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Daniel Riesel

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Forecasting Significant Air Act Implementation Issues: Permitting and Enforcement

DANIEL RIESEL*

I. Introduction

The Clean Air Act (CAA)[1] was the original or flagship statute of the 1970 environmental revolution.[2] All environmental statutes subsequent and prior to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)[3] are closely based on the 1970 CAA pattern. Thus, this statute is the template for command and control environmental legislation. The Clean Air Act Amendments (CAAA),[4] passed in 1990, represent the culmination of almost twenty years of regulatory work with that statute, and is perhaps the most prolix environmental legislation produced by Congress. The bill was over 700 pages; Title III dealing with toxic air pollutants was 122 pages alone, perhaps longer than the 1970 legislation.

The CAA's implementation issues are numerous. Controls of toxic emissions, SO_2, and ozone precursors predominate. Regulations will expand to include larger numbers of smaller sources. There is a potential for personal

* Sive, Paget & Riesel, P.C., New York City, specializing in environmental law and litigation. Mr. Riesel is a Lector of Law at Columbia University School of law and author of several publications including ENVIRONMENTAL ENFORCEMENT, CIVIL AND CRIMINAL (1996). He is a graduate of Union College and the Columbia University School of Law.

1. *See* Clean Air Act (CAA) §§ 101-618, 42 U.S.C. §§ 7401-7671q (1994).

2. *See* Clean Air Act Amendments of 1970, Pub. L. No. 91-604, 84 Stat. 1676 (1970).

3. *See* Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) §§ 101-405, 42 U.S.C. §§ 9601-9675 (1994).

4. *See* Clean Air Act Amendments of 1990 (CAAA), Pub. L. No. 101-549, 104 Stat. 2399 (1990) (codified in scattered sections of 42 U.S.C.).

lifestyles and choices to be affected. Comprehensive permitting programs and self-monitoring programs will make compliance with emission requirements easier to police and enforce, both by government and private enforcers. Midwestern and neighboring coal-fired power plants will implement significant SO_2 controls. Automobile users will experience higher prices for more controlled vehicles, more comprehensive and widespread emissions testing, and government specification of fuels. Although this is a far reaching environmental initiative, the Amendments hardly touch on the greatest air pollution issue facing the world today, global warming.[5] Indeed, some of their strategies, for example, alternative fuels for automobiles, may add to global warming gases.[6]

Many of the provisions of the 1990 CAAA have been accepted without public controversy. For example, many commentators have indicated that the single most significant new program of the 1990 CAAA is the acid rain reduction program, yet even that provision has generated little controversy even though it was designed to reduce emissions of sulphur oxides from electrical generating facilities by fifty percent. Similarly, the stratospheric ozone protection program, the goal of which is the total phase-out of certain chlorofloro-carbons (CFCs), has been fairly uncontroversial.

With the exception of the electric vehicle requirement, the section of the 1990 CAAA that deals with the Motor Vehicle program, which is intended to push auto manufacturers to new levels of pollution control, has been remarkably uncontroversial. State Reasonably Available Control Technology (RACT) requirements, designed to make major reductions in nitrogen oxides from a variety of existing sources, have encountered little opposition.

However, other programs have proven to be highly controversial and have encountered significant resistance. New

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5. *See* James Gerstenzang, *Administration Backs Off Global Warming Deadline Treaty: New Proposal Softens Emissions Rules and Retreats from Activist Stance Taken by Clinton 2 Weeks Ago*, L.A. TIMES, Dec. 7, 1996, at A8.

6. *See* WILLIAM H. RODGERS, JR., 1 ENVIRONMENTAL LAW: AIR AND WATER § 3.1C(B) (Supp. 1996).

requirements for permitting and monitoring appear to remain stalled in the regulatory process. Attempts to revise regulations covering new source review, and to adopt interim emission control rules for "hazardous emissions" pending promulgation of Maximum Available Control Technology (MACT) standards under section 112(d) of the CAA,[7] are all fraught with controversy at the administrative level. There has also been a public outcry over the reformulated gasoline program, enhanced inspection and maintenance (I&M), and "employee commuter options" designed to reduce the impact of automobile travel on regional air conditions. The critical issue in understanding what programs have met opposition and what programs will continue to encounter resistance at the regulatory level and in Congress is that the latter list of programs intrudes into the manner in which individuals and businesses conduct their affairs.

This Article examines that phenomenon in the context of the new legislation's increased provisions for enforcement. In this regard, enforcement goes far beyond the increased penalty provisions, and includes the CAAA's provisions for a federal permit system with increased monitoring and reporting requirements. These statutory provisions are driving administrative activity which should soon result in the promulgation of far reaching regulations in their final form.

A. Illustration of Indirect Sources of Air Contamination

This breakpoint can be seen in the history of the CAA. An example of this form of marked resistance to implementing State Implementation Plans (SIPs) to achieve clean air may be seen in the history of the indirect source of air contamination regulatory programs of the early 1970s. At that time, the United States Environmental Protection Agency (EPA) required states to incorporate in their SIPs a program for regulating, and to some extent, permitting new sources of indirect air contamination. Those sources were identified as parking lots, parking garages, highway links, airports, shop-

7. *See* CAA § 112(d)(2), 42 U.S.C. § 7412(d)(2).

ping centers, and other facilities that would attract idling automobiles, a high source of carbon monoxide pollution.

This was viewed by the states and in Congress with considerable horror. Nevertheless, the EPA persisted, and many states adopted indirect air source regulations. Indeed, New York still has the remnants of that program, but it is restricted to below 60th Street in Manhattan. However, the uproar had a significant effect. The uproar was generated because states and some segments of the public believed that indirect air source regulations were an unwarranted and harsh intrusion upon the traditional police power of the state to regulate land use. Initially, the EPA reacted to this uproar by rescinding its requirement that all SIPs contain indirect air source regulations. It then required states that had been so unfortunate as to promulgate those regulations to keep them intact. Thereafter, Congress introduced a rider that prevented the EPA from enforcing indirect air source regulations and, finally, a rider that eliminated the EPA's ability to require indirect air source regulations.

The question then is, will the clearly intrusive Title V regulations eventually meet a similar fate due to a lack of enforcement will, administrative indirection, or outright legislative repeal?

B. Balancing Perceptions

To some extent, the answer to this question lies in the public perception of the impact of dirty air upon individual health. There are really two issues: the perceived direct individual impact, and the perception as to who has to pay for the environmental amenity. For there to be a consistent demand for more regulation depends on the extent to which Americans perceive the health risks associated with dirty air and the extent to which they believe corporate America will pick up the cost.

To realize what America must have been prior to the implementation of regulatory programs, one need only travel to some of our neighboring countries in South America to see the horrific effect of unregulated air contamination. Re-

cently, fishing in Patagonia, I departed Chile through its capital, the architecturally beautiful city of Santiago. There, the air is so foul that one is afraid to breathe or even open one's eyes on some days.

With its more advanced air standards, the United States has made tremendous progress since the implementation of the 1970 regulations. For example:

(1) emissions of toxic lead have dropped 98%;
(2) emissions of sulphur dioxide (SO_2 have dropped 30%, despite industrial growth;
(3) emissions of carbon monoxide have dropped 24%, even though driving has more than doubled;
(4) toxic emissions have been reduced by 1.6 billion pounds per year since 1990;
(5) production of chemicals that deplete the stratospheric ozone layer has been reduced by over 90% since 1990;
(6) in just five years more than half of the areas that violated the ozone, carbon monoxide, and small particulate standards now meet those standards; and
(7) cars burn their fuels substantially cleaner.[8]

Nevertheless, there is a fair amount of public opinion saying that there is still a long road to be traveled. Last summer, it was reported that health-based air quality standards were violated hundreds of times in dozens of states from California to Maine.

The American Lung Association believes that the health-based standard is at a level that is far too lax to protect public health adequately.[9] It has suggested that the annual death toll from polluted air in America is comparable to that of auto accidents. More recently, the American Lung Association reported that an estimated 161 million Americans are potentially exposed to dangerous levels of ozone;[10] that exposure

8. *See generally*, Gregg Easterbrook, *The Environment: Ignore All Doomsayers on EPA Laws*, L.A. TIMES, Dec. 1, 1996, at M1.

9. *See* AMERICAN LUNG ASSOCIATION, AIR POLLUTION: PROTECTING YOURSELF (1995).

