basis of the serious impact a lower cutoff would have on industries that inadvertently produce PCBs during the manufacturing process. As EPA readily concedes, however, the inadvertent commercial production of PCBs is to be regulated under the Act. By providing a blanket exemption for concentrations below fifty ppm, the Administrator has circumvented the authorizations and exemptions requirements provided in the statute. EPA made no finding that the cutoff would involve no unreasonable risk to health or the environment.

* * *

The record in the present case is replete with findings and data that PCBs are toxic to wildlife in concentrations well below fifty ppm. Furthermore,

the record shows that PCBs bioaccumulate in animals, concentrating as they move up the food-chain. Most importantly, EPA expressly found that any exposure of PCBs to the environment or humans could cause adverse effects. These findings leave us unable to say that the Administrator could rationally conclude that the benefits of regulating concentrations below fifty ppm are of no value.

TOTALLY ENCLOSED USES

EDF also petitions for review of the Administrator's decision to list several uses, including non-railroad transformers, capacitors, and electromagnets, as totally enclosed uses and therefore exempt from the regulations promulgated under section 6(e). Because we find no substantial evidence in the record to support the Administrator's classifications, we remand this part of the record for further proceedings.

There can be no serious doubt that Congress intended to permit the continued use of PCBs in a "totally enclosed manner." The statute defines that expression to mean "any manner which will ensure that any exposure of human beings or the environment to a polychlorinated biphenyl will be insignificant as determined by the Administrator by rule." 15 U.S.C. § 2605(e)(2)(C).

In both the proposed and final Ban Regulations, EPA defines "'insignificant exposure' as no exposure." Because "any release of PCBs into the environment will eventually result in widespread exposure of wildlife, including some of man's major food sources, and humans and that any such exposure may have adverse effects," EPA concluded that there was "no rational basis for selecting any particular exposure level above zero for the purposes of this regulation."

Despite these strict standards, EPA contends that its classifications fulfill the statutory and regulatory mandates. ...

This scheme, however, begs the question. Under the current regulations, EPA has no idea which PCB uses are "intact, non-leaking." The current regulatory structure provides no procedures for inspection or even self-reporting of leaks or other forms of contamination. Absent such

procedures, EPA's regulations are a blanket exception for transformers, capacitors, and electromagnets, which use the vast majority of all PCBs in commercial use. Without a better justification, the regulation cannot stand.

EPA argues briefly that the record contains substantial evidence supporting the agency's classification of transformers, capacitors, and electromagnets as totally enclosed. In fact, there is no substantial evidence. To begin with, we have found no evidence in the record discussing the probabilities or magnitudes of leaks from capacitors. This plainly does not amount to substantial evidence. As such, capacitors cannot be classified as totally enclosed uses.

In light of the record in this case, we find that there is no substantial evidence that the regulations concerning totally enclosed uses "will ensure that any exposure of human beings or the environment to a polychlorinated biphenyl will be insignificant" 15 U.S.C. § 2605(e)(2)(C) (emphasis added).

We feel constrained to add one final note to emphasize our concern in this case. Human beings have finally come to recognize that they must eliminate or control life threatening chemicals, such as PCBs, if the miracle of life is to continue and if earth is to remain a living planet. This is precisely what Congress sought to do when it enacted section 6(e) of the Toxic Substances Control Act. Yet, we find that forty-six months after the effective date of an act designed to either totally ban or closely control the use of PCBs, 99% of the PCBs that were in use when the Act was passed are still in use in the United States. With information such as this in hand, timid souls have good reason to question the prospects for our continued survival, and cynics have just cause to sneer at the effectiveness of governmental regulation.

The EPA regulations can hardly be viewed as a bold step forward in the battle against life threatening chemicals. There is no substantial evidence in the record to support certain of the EPA regulatory

enactments, and portions of the regulations are plainly contrary to law. Thus, the effort by EPA has, in certain respects, fallen far short of the mark set by the congressional mandate found in section 6(e) of the Toxic Substances Control Act.

On remand, we trust that EPA will act with a sense of urgency to find effective solutions to enforce the Act. We are not so naive as to assume or

suggest that hasty responses will ensure effective regulations. However, we are well able to see, from the plain text of the Act, that the deadlines for the enactment of regulations to enforce section 6(e) have passed. We therefore believe that EPA should act with expedition to complete the important task assigned to it by Congress.

So ordered.

Case Questions

1. What chemicals are at issue in this case?
2. What section of TOSCA regulates PCBs?
3. What is the significance of calling a use "totally enclosed"?
4. What sort of impacts did the EPA Administrator consider in making his determinations?
5. What sources will be regulated by a cutoff below 50 parts per million?
6. Why did the court reject the "totally enclosed" classifications?
7. What did the court want the Environmental Protection Agency to do on remand?

Summary

In 1976, Congress tried to regulate the chemical industry through a prerelease system that included product registration, marketing restrictions, and the like. The goal was to make disclosure of safety concerns a cost of bringing chemicals to market; to make manufacturers prove that chemicals were safe and precluding use of the general public as unwitting test subjects.

This plan was extremely ambitious, bigger than the drafters realized. If fully implemented, compliance would have imposed costs of more than \$8 billion per year on a powerful, well-entrenched industry. The legislation that was adopted, the Toxic Substances Control Act (TOSCA), 15 U.S.C. §§ 2601–2629, was a compromise that gave much discretion to the EPA, which has not enforced it zealously. Therefore, TOSCA has been less successful than its sponsors had hoped for.

Under TOSCA, a chemical manufacturer must file a pre-manufacturing notice (PMN) at least 90 days before it markets a new chemical or puts a chemical to a significant new use. With the PMN, the manufacturer must file test results regarding the chemical. The EPA then determines if the new chemical may present an "unreasonable risk." If the data are not sufficient to allow a reasoned conclusion about the risks of the chemical, the EPA will order more testing. The EPA uses notice-and-comment rulemaking to choose appropriate tests. To support a test rule, the EPA must meet a substantial evidence test, which is more stringent than the arbitrary and capricious test. If tests show that a chemical poses an unreasonable risk, the EPA can limit manufacture of that chemical, tailoring remedies to each case.

TOSCA also required the EPA to compile an inventory of chemicals in commerce. The inventory, completed in 1980, included some 55,000 chemicals and chemical

types. Also, TOSCA created an Interagency Testing Committee to list chemicals for priority testing. In practice, the EPA often undertook testing only when lawsuits forced it to act.

TOSCA requires manufacturers to divulge sensitive data. In practice, the EPA obtains much information through leaks, showing that hoped-for cooperation between government and industry has not developed.

Under TOSCA, the EPA can require a manufacturer to prove that a chemical poses no unreasonable risk to health or the environment, but the EPA must initiate a challenge to a chemical before testing or other steps are required. In practice, the EPA acts reluctantly, and the courts often require that it bear the burden in proving that chemicals are unsafe.

Throughout the statute, TOSCA refers to an “unreasonable risk”; it does not define the phrase, and also does not indicate if the EPA should consider the economic consequences of its actions, or merely the health and safety factors. The EPA generally includes economic considerations.

A key TOSCA dispute was over polychlorinated biphenyls (PCBs), chemicals widely used in industry because of their remarkable stability under extreme conditions. PCBs are highly toxic, posing extreme health risks in minute concentrations. Because of the extraordinary risk that PCBs pose, TOSCA singled them out in TOSCA § 6(e), 33 U.S.C. § 2605(e). Despite this, the EPA continued to allow uses that could cause PCBs to be released into the environment, finding that the economic consequences of outright bans would be too severe. The courts found that TOSCA does allow the EPA to take this approach. Nevertheless, the United States Court of Appeals remanded certain PCB rules to the EPA, criticizing its chronic inaction and saying that the EPA simply was not doing enough. This is largely a summary of TOSCA: it has not done what its drafters hoped for.

Review Questions

1. What is TOSCA intended to regulate?
2. What sort of system did TOSCA establish to carry out this regulation?
3. How is the EPA to decide what tests it will require for a given chemical?
4. If the EPA is challenged on the imposition of a test rule, what evidentiary showing must it make to support the rule?
5. What is the ITC and what does it do?
6. What remedies can the EPA impose if a chemical poses an unreasonable risk?
7. What remains a key source of information about risks posed by chemicals?
8. Under TOSCA, who has the burden of proving the risk or safety of a given chemical?
9. What phrase from TOSCA has been the center of much litigation?



CHAPTER 11

THE ENDANGERED SPECIES ACT

- CHAPTER OUTLINE**
- The Concept of Legislative Roadblocks
 - The Endangered Species Act as Roadblock Legislation
 - Tellico Dam and the Snail Darter: The Endangered Species Act in Action
 - The Pacific Northwest and Controversy over Biodiversity and Economic Growth
 - A Final Note

The Concept of Legislative Roadblocks

As the discussion throughout this book has indicated, many of the provisions of environmental law are complex compromises and procedural levers intended to shape decisions in ways that will either favor environmental consideration or at least bring them to the attention of decision makers. In some provisions, however, the law has established out-and-out *roadblocks*—prohibitions that forbid certain actions.

Any roadblock raises a concern. What if it goes too far? Throughout our nation's history, the legal system has occasionally taken such extreme positions that the result was widespread rebellion and rejection of the power of law. A leading example is Prohibition, which was adopted with the noble idea of closing the nation's saloons and ushering in an era of clean living. Unfortunately, the effort proved unworkable. The results of Prohibition included gang wars, bootlegging, and a sad record of anti-immigrant persecution in the name of ending drinking. Within a generation, the nation gave up on this noble experiment and repealed the Eighteenth Amendment. Many other legal roadblocks have had equally questionable results.

The Endangered Species Act as Roadblock Legislation

The **Endangered Species Act (ESA)**, codified at 16 U.S.C. §§ 1531–1543, contains a specific roadblock. It has prompted a range of lawsuits that few of those who enacted the statute may have anticipated, because it imposes a substantive, mandatory rule, barring actions that violate the terms of the Act. Because of the sweeping nature of this provision, it serves as a useful case study on if and how the roadblock approach works.

Adopted in 1973, the Endangered Species Act was the first major piece of legislation in any legal system that gave serious legal protection to endangered species domestically and internationally. It has served as a model for nations throughout the world which are trying to maintain protection for diverse species.

Two of the critical effects of the Act were widely understood when it was adopted. First, the Act forbids the importation of products made or taken from endangered species. ESA § 9, 16 U.S.C. § 1538. Second, it prohibits the taking of any endangered species, imposing heavy criminal penalties on anyone who kills, captures, harasses, harms, pursues, hunts, shoots, wounds, traps, or collects any endangered or threatened species, or attempts to engage in any such conduct. ESA § 11, 16 U.S.C. § 1540.

LEGAL TERMS

Endangered Species Act (ESA) 16 U.S.C. §§ 1531–1543; the federal statute prohibiting acts that will endanger either species threatened with extinction or their critical habitat.

The third result of the Act has had the most profound, and probably the most lasting, impact on the legal system. In an innocuous-appearing section, the Endangered Species Act calls for “interagency cooperation.” ESA § 7, 16 U.S.C. § 1536. In its first sentence, § 7 calls for the Secretary of the Interior to review programs which he administers and to utilize these programs to further the purposes of the Endangered Species Act. The second sentence is complicated:

All other federal departments and agencies shall in consultation with and with the assistance of the Secretary [of the Interior], utilize their authorities in furtherance of the purposes of this chapter while carrying out programs for the conservation of endangered species and threatened species listed pursuant to section 1533 of this title and by taking such action necessary to insure that actions authorized, funded, or carried out by them do not jeopardize the continued existence of such endangered species and threatened species or result in the destruction or modification of habitat of such species which is determined by the Secretary, after consultation as appropriate with the affected States, to be critical.

