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Federal Environmental Enforcement: Is less More?

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FEDERAL ENVIRONMENTAL ENFORCEMENT: IS LESS MORE?

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The world of environmental enforcement is deliberately shrouded in mystery and is rife with strategic behavior among a limited number of players. Thus, the pre-requisite conditions for a race-to-the-bottom are in place. Such a race-to-the-bottom entails a lowering of environmental standards that also produces a lowering in net social welfare, *i.e.*, there is no offsetting gain in other areas for the additional environmental degradation.

This article analyzes the current failures in the enforcement of environmental laws in the United States, where enforcement of federal standards is partially delegated to the states. It shows that there are many problems that could be resolved by moving to a performance-based management system with full public disclosure of accurate and timely information on enforcement and compliance. This approach would allow the federal government to use its scarce resources to supervise more and enforce less, leading to greater political accountability for states that fail to achieve a reasonable level of compliance.

I. INTRODUCTION

Legal writings on environmental standard settings contain much debate about the appropriateness of minimum federal environmental standards to avoid a race-to-the-bottom,² but much more limited discussion of the possibility of states engaging in a hidden race-to-the-

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^{1.} Kirsten H. Engel, State Environmental Standard-Setting: Is There a A"Race" and Is It "To the Bottom"?, 48 HASTINGS L. J. 271, 282 (1997).

^{2.} See, e.g., id.; Daniel C. Esty, Revitalizing Environmental Federalism, 95 MICH. L. REV. 570, 601-602 (1996); Richard L. Revesz, Rehabilitating Interstate Competition: Rethinking the "Race-to-the-Bottom" Rationale for Federal Environmental Regulation, 67 N.Y.U. L. REV. 1210 (1992).

bottom by not vigorously enforcing the legal standards that are in place.³ This article concentrates on examining the latter possibility in which states have delegated authority from the federal government to enforce federal environmental standards. There is a developing consensus among academic commentators that the use of performance-based management and public information disclosure could effectively minimize the potential for a race-to-the-bottom in *de facto* environmental standards resulting from a failure to enforce standards and might even create the race-to-the-top desired by environmental groups, depending on the political preferences of the electorate.

Disagreement remains about the proper role of the federal government in a delegated enforcement system, where the states have primary responsibility for enforcing federal standards. Some believe that the federal government should allow the states wide latitude to decide how to achieve federal standards, while others believe the federal government should closely supervise the states and should be ready to step in and directly enforce federal standards when the states fail to do so. This article argues that by concentrating federal resources on oversight of information gathering and disclosure, and ultimately performance, while moving away from direct enforcement and directing policy choices regarding how to enforce, the federal government has an opportunity to reduce tensions with the states and enhance compliance with federal environmental standards by increasing political accountability for enforcement decisions taken by the states.

In terms of structure, Section II of this Article introduces the issues by showing that conditions are ripe for a race-to-the-bottom in enforcement because some states indulge in strategic behavior to compete with neighboring states, and resist transparency when reviewing enforcement programs. Section III presents a considerable body of empirical evidence suggesting that enforcement of environmental laws in many states has been weak for some time, consistent with a race-to-the-bottom. Section IV discusses performance-based approaches for remedying the situation, including appropriate performance metrics.

This Article then concludes that it is time to move beyond the debate about whether states or the federal government should set envi-

^{3.} See, e.g., Victor B. Flatt, A Dirty River Runs Right Through It (The Failure of Enforcement in the Clean Water Act), 25 B.C. ENVTL. AFF. L. REV. 1 (1997).

ronmental standards and enforce environmental laws. Instead, policy makers should focus on establishing a clear division of responsibilities between the states and the federal government with delegated enforcement programs to increase accountability and reduce the potential for conflict and confusion. The unique role for the federal government when cooperating with states in the environmental enforcement area is to ensure that the states disclose timely, accurate and comparable information about what they are doing and how successful they are at inducing both site-level compliance and compliance with ambient standards. The federal government should then make this information available to the general public. This information disclosure function is something that the individual states would be unlikely to achieve without the federal government, because of fear of increased transparency leading to greater public knowledge about low compliance rates and enforcement failures. Having obtained accurate and timely information the United States Environmental Protection Agency ("EPA") could then determine which states are failing to achieve appropriate levels of compliance and apply sanctions.