10. *See Air Pollution: Cost/Benefit Analysis Not Needed to Set Health-Based Ozone Standards, Panel Told*, Daily Env't. Rep. (BNA) (Nov. 14, 1995).

includes nearly 100 million people who live in areas that are now legally considered to be attainment areas. According to the Natural Resources Defense Council, "more people die prematurely every year from heart and lung diseases associated with airborne particulate matter than from car accidents."[11]

II. 1970 Expectations Unfulfilled

Congress's 1970 enactment of the paradigm of command and control legislation, the CAA, delegated broad powers to the EPA to promulgate regulations that would implement the generalized objectives of the statute. That authority was reaffirmed in the 1977 amendments to the CAA.[12] The courts have recognized this broad grant of rulemaking authority, and the need to defer to the EPA's expertise.[13] Nevertheless, the EPA has been cautious and, many critics would say, far too conservative in both its administration and rulemaking under the CAA. Indeed, the practitioner is quite often confronted with an absence of clear binding authority.

Practitioners have seldom been confronted with federal and state enforcement actions brought pursuant to the CAA or its regulations, or any state regulatory scheme. Indeed, given the CAA's overreaching reach, the paucity of enforcement actions, as compared to those under the Resource Conservation and Recovery Act (RCRA)[14] or the Clean Water Act (CWA),[15] is quite pronounced.

A. Lack of Enforcement Tools

A fundamental philosophy under the command and control statutes of the last two decades has been that there should be an even-handed and credible threat of enforcement.

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11. *See Particulates Cause More Premature Deaths than Car Accidents, NRDC Report States*, Daily Env't Rep. (BNA) No. 90, at D-9 (May 9, 1996).

12. *See* H.R. REP. No. 95-294, at 1 (1977), *reprinted in* 1977 U.S.C.C.A.N. 1077.

13. *See Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984).

14. *See* Resource Conservation and Recovery Act (RCRA) §§ 1002-11012, 42 U.S.C. §§ 6901-6992k (1994).

15. *See* Federal Water Pollution Control Act [Clean Water Act] (CWA) §§ 101-607, 33 U.S.C. §§ 1251-1387 (1994).

Hence, the various statutes have all embraced multiple enforcement mechanisms, including what some commentators would consider fairly draconian criminal procedures.

As part of that philosophy, Congress required that delegation under those programs be preceded by a demonstration of state authority to enforce the state programs to the same extent that the federal government might in similar, but nondelegated, circumstances.

The CWA has generally been regarded as a success, due in a fair degree to its enforcement mechanism - including the permitting of specific "point sources," self-monitoring, and self-reporting. Neither the 1970, nor any of the other pre-1990 CAA amendments contained such enforcement provisions. The absence of these provisions under the air regime was readily apparent by a perusal of reported decisions in cases of air enforcement and citizen suits brought against emitters of air contamination. The enforcement cases are so few as to be virtually nonexistent when compared with the plethora of actions brought under the CWA.

B. Limited Number of Citizen Suits

The number of citizen suits brought under the CWA directly against polluters is large. Indeed, at certain times in our recent history there have been more than 200 cases at a time pending in the district courts. If the citizens suits brought to compel the Administrator of the EPA to carry out nondiscretionary duties such that the promulgation of regulations were eliminated, the number of CAA citizen suits could probably be counted on the fingers of both hands. The reason for this discrepancy is not that emitters of air pollution have been more scrupulous than wastewater dischargers, but because of the difficulty of enforcing against sources of air contamination without also having specific standards and effective self-monitoring and reporting.

Congress noted that "[t]he failure of the current Act to require operating permits puts it at odds with the other major environmental statutes."[16] Congress also linked the fed-

16. S. REP. No. 101-228, at 346 (1989).

eral permit system with the issue of enforcement by saying that "[i]n order to assure adequate compliance with the Act, there needs to be a Federal Operating Permit requirement as provided by the title [Title V]."[17] Clearly, as a matter of Congressional intent, the foundation of the newly enhanced air enforcement system is the permit system. As a practical matter, the complex and diverse air programs will not achieve their goals unless they can be reduced to readily enforceable permits.

III. The Permit Program and Enforcement

Perhaps one of the most intrusive aspects of the CAAA will be the combination of the Title V permitting program with the enhanced enforcement powers. Today, the average industrial facility has not yet dealt with the full impact of these combined aspects of the 1990 CAAA. Few lawyers have been consulted by industrial clients to help fashion permits. However, my survey of engineering consultants indicates that they have been routinely submitting Title V permit applications. One particularly active consultant, Rob Finlayson of Eder Associates, has described the immediate impact on small industrial facilities to be a relatively modest, one time only, application cost of $15,000 to $25,000.

Problems may develop when applications uncover previously unpermitted sources, but Title V has not yet had an intrusive impact on industry. Accordingly, controversy has focused on certain procedural aspects of the program.

Permits are required for all "major sources" in a system similar to the CWA's National Pollution Discharge Elimination System (NPDES) program. The CAA provides: "[i]t shall be unlawful for any person to violate any requirement of a permit issued under this title, or to operate an affected source . . ., [or] a major source . . . except in compliance with a permit . . . ."[18] Operating permits were not previously required, but were used in thirty-five states, including New York. The EPA developed a draft permit regulation which

17. *Id.* at 347.
18. CAA § 502(a), 42 U.S.C. § 7661a (1994).

identifies the statutory, regulatory, and program elements that a state must implement to become the permit issuing authority. States must, within three years, submit programs for approval by the EPA, otherwise the EPA must implement its own plan.

The 1990 CAAA added Title V, a new title requiring the creation of a state-administered permit program.[19] Under the permit program, operating permits are required for most significant sources of regulated emissions.[20]

Prior to the 1990 CAAA, the CAA only required individual federal permits for new or modified sources. Existing sources were regulated at the federal level by general requirements contained in SIPs, new source performance standards (NSPS), or national emission standards for hazardous air pollutants (NESHAP) regulations.

Under Title V of the CAA, the EPA has promulgated rules that define state operating permit programs and the standards and procedures by which the EPA can approve, oversee, and withdraw approval of state operating permit programs.[21]

Permits are required for several sources, including all stationary sources defined as "major sources" under various provisions of the CAA.[22] Sources subject to the permit program include the following:

(1) "major sources;"
(2) "affected sources" as defined in Title IV (acid rain);
(3) new modified sources subject to CAA § 111 NSPS;
(4) air toxics sources regulated under CAA § 112;
(5) sources required to have new source or modification permits under parts C or D of Title I; and
(6) other sources designated by the EPA regulations.

For example, under Title I, a source that emits more than 100 tons per year of regulated pollutants is considered a

19. *See id.* §§ 501-507, 42 U.S.C. §§ 7661-7661f.
20. *See id.* § 502, 42 U.S.C. § 7661a.
21. *See* 40 C.F.R. pt. 70 (1995).
22. *See* CAA § 502(a), 42 U.S.C. § 7661a(a).

major source. Moreover, smaller sources may be considered major sources in certain non-attainment areas. The amended version of section 112 of the CAA defines a major source as any source that emits or has the potential to emit more than ten tons per year of any individual hazardous pollutant, or more than twenty-five tons per year of any combination of hazardous pollutants.[23] Thus, permits will be required for many sources that did not need permits before the 1990 CAAA.

A. Enhanced Enforcement Mechanisms

The new, or perhaps forthcoming, regulation of hazardous air pollutants (HAPs), and the increased concern over the impact of air pollutants generally, will be translated into definitive Title V permit requirements. This increased and more pervasive regulatory requirement must be viewed in the context of enhanced enforcement civil and criminal powers under section 113 of the CAA, the imposition of monitoring and "compliance certificates" requirements under section 114, the imposition of penalties through citizen suits under section 304, and a $10,000 *qui tam* provision under section 113(f).

B. State Implementation

The new permit program is to be administered primarily at the state level. The CAA required the EPA to promulgate regulations by November 1991, establishing the minimum elements to be included in each state's permit program.[24] In addition, section 502(d) required each state to submit a permit program by November 1993.[25] If the EPA approves of part of a program, it is authorized to grant interim approval to the remainder of the program until the necessary revisions are complete. The EPA is also authorized to veto state permits not in compliance with the CAA.[26] Where a program

23. *See id.* § 112(a)(1), 42 U.S.C. § 7412(a)(1).
24. *See id.* § 502(b), 42 U.S.C. § 7661a(b).
25. *See id.* § 502(d), 42 U.S.C. § 7661a(d).
26. *See id.* §§ 502-505, 42 U.S.C. §§ 7661a-b, 7661d.

substantially, but not fully, meets the requirements of Part 70, the EPA is authorized to grant the program interim approval for a period of up to two years. If the EPA has not fully approved a program by two years after November 15, 1993, or by the end of an interim program, it must establish and implement a federal program. On April 27, 1995, the EPA published a proposed federal operating permit program. Under the rule as proposed, the EPA is the permitting authority in areas not having approved programs. Under the rule, the EPA may delegate implementing authority to affected states. The final federal program was targeted for May 1996.