ESA § 7, 16 U.S.C. § 1536. The meaning of this provision is hardly obvious. It requires all government officials and agencies to cooperate with the Secretary of the Interior. And what else?

The Arguments for Roadblocks

Exactly what Congress intended in § 7 of the Endangered Species Act has been very controversial. Did many members of Congress think that this section, discussing interagency cooperation, established a complete prohibition on federal action that harms any threatened or endangered species or its critical habitat? Whether this was or was not the intent of Congress will probably always be subject to debate. During the years leading up to passage of the Endangered Species Act, there was a great deal of public and media clamor for legislation that would provide effective protection for threatened species, with much of the attention directed to highly visible animals that could be protected without great economic difficulty, such as the bald eagle, the polar bear, and the whooping crane.

Additionally, many scientists pressed a utilitarian argument in favor of broad-ranging protection of species. Their argument stressed the notion that every species has some value in the ecological chain. Therefore, humans should preserve even what seem to be homely and innocuous species, to sustain the orderly system that nature has provided and to protect species that may prove to have tremendous value in addressing human problems in the future.

A third argument stressed that humanity should protect all species as part of its stewardship of the planet. This view is drawn from various religious and quasi-religious ideas. It arises from the principle that all life is sacred. Although this view has prompted derision from some circles, it also has many zealous, articulate proponents. Under this view, law should be shaped to preserve as much of life as possible, regardless of commercial value, direct utility, or other competing factors.

Whatever view is used to support the statute, the Endangered Species Act is the law, and this law has been used to protect species in several instances involving serious confrontations between environmentalists and developers.

Consultation Under the Endangered Species Act

Section 7 of the Endangered Species Act requires that all federal agencies act “in consultation with” the Secretary of the Interior. With cases such as the snail darter dispute, it became clear that the courts would not allow agencies to overlook the consultation requirement. This forced governmental agencies to involve the Department of the Interior actively in attempts to adapt projects so that they would not threaten protected species or their critical habitats. This has proven a remarkably successful effort. Several thousand federal projects have been successfully modified to meet both the needs of the agencies and the demands of the statute.

Critical Habitat Listings

Section 7 of the Endangered Species Act requires that the federal government protect the critical habitats of endangered species. This represents a tremendous power because of all the public land the federal government controls. Although the Department of the Interior has generally been somewhat reluctant to list critical habitats, this power has the potential to close these vast areas of public land to development.

This provision looms ever larger as biologists find that endangered species need very large areas of undisturbed land to survive. Does the Endangered Species Act require returning vast tracts of land to a wilderness state? Some judicial decisions indicate that it does exactly that. *See, e.g., Carson-Truckee Water Conservancy District v. Clark*, 741 F.2d 257 (9th Cir. 1984).

Although the powers under § 7 are considered a serious roadblock, the powers under § 9 of the Act have vast and largely unexplored consequences. This section prohibits any “taking” of an endangered species. ESA § 9, 16 U.S.C. § 1538. The courts have not made clear how expansively this section will be read. For example, there is a strong argument that this section prohibits not merely the literal taking of the species itself, but also any taking of the species habitat, such as through development. If the courts consistently adopt this approach, it could have very profound consequences.

Tellico Dam and the Snail Darter: The Endangered Species Act in Action

The Endangered Species Act has had a major impact in several instances. Indeed, the statute has had such telling consequences that it is appropriate to

examine two cases in some detail, because these cases illustrate the complex interactions of environmental causes and many other aspects of the social and political processes that shape the field of environmental law in its modern context.

Background: The Growth of the TVA

In the 1930s, the federal government launched one of the greatest rural development efforts ever undertaken. Despite the outcry of many skeptics and the shrill objections of private utilities that cried unfair governmental competition, the federal government undertook to develop the Tennessee river valley. To do this, the federal government established the Tennessee Valley Authority (TVA). The result was a remarkable development of what had been one of the most wretchedly poor parts of the nation. Rivers were brought under control; widespread regions were provided with electricity; a part of the nation that had been put under the crippling weight of the Great Depression was given new economic life.

In the process, the Tennessee Valley Authority became a substantial federal bureaucracy. That bureaucracy continued to service its clients as the years passed. By the late 1950s, there was arguably no need for additional TVA projects. Undoing a bureaucracy, however, takes much more than the passage of time, and the TVA continued to press forward on various projects, even when these had increasingly less utility to the public being served and more to those dependent on the contracts. By the 1950s, critics charged that the TVA had degenerated to the point where its programs were little more than prizes for Washington lobbyists. One vocal critic charged that TVA's motto should be "The Public Be Dammed." It was an ironic bringdown for an agency that had been hailed at its inception as a stirring example of democracy in action.

The Tellico Dam Project

In the late 1960s, the TVA announced plans to develop the last remaining undammed section of the Little Tennessee River. The river was home to a wide variety of fish that flourished in its fast-flowing, rapid-filled stream. The Tellico Dam had first been considered as part of the overall TVA plan as early as 1937. However, because the dam was a very expensive project promising almost no return, the TVA gave it the lowest priority of all of the more than 70 sites in its jurisdiction. By the 1950s, all dams that could be justified as necessary for flood control, navigation, and generation of electrical power had been completed, more than 40 in all. Nevertheless, the TVA continued to build dams, stretching the justification for each new project with such claims as "economic development demonstrations," and relying on a powerful group of congressional sponsors and supporters to continue funding these massive projects. By 1960, when the TVA turned its attention to the Tellico Dam project, the three-mile stretch

of the Little Tennessee River that would be turned into a lake behind the dam was the last remaining free-flowing stretch of the river.

Between 1964 and 1970, the various forces for and against the Tellico Dam project moved forward. In favor of the project was a coalition of members of Congress, local leaders, developers, and speculators. Arrayed against them was a loose-knit coalition of local farmers, native Americans, recreational users, environmentalists, and the like. Initially, the developers had far too much clout and too many connections for the opposition to have any real chance of stopping the project. By 1970, the concrete foundations of the dam had been laid.

In 1970, the environmental coalition had its first major success. NEPA had been enacted in late 1969, and the citizens' coalition forced the TVA to suspend construction pending the completion and approval of an adequate environmental impact statement. This delayed the project until 1973.

Enter the Snail Darter

In 1973, a biologist from the University of Tennessee made a discovery that brought the Endangered Species Act into play. He found a tiny species of fish, a perch called the snail darter, living in the waters in the Tellico dam area. This endangered species could survive only in fast-flowing waters. If the Tellico Dam were built, these waters would be lost and the fish killed.

The Endangered Species Act suddenly provided the environmental coalition with the handle it had been seeking—a legal way to challenge the building of the Tellico Dam. Section 7 of the Endangered Species Act prohibited the government from taking any action that would jeopardize the existence of the fish or modify its critical habitat. The Tellico Dam clearly did both.

TVA v. Hill

Citing what appeared to be a clear case of a governmental agency refusing to obey the law, the coalition filed administrative petitions to stop the building of the Tellico Dam. The TVA rejected the claims raised in the petition. Indeed, the TVA took an action that appeared to be an attempt to evade the statute: it took the extraordinary step of working three full shifts, pushing construction ahead 24 hours per day, despite the staggering cost increases this entailed.

When the TVA rejected the coalition's administrative petitions, the coalition filed suit, seeking an injunction. The trial judge acknowledged that there was a statutory violation, but felt that the issuance of an injunction was excessive. *Hill v. TVA*, 419 F. Supp. 753 (E.D. Tenn. 1976). On appeal, the United States Court of Appeals for the Sixth Circuit granted the injunction. *Hill v. TVA*, 549 F.2d 1064 (6th Cir. 1977).

Notably, in court, the citizens' coalition plaintiffs were able to mount a very sophisticated attack on the planning that the TVA had done. They tried to show that TVA's projections of economic benefits from the Tellico project were unwarranted and unsound, and showed that a more reasonable plan for river

development and management would produce better economic results with much less disruption.

The TVA appealed to the Supreme Court. In *TVA v. Hill*, 437 U.S. 153 (1978), the Supreme Court ruled that § 7 of the Endangered Species Act was clear. It required all federal agencies to ensure that their actions did not jeopardize the continued existence of an endangered species or result in the destruction of its critical habitat. The completion of the Tellico Dam would violate these commands. The Court admitted that by preventing the completion of the dam, the Endangered Species Act would negate any possible benefits the dam would provide. However, the Endangered Species Act made it clear that Congress intended the protection of endangered species to have a higher priority. The Court found that the legislative history of the Act showed that Congress recognized that protecting the environment required protecting any endangered species, even if this meant sacrifices in other areas.

The Court acknowledged that probably few members of Congress had realized the specific burden that the act would produce in this instance, namely, stopping a federal project into which TVA had already poured some \$100 million. Nevertheless, it was not for the courts to decide whether legislation was wise. The Constitution requires that the Court enforce statutes as enacted by Congress. Further, the Court ruled that it did not have discretion to decide whether an injunction was or was not wise. An injunction was the remedy mandated by the Endangered Species Act; accordingly, an injunction was the remedy to be used.

What Section 7 Means

One ironic note about the Supreme Court's statutory analysis is that the Court is one of the few authorities to find that § 7 of the Endangered Species Act is "clear." Indeed, more than one commentator reviewing the legislative background of the Act has claimed that this critical section was *drafted* to be unclear. Apparently, the final version of this section was drafted by ardent environmentalists who wanted a roadblock provision. Believing that no such provision would be adopted if it was stated in clear language, these advocates drafted language that was intentionally vague. If this is true, then arguably Congress could not have formed any real intent. This suggests that the Supreme Court's gloss of the legislative history is a matter of imposing a priori principles in a case in which they do not reflect what Congress actually did.

If these accounts of legislative sleight-of-hand are accurate, then the Endangered Species Act raises a number of questions. First, is the legislative process sound if the members of Congress adopt a statute that they really do not understand? Is it ethical to draft statutes that deliberately try to hide their meaning from the Congress? If the statute creates a serious roadblock, leaving major interests with no effective voice in a critical legal process, is there a risk that this unreasonable exclusion will prompt an ill-reasoned backlash, eliminating or seriously weakening the Endangered Species Act in cases where protection of endangered species is reasonable and warranted?

The Snail Darter Controversy in Congress

After the Supreme Court's ruling in *TVA v. Hill*, the dispute over the Tellico Dam project was transferred from the courts to the legislative arena. The only way that the TVA could get legal permission to finish the Tellico Dam was to get Congress to pass special legislation exempting this project from the Endangered Species Act. The environmentalists who opposed construction of the dam contended that in a reasonable hearing in the legislative arena, they would be able to show that the dam project was economically, sociologically, and environmentally unsound.

In fact, in succeeding months, three separate congressional committees held hearings on the Tellico Dam. All three found that there were sound reasons for not building the Tellico Dam.

In 1978, responding to continuing questions about the efficacy of a statute that allowed so little flexibility, Congress adopted a special amendment to § 7. This created a Cabinet-level review board, frequently referred to as the *God Squad*, which was empowered to grant special exemptions to the Endangered Species Act. Under such an exemption, a government project could proceed even if it threatened to render a species extinct. However, to do this, the God Squad had to make three separate, special findings:

1. That the project had regional or national significance
2. That there was no reasonable and prudent alternative to the project
3. That the project as proposed clearly outweighed the alternatives.

This amendment to § 7 created an extraordinarily high standard that the Cabinet-level review committee was required to meet in order to open the roadblock created by § 7. This amendment came after *TVA v. Hill* and the storm of "fish bites dam" publicity that the snail darter controversy generated. The amendment also raises a question about the charges that § 7 was first adopted because environmentalists misled an unwitting Congress. By 1978, Congress knew full well that § 7 was a roadblock. If Congress did not want a roadblock, why did it craft only a very narrow amendment to the § 7 strictures in 1978? Does this suggest that Congress knew what it was doing and acted intentionally when it adopted the Endangered Species Act in 1973?