At present, the federal government sometimes directly brings enforcement actions when states either fail to do so, or in extreme circumstances when states file enforcement actions, but do not press for sufficient penalties (so called "over-filing"). In addition, the federal government has many standards concerning how enforcement programs should be run, although in practice these are often not met. To enhance political accountability, concentrate resources where they can be most effective, ease tensions with the states regarding the optimal mix of deterrence-based enforcement and compliance assistance, and encourage the states to cooperate with improved disclosure regarding enforcement, I believe the federal government should abandon its attempts to dictate to states with delegated state programs how to achieve compliance and should not file federal enforcement actions where state enforcement is weak.

Even after the establishment of the optimal mix of deterrence-based enforcement and compliance assistance programs, the question remains as to how to best sanction states that are either not properly disclosing information or are not achieving appropriate levels of compliance. Although the EPA has the power to take back delegated authority, resource constraints make that option unrealistic. Instead, the EPA should have the power to limit or suspend the issuance of new federal permits by failing delegated programs. This would act as an effective spur to states to improve enforcement because it

would limit new economic activity in order to hold the regulatory burden steady. Thus, by doing less more effectively, the EPA has an opportunity to achieve more effective enforcement of federal environmental standards, improve political accountability, and reduce tension between the states and the EPA.⁴

II. CONDITIONS ARE RIPE FOR A RACE-TO-THE-BOTTOM IN ENFORCEMENT

Some states have deemphasized deterrence-based enforcement and have expressed fear of transparency about the way states operate their enforcement programs. This section describes the evidence for these changes and concludes that the political accountability for lack of environmental enforcement is weak due to information deficiencies, indicating that additional regulatory intervention is required to remedy at least some of the deficiencies of the political market.

A. The Move Towards Compliance Assistance

Anecdotal evidence suggests that states have moved away from deterrence-based enforcement towards compliance assistance because they want to be more attractive to new business and encourage existing businesses to stay or grow. For instance, the Pennsylvania Department of Environmental Resources was described by that state's then-Governor, Tom Ridge, as being part of a "job-crushing, community-harassing, regulatory nightmare." During Ridge's administration, the agency was reformed to pursue an "agenda that moves away from the philosophy of heavy-handed regulation and punitive

^{4.} During the prolonged gestation of this Article, Professors Rechtschaffen and Markell, who have both long commented on enforcement efforts, published a book on the state federal relationship in environmental enforcement. CLIFFORD RECHTSHAFFEN & DAVID L. MARKELL, REINVENTING ENVIRONMENTAL ENFORCEMENT AND THE STATE/FEDERAL RELATIONSHIP (2003). For additional material on the origins of delegated state enforcement programs and their implementation, the reader is referred generally to that excellent book. In this article, I point out where the generally cogent analyses of Rechtschaffen and Markell may require some refinement.

^{5.} JOHN COEQUYT & RICHARD WILES, ENVIRONMENTAL WORKING GROUP, PRIME SUSPECTS: THE LAW BREAKING POLLUTERS AMERICA FAILS TO INSPECT 11 (2000), available at http://www.ewg.org/reports_content/primesuspects/inspections.pdf.

sanctions."⁶ An Ohio Environmental Protection Agency official even went so far as to say "we are not an enforcement agency."⁷ This type of attitude was also expressed by former Governor George Allen of Virginia, who trumpeted his achievement in setting the priority on ending polluting discharges rather than levying big fines against key regional employers.⁸

Indeed, it is clear that the "regulated community" itself certainly seeks more lenient and "relaxed" environmental standards, arguing that lower and permissive standards are necessary to maintain industry at its current levels and to promote economic growth. For example, Briggs & Stratton claimed that a California air regulation would cause the loss of 22,000 jobs and was able to have the measure overturned by federal law. 10 A systematic survey of 80 environmental protection officials conducted in 1996 found that 88% said that concerns about industry relocation and siting affects environmental decision-making in their states. 11 Seventeen percent of the surveyed officials said that concern over industry relocation and siting was likely to cause an enforcement action to be dropped. 12 Thirty one percent said the same concern was likely to lead to a smaller civil penalty or a lighter criminal penalty.¹³ The survey also showed that regulators strongly agreed with the proposition that it is important that a state's environmental standards be of about the same stringency as those of neighboring states. 14 In addition, regulators reported they were, in fact, likely to know the standards of their neighboring states. 15 A sizeable number of regulators thought that the existence of minimum federal standards is a "fairly major reason" why states do not relax their standards to attract industry. 16

^{6.} Id.