Within one year after the EPA approves a state's permit program, the sources subject to permitting requirements must submit permit applications, including plans for compliance.[27] The states are required to provide for public comment and hearings on permit applications and must act on initial applications within three years.[28] Due to the quantity of initial permit applications, state processing of the initial applications is expected to take several years. Section 502(b) requires permittees to pay an annual fee to the state agency administering the program. Significantly, for the first time, the Title V program provides that the federal and state air pollution control requirements be incorporated into a single, consolidated permit. The owner of the facility must then certify that it is in compliance with the requirements of the permit.

C. Regulations and Guidance

In July 1992, the EPA issued regulations outlining the requirements which state and local agencies must meet in formulating their operating permit programs.[29] Environmental groups, industry, and states immediately sued the EPA over some of those provisions. The main area of controversy involved the process for revising permits - not the procedures for the issuance of permits. Industry concerns included the

27. *See* CAA § 503(b), (c), 42 U.S.C. § 7661b(b), (c).
28. *See id.*
29. *See* 40 C.F.R. pt. 70.

delays caused by the revision process. Although the litigants reached no final settlement in August 1994, the EPA issued a proposed rule describing a new permit revision procedure that attempted to accommodate the litigants' varying concerns. The proposal, however, was criticized as being more complicated and burdensome than the first proposal.

After discussions with a group of stakeholders, the EPA agreed with many of the criticisms of the proposed rule. It then committed to the issuance of a supplemental proposed rule to streamline the permit revision process. The EPA issued the supplemental proposed rule on August 31, 1995.[30] The proposed rule received ninety-five comments. The final rule had a target date for September 1996.

Simultaneously, various sources had begun to submit their permit applications. As this occurred, the EPA became aware of the burdens and costs associated with preparing permit applications. The EPA found that some of the information being requested in the permit applications exceeded federal requirements. Accordingly, on July 10, 1995, the EPA issued White Paper No. 1[31] to enable industry and agencies to take steps to reduce the cost and size of permit applications. White Paper No. 1 gives guidance to states by encouraging the use of:

(1) emissions descriptions, not estimates, for emissions not regulated at the source;
(2) checklists, rather than emissions descriptions, for insignificant activities;
(3) exclusions for trivial and short-term activities; and
(4) "batch" or generalized treatment of certain activities (for example, space heaters) subject to certain generally applicable requirements.[32]

30. *See* Operating Permits Program and Federal Operating Permits Program, 60 Fed. Reg. 45,530 (1995) (to be codified at 40 C.F.R. pts. 51, 70 and 71).

31. OFFICE OF AIR QUALITY PLANNING AND STANDARDS, U.S. ENVIRONMENTAL PROTECTION AGENCY, WHITE PAPER FOR STREAMLINED DEVELOPMENT OF PART 70 PERMIT APPLICATIONS (1995) [hereinafter WHITE PAPER No. 1].

32. *See* WHITE PAPER No. 1 at 5-9, Attachment A.

On March 5, 1996, the EPA issued White Paper No. 2[33] to streamline and simplify the permit program requirements.

D. Industry Impact

Industry has been affected by Title V in several ways. For example, companies have discovered new uncontrolled emission points or air pollution requirements that apply to them, but of which they were previously unaware. Also, by identifying all the requirements with which a facility must comply in one document, permits potentially will avoid unnecessary controversy as to whether a given requirement applies to that facility. This consolidation of requirements benefits industry by avoiding the need for costly litigation to resolve such controversies.

The supplemental proposal of August 31, 1995 includes a simplified system for permit revisions. It gives states flexibility to decide the amount of public review for the majority of permit revisions by matching the level of review to the environmental significance of the change. A state is not required to provide review for changes that it can show to be *de minimis*.

The supplemental proposal states that the EPA will restrict its veto of permit revisions to only the most environmentally significant changes. The proposal includes a waiver of the EPA's veto of less environmentally significant changes, which constitute the majority of changes at facilities, for a five-year period during which the EPA will review how well state programs are working. The EPA rules envision that businesses will only need to go through a single significantly streamlined permit revision process at the state level.

As it is being developed by the EPA, the permit program also offers benefits to industry by providing a vehicle for flexibility through fashioning permits that either create plant-wide caps (with an overall emission limit and record keeping,

33. *See* OFFICE OF AIR QUALITY PLANNING AND STANDARDS, U.S. ENVIRONMENTAL PROTECTION AGENCY, WHITE PAPER NUMBER 2 FOR IMPROVED IMPLEMENTATION OF THE PART 70 OPERATING PERMIT PROGRAM (1996) [hereinafter WHITE PAPER NO. 2].

including alternate operating scenarios) or provide advance approval of new units or modifications (for example, getting permit approval that includes a future source of emissions). This kind of permit design can potentially save substantial time and money over the previous system, in which many process changes had to be individually approved through lengthy changes to SIPs.

By consolidating all federal requirements in one document, facilities have the ability to use the permit mechanism to accomplish goals not achievable in the past. The operating permit program also may facilitate implementation of market-based trading programs by encouraging facilities to use trading as a means of compliance and eliminating the need for sources to process time-consuming amendments to their SIPs in order to make a trade.

The EPA has received programs from approximately fifty-six state and territorial agencies and sixty local agencies. The EPA has published approval notices for thirty-five state programs and has formally proposed approval for twelve more.[34] The EPA has also approved fifty-three local permitting programs and proposed approval for six more.[35] The EPA published a disapproval notice for only one state (Virginia).[36]

E. Hazardous Air Pollutants (HAPs)

The CAA authorizes the EPA to establish health-based NESHAPs. Since 1970, the EPA has listed only eight hazardous air pollutants and has established standards for only seven. The 1990 CAAA direct the EPA to establish technology-based standards for 189 hazardous substances based on the use of MACT.

The 1990 CAAA completely revise section 112, establishing a list of 189 regulated hazardous air pollutants.[37] The

34. *See generally*, Approval Status of State and Local Operating Permits Programs, 40 C.F.R. pt. 70 app. A (1997).

35. *See generally id.*

36. *See Fourth Circuit Summary*, 20 WM. & MARY ENVTL. L. & POLICY REV. 445 (1996).

37. *See* CAA § 112(b)(1), 42 U.S.C. § 7412(b)(1).

EPA is required to establish standards for major sources, which are defined as those with the potential to emit ten tons per year of any hazardous pollutant or twenty-five tons of any combination of pollutants. These sources must meet emission limits based on the use of MACT.

The principal elements of the 1990 CAAA were:

(1) inclusion in the statute of a long list of hazardous substances to be regulated;[38]
(2) creation of a strict timetable for the promulgation of regulations governing emissions of those substances;[39]
(3) a new technology-based methodology for regulating hazardous emissions, with the principal focus on maximum control of total source emissions rather than on strict pollutant-by-pollutant emission standards;[40] and
(4) a revised strategy for regulating "residual risk."[41]

Under section 112, "major" sources include sources with much lower levels of emissions than the "major" sources regulated under most other provisions of the CAA.[42] In addition, a source may be a major source based on aggregate emissions of several pollutants, even if emissions of each individual pollutant are relatively small.

Once the EPA has identified and listed major and area source categories of hazardous emissions, it is required to promulgate regulations establishing "emission standards" for each source category. Such standards need not be uniform for all sources within the category; the EPA may "distinguish among classes, types, and sizes of sources . . . ."[43] However, all such standards must be based on the application of MACT.

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38. *See id.* § 112(b)(1), 42 U.S.C. § 7412(b)(1).
39. *See id.* § 112(e), 42 U.S.C. § 7412(e).
40. *See id.* § 112(d)(2), 42 U.S.C. § 7412(d)(2).
41. *See id.* §§ 112(f), 129(h)(3), 42 U.S.C §§ 7412(f), 7429(h)(3).
42. *See* CAA § 112(a), 42 U.S.C. § 7412(a).
43. *Id.* § 112(d)(1), 42 U.S.C. § 7412(d)(1).

The CAA requires emission standards to reflect the maximum degree of reduction in emissions that the EPA determines to be achievable, taking into account "the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements . . . ."[44] Emissions standards will be considered achievable if they can be achieved through such measures as changes in processes or materials; the use of closed systems; measures to collect, capture, or treat pollutants; changes in design, equipment, work practice, or operational requirements; or any combination of the above.