In January 1979, the God Squad ruled on the Tellico Dam project, unanimously denying the TVA a waiver of the Endangered Species Act. Notably, this was the most open forum to date in terms of allowing the environmental plaintiffs to argue the full merits of the Tellico Dam project. After the full hearing, the God Squad ruled that the Tellico Dam project was economically unsound. It noted that even though the dam was some 95 percent complete, the project was so flawed that there was no adequate justification for finishing it.

Despite this ruling, Congress reversed itself some four months later, attaching a rider to a complex appropriations bill calling for immediate completion of the dam. Work moved ahead, despite further protests, and in November 1979, the gates of the dam were closed, flooding the snail darter's critical habitat.

The Final Resolution

As a result of the creation of the lake behind the Tellico Dam, the snail darter population was destroyed. The TVA's claims of promised economic development never came near the agency's projections used to justify building the dam. Indeed, the valley was arguably worse off in terms of economic development after the dam than before it.

Then, as a final irony, several other populations of the snail darter were discovered in other, smaller streams in the region. These populations of snail darters eventually led to the fish being downgraded from "endangered" to the less drastic status of "threatened."

The Pacific Northwest and Controversy over Biodiversity and Economic Growth

Logging and the Destruction of Biodiversity

In the wake of the Tellico Dam controversy, Americans became increasingly aware of the potential for the destruction of species. However, while people were becoming more aware of the vulnerability of endangered species, they also increasingly had to confront the potential costs of saving endangered species. In this context, a major controversy emerged in the Pacific Northwest.

When the Pacific Northwest was first explored and settled, newcomers found the area covered with spectacular forests of fir, pine, and various other trees, all part of one of the richest, most diverse, and most complex ecological systems in the world. Although a considerable portion of this forest area was reserved in various public land classifications, much of it was taken as private land and logged. Huge sections of the region were clear-cut. Much of this land has since been reforested, but the reforestation has often been in the form of controlled-growth forests. In these forests, biological diversity is deliberately limited to maximize timber production. Critics charge that this has reduced much of what was once rich ecosystem to little more than sprawling tree plantations, where the short-term maximization of timber profits takes precedence over other considerations.

Logging remains a substantial industry in the Northwest, although it has had to undergo many changes in recent decades. These changes in the industry have often been painful. During the early 1980s, the timber-dependent town of Springfield, Oregon, had some of the worst unemployment recorded in the United States since the Great Depression. Another timber-dependent community, a company town called Valsets, Oregon, simply ceased to exist when the company that owned the area shut down operations and tore down the town.

Many of the lumber mills that failed during these economic downturns were woefully out of date. They could not compete with modern, more efficient mills that can process greater amounts of lumber at lower prices. The greatest dislocation of this transition was an increase in the efficiency of the new mills, which employed many fewer workers. As a result, many people lost jobs in the logging industry, with all of the attendant problems that such economic disruption invariably brings. Further, this trend will undoubtedly continue. It is estimated that at least 30,000 more jobs will be lost in the timber industry in the Pacific Northwest during the next 20 years because of increased productivity alone.

At the same time, timber companies have exacerbated the decline in mill jobs by exporting large numbers of raw logs to Korea and Japan for processing in those countries. This whole situation has created tremendous pressures on the national forests throughout the Pacific Northwest.

The Forest Service Mandate of Forest Management

By law, the U.S. Forest Service is charged with the management of the national forests. Because of the large amount of forest land set aside in national forests throughout the Pacific Northwest, the Forest Service has been a very significant and influential agency in that region. As the pressures on the forests have increased, the Forest Service has found itself struggling to satisfy many conflicting demands.

One of the most important legal mandates imposed on the Forest Service is the National Forest Management Act, 16 U.S.C. §§ 1600 to 1687, and its supporting regulations. The National Forest Management Act requires the Forest Service to manage the national forests so as to assure a viable population of species in the forest.

By law, the national forests are not solely a source of timber for the logging industry. They are to be a managed resource that maintains viable populations of native fish and wildlife. The term *viable population* means enough of each of the many species, spread throughout the national forests, so that each species can continue to reproduce itself. Given the vast diversity of organisms in old-growth forests, it would be impossible to monitor every type of animal found there. Rather than attempt such a daunting task, regulations call for the Forest Service to monitor organisms that have been shown to be reasonable indicators of the overall health of the forest.

One of these indicator species has become famous in litigation over forests in the Pacific Northwest. This is the northern spotted owl (scientific name *Strix occidentalis caurina*). This bird is rarely seen in daylight. Before it achieved legal infamy, few people other than biologists knew or cared much about it. However, scientists who have studied the ecosystems of old-growth forests have concluded that this bird gives an accurate measure of the health of entire forests. If spotted owls are present, the forest is relatively healthy. If the owl is not present, or if its numbers fall below certain levels, then the forest is

endangered, and the complex network of interactions that makes up the forest may well collapse.

For several years, critics of governmental policies complained that the Forest Service and other agencies were failing to protect sufficient areas of old-growth forest. As part of the controversy surrounding this management issue, environmentalists charged that the Service was wrongly failing to list various species as threatened or endangered under the Endangered Species Act. Critics charged that many species were being injured by continuing Forest Service policies that allowed logging of huge tracts of old forest land. Logging destroys the habitat necessary for the survival of an ever-increasing range of species that cannot survive in hygienically managed reforested areas. In 1990, after much contested maneuvering, and acting under a court order, the Forest Service finally acknowledged what environmentalists had claimed for several years: the northern spotted owl is a threatened species.

By designating the northern spotted owl as a threatened species, the Forest Service acknowledged that it had a legal duty to take aggressive steps to protect the animal to ensure that governmental actions did not render the owl extinct. Unfortunately, this presented a serious political problem for the Forest Service. The only effective way to protect the northern spotted owl was to set aside large tracts of old-growth forest land as protected breeding grounds. But to do this, the Forest Service would have to reverse a long-standing policy of releasing a continuing supply of old-growth forest for logging. Through its policy of releasing large tracts of land, the Forest Service had built extensive political contacts throughout the timber industry. Many industry entities depended on a continuing supply of old-growth forest land for their logging operations, and many people felt that the Forest Service "owed" them a continuing supply of timber. Any action that the Forest Service took to protect the spotted owl would run contrary to this policy.

The Forest Service Refusal to Obey Statutory Commands

Rather than offend its logging constituency, the Forest Service and other agencies involved with forest management disregarded the law. For example, the law calls for designating critical habitat for any threatened or endangered species. This obligation fell to the Fish and Wildlife Service, but the FWS simply failed to designate any critical habitat for the spotted owl. This was illegal. In adopting this course of action, the Service blatantly refused to carry out the clear duties imposed by the Endangered Species Act. It had no excuse for this, and it did not attempt to justify its inaction.

Litigation quickly followed, and the Fish and Wildlife Service could offer no defense for its failure to obey the law. A court reviewing this action found it "arbitrary and capricious, and contrary to law." The opinion was noteworthy for the bluntness with which it addressed the Fish and Wildlife Service. The court said very plainly that the Fish and Wildlife Service had failed to offer any credible excuse for its failure to obey the law. *Northern Spotted Owl v. Lujan*, 758 F. Supp. 621 (W.D. Wash. 1991).

NORTHERN SPOTTED OWL

v.

LUJAN

United States District Court, W.D.
Washington N.D. 758 F. Supp. 621
(W.D. Wash. 1991)

THIS MATTER comes before the Court upon plaintiffs' motion for summary judgment and their motion to compel the federal defendants to designate critical habitat for the northern spotted owl.

* * *

On June 23, 1989, the [United States Fish and Wildlife] Service proposed to list the northern spotted owl as a "threatened" species under the Endangered Species Act. ... [T]he Service expressly deferred designation of critical habitat for the spotted owl on grounds that it was not "determinable."

Plaintiffs move this Court to order the federal defendants to designate "critical habitat" for the northern spotted owl.

* * *

Plaintiffs challenge the Service's decision, on behalf of the Secretary, to defer designation of critical habitat for the northern spotted owl. The ESA requires the Secretary, "to the maximum extent prudent and determinable," to designate critical habitat *concurrently* with his decision to list a species as endangered or threatened. 16 U.S.C. § 1533(a)(3). When critical habitat is not determinable at the time of the final listing rule, the Secretary is authorized up to twelve additional months to complete the designation. ...

The Secretary, through the Service, claims that critical habitat for the spotted owl was not "determinable" when, in June 1989, the Service proposed to list the owl as threatened or when it issued its final rule one year later. The federal defendants contend that, under these circumstances, they are entitled to a twelve-month extension of time pursuant to 16 U.S.C. § 1533(b)(6)(C). Plaintiffs charge that the Secretary has violated the Endangered Species Act and the Administrative Procedure Act by failing to designate critical habitat concurrently with the listing of the northern spotted owl.

* * *

The language employed in Section 4(a)(3) and its place in the overall statutory scheme evidence a clear design by Congress that designation of critical habitat coincide with the species listing determination. The linkage of these issues was not the product of chance; rather, it reflects the studied and deliberate judgment of Congress that destruction of habitat was the most significant cause of species endangerment.

* * *

The solution adopted by Congress permits the Secretary to defer the habitat designation upon finding that critical habitat is not "determinable" at the time the Secretary proposes to list the species under the ESA or at the time of his final listing decision. 16 U.S.C. § 1533(b)(6)(C). In no event may the Secretary delay the designation of critical habitat for more than twelve months after publication of the final listing rule. In crafting this solution, Congress expressly reaffirmed its earlier judgment that the critical habitat designation is to occur *concurrently* with the listing decision, except in the limited circumstances when critical habitat is not "determinable" or when it is not "prudent" to do so. *See also* 16 U.S.C. § 1533(a)(3).

* * *

This legislative history leaves little room for doubt regarding the intent of Congress: The designation of critical habitat is to coincide with the final listing decision absent extraordinary circumstances. Section 4(a)(3) necessarily impresses upon the Secretary of the Interior an affirmative duty to seek out or, at a minimum, to identify *prior* to the final listing decision the biological and economic data that will be necessary to making his designation of critical habitat. *See* 16 U.S.C. § 1533(b)(2) (Secretary required to make designation on "best scientific information available").

This Court rejects as incongruous the federal defendants' argument that Section 4(b)(6)(C) authorizes an automatic extension of time merely upon a finding that critical habitat is not presently "determinable," even where no effort has been made to secure the information necessary to make the designation. To relieve the Secretary of any affirmative information gathering responsibilities would effectively nullify Congress'[s] charge that

the species listing and habitat designation occur concurrently, "to the maximum extent ... determinable."

Turning to the record presented, this Court is unable to find any support for the federal defendants' claim that critical habitat for the northern spotted owl was not determinable in June 1989 when the Service proposed to list the species, or when the Service issued its final rule one year later. Critical habitat received only brief discussion in both published rules.

* * *

When the Service published its final listing rule ... , the agency again deferred designation of critical habitat on grounds that it was not then "determinable." The explanation offered by the Service was virtually a verbatim repetition of its 1989 finding The only difference between the two rules, insofar as they address critical habitat, concerned the release in May 1990 of a federal report addressed to conservation strategies for the spotted owl. The Service, which received a preliminary draft of the report immediately prior to the close of the comment period, stated that it was in the process of evaluating the report and would publish its final decision on critical habitat by June 23, 1991.

... The federal defendants fail to direct this Court to any portion of the administrative record which adequately explains or justifies the decision not to designate critical habitat for the northern spotted owl. Nowhere in the proposed or final rules did the Service state what efforts had been made to determine critical habitat. Nowhere did the Service specify what additional biological or economic information was necessary to complete the designation. Nowhere did the Service explain why critical habitat was not determinable.