^{7.} Id.

^{8.} Craig Timberg, An Environmental Question Mark; Allen, Opponents Dispute His Legacy in Va., WASH. POST, Oct. 14, 2000, at B1.

^{9.} Robert R. Kuehn, The Limits of Devolving Enforcement of Federal Environmental Laws, 70 Tul. L. Rev. 2373, 2377 (1996).

^{10.} Carolyn Lochhead, U.S. Senate voids state's small-engine smog rules: Feinstein berates Missourian's move that bashes California's efforts to clean up air, S. F. CHRON., Nov. 13, 2003, at A4.

^{11.} Engel, supra note 1, at 341.

^{12.} Id.

^{13.} Id.

^{14.} Id. at 344-45.

^{15.} Id. at 345.

^{16.} *Id*.

Many states maintain that more flexible and business-friendly cooperative approaches to inducing compliance are more effective than deterrence-based enforcement. Compliance assistance also has clear political advantages, but there is some suspicion among environmental groups that these initiatives merely provide cover for decreasing *de facto* environmental standards through ineffective enforcement.

The EPA has consistently emphasized the importance of formal legal proceedings to ensure compliance with environmental standards. This is also the rationale behind the EPA's enforcement tracking systems and the rule that penalties paid in settlement should at least be equal to the economic benefit derived from non-compliance. Deterrence-based enforcement is regarded by the EPA as critical for an effective compliance assistance program. As a former EPA Assistant Director for Enforcement has described:

Penalties and other sanctions for violations of environmental requirements play an essential role in our national enforcement program. They are a critical ingredient to creating the deterrence we need to encourage the regulated community to anticipate, identify and correct violations. Appropriate penalties for violators offer some assurance of equity between those who choose to comply with requirements and those who violate requirements. It also secures public credibility when governments at all levels are ready, willing and able to back up requirements with action and consequences.²²

^{17.} David L. Markell, The Role of Deterrence-Based Enforcement in a "Reinvented" State/Federal Relationship: The Divide Between Theory and Reality, 24 HARV. ENVIL. L. REV. 1, 110 (2000).

^{18.} See, e.g., TONY DUTZIK, COPIRG FOUNDATION, THE STATE OF ENVIRONMENTAL ENFORCEMENT 24-25 (2002); COEQUYT & WILES, supra note 5, at 12.

^{19.} Clifford Rechtschaffen, Competing Visions: The EPA and the States Battle for the Future of Environmental Enforcement, 30 ENVTL. L. REP. (Envtl. L. Inst.) 10,803 (Sept. 2000) [hereinafter Competing Visions].

^{20.} U.S. ENVTL. PROT. AGENCY, POLICY ON CIVIL PENALTIES (GENERAL ENFORCEMENT POLICY #GM – 21) (Feb. 16, 1984), reprinted in 17 ENVTL. L. REP. (Envtl. L. Inst.) 35,083.

^{21.} Competing Visions, supra note 19.

^{22.} Markell, supra note 17, at 11.

From an economic perspective, the basic rationale for viewing as suspect the shift from deterrence-based enforcement is that if the penalties for being caught are less than the economic benefit derived from the violation, it makes economic sense to violate environmental laws. If firms that violate environmental standards gain an economic advantage in the market place, this will tend to increase their market share and may induce other firms to abandon their principles and become violators. Assuming that the nationally optimal amount of non-compliance is zero, because in the debate about optimal federal standards, it is expected that those standards will actually be adhered to, this means there is a potential for a race-to-the-bottom between firms if the states reduce enforcement below levels that deter noncompliance.

However, in recent years the EPA has also recognized that compliance assistance has a role to play in enabling firms to comply. Therefore, the federal/state tension between deterrence-based enforcement and compliance assistance may be more accurately presented as a question of where the correct balance should be struck. At present, the data available allows little to be said about the effect of diverting resources from deterrence-based enforcement to compliance assistance. There is good evidence that traditional deterrence-based enforcement encourages compliance. However, there is no systematic study of whether compliance assistance achieves success at individual facilities at the expense of overall compliance rates, as deterrence theory would suggest. Thus, to date, the states' shift to compliance assistance appears to have been more of an act of faith than a rational policy choice.