For a new source, MACT may not be less stringent than the level of control that is actually achieved in practice by the best controlled similar source. For existing sources, MACT may be no less stringent than the average level of control achieved by the "best performing" twelve percent of existing sources in the category (excluding those that have been required within the past thirty months preceding promulgation to comply with the lowest achievable emission rate). If a source category includes fewer than thirty sources, MACT must at least equal "the average emission limitation achieved by the best performing five sources . . . ."[45]

Once the EPA has promulgated MACT standards for a source category, those standards will apply to all major sources that have operations falling within that category. Since the "source categories" for which the EPA is to promulgate MACT standards will be defined based on particular types of operations rather than on complete facilities, some facilities may face separate MACT requirements for different operations. Moreover, when classified as a "major source," a facility may be required to adopt MACT controls for point sources that, standing alone, would not be major sources. In most cases, the new MACT regulations will establish the most stringent requirements applicable to a source.

The requirements created under section 112 are to be incorporated in operating permits issued pursuant to Title V of

44. *Id.* § 111(a)(1), 42 U.S.C. § 7411(a)(1).
45. *Id.* § 112(d)(3)(B), 42 U.S.C. § 7412(d)(3)(B).

the CAA. If the EPA fails to promulgate standards for a source category by the deadline established in section 112(e), permits for sources in that category must state requirements that are "equivalent to the limitation that would apply to such source if an emission standard had been promulgated in a timely manner . . . ."[46] If the EPA thereafter promulgates its own standard, that standard must be incorporated in the permit either upon issuance (if promulgation occurs before the permit is finally issued) or upon its renewal (if the permit has already been issued).

Of all the provisions of the 1990 CAAA, the section dealing with emissions of hazardous substances is the most far reaching, both in terms of the number of sources that will be affected and in the extremely stringent character of the new controls. Within the next ten years, virtually all medium- and large-sized sources of hazardous pollutants will be required to control emissions (often for the first time) and to adopt control measures that, in many cases, will push the bounds of economic feasibility: the tiny sources and leaks that, standing alone, are of little significance, but taken together can account for an appreciable portion of a facility's total emissions.

Once source categories have been established, an important process with which a facility should become involved, it will be necessary to participate in the process through which the EPA establishes MACT requirements for each category. Although the statute establishes a floor for MACT, the EPA may consider more stringent requirements. Regulated sources should be involved so that they can provide their own input on these issues.

F. The Potential-to-Emit Controversy

The major source concept has been expanded by the concept of bringing within Title V's scope a facility's potential to

46. *Id.* § 112(j)(5), 42 U.S.C. § 7412(j)(5). *See also* Alabama Power Co. v. Costle, 636 F.2d 323 (D.C. Cir. 1980), for a detailed discussion on the definition of potential to emit.

emit as opposed to its actual emission. This claimed expansion of Title V's reach is subject to considerable controversy.

The term "potential to emit" means the maximum aggregate capacity of an operational source or of a facility to emit an air contaminant under its physical and operational design.[47] A source's potential to emit can only be restricted by a federally enforceable emission limit.[48] This concept raises many compliance issues for various sources of air pollutants. For instance, grandfathered[49] and unpermitted sources whose emissions do not meet such limits will be considered to be operating at maximum design capacity in order to determine whether the facility is a major source. In addition, fugitive emissions will be included in the calculation of a facility's potential to emit. Grandfathered sources will be burdensome to the facilities that have continued to operate them in order to avoid complying with the existing air permit program. Those facilities whose actual emissions are below the "major source" threshold may either want to stop utilizing their grandfathered or unpermitted equipment, or to submit permit applications under the existing program, in order to establish federally enforceable emission limits.

Furthermore, since even minor modifications may trigger a full permit review process, permits need to be drafted with the future in mind. Affected facilities must draft permits that serve the facility's existing needs while allowing enough flexibility to meet future business requirements. To the extent that companies have not begun their planning process, the permit program is a long and costly experience that requires extensive planning in order to avoid future complications.

IV. Enhanced Self Monitoring and Reporting

A permit without an efficient mechanism to insure compliance is not much of a regulatory tool. The major implementation issues relating to Title V do not appear to be the

47. *See* 40 C.F.R § 52.21(b)(4) (1996).

48. *See id.*

49. Sources in existence before the start-up of permit programs in certain states.

processing of the permit application. A strong environmental consulting industry appears to have this problem well in hand. However, the maturing of environmental enforcement generally, and the provisions of the CAA now being implemented for monitoring and self reporting or compliance certification, appear to be critical aspects of implementation for stationary sources. Accordingly, Congress amended the CAA to revise Title VII, the federal enforcement program.[50]

The 1990 CAAA contain several provisions directing the EPA to require owners or operators to conduct monitoring of emissions and to make compliance certifications. These provisions are set forth in both the Title V (operating permits provisions) and the Title VII (enforcement provisions) of the 1990 CAAA.

Title V directs the EPA to implement monitoring and compliance certification requirements through the operating permits program. Section 503(b)(2) requires, at least, annual certifications of compliance with permit requirements and prompt reporting of deviations from permit requirements.[51] Section 504(a) mandates that owners or operators submit to the permitting authority the results of any required monitoring at least every six months.[52] This section also requires permits to include "such other conditions as are necessary to assure compliance with applicable requirements" of the CAA.[53] Under section 504(c), each operating permit must "set forth inspection, entry, monitoring, compliance certification, and reporting requirements to assure compliance with the permit terms and conditions."[54]

Title VII of the 1990 CAAA added a new section 114(a)(3) that requires the EPA to promulgate rules on enhanced monitoring and compliance certifications. This paragraph provides, in part:

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50. *Compare* CAA § 113, 42 U.S.C. § 7413, *with* CAA §§ 501-507, 42 U.S.C. §§ 7661a-7661f.

51. *See* CAA § 503(b)(2), 42 U.S.C. § 7661b(b)(2).

52. *See id.* § 504(a), 42 U.S.C. § 7661c(a).

53. *Id.*

54. *Id.* § 504(c), 42 U.S.C. § 7661c(c).

> The Administrator shall in the case of any person which is the owner or operator of a major stationary source, and may, in the case of any other person, require enhanced monitoring and submission of compliance certifications. Compliance certifications shall include (A) identification of the applicable requirement that is the basis of the certification, (B) the method used for determining the compliance status of the source, (C) the compliance status, (D) whether compliance is continuous or intermittent, (E) such other facts as the Administrator may require.[55]

The 1990 CAAA also revised CAA section 114(a)(1) to provide additional authority concerning monitoring, reporting, and record keeping requirements.[56] As amended, that section provides the Administrator of the EPA the authority to require any owner or operator of a source, on a one-time, periodic or continuous basis to:

(A) establish and maintain such records;
(B) make such reports;
(C) install, use, and maintain such monitoring equipment;
(D) sample such emissions (in accordance with such intervals, during such periods and in such manner as the Administrator shall prescribe);
(E) keep records on control equipment parameters, production variables, or other indirect data, when direct monitoring of emissions is impractical;
(F) submit compliance certifications in accordance with section 114(a)(3); and
(G) provide such other information as the Administrator may reasonably require.[57]

Taken together, the statutory provisions prescribe a set of measures that owners or operators must follow in order to provide an assurance of ongoing compliance with the CAA.

It is impractical in most situations of conducting compliance method tests frequently enough to determine continuous

55. *Id.* § 114(a)(3), 42 U.S.C. § 7414(a)(3).
56. *See* CAA § 114(a)(1)(A)-(G), 42 U.S.C. § 7414(a)(1)(A)-(G).
57. *Id.*

compliance. Instead, the EPA has considered the option of relying on monitoring requirements as a means of determining whether compliance is continuous or intermittent.

A. Compliance Assurance Monitoring (CAM)

The CAM proposal would focus on situations where existing requirements fail to assure ongoing compliance with emission limitations or standards under the CAA. One means of assuring compliance is to require the use of a monitoring method that determines continuous compliance. This type of approach may be a result of an underlying applicable requirement. It may also apply as a result of the exercise of other authority by the EPA or the permitting authority, such as through an enforcement action, or by the election of an owner or operator in some situations. In any of these circumstances, the CAM proposal generally would direct the owner or operator to use that monitoring to fulfill its monitoring and compliance certification requirements as allowed under Part 70.[58]

B. Compliance Assurance Monitoring Rule

In October 1993, the EPA proposed the enhanced monitoring program, including both new regulations and amendments to several existing air pollution program regulations.[59] The program required owners or operators of both major stationary sources of non-hazardous air pollutants and of sources subject to existing national emissions standards for hazardous air pollutants to perform enhanced monitoring of air pollution at significant emissions units.[60] The proposed rule required that enhanced monitoring data be used to determine the compliance status of affected emissions units with certain applicable emission limitations or standards.[61]

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58. *See supra* note 21.
59. *See* Enhanced Monitoring Program, 58 Fed. Reg. 54648 (1993).
60. *See id.*
61. *See id.*

The proposed rule contained criteria and procedures that owners or operators must follow for enhanced monitoring.[62] Proposed reporting and record keeping requirements would identify the basis, content, frequency, and other requirements for enhanced monitoring reports. Enhanced monitoring data would be used to certify compliance pursuant to 40 C.F.R. Part 70[63] to fulfill requirements of enhanced monitoring. The enhanced monitoring program may also be implemented through preconstruction permits issued under the CAA.