Indeed, the Service candidly acknowledged in its June 1989 proposed rule that it had not conducted the analyses required by Section 4(b)(2). This Court interprets the Service's statement one year later that it "will evaluate the economic and other relevant impacts," absent any evidence of having done so, as tacitly reaffirming that the studies still had not been performed.

More is required under the ESA and the Service's own regulations than the mere conclusion

that more work needs to be done. It cannot be established upon the record presented that the Service "considered the relevant factors" or that it "articulated a rational connection between the facts found and the choice made." Accordingly, this Court must find the Service abused its discretion when it declined to designate critical habitat for the northern spotted owl.

The Service's actions in June 1990 merit special mention. In its final rule the Service stated that the northern spotted owl is "overwhelmingly associated" with mature and old-growth forests. The Service further stated that, at present rates of timber harvesting, much of the remaining spotted owl habitat will be gone within 20 to 30 years. Despite such dire assessments, the Service declined to designate critical habitat in its final rule, citing the same reasons it gave one year earlier. Whatever the precise contours of the Service's obligations under the ESA, clearly the law does not approve such conduct. Indeed, the Thomas Committee, which included Service personnel, warned that "delay in implementing a conservation strategy [for the spotted owl] cannot be justified on the basis of inadequate knowledge."

* * *

That the Thomas Committee was working to develop conservation strategies for the spotted owl did not relieve the Service of its obligation under the ESA to designate critical habitat to the maximum extent determinable. ...

This Court is mindful of the prodigious resources dedicated by the Service to the spotted owl. The listing process required a truly remarkable effort by the Service given the volume of comments received and the complexity of the issues raised. The inter-agency consultations have consumed additional manpower and financial resources. Pursuant to Section 7 of the ESA, the Service must consult with other federal agencies whose programs may jeopardize an endangered or threatened species, or "result in the destruction or adverse modification of [the critical] habitat of such species" 16 U.S.C. § 1536(a)(2).

In any event, such efforts, which the Court assumes have been on going since prior to June 1989, do not relieve the Service of its statutory obligation to designate critical habitat concurrently

with the species listing, or to provide a rational and articulated basis for concluding that critical habitat is not determinable. ... The simultaneous tasks assigned to the Service under the ESA are not insubstantial as the present case amply demonstrates. Nevertheless, designation of critical habitat is a central component of the legal scheme developed by Congress to prevent the permanent loss of species. ...

Upon the record presented, this Court finds the Service has failed to discharge its obligations under the Endangered Species Act and its own administrative regulations. Specifically, the Service acting on behalf of the Secretary of the Interior,

abused its discretion when it determined not to designate critical habitat concurrently with the listing of the northern spotted owl, or to explain any basis for concluding that the critical habitat was not determinable. These actions were arbitrary and capricious, and contrary to law. ...

Accordingly, the Service is ordered to submit to the Court by March 15, 1991 a written plan for completing its review of critical habitat for the northern spotted owl. The Service is further ordered to publish its proposed critical habitat plan no later than forty-five days thereafter. The final rule is to be published at the earliest possible time under the appropriate circumstances.

Case Questions

1. What did the plaintiffs want the court to order the defendants to do?
2. When does the Endangered Species Act require the designation of critical habitat to be made?
3. What support for its actions could the defendants cite in the administrative record?
4. What did the Thomas Committee report say about the need for further study?
5. When was the final rule to be published?

Seattle Audubon Society v. Evans: Forest Management Litigation

In the wake of the lawsuits over the Endangered Species Act, environmentalists brought suit against the U.S. Forest Service on another front. They sued the Forest Service for its failure to comply with the National Forest Management Act, 16 U.S.C. §§ 1600–1687, and the supporting regulations. *Seattle Audubon Society v. Evans*, 771 F. Supp. 1081 (W.D. Wash. 1991). The plaintiffs charged that the Forest Service was required to adopt guidelines to assure that viable spotted owl populations were maintained in the national forests.

In response, the Forest Service contended that because it had listed the northern spotted owl as “threatened” under the Endangered Species Act, it was now excused from complying with the National Forest Management Act. This argument was incredible for two reasons: first, the Forest Service’s compliance with the Endangered Species Act had been pathetically half-hearted, largely done only under court order; and second, as the court specifically found: “The Forest Service has understood at all times that its duties under NFMA and ESA are concurrent.” Compliance with one statute did not excuse breach of the other.

The court then reviewed the Forest Service's record of protecting northern spotted owl habitat—and found it abysmal. Court orders brought appeals and noncompliance. Rulings from the courts of appeals brought obfuscation. The Forest Service simply would not set aside old-growth acreage as protected habitat, though it could not articulate any colorable justification for this failure.

In September 1990, the Forest Service in effect had thrown down the gauntlet. With no notice, hearing, EIS, or any other procedural safeguard required by law, the Service had announced that it would sell old-growth forest land, proceeding with a plan that could mean the extermination of the spotted owl. The U.S. District Court for the Western District of Washington responded with a preliminary injunction, barring the Forest Service's proposed timber sales, and set the matter for expedited trial.

Reviewing the Forest Service's record, the court noted that, of the forests that once blanketed the region, less than 10 percent remains. Most of it has fallen to logging. Virtually no old-growth forest remains on private land, and parkland and wilderness areas are not large enough to allow the survival of the old-growth ecosystem. An Interagency Scientific Committee found that to protect the northern spotted owl, some 20 to 30 percent of the available old-growth on public forest land should be set aside, with logging barred from these lands.

The court also acknowledged the complex setting that the Forest Service had created. Throughout the Northwest, especially in isolated logging towns, the Service had created timber-dependent communities. In these communities, many people lived on the expectation that the Forest Service would provide a never-ending supply of old-growth land for logging. They had developed lifestyles that made any sort of job conversion effectively impossible. There was not even another part of the country where this sort of logging work was available on a comparable scale.

At the same time, economic changes were destroying this industry, and these changes and the attendant dislocation would continue even if the spotted owl had never existed. Modernized mills used less labor than old mills did and required technical skills beyond what traditional loggers had. The need for labor was falling as older, labor-intensive mills closed. Demand for raw logs taken from managed forests and exported to the Far East was reducing the alternative supplies of timber. In short, the logging industry in the Pacific Northwest was collapsing. This collapse would go on, even without the spotted owl.

In this context, the northern spotted owl became a symbol of the struggle between the timber industry and environmentalists. The bird was quickly invested with a symbolic importance far beyond its true significance. But despite its symbolic prominence, the spotted owl did not cause the economic dislocations in the timber industry. The owl was blamed for much of the crisis in the industry, but the blame was misplaced. As the court in *Seattle Audubon Society v. Evans* found, the real cause had more to do with changes going on throughout the economy.

Reviewing the Forest Service's actions, the court in *Seattle Audubon Society* found "a remarkable series of violations of the environmental laws." As early as 1984, the Forest Service had been under specific directives to prepare long-term plans to ensure that the northern spotted owl was protected. After much effort, it had produced a protocol, but during the trial in *Seattle Audubon Society*, the Forest Service admitted what its critics had charged: the protocol was inadequate. It did not set aside enough land to preserve the owl. When haled into court over its inadequate plans, the Forest Service had sought a stay of proceedings, promising to adopt new guidelines within 30 days. Two years later, it still had done nothing.

When Congress ordered it to produce a revised Record of Decision by September 1990, the Forest Service did not even pretend to comply. It did nothing.

The evidentiary hearing showed that the Forest Service was divided between factions trying to comply with the law, and those trying to satiate the logging industry, even if this required defying the law. If compliance with the law required slighting the position of the timber industry, the Forest Service short-changed legal compliance. It tried every means to preserve the largest possible timber harvest, at any cost. When it finally produced scientific studies that would accurately show the extent of the area needed to allow the spotted owl to survive, the Forest Service delayed them. Only in April 1990, after fighting in every forum, did the Forest Service finally produce a study done by the Inter-agency Scientific Committee. It was this study that proposed the 20–30 percent set-aside. The study found that the owl already faced extinction and that further delay would increase the danger to the remaining population. It also chided those who sought further delay by claiming inadequate knowledge, saying that there was no justification for any such claim.

The ISC report, often referred to as the Jack Ward Thomas report after its primary author, has often been vilified as the work of close-minded extremists. In fact, it was a genuinely moderate document: it recommended that the Forest Service market several billion board feet of timber that it had already sold. It merely concluded that additional sales would go beyond any safe bounds for preserving old-growth ecosystems. This, however, would constrict the Forest Service plans. The Forest Service had planned to allow the harvesting of 1.34 billion board feet of timber in 1991 and 1.59 billion board feet in 1992. The ISC report recommended reducing these harvests: for 1991, to 1.03 billion instead of 1.34 billion board feet; for 1992, to 1.04 billion instead of 1.59 billion board feet.

Weighing the evidence, the court concluded that this was not a case of shortcomings in the law. The Forest Service had simply refused to comply with the Endangered Species Act, while trying to go forward with actions that would have an irreversible environmental impact—the potential eradication of a protected species. Concluding, the court said, "The argument that the mightiest economy on earth cannot afford to preserve old growth forests for a short time, while it reaches an overdue decision on how to manage them, is not convincing today. It would be even less so a year or a century from now." The court issued a permanent injunction, prohibiting the Forest Service from selling additional logging rights in spotted owl habitat until it complied with the Endangered Species Act.

SEATTLE AUDUBON SOCIETY

v.

EVANS

United States District Court,

W.D. Washington

771 F. Supp. 1081 (W.D. Wash. 1991)

On March 7, 1991, the court entered an order on summary judgment declaring unlawful a proposal of ... the Forest Service to log northern spotted owl habitat in national forests located in Washington, Oregon, and Northern California without complying with requirements of the National Forest Management Act ("NFMA"). On the basis of that order plaintiffs Seattle Audubon Society ... have moved for a permanent injunction prohibiting the sale of logging rights in additional spotted owl habitat areas until the Forest Service complies with NFMA.

* * *

The national forests are managed by the Forest Service under NFMA. Regulations promulgated under that statute provide that

[f]ish and wildlife shall be managed to maintain viable populations of existing native and desired non-native vertebrate species in the planning area.

... Since not every species can be monitored, "indicator species" are observed as signs of general wildlife viability. The northern spotted owl is an indicator species.

* * *

In 1989 SAS and WCLA sued the Forest Service in this court, challenging the legality of an administrative decision adopting standards and guidelines for managing northern spotted owl habitat in the national forests. ...

On March 24, 1989, the court issued a temporary injunction deferring specified timber sales in Washington and Oregon for what then appeared to be a few weeks until the final hearing.

On May 11, 1989, the Forest Service moved for a stay of all proceedings pending completion of a conference process between itself and the Fish and Wildlife Service ("FWS"). In a separate case, [the court ruled that] the FWS was acting arbitrarily and capriciously, and contrary to law,

in failing to list the spotted owl as endangered or threatened under the Endangered Species Act ("ESA"). On April 25, 1989, ... the FWS announced its intent to list the owl as "threatened" under the ESA. ...

The Forest Service said it would present within thirty days interim measures to protect spotted owl habitat It did not do so. Instead it moved on August 24, 1989, for leave to go forward with eleven timber sales that had been deferred. At that point there was no spotted owl management plan in effect.

* * *

[Meanwhile, Congress adopted emergency legislation that] directed the Forest Service to prepare a new spotted owl plan and have it in place by September 30, 1990

Over the next several months, ... SAS brought a series of challenges to timber sales

Other challenges to 1990 timber sales followed.

* * *

While the above-described events were taking place, federal administrative agencies took further action regarding the spotted owl. The Interagency Scientific Committee was established in 1989 ... "to develop a scientifically credible conservation strategy for the northern spotted owl in the United States." On April 2, 1990, the ISC issued its report.

In June 1990 the Fish and Wildlife Service ... listed the owl as a threatened species under the Endangered Species Act.