B. Fear of Transparency

When the EPA compliance data are used to show that state enforcement is ineffective, states have been quick to point out that the quality of the data is poor. For example, the Environmental Council

^{23.} COEQUYT & WILES, supra note 5, at 10-12.

^{24.} RECHTSCHAFFEN & MARKELL, supra note 4, at 255.

^{25.} Id. at 251; see also id. at 242 ("There are only a handful of studies directly comparing the effectiveness of deterrence and cooperative-oriented strategies.").

^{26.} RECHTSCHAFFEN & MARKELL, supra note 4, at 251; see also id. at 244 ("[A] series of studies of the pulp and paper industry in both Canada and the United States show that increased levels of traditional enforcement activity tend to increase the rate of industry compliance (measured at the plant level).").

^{27.} Id. at 213-51.

of the States ("ECOS"), an association that advocates state interests, issued a strong rebuttal to a report prepared by a non-profit environmental group on the paucity of state inspections. The first point was that the data in the EPA databases may be inaccurate and that reliance upon it was the "primary flaw" in the report.28 According to ECOS, feeding the EPA data system is time consuming and is of "little benefit for the manager of the State program." Second, ECOS argued that the data in the EPA system is not regarded as an accurate way to gauge the compliance status of a facility.³⁰ The ECOS criticisms about data quality were partly acknowledged by the EPA, which conceded that its data on enforcement contained numerous errors and complained that "many states no longer use EPA databases to track information and therefore do not pay attention to the quality of the data given to the agency."31 In addition, problems of transferring data between state systems and the aging the EPA systems were cited.³²

A subsequent National Academy of Public Administration ("NAPA") report examining the issue of data gathering on compliance and enforcement found that the "EPA's current data systems are seriously limited by data inaccuracies, failure of some states to submit complete data, separate single-medium systems, and data inaccessibility because information resides on antiquated main-frame machines." The NAPA panel concluded that "there are fundamental problems with existing enforcement and compliance data."

The ECOS criticism is telling for two main reasons. First, one of the critical benefits of having federally administered centralized information systems is precisely to facilitate the type of comparisons made by the report at issue. It is suspiciously convenient that the states publicly recognized the need for such changes only after the EPA data were used to compare their performance. Second, it is not surprising that the states see little benefit in submitting the informa-

^{28.} ENVIL. COUNCIL OF THE STATES, LACK OF EVIDENCE: HOW THE ENVIRONMENTAL WORKING GROUP MISLED THE PUBLIC ABOUT ENVIRONMENTAL ENFORCEMENT 1 (August 2000).

^{29.} Id.

^{30.} Id. at 2.

^{31.} NAT'L ACAD. OF PUB. ADMIN., EVALUATING ENVIRONMENTAL PROGRESS: HOW THE EPA AND THE STATES CAN IMPROVE THE QUALITY OF ENFORCEMENT AND COMPLIANCE INFORMATION 18 (2001) [hereinafter NAPA].

^{32.} Id.

^{33.} Id. at 22.

^{34.} Id. at 23.

tion to the EPA. The danger of having good centralized publicly accessible information on enforcement available is that the public will be able to highlight states that are not enforcing the laws very vigorously. Not surprisingly, NAPA has reported that "[m]any states were not enthusiastic about the prospect of an EPA report with comparable performance measures for all 50 states . . ." and the EPA has reported state resistance to collecting and reporting state data on agreed core performance measures. ³⁵

More recently, a report by the EPA Office of the Inspector General ("OIG") on measurement of compliance rates has confirmed that the EPA stopped publicly disseminating aggregated compliance reports, in part, because "states do not want to publish statistics because people may make comparisons among states and draw incorrect inferences without the proper context." The OIG recommended that the EPA increase transparency by publishing information that shows changes in levels of compliance nationally and sharing compliance data with stakeholders. However, the EPA refused to publish significant noncompliance rates, recidivism, as well as the time taken to bring violators into compliance. Furthermore, the EPA noted that any initiative to require the states to track, record, and report data more comprehensively than at present would be vehemently resisted by the states due to "significant procedural and resource barriers."