Industry groups and others strongly criticized the proposed rule on the basis of increasing rule stringency, excess burden on state and local agencies to evaluate monitoring plans, and the detrimental effect on the developing operating permit programs.

In April 1995, the EPA withdrew the Part 64 enhanced monitoring rule to allow for further review of monitoring approaches. It received an extension of the court-ordered deadline until July 1, 1996, to allow time for stakeholder involvement in the development of a new rule.

The redrafted rule, CAM, is designed to satisfy the requirements for monitoring and compliance certification in Titles V and VII of the 1990 CAAA. The goal is to improve compliance with the CAA so that emission reductions will be achieved and the need for other control regulations can be reduced.

Since April 1995, the EPA has held several major stakeholders' meetings, various focused follow-up forums with stakeholders, and numerous conference calls and other communications concerning the rule structure, applicability, and timing. A major stakeholders' meeting was held on September 22, 1995, following distribution of the draft CAM rule for public comment. The reproposal date for CAM was scheduled for December 1995, and the promulgation date was scheduled for June 30, 1996. The reproposal date was delayed until

62. *See id.*
63. *See supra* note 21.

July 1, 1996, and the promulgation date was targeted for approximately six months later.

The draft CAM proposal establishes: (1) the criteria that define what monitoring should be conducted by a source to provide a reasonable assurance of compliance with emissions limitations and standards, including how frequently determinations of compliance must be made in order to certify compliance with emissions limitations or standards; (2) the maximum number of discrepancies within acceptable control performance; and (3) the time period acceptable for completing corrective actions indicated by the monitoring results.

The draft CAM proposal addresses all regulatory requirements for monitoring and testing under Title V and Title VII. The periodic compliance determination requirements in the CAM proposal specify criteria for establishing a schedule of compliance determinations for purposes of certifying the compliance under Part 70. The draft proposal also reduces the scope of the current Part 70 program by not requiring monitoring or testing of third tier units, as is currently required under the "gap-filling" periodic monitoring requirements in Part 70.

Under the old draft CAM proposal, a certification of compliance by the owner or operator requiring an emission limitation or standard involved two steps. First, the owner or operator would certify compliance directly with the emission limitation or standard based on the results of applying the method specified in the Part 70 permit as the means for determining and certifying compliance with that emission limitation or standard. Second, the owner or operator would have to certify compliance with the associated monitoring, reporting, and record keeping requirements in the permit which provide an assurance of ongoing compliance with the emission limitation or standard.

Section 504(b) permits the Administrator of the EPA to promulgate appropriate test methods and monitoring requirements for determining compliance.[64] That section states that "continuous emissions monitoring need not be re-

64. *See* CAA § 504(b), 42 U.S.C. 7661c(b).

quired if alternative methods are available that provide sufficiently reliable and timely information for determining compliance."[65] Because this section directly refers to promulgating monitoring requirements for determining compliance, the proposal cites this section, in addition to section 114(a)(3), as explicit authority for the proposed regulations.

Section 504(a) states that permits shall include "a requirement that the permittee submit to the permitting authority, no less often than every six months, the results of any required monitoring, and such other conditions as are necessary to assure compliance with applicable requirements of the Act."[66] Section 503(b)(2) states that permitted sources must certify compliance with any applicable permit requirements "no less frequently than annually . . . and promptly report any deviation from permit requirements to the permitting authority."[67]

V. Credible Evidence Rule

The 1990 CAAA also revised CAA section 113 to clarify what evidence may be used to prove violations of the CAA.[68] Section 113(e), as amended, provides that "the duration" of a violation may be established "by any credible evidence (including evidence other than the applicable test method)."[69]

In April 1995, the EPA decided to reevaluate this rule and proposed a draft CAM rule. The CAM rule is designed to satisfy the requirements for monitoring and compliance certification in section 114(a)(3) of the CAA[70] and the compliance requirements under CAA § 503(b).[71] The EPA's stated goal is to improve compliance so that emission reductions will be achieved and the need for other control regulations will be reduced. The proposed rule is targeted for July 1, 1996 and the final rule should be promulgated within one year of that

65. *Id.*
66. *Id.* § 504(a), 42 U.S.C. § 7661c(a).
67. *Id.* § 503(b)(2), 42 U.S.C. § 7661b(b)(2).
68. *See id.* § 113, 42 U.S.C. § 7413.
69. CAA § 113(e), 42 U.S.C. § 7413(e).
70. *See id.* § 114(a)(3), 42 U.S.C. § 7414(a)(3).
71. *See id.* § 503(b), 42 U.S.C. § 7661b(b).

date. Essentially, the CAM rule establishes criteria that define what types of monitoring should be conducted by a particular source, in order to provide reasonable assurance of compliance with emission limitations and standards.

One of the most controversial aspects of the 1993 rulemaking proposal involves the use of data collected in accordance with the CAM rule (and through other methods) to be used as "credible evidence" in federal enforcement proceedings. The EPA proposed to amend 40 C.F.R. Parts 51, 52, 60, and 61 to eliminate exclusive reliance on reference test methods as the means of demonstrating compliance with emissions limits and to clarify that credible evidence can be used for compliance determinations.

Industry is highly concerned about the potential use of all emissions data as credible evidence for both compliance assurance and enforcement proceedings. If the CAM rule adopts the use of a credible evidence rule, a potentially large quantity of emissions data, which may show violations stemming from the natural viability of daily operations, could trigger costly federal enforcement measures.

The crux of the credible evidence issue is that many stakeholders believe that credible evidence should not be used to determine liability for a violation without a formal rulemaking process. Section 113(e)(1) of the CAA provides that, in assessing penalties for violations, the government can consider, *inter alia*, "the duration of the violation as established by any credible evidence (including evidence other than the applicable test method)."[72] Many stakeholders have argued that credible evidence is addressed only with regard to penalties but without regard to actual liability. Thus, this provision should not be bootstrapped to provide an evidentiary standard for liability.

A proposed amendment to 40 C.F.R. Parts 51, 52, 60, and 61 to add the use of credible evidence generally for all source categories is arguably illegal because the CAA does not provide any authority for this evidentiary standard. In addition, industry has argued that the EPA cannot change the regula-

72. *Id.* § 113(e)(1), 42 U.S.C. § 7413(e)(1).

tions to allow the use of credible evidence without source-category by source-category rulemaking. For example, in the various subparts of Part 60, source categories have Continuous Emissions Monitoring Systems (CEMS) requirements for operation and maintenance measures.[73] The modification to include the use of credible evidence generally would enable the government to use such CEM data to determine compliance, rather than merely using performance test or reference test data. Stakeholders assert that the EPA must follow formal rulemaking procedures for each source category to establish the credible evidence standard.

Nevertheless, through the 1990 CAAA, the EPA intended to put teeth in the CAA's enforcement mechanism by promulgating a new rule on credible evidence. The comment period on the proposed Credible Evidence Rule ended on May 2, 1996, and a final rule, making it easier to refer and prove violations of the CAA, is expected by September 1996.[74] In the likely event that the proposed Credible Evidence Rule is promulgated by a final rulemaking, the regulated community would suffer more of a bite from the 1990 CAAA.

The proposed regulation would do away with the argument that noncompliance of a stationary source could only be proven by use of standard "reference tests" set forth in the Code of Federal Regulations,[75] which have been long relied on by the regulated community. The Credible Evidence Rule would provide that the EPA, a state, or a citizen suit litigant may use routine monitoring, opacity tests, emissions trading data, engineering calculations, or any other "credible evidence" to prove violations of permits, the CAA, and SIPs. The only limitations on proof of a violation would be the applicable federal and state rules of evidence. The rule, when coupled with the 1990 CAAA's beefed-up enforcement mechanisms, such as mandatory CEMS, has the potential for dramatically increasing enforcement actions.

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73. *See* 40 C.F.R 60.

74. *See Transcript of April 2, 1996 Credible Evidence Stakeholders Meeting* [hereinafter, *Stakeholder Meeting Transcript*].

75. *See* 40 C.F.R. pts. 51, 52, 60, and 61 (1995).