The Forest Service did not comply by the deadline of September 30, 1990—or at all—with section 318's requirement that it adopt a revised plan to ensure the owl's viability.

On September 28, 1990, the Department of Agriculture gave notice that the Forest Service was vacating the December 1988 Record of Decision, and that it would manage timber sales in a manner "not inconsistent with" the ISC Report. ...

On December 18, 1990, this court enjoined the Forest Service from proceeding with twelve proposed fiscal year 1990 timber sales because the agency had failed to comply with NFMA by having any standards and guidelines for spotted owl viability in place. The order reaffirmed what

the court of appeals had already held, i.e., that section 318 did not displace NFMA. ...

The Forest Service's argument in this case that it was relieved of its NFMA duty to plan for the spotted owl's viability once the species was listed by the FWS as "threatened" was rejected in an order entered March 7, 1991. The court found not only that the argument was insupportable, but that "the Forest Service has understood at all times that its duties under NFMA and ESA are concurrent."

* * *

Background Findings

The fate of the spotted owl has become a battleground largely because the species is a symbol of the remaining old growth forest.

* * *

Despite increasing concern over the environment, logging sales by the Forest Service have continued on a large scale. ... The region's timber industry has been going through fundamental changes. ... The painful results for many workers, and their families and communities, will continue regardless of whether owl habitat in the national forests is protected. ...

The record [shows] a remarkable series of violations of the environmental laws. The Forest Service defended its December 1988 ROD persistently for nearly two years. ... But in the fall of 1990 the Forest Service admitted that the ROD was inadequate after all—that it would fail to preserve the northern spotted owl. In seeking a stay of proceedings in this court in 1989 the Forest Service announced its intent to adopt temporary guidelines within thirty days. It did not do that within thirty days, or ever. When directed by Congress to have a revised ROD in place by September 30, 1990, the Forest Service did not even attempt to comply. The FWS, in the meantime, acted contrary to law in refusing to list the spotted owl as endangered or threatened. After it finally listed the species as "threatened" [acting under court] order, the FWS again violated the ESA by failing to designate critical habitat as required. Another order had to be issued setting a deadline for the FWS to comply with the law.

* * *

Had the Forest Service done what Congress directed it to do—adopt a lawful plan ... —this case would have ended some time ago.

More is involved here than a simple failure by an agency to comply with its governing statute. The most recent violation of NFMA exemplifies a deliberate and systematic refusal by the Forest Service and the FWS to comply with the laws protecting wildlife. This is not the doing of the scientists, foresters, rangers, and others at the working levels of these agencies. It reflects decisions made by higher authorities in the executive branch of government.

Time Needed for Forest Service to Comply with NFMA

The Forest Service seeks an allowance of fifteen more months But the agency declines to make a firm prediction about even this extended timetable. ... Further delays of this magnitude are neither necessary nor tolerable.

In adopting section 318, ... Congress directed the Forest Service to have a revised spotted owl plan in effect eleven months later. In doing so Congress made clear that it expected full compliance. ...

[T]he Forest Service began work in early 1990 to meet the congressional deadline. It had been directed in section 318 to consider the forthcoming ISC Report. The report came out in April. Work was then stopped by a decision made at the cabinet level.

* * *

Probability of Irreparable Harm

The northern spotted owl is now threatened with extinction. ...

The FWS has found that the owl is threatened *throughout* its range.

The population of northern spotted owls continues to decline. ...

The ISC Report recommends standards and guidelines aimed at assuring the owl's long-term viability.

The ISC Report has been described by experts on both sides as the first scientifically respectable proposal regarding spotted owl conservation to come out of the executive branch. ...

To have a chance of success, the strategy would have to be adopted and followed by the agencies concerned. So far it has not been adopted by any agency.

* * *

To log tens of thousands of additional acres of spotted owl habitat before a plan is adopted would foreclose options that might later prove to have been necessary. ...

A review of proposed sales by the FWS would not be a substitute for compliance with NFMA. The Forest Service is required by law to manage the lands entrusted to it so as to maintain viable populations of native vertebrate species, regardless of whether they are listed by another agency. ... FWS still has no spotted owl recovery plan. Its recommendation of "prudent measures" to the Forest Service may simplify the work, but does not relieve the latter agency of its stewardship of the national forests.

The logging of ... owl habitat, in the absence of a conservation plan, would itself constitute a form of irreparable harm. Old growth forests are lost for generations. No amount of money can replace the environmental loss.

* * *

To the extent that Pacific Northwest mills have had supply shortages, the problem has been exacerbated by the export of raw logs. ...

While some mills may experience log shortages during the period of an injunction, that would occur to some degree regardless of whether owl habitat is protected

Over the past decade many timber jobs have been lost and mills closed in the Pacific Northwest. The main reasons have been modernization of physical plants, changes in product demand, and competition from elsewhere. Supply shortages have also played a part. ...

A social cost is paid whenever an economic transformation of this nature takes place Today, however, in contrast to earlier recession

periods, states offer programs for dislocated workers that ease and facilitate the necessary adjustments.

... Even if some jobs in wood products were affected by protecting owl habitat in the short term, any effect on the regional economy probably would be small.

* * *

The problem here has not been any shortcoming in the laws, but simply a refusal of administrative agencies to comply with them. This invokes a public interest of the highest order: the interest in having government officials act in accordance with law.

The public also "has a manifest interest in the preservation of old growth trees."

This is not the usual situation in which the court reviews an administrative decision and, in doing so, gives deference to agency expertise. The Forest Service here has not taken the necessary steps to make a decision in the first place—yet it seeks to take action with major environmental impact.

The loss of ... additional ... spotted owl habitat, without a conservation plan being in place, and with no agency having committed itself to the ISC strategy, would constitute irreparable harm, and would risk pushing the species beyond a threshold from which it could not recover.

Any reduction in federal timber sales will have adverse effects on some timber industry firms and their employees, and a suspension of owl habitat sales in the national forests is no exception. But while the loss of old growth is permanent, the economic effects of an injunction are temporary and can be minimized in many ways.

To bypass the environmental laws, either briefly or permanently, would not fend off the changes transforming the timber industry. The argument that the mightiest economy on earth cannot afford to preserve old growth forests for a short time, while it reaches an overdue decision on how to manage them, is not convincing today. It would be even less so a year or a century from now.

Case Questions

1. What statute had the Forest Service allegedly violated?
2. What did the National Forest Management Act regulations require the Forest Service to do?

3. What was the Forest Service required to monitor?
4. What did the record show about the Forest Service's diligence in this function?
5. What did the emergency legislation which Congress adopted require the Forest Service to do?
6. What did the Forest Service try to argue in this case?
7. How did the court respond to the Forest Service's argument?
8. How did the court describe agency behavior in this case?
9. What was the status of the northern spotted owl at the time of this decision?
10. What did the court require?

After *Seattle Audubon*: The Continuing Struggle

In the wake of *Seattle Audubon Society* and other cases challenging the Forest Service's inaction on the spotted owl, the Secretary of the Interior called for a special exemption under § 7 of the Endangered Species Act. With the election of Bill Clinton as president in 1992, a new administration took office and announced an intent to work for a solution acceptable to all parties. A "timber summit" was convened in Portland, Oregon, to hear the various competing views. It proposed a plan that attempted to balance the various interests involved. In December 1994, the U.S. District Court approved the Clinton Forest Plan. This clearly did not end the crisis: both timber industry groups and environmental advocates immediately announced their intention to appeal the District Court's decision.

Unfortunately, this controversy cannot be resolved painlessly. Many analysts believe that, at best, resolution is a delay in a painful shift in the economy of much of the Pacific Northwest, in communities ill-equipped to deal with these changes. These communities will have to give up their dependency on timber. The Pacific Northwest is simply running out of trees, and reforestation cannot maintain long-term harvests at past levels.

Another aspect of the issue that has come into focus, although with less vehemence than the "jobs-versus-owls" facet, is the whole question of the economic wisdom of Forest Service management of the national forests. The Forest Service maintains an artificially low price for timber sold from national forests. The Forest Service provides a wide range of services that benefit no one except the logging industry, although these are paid for out of general tax revenue. For example, the Forest Service maintains hundred of thousands of miles of logging roads through rugged terrain. For the most part, these roads have no practical value except to allow loggers to harvest timber. Yet the loggers do not pay for these roads. The Forest Service inventories and surveys timber lands. It maintains an extensive network of fire protection and firefighting, all of which have little value to anyone except the timber industry. Nevertheless, these programs are financed almost entirely out of general tax revenues, rather than being paid for by the timber industry. In effect, the logging industry is subsidized—by some estimates, at some \$300 million per year.

Enter the Salmon

In 1992, the spotted owl crisis became even more complicated when a second noted Pacific Northwest industry encountered its own crisis. Northwest rivers have long been known for their salmon runs. These fish breed in the fast-flowing, clear headwaters of many streams and rivers throughout the region. They migrate down the rivers and spend most of their lives in the open waters of the Pacific Ocean, returning to spawn after three to five years. The various breeds of salmon have long been a fishing and dining delight, and salmon has become a symbol of the region.

In recent years, the salmon runs have plummeted dramatically, to where several species of migratory fish have almost vanished. The once seemingly limitless stocks of salmon clearly are not limitless. The drop in fish runs has reached crisis proportions that necessitated restrictions on sport and commercial fishing seasons, prompted calls for restrictions on water use, and increased challenges to a wide range of practices that jeopardize fish populations.

The salmon crisis may well force major changes in water management in the Pacific Northwest. The vast network of dams along the Columbia River are suspect. Environmentalists charge that the dams do not allow fish migrating up and down the river to pass safely. The huge electric turbines in these dams are said to cause massive fish kills. However, reducing turbine use will increase electrical costs and threaten the aluminum processing industry, which depends on the huge quantities of electricity produced by these dams.

Limiting fishing harvests may require curtailing the entire fish processing industry throughout the region, with the attendant dislocation that such a change entails. Many fishing communities are like logging communities throughout the region, in that they have no economic base other than fishing. This issue is complicated by the fact that salmon migrate over large areas, often travelling from rivers in Oregon and Washington north to coastal waters off Canada and Alaska and south into waters off California. Various jurisdictions, each with its own interests, will have to cooperate in any common recovery plan, making a coordinated effort necessary. It will not be easy.

Finally, interacting with the spotted owl crisis is the fact that logging is blamed for substantial degradation of salmon spawning waters. Logging removes more than just trees. It involves the large-scale mutilation of virtually all plant life throughout the logged areas. Further, when land is replanted after logging, it is often planted as timber crop land. This involves much less ground cover than is found in natural, old-growth forest.

When rain falls on clear-cut or replanted land, the lack of ground cover means that there is less material to absorb water and impede runoff. The runoff on clear-cut or replanted land is much faster than on land covered with old-growth forests. Faster runoff causes more soil erosion, so the runoff from clear-cut lands is much dirtier than runoff on naturally forested lands. When it reaches streams, this dirty runoff fouls the streams and rivers with mud. Salmon cannot survive in this muddy water.

This means that continued logging jeopardizes salmon. If the salmon are to be restored to past levels, steps will have to be taken to control runoff. Although there are ways to accomplish this, such steps will mean restrictions and conditions on logging, exacerbating the timber crisis.

There is much uncertainty surrounding this picture, but this much is clear: there are no easy solutions to these problems.

A Final Note

The spotted owl and salmon crises in the Pacific Northwest are merely two examples of a growing number of environmental problems throughout the nation. The fishing industry in New England has been sharply curtailed by the depletion of fish on the Outer Banks. These are areas where supplies of sea life were long considered inexhaustible. Gulf Coast shellfish are threatened by development. Grazing in the Rocky Mountains has led to serious clashes between ranchers and environmentalists trying to protect such species as the grizzly bear and the grey wolf.