Thus, with the exception of the Enforcement and Compliance History Online initiative discussed in Section IV below, the initial response of both the EPA and the states to high noncompliance rates has been to try to avoid reporting or disclosing the relevant statistics. Indeed, noncompliance statistics are conspicuously absent from the EPA's 2005 compliance and enforcement results, which concentrate

^{35.} OFFICE OF INSPECTOR GEN., U.S. ENVTL. PROT. AGENCY, WATER ENFORCEMENT: STATE ENFORCEMENT OF CLEAN WATER ACT DISCHARGERS CAN BE MORE EFFECTIVE, Rep. No. 2001-P-00013, at 55, 57 (2001) [hereinafter WATER ENFORCEMENT].

^{36.} OFFICE OF INSPECTOR GEN., U.S. ENVIL. PROT. AGENCY, LIMITED KNOWLEDGE OF THE UNIVERSE OF REGULATED ENTITIES IMPEDES EPA'S ABILITY TO DEMONSTRATE CHANGES IN REGULATORY COMPLIANCE, Rep. No. 2005-P-00024, at 20 (2005) [hereinafter LIMITED KNOWLEDGE].

^{37.} Id.

^{38.} Id. at 21.

^{39.} Id. at 37.

instead on the results of enforcement. 40 In the absence of any reporting of compliance rates, this approach to gauging the success of the enforcement program is counter-intuitive because as more noncompliance is present in the system, it becomes easier to show dramatic impacts due to enforcement. For example, in its recent annual report on enforcement successes, EPA states it has averted much pollution through enforcement, but fails to provide compliance statistics and fails to note that this "success" would not be possible if noncompliance were harder to find. 41 Thus, under the EPA's current system, the metrics used to judge the success of enforcement could improve as compliance reduces, hardly an ideal result.

C. The Political Market for Environmental Enforcement Is Far From Perfect

It is game theory that predicts the inefficient "race-to-the-bottom," of the type illustrated by the classic prisoner's dilemma model, where information is limited and there are a small number of participants in the market. This means that to determine whether such a race may occur, we must examine which model has assumptions that more closely resemble the actual situation. The empirical evidence on states' attitudes and the nature of the interstate market in environmental standards have been used to conclude that "the preponderance of the evidence points to the existence of significant economic inefficiencies, including a race-to-the-bottom [in environmental standards]."

^{40.} OFFICE OF ENFORCEMENT AND COMPLIANCE ASSURANCE, U.S. ENVTL. PROT. AGENCY, EPA FY 2005 COMPLIANCE AND ENFORCEMENT ANNUAL RESULTS (2005).

^{41.} OFFICE OF ENFORCEMENT AND COMPLIANCE ASSURANCE, U.S. ENVTL. PROT. AGENCY, EPA FY 2006 COMPLIANCE AND ENFORCEMENT ACCOPLISHMENTS REPORT 13-18 (2007).

^{42.} Neoclassical approaches to unrestrained competition in environmental standard setting predict an efficient outcome where any welfare loss from reduced environmental quality is more than offset by gains from increases in productivity. See Revesz, supra note 2, at 1238-43. This neoclassical approach is founded on assumptions of perfect competition, which include a requirement for complete information and a lack of strategic behavior by market participants. See id. at 1236-43. Game theoretic approaches were applied to economics over 60 years ago to cover certain situations where the neoclassical assumptions are violated. See e.g. John von Neumann & Oskar Morgenstern, Theory of Games and Economic Behavior (1944).

^{43.} Engel, supra note 1, at 316.

Compared to environmental standards, environmental compliance and enforcement is even further from typical efficient market assumptions, one of which is accurate and complete information. The legal system through which environmental standards are usually promulgated is designed to publicize legal requirements. In fact, the Administrative Procedure Act, which governs the EPA's promulgation of environmental standards, contains an explicit notice provision. In contrast, compliance statistics are generally unavailable and the available enforcement statistics are not easily comparable between States. Therefore, the democratic "market" for environmental enforcement suffers from a comparative lack of transparency.

This lack of information disclosure leads to a danger of erroneous strategic behavior, where states reduce enforcement because they believe their neighbors are doing the same. Furthermore, unless there is an effective information disclosure system for enforcement, states will be tempted to espouse high environmental standards, but enforce those standards weakly, because they would not endure much political pain for doing so. Thus, the interaction of the practical and theoretical considerations indicates that a race-to-the-bottom is even more likely in enforcement than in standard setting.

III. THE EMPIRICAL EVIDENCE ON COMPLIANCE AND ENFORCEMENT

This section discusses the available evidence on compliance rates and modes of observed enforcement failures. Four failure modes are identified: failure to renew permits in a timely manner, failure to report observed violations, failure to identify violators, and failure to take effective enforcement measures against identified violators. Where appropriate, sub-sections discuss the response to these failures.