Members of the regulated community have expressed their concern to the EPA that the Credible Evidence Rule would, in effect, do away with accepted emissions standards and expose them to numerous unfounded public and private enforcement actions.[76] Their concern is that any departure allowing the use of a regulated party's own reports to prove CAA violations will open the door to greatly increased numbers of citizen suits, as was the experience under the CWA.

To place this concern in context, stationary sources of air contamination have been allowed to demonstrate compliance with permits and SIP requirements by performing standardized engineering tests on a prescribed, infrequent basis, often annually.[77] As the EPA put it, "[o]ver the past twenty years the Agency has published a number of 'reference test methods' and, in order to assure uniformity in the application of emissions standards, has required sources to establish compliance with emissions standards by use of those reference test methods."[78] Accordingly, stationary sources have demonstrated compliance with CAA requirements by structuring their facilities to pass the infrequent but technically exacting standard reference tests specified in the regulations. The EPA proposal may relegate these reference tests to the status of any other credible evidence, such as continuous emission monitoring data, production records, or any other probative and evidentiary competent data. The EPA defends this change by arguing that it was Congress that changed the rules by providing for "enhanced monitoring" compliance certification and reporting by enacting the 1990 CAAA.[79]

Members of the regulated community should not ignore the prospect of new regulatory enforcement through the use of the Credible Evidence Rule and are advised to pay close attention to it. There can be no doubt that the EPA plans to

76. *See The Use of Information Other Reference Test Results for Determining Compliance with the Clean Air Act*, EPA White Paper, Mar. 22, 1996, at 2 [hereinafter, *EPA Compliance Paper*].

77. *See* Enhanced Monitoring Program, 58 Fed. Reg. 54648, 54658 (1993) (to be codified at 40 C.F.R. pts. 51, 52, 60, 61 and 64).

78. *EPA Compliance Paper*, *supra* note 76, at 1.

79. *See* CAA §§ 113-14, 42 U.S.C. §§ 7413-14.

promulgate the rule as quickly as possible, and use it to enforce compliance in situations that historically have been overlooked. In its Compliance White Paper, the EPA stated that it "is now considering proceeding to final promulgation of previously proposed revisions of 40 C.F.R. Parts 51, 52, 60 and 61, to revise regulatory provisions that have been read as requiring exclusive reliance on reference test methods as the means of determining compliance with emissions limits."[80]

Robert Van Heuvelen, Director of the EPA's Office of Regulatory Enforcement, repeated the statement at the April 2, 1996 stakeholders' meeting, and added that one purpose of the proposed rule was "to clarify that credible evidence can be used for compliance determinations."[81]

The regulated community's concern is that compliance will no longer be defined by the standard reference tests, which make the realistic assumption that the pollution control equipment or procedures will not be able to achieve these standards one hundred percent of the time due to the numerous variables arising from day-to-day operations.[82] Thus, the vast quantity of emissions data may reflect normal deviations from the enforcement standards due to operational variations and other unavoidable causes, which under the application of the Credible Evidence Rule may nevertheless be used to prove violations. Accordingly, the regulated community's argument is that to meet the reference test emission standard one hundred percent of the time, a more stringent standard would have to be imposed upon stationary sources than is actually provided for in those tests.

The EPA has sought to mollify the regulated community with assurances of "common sense" and a "balanced enforcement program" that would eschew judicial enforcement in the case of minor violations. The agency has stated that its "approach to minor unexcused violations generally has been to exercise prosecutorial discretion [and] where appropriate, to take no enforcement action at all. EPA does not intend to use

80. *EPA Compliance Paper*, *supra* note 76, at 1.
81. *Id.*
82. *See id.*

credible evidence to change this general approach. EPA considers enforcement against minor CAA violations to be a very low enforcement priority . . . ."[83]

Even if the EPA's assurance were to be taken as a binding promise, the problem that would be created by the Credible Evidence Rule can be seen in the 1995 citizen suit litigation entitled *Sierra Club v. Public Service Company of Colorado.*[84] In that suit, the Sierra Club was successful in proving almost 20,000 opacity violations by relying on reports drawn from the defendant's CEMS, despite the defendant's arguments that the applicable regulations provided that compliance must be demonstrated by the standard test known as the "Method Nine" procedure for visual observation. The district court relied, in part, upon the 1990 CAAA's legislative history, which included a Senate Report noting: "[t]he amendment clarifies that courts may consider any evidence of violation or compliance admissible under the Federal Rules of Evidence, and they are not limited to consideration of evidence that is based solely on the applicable test method in the state implementation [plan] or regulation."[85] Subsequent to the district court's finding on liability, the EPA notified the utility of several thousand new violations.[86]

The proposed elimination of the defense that stationary source operators may demonstrate CAA compliance by meeting reference tests raises the specter of dramatically increased CAA enforcement because of the beefed-up command and control structure that Congress wrote into the 1990 CAAA. Congress adopted the successful enforcement mechanism of the CWA as a model for CAA enforcement.[87] The principal CWA enforcement mechanism goes beyond permitting; it is both the requirement for self-monitoring through periodic wastewater sampling *and* the filing of Discharge Monitoring Reports (DMRs) reflecting those test results.[88] In

83. *EPA Compliance Paper* at 1.
84. 894 F. Supp. 1455 (D.Colo. 1995)
85. *Id.* at 1461 (quoting S. REP. No. 101-228, at 366 (1989)).
86. *See* Inside EPA's Clean Air Report, Feb. 8, 1996, at 14.
87. *See generally* CWA § 402, 33 U.S.C. § 1342 (1994).
88. *See* 40 C.F.R. § 122.41(l)(4)(i) (1996).

1990, Congress transferred this paradigm of command and control legislation to the CAA's Title V, its new permitting section, and, perhaps more importantly, to a new section 114, which provides: "[t]he Administrator shall in the case of any person which is the owner or operator of a major stationary source, and may, in the case of any other person, require *enhanced monitoring* and submission of compliance certifications."[89]

Originally, the EPA attempted to implement these aspects of the 1990 CAAA by seeking to promulgate the Credible Evidence Rule as part of its ill-fated proposed Enhanced Monitoring Rule. That rule met such an onslaught of criticism that it was eventually withdrawn, only to emerge again as a proposed CAM Rule.[90] As originally proposed, the Credible Evidence Rule would have amended the reference test regulations to eliminate language that has been interpreted to provide for exclusive reliance on reference test methods as a means for establishing compliance. The draft CAM rule, circulated in September 1995, omitted any reference to "credible evidence." The EPA's present plans are to promulgate a "final" Credible Evidence Rule in September 1996 and, shortly thereafter, to publish its new CAM rule.[91]

Where the EPA has feared to tread, states have rushed in with their own versions of the Credible Evidence Rule. It is reported that at least twelve states are in the process of amending their SIPs to include a Credible Evidence Rule.[92] So far, the EPA appears to have promulgated final rules approving amended SIPs in four states, incorporating the "any credible evidence" concept. The states are Iowa,[93] Kansas,[94]

89. CAA § 114(a)(3), 42 U.S.C. § 7414(a)(3) (emphasis added).

90. *See* Enhanced Monitoring Program, 58 Fed.Reg. 54648, 54658 (1993) (to be codified at 40 C.F.R. pts. 51, 52, 60, 61 and 64) (withdrawn in April 1995. The EPA has circulated a "draft" CAM rule, and its publication is anticipated sometime in the fall of 1996).

91. *See* Inside EPA's Clean Air Report, Vol. VII, No. 8 at p. 24 (April 18, 1996).

92. *See* INSIDE EPA WEEKLY REPORT, *States Rush Ahead to Adopt Controversial Tools to Enforce Air Act*, May 10, 1996 at 3.

93. *See* Approval and Promulgation of Implementation Plans; State of Iowa, 60 Fed. Reg. 32,601, 32,602 (1995) (to be codified at 40 C.F.R. pt. 52).

South Dakota,[95] and Missouri.[96] In each case, the states were responding to an EPA demand to offer such an amendment based upon the EPA's assertion of the authority of the proposed, but withdrawn, Enhanced Monitoring Program of 1993.

The EPA is correct that it is doing Congress' bidding in establishing enhanced monitoring and in reminding the regulated community that section 113(a) of the CAA allows an enforcement action to be commenced on the basis of any information available to the Administrator of the EPA. There are, however, both legal and engineering problems that militate against "any credible evidence" becoming tantamount to proof equal to reference test compliance. Congress only provided that credible evidence may be taken into consideration to prove the "duration of the violation," as opposed to establishing the violation.[97] In fact, at one point, the EPA itself explicitly accepted the principle that "any credible evidence" should be used subsequent to finding liability, but only to establish the duration of a violation for penalty purposes.[98] The engineering problems with using miscellaneous data to establish emissions violations also militates against the proposed expansion of the use of the "any credible evidence" lan-

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94. *See* Approval and Promulgation of Implementation Plans and Section 112(1) Program for the issuance of Federally Enforceable State Operating Permits; State of Kansas, 60 Fed. Reg. 36,361-62 (1995)(to be codified at 40 C.F.R. pt. 52).