What will come of any of these clashes cannot be foretold. It seems clear, however, that in his concurring opinion in one of the first cases discussed in this textbook, Mr. Justice Blackmun spoke even more profoundly than he thought. In *Sierra Club v. Morton* (discussed in Chapter 1), voting to uphold the standing of the Sierra Club to challenge the Forest Service's development plan, Justice Blackmun quoted the English poet John Donne's theme that "no man is an island." Is it too much to say that humanity alone is not an island, and that whatever harms any species on this increasingly delicate planet threatens to harm us all?

Whatever the outcome of any of the crises discussed or referred to in these materials, or the other problems that will develop in the future, it seems safe to say that the problems of environmental law will not go away in the foreseeable future. Instead, they will require continual refinement of our knowledge, warranting this book and others like it. They will also require the application of a more ethereal product—wisdom.

Summary

The Endangered Species Act, 16 U.S.C. §§ 1531–1543, blocks any action that jeopardizes an endangered species or its habitat. ESA forbids importing products made or taken from endangered species, prohibits taking any endangered species, and prohibits federal actions that harm a threatened or endangered species or habitat.

Various reasons are offered for the Act: media clamor to protect popular species; scientific claims of the value of every species in the ecological chain, even the homely and innocuous species; and calls to protect all life as part of stewardship of the planet.

The ESA requires federal agencies to consult with the Secretary of the Interior. The courts enforce this rule, and agencies must adapt projects to avoid threatening protected species or critical habitat.

In 1978, Congress created a Cabinet-level review body, the “God Squad,” empowered to exempt projects from the Endangered Species Act. To allow an exemption if a project threatened to render a species extinct, the God Squad had to find (1) that the project had regional or national significance; (2) that there was no reasonable and prudent alternative to the project; and (3) that the benefits of the project clearly outweighed the alternatives.

Major controversies, such as the Tellico Dam/snail darter dispute and the northern spotted owl and salmon crises in the Pacific Northwest, have put the Endangered Species Act at the center of major legal disputes. These disputes have been bitter contests that involved entrenched political and economic interests in complex litigation. They show that often threatened or endangered species can be protected only if various interests are willing to make serious economic sacrifices. Critics of the Endangered Species Act damn the law, saying it makes no allowance for economic considerations, even when application of the statute will cause serious job losses or other economic disruptions. Supporters of the law point out that this argument is often raised by people in failing industries who cling to their jobs rather than undergoing necessary retraining, blaming nature for their own economic misfortune.

The spotted owl and salmon crises are examples of a growing number of environmental problems throughout the nation. Whatever will come of these clashes, they will not go away. They will require a continuing refinement of knowledge, and they will require wisdom.

Review Questions

1. What does § 9 of the Endangered Species Act do?
2. What does § 11 of the Endangered Species Act do?
3. What are some of the arguments in favor of a sweeping provision protecting endangered species?
4. Potentially, what could the provision concerning critical habitat require the government to do with public land?
5. Why was the Tellico Dam Project environmentally significant?
6. What did the courts rule in *TVA v. Hill*?
7. What is required under the “God Squad” amendment to the Endangered Species Act before a project is allowed to proceed?
8. What is the U.S. Forest Service required to do under the National Forest Management Act?
9. What did the court in *Northern Spotted Owl v. Lujan* order the Fish and Wildlife Service to do?
10. How is logging blamed for the decline of the salmon?

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GLOSSARY

NOTE: Definitions for terms marked with a dagger are from *Ballentine's Legal Dictionary and Thesaurus*.

achievable effluent limitations The levels of pollutant removal that can be achieved using a particular model technology. This is based on a combination of statistical evaluations and engineering judgments, and is generally stated in terms of maximum daily and monthly outputs for designated pollutants for each point source.

acute hazardous wastes Any one of several hazardous wastes considered so dangerous that a single exposure may cause immediate, serious health consequences. Acute wastes are subject to extremely rigorous regulations, including categorical bans on recycling and land disposal.

Advanced Secondary Treatment Systems that must be installed in publicly owned treatment works to reduce BOD₅ and TSS each to 10 milliliters per liter of water. This is designated the best conventional pollution control technology for POTWs.

affected units Coal-burning plants in the Midwest subject to special rules intended to control acid rain.

air quality control regions (AQCRs) Regions established by the EPA for purposes of monitoring and controlling air quality throughout the United States. These reflect different factors contributing to air pollution and different controls for dealing with those factors. These regions can extend across state lines.

ambient Encircling, enveloping; surrounding, background. In the context of the Clean Air Act, refers to air away from a particular source of pollutants; the surrounding air. Under the

Clean Water Act, the ambient level of pollution is the level of pollution found in a specific body of water independent of the pollution being introduced by a specific source.

Applicable or Relevant and Appropriate Requirements (ARARs) Any requirement established by federal environmental statute or regulation or by state environmental or facility siting law which is applicable to a facility or is relevant and appropriate to the facility.

arbitrary and capricious † A reference to the concept in administrative law that permits a court to substitute its judgment for that of an administrative agency if the agency's decision unreasonably ignores the law or the facts of a case.

attainment regions Areas in which the NAAQS have been met.

automatic stay A type of automatic judicial injunction that precludes virtually all efforts by any creditor or person having the rights of a creditor from taking any action against the debtor. One of the few actions allowed to continue are actions under the police power taken to protect public health and welfare.

best available control technology (BACT) The level of technology-based pollution control for new sources in PSD regions. The EPA will set a level it deems achievable, and any new source in a PSD region must have this level of control to get a new source permit.

best available demonstrated control technology (BADT or BADCT) The level of technology-based pollution control required of new sources

under the Clean Water Act. It is generally approximately equal to BCT for existing sources, but is not subject to any FDF variances.

best available technology (BAT) A very high level of technology-based control for water pollution. BAT is defined as the level of pollution control that can be achieved by using the technology of the single plant demonstrating the best level of pollution control, operating under optimal conditions.

best conventional pollution control technology (BCT or BCPCT) A moderate level of technology-based control for water pollution. BCT represents a compromise between the basic level (BPT) required of all sources, and the strict level of pollution control (BPT) required of sources emitting toxic pollutants.

best management practices (BMP) Practices that will minimize the creation of water pollution from a nonpoint source.

best practicable technology (BPT) A basic level of technology-based control for water pollution. BPT is defined as the level of pollution control that can be achieved by using the technology of the plants constituting the average of the best plants in a given industrial category.

best professional judgment (BPJ) The standard used by the EPA in setting early permits.

biological oxygen demand (BOD5) The tendency of a substance to deplete the natural oxygen in water, thus destroying the capacity of the water to support aquatic life. It is measured over a five-day period.

“bubble” rule A rule under which an area such as a city or a plant is treated as if it were covered by a bubble with a single outlet through which all pollution from inside the bubble passes. In the bubble, new sources can be built if reductions of air pollution from other sources create a net decrease in the amount of pollution. The required amount of decrease varies with the level of pollution;

greater offset is required in areas of great nonattainment.

bypass An intentional diversion of wastewater from a treatment facility or any portion thereof so that untreated or less-than-fully treated wastewater flows directly into a waterway. A bypass might occur because a permittee has to shut down equipment for maintenance.

carcinogen A substance that causes cancer.

categorical exclusion A rule that for all projects having only certain minimal environmental impacts, no environmental impact statement or environmental assessment will be required.

characteristic waste Any waste exhibiting one or more of the characteristics that cause wastes to be listed under RCRA: ignitability, corrosivity, reactivity, or toxicity. A waste exhibiting such a characteristic is a hazardous waste even if it is not specifically listed in the RCRA regulations.

Clean Air Act 42 U.S.C. §§ 7401 to 7671q; the principal federal statute directed to control of air pollution.

Clean Water Act 33 U.S.C. §§ 1251–1376; the primary federal law protecting the nation’s waters from pollution.

closure permit A permit allowing a TSD facility to undertake closure. Most importantly, this permit indicates that the EPA accepts the facility’s showing of financial responsibility as sufficient to prove that it can meet all post-closure responsibilities.

closure process The process an owner/operator goes through after a facility has ceased to operate. A demonstration of financial planning is a prerequisite to closure.

closure regulations EPA regulations covering the steps which the owner/operator of a land disposal facility must carry out after the facility ceases to accept additional hazardous materials. Normally, these require monitoring the facility for leaks for 30 years.

common law remedies Remedies available through law made and refined through the courts rather than through legislation or administrative action.

Comprehensive Environmental Responsibility, Compensation, and Liability Act (CERCLA or "Superfund") 42 U.S.C. §§ 9601–9675. The primary federal law ordering the cleanup of all sites at which there has been a release or threatened release of hazardous substances; provides mandates for cleaning up properties contaminated by hazardous substances.

consent decree A judicial decree reflecting a settlement of litigation consented to by the defendants. In CERCLA cases, defendants who are willing to accept the terms imposed by the EPA agree to the consent decree. This gives the settlement the force of a judicial order binding on all parties.

continuous emission monitors Monitoring equipment that now must be installed on any affected unit, to allow monitoring of pollutants that cause acid rain. Continuous monitoring is considered necessary for the administration of the new allowance system being used to control acid rain pollutants.

control techniques guidelines (CTGs) Guidelines issued by the EPA suggesting techniques that could be used by existing sources to control pollution. The EPA made these guidelines extremely important by announcing that it would presume that these guidelines delineated reasonably available control technology; the states were thus required to compel the use of these technologies on existing sources in nonattainment areas.

conventional pollutants Nontoxic pollutants that are not intrinsically dangerous, but that pollute water by fouling it with suspended solids, by adversely affecting the electrochemical balance (the pH factor), or by depleting biological oxygen.

Corporate Average Fuel Economy program A program by which the EPA allows automobile manufacturers to meet fuel economy standards

based on the weighted average of the fuel economies of the manufacturer's entire line of cars rather than on the fuel economy of single cars. This allows manufacturers to make a certain number of "gas guzzlers" so long as they offset these with smaller, more fuel efficient cars.

corrective action An action taken by the owner/operator of a hazardous waste facility upon the discovery that there has been a leak involving hazardous wastes.

Council on Environmental Quality (CEQ) A special administrative entity originally established by President Nixon to see that policies established under the National Environmental Policy Act were carried out.

cumulative impacts Impacts caused by the interaction of the impacts of several projects.

de minimis contributors Generators who contributed only minimal amounts of hazardous substances to a facility, these amounts being so small that it is unfair to saddle these generators with full joint and several liability. To allow them a reasonable option, these generators are allowed to settle with the EPA for fixed, reasonable amounts.

de novo review An extraordinarily rigorous standard of judicial review. Under this standard, the reviewing court treats the matter as new and does not accord the administrative agency any presumption of regularity. Under this standard, a court is free to substitute its judgment for that of the administrative agency.

defederalize To make a project not subject to the requirements of the National Environmental Policy Act.

delisting A process of taking a waste out of the RCRA regulation system. Delisting requires that the generator demonstrate that its wastes do not exhibit any characteristic that would cause its wastes to be listed.

determinative weight Controlling weight, overriding all other competing factors.

distinguish † 1. To explain why a particular case is not precedent or authority with respect to the matter in controversy. 2. To point out significant differences; to differentiate.

downgradient Downstream; downgrade; designating water going away from the site rather than water coming to the site.

effluent Water flowing from a location.

Endangered Species Act (ESA) 16 U.S.C. §§ 1531–1543; the federal statute prohibiting acts that will endanger either species threatened with extinction or their critical habitat.

end-of-pipe processes Processes that deal with water pollution only when the drainpipe or other point source passes out of the plant.

environmental assessment (EA) 1. An investigation of real property made to determine if there has been a release or threatened release of hazardous substances from the property. 2. A document prepared by a governmental agency to support a finding of no significant impact. It is often a smaller and less analytical version of an environmental impact statement.

environmental impact statement † Under state and federal statutes, detailed declarations required with respect to proposed projects or legislation that might have an influence upon the environment.