^{44.} E.g., In re PolyMedia Corp. Securities Litigation, 432 F.3d 1, 10 (1st Cir. 2005) (citing Eugene F. Fama, Efficient Capital Markets: A Review of Theory and Empirical Work, 25 J. Fin. 383 (1970) and explaining, in the context of an alleged securities fraud, that "according to the prevailing definition of market efficiency, an efficient market is one in which the market price fully reflects all publicly available information.").

^{45.} E.g., JOSEPH RAZ, THE AUTHORITY OF LAW (1979); see generally U.S. Envtl. Prot. Agency, *Developing Regulations from Start to Finish*, http://www.epa.gov/regulations/develop.htm (last visited Feb. 23, 2007).

^{46.} Administrative Procedure Act, 5 U.S.C. § 533(b) (2006).

A. Compliance Rates

Although an appropriate metric for measuring the effectiveness of enforcement is elusive, low compliance rates are indicative of ineffective enforcement. The EPA has indicated that over half of all Clean Water Act ("CWA") National Pollutant Discharge Elimination System ("NPDES") major facilities were non-compliant in fiscal year 1998. The More than 20% of these discharges were in significant non-compliance. Even though minor discharges outnumber major facilities by over ten times, apparently the EPA does not retain or maintain any compliance information for such discharges. Given this apparent lack of attention, it is likely that compliance rates for minor discharges are below those for major discharges.

A 2001 report on CWA compliance rates showed that the compliance rate for major discharges was less than 75% in 20 states in fiscal year 2000. Over one-third of the states reported that more than half of the major facilities with significant violations in fiscal year 1999 also had recurring violations in 2000. A report for the CoPIRG foundation in 2002 also documented the continued weaknesses of many state environmental enforcement programs. The report cited rates for major facilities in significant non-compliance with the CWA and ranked states by that, and other metrics. Utah had the lowest compliance rate, with 61% of major facilities in significant non-compliance, while Delaware had the highest compliance rate, with only 4% of such facilities in significant non-compliance.

Compliance presents similar difficulties under the Clean Air Act ("CAA"). The EPA has indicated that for fiscal year 1998 over 7% of significant sources were in significant violation and expressed concern that the real rate of non-compliance was actually higher. ⁵⁵

^{47.} Markell, supra note 17, at 56.

^{48.} *Id.* (Significant Non-Compliance includes major exceedance of effluent limits, failure to meet a compliance schedule milestone by 90 days or more, or submitting a major report 30 days or more past the due date. http://www.epa.gov/performancetrack/program/sustain.htm#noncompliance (last visited Apr. 3, 2007)).

^{49.} Id. at 56-57.

^{50.} WATER ENFORCEMENT, supra note 35, at 17.

^{51.} Id. at 43.

^{52.} See generally DUTZIK, supra note 18.

^{53.} Id. at app. B, 34-35.

^{54.} Id

^{55.} Markell, supra note 17, at 55.

Indeed, a January 1999 enforcement alert regarding compliance with New Source Review standards stated "[w]hen the EPA looks closely at an industry sector, usually it discovers a high rate of noncompliance." 56

There is no indication that enforcement of environmental laws has increased significantly since these reports were issued. Indeed, the very public departure in 2002 of Eric Schaeffer, then head of the EPA's Office of Regulatory Enforcement, over the Bush administration's unwillingness to enforce CAA New Source Review rules provides an anecdotal indication that enforcement has become an even lower priority.⁵⁷

Finally, as noted by a recent OIG report, the EPA does not even attempt to track minor facility compliance rates in many program areas. Furthermore, after 2002, the EPA decided to stop releasing data on compliance rates, in part, because the EPA believed that the high level of noncompliance could alarm the public and Congress. Sweeping inconvenient facts under the rug does not make them go away. If anything, failing to publish data on non-compliance is likely to reduce the political accountability for states with high noncompliance rates. Thus, concealing data on non-compliance rates is

^{56.} Off. of Reg. Enforcement, U.S. Envtl. Prot. Agency, Compliance with Permitting Critical to Clean Air Act Goals: EPA Concerned About Noncompliance with New Source Review Requirements, ENFORCEMENT ALERT, Jan. 1999, at 4