95. *See* Clean Air Act Approval and Promulgation of State Implementation Plan for South Dakota; Revisions to the Air Pollution Control Program, 60 Fed. Reg. 46,222, 46,225 (1995)(to be codified at 40 C.F.R. pt. 52).

96. *See* Approval and Promulgation of Implementation; State of Missouri, 61 Fed. Reg. 4,352 (1996) (to be codified at 40 C.F.R. pt. 52).

97. CAA § 113, 42 U.S.C. § 7413.

> (e) Penalty Assessment Criteria
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> (1) In determining the amount of any penalty to be assessed . . . the Administrator or the Court . . . shall take into consideration . . . the duration of the violation as established by any credible evidence (including evidence other than the applicable test method) . . . .

Id. § 113(e)(1), 42 U.S.C. § 7413(e)(1).

98. *See* Preparation, Adoption, and Submittal of State Implementation Plans, Methods for Management of Condensible Particulate Emissions from Stationary Sources, 56 Fed. Reg. 65,433 (1991)(to be codified at 40 C.F.R. pt. 50).

guage. The emissions standards set by the reference tests did not contemplate achievement of those standards in one hundred percent of a facility's operations; the standards reflect the performance of a pollution control device under average conditions, and therefore anticipate some statistical variation on a day-to-day basis.[99] Furthermore, due to the inherent limitations in the monitoring process, monitoring equipment can be expected to produce variations that may not consistently reflect the accurate emission rates.[100]

In its abandoned 1993 Enhanced Monitoring rulemaking effort, the EPA presented two hypotheticals to illustrate how the Credible Evidence Rule would work. One hypothetical illustrated how, if a CEMS had to be taken off-line for repairs, the EPA could show a violation by presenting expert testimony that an emissions control system operating at a low temperature would result in noncompliant emissions. In a second hypothetical, the EPA suggested that the Credible Evidence Rule would allow it to present testimony that a monitoring system was faulty by not picking up noncompliant emissions.[101]

Neither of the two hypotheticals presented by the EPA to show how the Credible Evidence Rule would work, however, they address the main concern of the regulated community. That concern, simply stated, is that by relegating periodic standard reference test methods to the status of any other credible evidence and giving evidentiary weight to monitoring reports, the EPA is sharply tightening the standards for compliance. The concern is that what may have been previously ignored as an occasional excursion between periodic testings will now be the basis for one - or many - violations.

Hopefully, any new rule will take into account both the statistical variations associated with standard reference tests and the variable, less accurate nature of other procedures for ascertaining emissions. Any absence of such tolerance in the new rules will have significant impact on the regulated com-

99. *See Stakeholder Meeting Transcript*, *supra* note 74.

100. *See id.*

101. *See* Enhanced Monitoring Program, 58 Fed. Reg. 54,648, 54,676-67 (1993), (to be codified at 40 C.F.R. pts. 51, 52, 60, 61 and 64).

munity because the 1990 CAAA drastically increased the civil and criminal enforcement provisions of the CAA, as well as facilitating the bringing of citizen suits.[102]

A. Federal Enforcement

Title VII represents a substantial increase in civil enforcement authority and a significant increase in criminal authority. These increases include an increase in the maximum civil penalty to $25,000 per day.[103] It also allows field citations with penalties of up to $5,000 per day.[104]

The provision for administrative orders set forth in section 113(a)(1) allows the EPA to require "any person [that] has violated or is in violation of any requirement or prohibition of an applicable implementation plan or permit" to come into compliance.[105] This provision only provides for an opportunity to confer before the order's issuance. Section 113(a)(5) prohibits construction or modification of any major stationary source upon failure of state regulations.[106] Section 113(b) also provides for fines of $25,000 per day or injunctive relief and administrative penalties of $25,000 per day, with a $200,000 cap.[107] Because of the new permit program, which will be federally enforceable even if implemented by a state, the requirements of the CAA will be much easier to enforce by the EPA, the state, or citizens.

The 1990 CAAA essentially repeals the old, narrow criminal provisions by adopting what must be considered the most aggressive package of federal environmental criminal provisions. Violations are felonies. Negligence is established as a basis for criminal culpability when releases cause imminent danger of death or serious bodily harm. Individual corporate

102. *See e.g.* CAA § 113(c), 42 U.S.C. § 7413(c) (criminalizing many violations of the Act); CAA § 304, 42 U.S.C. § 7604 (eliminating the decision in *Gwaltney v. Chesapeake Bay Found.*, 484 U.S. 49 (1987)).

103. CAA § 113(b), 42 U.S.C. § 7413(b).

104. *Id.* § 113(d)(3), 42 U.S.C. § 7413(d)(3).

105. *Id.* § 113(a)(1), 42 U.S.C. § 7413(a)(1).

106. *See id.* § 113(a)(5), 42 U.S.C. § 7413(a)(5).

107. *See id.* § 113(b), 42 U.S.C. § 7413(b).

officers are put at explicit risk and failure to pay a fee is also a crime.

The citizen suit provision is greatly expanded by the CAAA. The amendments essentially overrule the Supreme Court's decision in *Gwaltney v. Chesapeake Bay Foundation*, to allow citizens sue for violations solely in the past, with very minor exceptions.[108] Also, monies collected as penalties no longer need to go to the United States Treasury.

The 1990 CAAA did not, however, change section 101(3) of the CAA, in which Congress found "that air pollution prevention and air pollution control at its source is the primary responsibility of States and local government."[109] Nor have the political and programmatic constraints on the EPA to leave states with the prime enforcement role been changed by the 1990 CAAA.

However, the 1990 CAAA will greatly strengthen the EPA's oversight and leadership role, at least through the decade it takes to implement the 1990 amendments fully. Under the CAAA, the EPA will require states to increase their enforcement authority. Increased enforcement authority will require state legislation, sometimes changes in regulations, and probably increased state environmental staff. The degree of change required will be determined by the regulations and policy guidance now being prepared.

The increased EPA enforcement authority may lead to an increased threat to states and the regulated community of "over-filing" by the EPA if the state enforcement action does not meet the EPA's "timely and appropriate" test. There is likely to be an increased emphasis by the EPA on cases with larger state civil penalties closer to those generated by the EPA's civil penalty policy. Thus, even when defending against a state air enforcement action, lawyers are advised to be wary of being too successful and to keep an eye on the EPA penalty policy as one gauge of the potential for EPA overfiling.

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108. *See* Gwaltney v. Chesapeake Bay Found., 484 U.S. 49 (1987).
109. CAA § 101(a)(3), 42 U.S.C. § 7401(a)(3).

VII. Citizen Suits Under the CAA Are Likely to Increase in Usage

The 1990 CAAA effectively reversed the principal holding of *Gwaltney* that, absent ongoing violations, the courts lacked subject matter jurisdiction under citizen suit provisions like section 304 of the CAA before its amendment.[110] The 1990 CAAA would allow citizen suits for solely past violations ". . . if there is evidence that the alleged violation is repeated . . . ."[111] Presumably, this quoted language would only protect against citizen suits for a single past violation of one type; this does not afford much protection.[112]

Equally, if not more importantly, the new permit programs will presumably require increased self-monitoring and reporting, more like the reporting requirements of the NPDES program under the CWA. There is a simultaneous trend across the country toward continuous air monitoring, where feasible, and it is becoming more feasible in many circumstances. The new permit program and the trend toward continuous monitoring will make the task of proving a citizen's case significantly easier, which will make such suits more common.

In *Sierra Club*, the court relied on CAA § 113(e), which provides that in "determining the amount of any penalty to be assessed under . . . [s]ection 7604(a) of this title . . . the court, as appropriate . . ., shall take into consideration . . . the duration of the violation as established by any credible evidence (including evidence other than the applicable method) . . . ."[113] With regard to matters of evidence, the CAAA clarifies that courts may consider any evidence of violation or compliance admissible under the Federal Rules of Evidence, without being limited to consideration of evidence that is

110. *See Gwaltney*, 484 U.S. 49 (1987).

111. *See* CAA § 304(a)(1), 42 U.S.C. § 7604(a)(1).

112. *Note*: This amendment goes into effect in actions brought two years or more after the enactment of the 1990 Amendments but, because it applies to actions, not violations, it would appear to reach back to violations that predated the enactment of the 1990 Amendments.