Environmental Protection Agency (EPA) The federal agency charged with primary responsibility for the enforcement and administration of federal environmental law.

environmental statute Any of the various pieces of legislation, either state or federal, that has as its goal protection of the environment.

exhaustion † The doctrine that when the law provides an administrative remedy, a party seeking relief must fully exercise that remedy before the courts will intervene.

Extraction Procedure (EP) toxicity test The test originally used by the EPA to determine toxicity for RCRA purposes. It assumes that a substance is placed in a landfill and then seeps

through to the surrounding environment. The EP toxicity test gauges the toxicity of the resulting leachate extract.

extrapolation Deduction, inference. In the context of pollution control law, the process of drawing general conclusions based on samples or models.

facility A parcel of property, a building, or any other location where a release of any hazardous substance has occurred.

Feasibility Study A study intended to develop and analyze possible alternative responses to site conditions. Often it overlaps with the Remedial Investigation.

feasibility-based standard A standard used for the control of toxic pollutants, taking into account the feasibility of imposing such controls.

federal emission standards Standards set by the EPA, pursuant to the Clean Air Act, to regulate the amount of pollutants an automobile is allowed to emit.

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) 7 U.S.C. §§ 136–136y; the federal statute that regulates pesticides. It requires that all pesticides be registered with the Environmental Protection Agency and properly labelled. It prohibits the registration or use of pesticides that pose an unreasonable risk to the environment.

Federal Law Manager (FLM) The federal official in charge of a national park or other place of great scenic beauty under federal jurisdiction. The federal law manager must be notified of any application of a new source that might cause plume blight.

federal operating permit A permit now required of any affected unit, intended to allow the monitoring and control of processes that generate the pollutants that cause acid rain.

Federal Water Pollution Control Act (FWPCA) 33 U.S.C. § 1251 *et seq.*; the first modern water pollution control act. In 1972, Congress passed amendments so extensive that they amounted

to a new law. Acknowledging this, Congress renamed the law the Clean Water Act.

finding of no significant impact (FONSI)

A finding that a proposed action will not have a significant impact on the environment, so that the agency need not prepare an environmental impact statement.

fundamentally different factor variances (fdf)

An EPA variance which the EPA allows for existing sources. The EPA may modify permit requirements to reflect differences among sources based on a showing that a given source presents factors fundamentally different from those found at other sources.

generator Any person who arranged for disposal of hazardous substances at any facility.

generic wastes Wastes classified as hazardous and therefore subject to regulation under RCRA regardless of the industry in which they originate.

groundwater monitoring The testing and treatment of groundwater in which leachate has been detected.

“hard look” doctrine A judicial rule that requires the courts to scrutinize the administrative record closely to ensure that the agency has made a probing inquiry into the problem. It is a variant of the arbitrary and capricious standard of judicial review. Under this doctrine, a review court must take a hard look at the administrative record to ensure that the agency has taken a hard look at all relevant evidence.

Hazard Ranking System (HRS) A system developed by the EPA for determining the degree of hazard posed by a release or threatened release at a given facility. Based on the numerical score given to a particular site, the EPA will consider each site for placement on the National Priorities List, where it will be ranked for priority cleanup.

Hazardous and Solid Waste Amendments (HSWA) An extensive piece of amending legislation, adopted in 1984, that substantially revised and refined RCRA.

Hazardous Materials Transportation Act (HMTA) 49 U.S.C. §§ 801 to 812; the act that is the basis for regulation of the transportation of hazardous wastes.

Hazardous Substance Response Fund

A special fund established by Congress under CERCLA to pay for the costs of environmental cleanups. It is known by its nickname, *Superfund*.

hazardous waste As defined in RCRA, any substance that may cause, or significantly contribute to, an increase in mortality or serious illness; or pose a substantial hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed. RCRA § 1004(5), 42 U.S.C. § 6903(5).

hazardous waste generator Any person or business that creates hazardous wastes subject to regulation under RCRA. Generators must be licensed and are subject to extensive regulation.

hazardous waste transporter A person or business that transports hazardous wastes, taking them from a generator's facility to a licensed treatment, storage, or disposal facility or to another transporter. Transporters must be licensed and are subject to extensive Department of Transportation regulations.

imminent and substantial endangerment The standard the EPA had to meet before it could take action under RCRA § 7003.

incineration Burning, especially burning in a closed container in which extremely high temperatures can be achieved.

independent utility A generally accepted test for determining whether a proposed action can validly be considered on its own or must be viewed as part of a larger project. A proposed action had independent utility if the proposing agency would proceed with the action even if it could not carry out other, related actions.

indicia of ownership Indications that a person is the owner of property. Typically, this phrase is used when a lender is named as the owner of

property, but in fact merely holds title as a means of protecting its security interest.

indirect dischargers Dischargers who route their wastewater through publicly owned treatment works. They are generally allowed credit for wastes that the POTW can remove in measuring the level of pollution control that they must achieve.

industry-specific wastes Wastes classified as hazardous and therefore subject to regulation under RCRA only if they originate in an industry listed in the RCRA regulations.

influent The water flowing to a plant, into which the plant will discharge its wastes. The water then flows from the plant as effluent.

injunction † A court order that commands or prohibits some act or course of conduct. It is preventive in nature and designed to protect a plaintiff from irreparable injury to his or her property or property rights by prohibiting or commanding the doing of certain acts. An injunction is a form of equitable relief.

innocent landowner A person who acquired land on which a release of hazardous substances is found, but did so innocently, without any knowledge of the release and despite having undertaken, at the time of acquisition, all appropriate inquiry into the previous ownership and uses of the property, consistent with good commercial or customary practice, in an effort to minimize liability.

in-plant processes Processes that deal with water pollution inside a plant rather than waiting until the drainpipe passes out of the plant.

interim permits Permits issued to allow the legal operation of TSD facilities that were in operation when RCRA was adopted. Interim permits were intended to remain effective until the EPA could issue final regulations. In fact, the interim permit system remained in effect much longer than Congress originally intended.

interim status permit A permit to be issued to a TSD facility that was already operating when

RCRA was first adopted, authorizing the continuing operation of that TSD facility.

Interstate Commerce Commission (ICC) A federal administrative agency charged with regulating railroad rates.

laches † The equitable doctrine that a plaintiff's neglect or failure to assert a right may cause the court to deny him or her relief if, as a result, the defendant has changed position so that the defendant's rights are at risk.

land-ban The centerpiece of the changes to RCRA brought about by HSWA, by which the land disposal of many untreated hazardous wastes is prohibited.

land treatment unit A type of TSD facility at which hazardous waste will be treated but not stored permanently or disposed of.

leachate A liquid containing soluble material that was picked up through a leaching process and is being carried along by the liquid.

leachate collection system A drainage or similar system installed around a TSD facility to collect any leachate flowing from the facility to the surrounding environment.

leaching The process of soluble materials being picked up and carried by a liquid passing through the solid soluble materials.

listed waste Any chemical substance specifically identified in the lists of hazardous substances included in the RCRA regulations.

lowest achievable emission rate (LAER) The standard of pollution control that a new source must achieve for a permit in a nonattainment area. This is a rigorous standard, reflecting the idea that new sources should achieve the lowest levels of pollution possible.

manifest † A document that lists items being warehoused or shipped.

media-quality based approach An approach to water pollution that addresses the problems of pollutants in a medium rather than at specific sources. For example, if a lake is

polluted, a media-quality based approach would address the problem of pollutants in the lake rather than trying to deal with specific sources emitting pollutants that flow into the lake.

mitigate To lessen, reduce, or otherwise reduce the impact of.

monitoring well A well drilled at or near a TSD facility to monitor groundwater flowing under the facility to determine if there have been any leaks in the facility's liners.

mortgage A security interest in real property. This gives the lender the right to take the real property in foreclosure if the debt is not repaid according to its terms.

National Ambient Air Quality Standards

(NAAQS) Standards set by the EPA under the Clean Air Act. These standards prescribe the maximum amount of certain pollutants, setting levels low enough that the air is safe even for a sensitive person. These standards are to be enforced uniformly throughout the nation, so that a person in an urban area should have general air quality as good as a person in a very rural setting.

National Contingency Plan (NCP) The regulatory plan for addressing releases or threatened releases of hazardous substances. Originally adopted under the Clean Water Act, this regulatory plan is now used under CERCLA. To be eligible for contribution actions or for reimbursement from the Hazardous Substance Response Fund, remedial actions must be consistent with the National Contingency Plan.

National Emissions Standards for Hazardous Air Pollutants (NESHAPs) Standards imposed under the Clean Air Act, regulating hazardous air pollutants.

National Environmental Policy Act (NEPA) 42 U.S.C. §§ 4321–4347; the first modern federal environmental statute. NEPA imposes procedures on the federal government. It requires that the government and all governmental agencies comply with certain procedures intended to ensure that significant

weight is given to environmental factors in considering any decision that may have a significant impact on the environment.

National Interim Primary Drinking Water Regulations (NIPUDWR) The regulations concerning drinking water quality.

National Pollution Discharge Elimination System (NPDES) The permit system established under the Clean Water Act. NPDES prohibits emission of pollutants from any point source into the nation's waters except as allowed under an NPDES permit. By regulating the conditions in a permit, the EPA can then control pollution.

National Priorities List (NPL) A list established under CERCLA of the sites at which releases of hazardous substances have occurred, indicating that these sites are most in need of response action under CERCLA. The current version of the list includes more than a thousand sites.

New Source Performance Standards (NSPSs) The standards for pollution control required under the Clean Water Act for new sources. The basic standard for new sources is best available demonstrated control technology (BADT).

new source review programs A program for the reviewing and permitting of new sources of air pollution. If a source is classified as a major source, it must have a permit issued pursuant to a new source review program.

nonattainment regions Areas in which the NAAQS have not been met. Because of the nonattainment, controls under the Clean Air Act are more severe than in regions in which the NAAQS have been attained.

nonpoint source A source of pollution that is not physically discrete, defined, or separated from the surrounding environment. A field abutting a stream is an example. If fertilizer residue flows from the field into the stream, the pollution may be coming from anywhere along the edge of the field, rather than from a discrete, isolated, and more easily regulated point.

notice-and-comment rulemaking The standard process by which administrative agencies make legal decisions. An agency administrator publishes a proposal in the *Federal Register*, inviting comments. He or she then reviews and considers the comments and publishes the final decision in the *Federal Register*.

nuisance A common law tort action that could be brought by a landowner for wrongful interference with the use and enjoyment of its property. This was the common law action closest to CERCLA, but it proved inadequate as a legal tool to order cleanups.

Offset Interpretive Ruling A ruling, adopted by the EPA in 1977, that allows the building of new sources, even if these cause air pollution, as long as there are at least offset reductions from other sources. This is also called a *bubble rule*.

orphaned liability Liability that is left when a corporation dissolves itself with no successor. The only source of money available to pay the debts left by the corporation is the public.

Part A application An application filed by the owner/operator of a TSD facility to obtain an interim status permit. This application was noted for the comparative ease with which it could be completed, in contrast to the extremely onerous Part B requirements.

Part B permit A permit authorizing a TSD facility to continue to operate on a permanent basis, as opposed to a temporary, interim permit. The owner/operator must apply for the Part B permit.