113. *Sierra Club*, 894 F. Supp. at 1461 (quoting CAA § 113(e), 42 U.S.C. § 7413(e)).

based solely on the applicable test method in the state implementation or regulation. For example, courts may consider evidence from CEMS, expert testimony, and bypassing and malfunctioning control equipment, even if these are not the EPA's applicable test methods. Thus, the CAAA overrule the ruling in *United States v. Kaiser Steel Corp.*[114] to the extent that the court in that case excluded the consideration of such evidence.[115]

VIII. Criminal Prosecutions, Heretofore a Relative Rarity, Will Increase Markedly

Prior to the 1990 CAAA, the criminal provisions of the CAA were quite limited. Many standards, and all permits, were adopted at the state level. In turn, many, but not all of these became part of the EPA-approved SIPs.[116] This entire state regulatory structure was beyond federal criminal enforcement unless either the EPA first gave a violator 30-days notice whereafter the violation continued, or the EPA took over all enforcement in a recalcitrant state.[117] The only exceptions were some relatively unusual areas in which the EPA could proceed directly to criminal charges.

As amended, the criminal provisions are mostly felonies and now reach "any person who knowingly violates . . . Section 502(a) or 503(c) of Title V (relating to permits) . . . ."[118] The new permitting provisions in Title V of the 1990 CAAA are modelled after the CWA's NPDES permit program. Under the NPDES permit program, each state-issued permit in an approved state is also a federal permit and its terms are federally enforceable, both criminally and civilly. After the permit requirements of the 1990 CAAA are implemented, the resulting permits will be immediately criminally enforceable at the federal level without the requirement of a 30-day notice period.

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114. *See* United States v. Kaiser Steel Corporation, No. 82-2623-IH, 1984 WL 186690 (C.D.Cal. Jan. 17, 1984)

115. *Cf.* S. REP. No. 101-228, *supra* note 16.

116. *See* CAA § 110, 42 U.S.C. § 7410.

117. *See id.* § 113(c)(5), 42 U.S.C. § 7413(c)(5).

118. CAA § 113(c), 42 U.S.C. § 7413(c).

In addition to this most sweeping change, Congress enacted other extensions of the federal criminal enforcement powers. The amendments *twice* make it a crime to knowingly fail to pay any fee owed to the government under the CAA. It is a felony under section 113(c)(1), as amended, and a misdemeanor under section 113(c)(3), as amended.[119] This is a novel way to collect a fee and is probably unparalleled elsewhere in environmental law.

Congress also followed earlier legislation in enacting CAA sections 113(c)(4) and 113(c)(5), which establish two related crimes for emissions of HAPs,[120] the emission of which "places another person in imminent danger of death or serious bodily injury".[121] Under section 113(c)(4) of this "endangerment" legislation, a *negligent* emission which is a *negligent* endangerment is a misdemeanor punishable by imprisonment for up to one year.[122] Under section 113(c)(5), a knowing release which is a knowing endangerment is a felony punishable by imprisonment for up to fifteen years.[123] If an "organization" is convicted under section 113(c)(5), it can be punished by a fine of up to $1 million.[124] Second offenses are subject to twice the maximum imprisonment and fine.[125] All this change is bound to lead to a flurry of lawyering for that growing subspecialty of environmental criminal defense.

The potential reach of CAA sections 113(c)(4) and 113(c)(5) should be of concern to officers and managers of air pollution sources. Much will depend on the Department of Justice's and the courts' interpretation of the central phrase "places another person in imminent danger of death or serious bodily injury" in amended section 133(c)(5)(F).[126] Notice that these subsections apply without regard to whether or not

119. *See* CAA § 113(c)(1), (3), 42 U.S.C. § 7413(c)(1), (3).
120. *See id.* § 112, 42 U.S.C. § 7412 (defining Hazardous Air Pollutants (HAPs)); *see also* CAA § 113, 42 U.S.C. § 7413 (federal enforcement procedures for HAPs violations).
121. CAA § 113(c)(4), 42 U.S.C. 7413(c)(4).
122. *See id.*
123. *See id.* § 113(c)(5), 42 U.S.C. § 7413(c)(5).
124. *See id.*
125. *See id.* § 113(c)(4), 42 U.S.C. § 7413(c)(4).
126. CAA § 113(c)(5)(F), 42 U.S.C. § 7413(c)(5)(F).

the emission violates any standard or permit. Presumably, if the substance released is a carcinogen, it would pass the test for danger of death or serious bodily injury, and the subsection would apply but for the question of imminence. All exposures to carcinogens, no matter how small, are assumed under current EPA risk assessment methodology to increase the risk of cancer by some amount. However valid or invalid that assumption may be (and many believe it to be invalid), the analysis does assume a substantial latency period between exposure and resulting additional cancers. If the imminence test applies to death or serious bodily injury and not to the mere danger of later death or serious bodily injury, the application of these provisions will be restricted to spills of tank cars, ruptures of pipes and the like, in which sudden, relatively large-volume releases occur. If the imminence test applies instead to the danger, rather than to the injury or death itself - a strained, but possible reading - these subsections are potentially broadly applicable.

Informal conversations with lawyers in the Crimes Section of the Environment and Natural Resources Division of the United States Department of Justice indicate that this interpretive issue is unresolved. However, the United States Department of Justice has argued that a present danger of future cancer satisfies the imminence test of RCRA § 3008(e),[127] the imminent danger provision of RCRA which is identical to new CAA sections 113(c)(4) and 113(c)(5).[128] On an appeal from a conviction, the Tenth Circuit failed to reach the issue of the future cancer risk because it sustained the conviction on other grounds.[129] From the opinion, it appears that the future cancer risk theory was allowed as evidence and went to the jury.[130] If that approach continues under the new criminal provisions of the CAA, those provisions could become substantial weapons in a prosecutor's arsenal. At least in the case of carcinogens, the use of those

127. *See* RCRA § 3008(e), 42 U.S.C. § 6928(e).

128. *See* United States v. Protex Industries, Inc., 874 F.2d 740 (10th Cir. 1989).

129. *See id.*

130. *See id.*

subsections under such an interpretation would be unfettered except by the prosecutor's good judgment, sometimes a weak constraint. Regardless of the interpretation of the imminent danger provisions, the expansion of section 113(c)(1) is great enough, and the degree of *scienter* required low enough,[131] that there is sure to be a very substantial increase in federal, and ultimately also state, criminal prosecutions of air violations.

Impact of Permitting on Stationary Sources

It is clear that many industries will find themselves subject to increasing regulation due to the permit system. Detailed permit provisions will reduce the ability of many facilities to vary operations that affect emissions. To do so will often require plants to seek amendments to their operating permits. Even minor changes will require the plant to give state agencies seven days notice of such changes.

I. Recent Dust-up Over Enforcement/Audit Policy

The prospect of enhanced auditing is illustrated by the recent "dust up" over state audit laws. Fifteen states have enacted audit privilege laws which provide a privilege or qualified privilege for environmental audits.[132] The EPA has been informed by several environmental groups that it would be sued if it approved Title V programs of states with such audit privilege laws. The EPA considered withholding approval of Idaho's Title V program, but decided to review the issue over the next two years (interim status period) and appointed a task force to review the issue.[133]

131. *See e.g.*, United States v. Greer, 850 F.2d 1447 (11th Cir. 1988); United States v. Dee, 912 F.2d 741 (4th Cir. 1990); United States v. Johnson & Towers, 741 F.2d 662 (3rd Cir. 1984), *cert. denied sub nom.*, Angel v. United States, 469 U.S. 1208 (1985).

132. *See generally* Clean Air Act Final Interim Approval of Operating Permits Program, State of Idaho; Clean Air Act Proposed Delegation of National Emission Standards for Hazardous Air Pollutants as They Apply to Title V Sources and Approval of Streamlined Mechanism for Future Delegations, State of Idaho, 61 Fed. Reg. 64622 (1996) (to be codified at 40 C.F.R. pt. 70).

133. *See generally id.*

Conclusion

Modern environmental regulation in America started with command and control legislation of the 1970s. The 1990 CAAA is likely the most intrusive legislation of the environmental revolution. Prior attempts to regulate the environment, when they directly affect members of the public, were tempered by subsequent legislation and administrative fiat. However, the CAAA have emerged in an era of realistic public concern over ambient air quality. This public concern and awareness, and the introduction of an effective enforcement apparatus, should result in an increased sensitivity on the part of the regulated community and a commitment to CAA enforcement. A combination of factors will result in the increase in enforcement: a federally mandated permit system, increased monitoring and reporting requirements, new citizen's suit provisions, and a stronger enforcement apparatus. These factors will continue to focus attention on the permit process, the resulting permit terms, and permit enforcement.