Part D areas Nonattainment areas now under time constraints to achieve the NAAQS.

particulate matter Solid particles floating in the air; dust, airborne dirt, and other substances that are airborne but are in fact solids.

petition in bankruptcy A pleading by which a business or individual starts a bankruptcy proceeding. The filing of a petition starts the bankruptcy case, allowing the filing individual to be named as a debtor and to be given the special protections afforded by bankruptcy law.

point source A source of pollution that is physically discrete and separated from the surrounding environment, such as a drain pipe carrying wastewater from a factory. A point source is more easily regulated than a nonpoint source.

police power exception One of the exceptions to the automatic stay in bankruptcy. This exception allows governmental entities acting to protect public health and welfare to continue to enforce orders against a debtor even though the debtor has filed a bankruptcy petition.

potentially responsible party (PRP) Anyone who is potentially liable for cleanup costs under CERCLA.

preemption † The doctrine that once Congress has enacted legislation in a given field, a state may not enact a law inconsistent with the federal statute. ... A similar doctrine also governs the relationship between the state government and local government.

preenforcement review Judicial review of a response action selected by the EPA, before the response action is carried out. Under CERCLA, the federal courts are denied jurisdiction to hear any action involving preenforcement review. They cannot hear a challenge to the EPA's choice of a response action until after the response has been implemented.

Preliminary Assessment and Site Investigation (PA/SI) A preliminary investigation conducted by the EPA as a first step in any selection of a response action. Its scope will vary depending on the complexity of the problems and the range of options under consideration. Intended to be brief, this investigation is not an open forum, and potentially responsible parties do not have a right to participate.

pre-manufacturing notice (PMN) A notice that someone proposing to manufacture a chemical regulated by TOSCA must file with the Environmental Protection Agency at least 90 days before manufacture of the chemical commences. This is the regulatory device used by the Environmental Protection Agency to determine if a chemical is safe before it is marketed.

prevention of significant deterioration (PSD)

The label given to a region that has attained the NAAQS. This reflects the goal of the Clean Air Act, which, after attainment is achieved, is to prevent an attainment region from suffering a degradation of air quality standards and reverting to nonattainment.

primary jurisdiction A doctrine in administrative law under which if both a court and an administrative agency have concurrent jurisdiction, the court will defer to the administrative agency before hearing a civil action.

primary jurisdiction † The power of a court to hear and determine a case brought before it.

Principal Organic Hazardous Constituents (POHCs) In a hazardous waste or combination of wastes, the most significant chemical. Generally, this designates the chemical most resistant to breakdown in an incinerator. Destruction of the POHC shows that the entire waste has been destroyed.

private attorneys general Persons not holding any formal legal office who are authorized by statute to commence actions to enforce legislation.

procedural controls Controls dictating that certain procedures be followed, but not specifically mandating set outcomes.

procedural statute A statute dictating that certain procedures be followed, but not specifically mandating set outcomes.

programmatic EIS An environmental impact statement that analyzes an entire program to be carried out by a federal agency.

promulgate † 1. To publish, announce, or proclaim and, in particular, to give official notice of a public act ... 2. To enact a law or issue a regulation.

publicly owned treatment works (POTWs) A sewage treatment plant or other similar facility that treats water to remove pollutants from that water.

reasonably available control technology (RACT)

A degree of technology-based pollution control that states must impose on existing sources in nonattainment regions in order to help these regions attain the NAAQS.

record of decision (ROD) A document showing the development of the Remedial Investigation and Feasibility Study and the selection of the appropriate response alternative based thereon.

Refuse Act of 1899 33 U.S.C. § 407; the first federal statute dealing with water pollution. The Refuse Act of 1899 prohibited the dumping of refuse that would obstruct navigation in navigable waters except under a federal permit. It was eventually construed to restrict dumping of industrial wastes. It was superseded by later water pollution laws.

release The passing of any hazardous substance into the environment. This includes any spill, seepage, drainage, or passage by any other means.

remedial actions One of the two types of response actions (the other being removal actions). Remedial actions are large, lengthy, complex, and invariably expensive. Because of the complexity and costs involved, remedial actions require rigorous adherence to the requirements of the National Contingency Plan.

remedial design/remedial action (RD/RA) The process by which the final cleanup plan is prepared and put into action.

Remedial Investigation A gathering of the data needed to support a sound choice of remedial options. It includes characterization of the contamination at the site and identification of pathways of exposure to the surrounding environment. Often it overlaps with the Feasibility Study.

removal actions One of the two types of response actions (the other being remedial actions). Removal actions are intended to be short-term and relatively low cost, to address immediate problems primarily through the removal or neutralization of hazardous

substances. They are disfavored because they often merely move the problem from one site to another.

Resource Conservation and Recovery Act (RCRA) 42 U.S.C. §§ 6901 to 6992k; the primary federal statute regulating the disposal of wastes.

response systems A system installed to respond to the release of hazardous wastes from a leak in a TSD facility.

RI/FS A single investigation, combining in one action the Remedial Investigation and the Feasibility Study. It includes characterization of the contamination at a facility and identification of pathways of exposure to the environment, as well as an analysis of the available responses to site conditions.

ripeness doctrine † The doctrine that an administrative agency or a trial court will not hear or determine a case, and an appellate court will not entertain an appeal, unless an actual case or controversy exists.

Safe Drinking Water Act 42 U.S.C. §§ 300f to 300j-11; a statute banning certain substances from drinking water. The list of prohibited chemicals was the basis for the EP toxicity test.

scoping A process of considering the potential impacts of a proposed federal action, in order to establish the bounds of an EIS. The federal agency must consider connected actions, cumulative actions, and similar actions; the no-action alternative, other reasonable alternatives, and mitigation measures; direct impacts, indirect impacts, and cumulative impacts, including ecological, aesthetic, historic, cultural, economic, social, or health effects on the natural, physical, and human environment.

security interest A property interest given to a lender by a borrower that the lender may hold to compel payment of the debt. Typically the lender has the right to seize the property if the debt is not repaid according to its terms.

segmentation The governmental policy of dividing a large project into several smaller

projects and viewing each one in isolation. It is generally disfavored out of suspicion that it is done to isolate claims of adverse environmental impact.

small-quantity generator A generator that produces less than 100 kilograms of hazardous waste per month, and is therefore partially exempt from RCRA regulations applicable to generators.

solid waste Any garbage, refuse, sludge, or other discarded material resulting from industrial, commercial, mining, or agricultural operations, or from community activities. Despite the term “solid,” a waste can be in any physical form except uncontained gas, including liquid, semisolid, solid, or contained gaseous material.

soluble material Material that is picked up and carried along by a liquid passing through it; material dissolved in a liquid.

sovereign immunity † The principle that the government—specifically, the United States or any state of the United States—is immune from suit except when it consents to be sued.

Standard Industrial Classification (SIC) codes A code numbering system used to classify industrial operations into various standardized categories. The EPA used SIC codes as a starting point for devising permit requirements for different industrial categories.

standard of review The level of scrutiny that a court will apply in reviewing an administrative decision. The standard can range from extremely probing and rigorous to extremely lax and deferential.

standing A doctrine limiting who can be a plaintiff in various actions to enforce certain legal rights. To have standing, a litigant must have suffered an injury in fact and also be someone the right at issue was intended to protect.

State Implementation Plans (SIPs) Plans that each state is required to adopt and to revise periodically; a State Implementation Plan must show how the state will bring its air quality to

levels set in the National Ambient Air Quality Standards.

stationary source A source of air pollution that is not mobile. Typically, this is a factory, smelter, or other source of large amounts of air pollutants.

stopover A temporary stop during the transportation of hazardous wastes. Under RCRA regulations, any transporter is permitted one stopover of up to 10 days in transporting a shipment of hazardous waste.

substantial evidence test A standard of review that courts use in reviewing the decisions of administrative agencies. It is more rigorous than the normal arbitrary and capricious standard; an agency that must meet this test must make a stronger showing to justify its actions. The Environmental Protection Agency must meet this rule before it can impose a "test rule" under TOSCA.

substantive controls Controls mandating specific outcomes while not prescribing specific procedures by which the outcomes are to be reached.

substantive statute A statute imposing specific outcomes while not prescribing specific procedures by which the outcomes are to be reached.

successor liability The concept that a successor corporation must bear the liability for any wrongful actions taken by the predecessor corporation. In the context of CERCLA, this concept is pressed very aggressively so that corporations cannot use mergers, consolidations, or other manipulations to avoid liability.

Superfund Amendment and Reauthorization Act (SARA) An amendment to CERCLA, which clarified the law on a number of positions, particularly upholding the retroactive application of CERCLA and clarifying the terms of the third-party and innocent landowner defenses.

surface impoundments A type of TSD facility, such as a settling pond, in which large amounts of liquid hazardous waste are placed

for temporary storage and treatment. By regulation, a surface impoundment is not allowed to be a permanent storage facility.

technology-forcing A term used to describe statutes such as the Clean Air Act and the Clean Water Act, which set pollution control standards based on what can be achieved through the use of technology. The statutes do not actually require that any particular technology be used; instead, they require that the degree of pollution control that could be achieved using the technology be achieved.

third-party defense A defense to CERCLA liability that is allowed to a defendant who can show that any activities giving rise to liability were carried out solely by third parties with whom the defendant had no contractual relationship whatsoever. It is construed very narrowly.

threatened release Occurs any time hazardous substances are found on a property in a manner showing that it is reasonably likely that they will pass into the environment, and the current owner or operator is not willing to address this threat in a prompt and effective manner.

total deference A very lax standard of judicial review. Under this standard, a court will merely see if an agency has gone through the proper procedural steps before reaching a decision; the court will not examine the merits of the decision.

Toxic Characteristic Leaching Procedure (TCLP) toxicity test The test for toxicity that has replaced the EP toxicity test. Like the EP toxicity test, the TCLP assumes that a substance is placed in a landfill and leaches into the surrounding environment. The resulting leachate is judged based on the presence of substances listed under the Safe Water Drinking Act plus 25 other substances (mostly known or suspected carcinogens).

toxic hot spots Portions of waterways in which toxic pollutants are found in high concentrations.

Toxic Substances Control Act (TOSCA, TSCA, or ToSCA) 15 U.S.C. §§ 2601–2629. A federal environmental statute that restricts the right to introduce toxic substances into commerce; the federal statute regulating the use of chemicals, which requires that they be registered with the Environmental Protection Agency. TOSCA allows the EPA to restrict or prohibit the use of chemicals that are unreasonably dangerous to the environment.

treatment As defined in CERCLA, any activity intended to change the character or composition of hazardous waste so as to make it less hazardous or more easily dealt with.

treatment, storage, and disposal facilities (TSD facilities) Facilities at which hazardous wastes are treated, stored, or disposed of. All TSD facilities are subject to extensive regulation under RCRA.

uncontainerized liquid hazardous wastes

Liquid wastes not placed in any container, and therefore free to settle in a landfill, presenting a greater risk of leaching. Under HSWA, owner/operators of land disposal facilities are not allowed to accept uncontainerized liquid wastes.

upgradient Upstream; upgrade; designating water coming to the site rather than water coming from the site.

upset An unintentional and temporary noncompliance with technology-based limitations because of factors beyond the control of the source. An upset could occur

because the water that a plant receives is far more polluted than usual, so that for that one day the plant cannot meet its effluent limitations.

volatile organic compounds (VOC) Any of various carbon-based chemical compounds that pass into the air through processes such as vaporization.

water quality standards Media-quality based standards that look to quality in a specific body of water rather than to controls over discrete sources emitting pollution to the body of water.

zoning † The creation and application of structural, size, and use restrictions imposed upon the owners of real estate within districts or zones in accordance with zoning regulations or ordinances. Although authorized by state statutes, zoning is generally legislated and regulated by local government. Zoning is a form of land use regulation and is generally of two types: regulations having to do with structural and architectural design; and regulations specifying the use(s) to which designated districts may be put.

zoning power The power of a jurisdiction to regulate the uses to which land is dedicated. Wisely used, this helps maintain land values and protects certain uses from potential encroachment. Less wisely used, it has been a basis by which jurisdictions attempt to ban certain uses or individuals from a community.

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