^{57.} New Source Review Program of the Clean Air Act: Joint Comm. Hearing Before the Comm. on Environment and Public Works and the S. Judiciary Comm., 107th Cong. (2002) (statement of Eric Schaeffer, Director, Environmental Integrity Project/Rockefeller Family Fund), available at http://epw.senate.gov /107th/Schaeffer 071602.htm; see also Toni Freemantle, Pollution Challenge Keys Fight; EPA Official Quits, Rips White House, HOUS. CHRON., Mar. 1, 2002, at A1 (discussing Schaeffer's departure); Katherine Q. Seelye, Top E.P.A. Official Quits, Criticizing Bush's Policies, N.Y. TIMES, Mar. 1, 2002, at A19 (quoting Schaeffer's resignation letter which stated that "[he] [was] fighting a White House that seems determined to weaken the rules we are trying to enforce."); CHRISTINE TODD WHITMAN, IT'S MY PARTY TOO: THE BATTLE FOR THE HEART OF THE GOP AND THE FUTURE OF AMERICA 185 (2005) (discussing her own departure from the EPA as its administrator and her concern about certain proposed regulatory reforms: "The major reforms were proposed after I had left the agency. I must say that I'm glad they weren't able to finish the work until I was home in New Jersey. I could not have signed regulatory changes that would have undermined the environmentally important NSR cases that were working their way through the courts.").

^{58.} LIMITED KNOWLEDGE, supra note 36, at 16.

^{59.} Id. at 19.

only likely to make the rates increase. Furthermore, known failures in the enforcement systems probably mean that the measured rates of non-compliance are below the actual rates due to various modes of enforcement failure.

B. Modes of Enforcement Failure

This sub-section discusses four modes of enforcement failure: i) allowing old permits to continue in force for many years after their expiration, leading to a failure to update the permit conditions; ii) a failure to identify violations, leading to an overestimate of the rate of compliance with permit conditions; iii) a failure to report violations, again leading to an overestimate of the compliance rate; and iv) a failure to take required enforcement action, which may well lead to a higher actual rate of noncompliance.

1. Failure to Renew Permits

Permitted facilities often operate on long expired permits because expired permits are normally administratively continued under provisions that extend the life of the permit once a timely and sufficient application for renewal has been made. These provisions provide a means to continue outdated environmental standards in a way that attracts little attention. For example, Radiac Research Corporation, an applicant for a New York State delegated Resource Conservation and Recovery Act ("RCRA") permit, operated a hazardous waste transfer facility adjacent to a radioactive waste transfer facility in Williamsburg, Brooklyn, NY for over ten years under the terms of an expired permit which had been shown to be woefully inadequate to protect the safety of the surrounding community. Instead of accepting much-improved safety standards, in June 2005, Radiac Research Corporation withdrew its application for a permit renewal before a public hearing on the issue.

^{60.} E.g., 40 C.F.R. § 122.6 (stating that with respect to NPDES expired permits issued by the EPA, "permits continued under this section remain fully effective and enforceable."); N.Y. A.P.A. § 401(2) (McKinney 2007).

^{61.} Michael B. Gerrard, Radiac Research Corporation: Request for Adjudicatory Hearing and Petition for Full Party Status (May 31, 2005) (filed with the N.Y. Dep't of Envtl. Conserv.).

^{62.} Letter from Peters to McBride, dated June 14, 2005 (filed with the N.Y. Dep't of Envtl. Conserv.).

In 2001, the EPA determined that 27% of all active CWA permits had expired but were administratively continued.⁶³ The 2002 CoPIRG report compiled the percentage of expired major CWA permits by state. In Oregon, 67% of such permits had expired, the most of any state, while Utah and North Dakota had no such permits expired.⁶⁴

Thus, the issue of expired permit backlog is not new. The backlog of expired CWA permits in Region 10⁶⁵ was first highlighted in 1998 by a report by the EPA OIG, which found that the permit backlog adversely affected the ability of the CWA program to meet its goals. 66 In response to this report, the EPA established quantitative targets for backlog reduction. These included a goal of reducing the expired permit backlog for major facilities to no more than 20% by the end of 1999 and no more than 10% by the end of 2001. 67

In March 2000, the Environmental Working Group, a non-profit research group, published a report highlighting a large backlog of expired CWA NPDES permits.⁶⁸ The report showed that 44 states and the District of Columbia had a backlog of over 10% of expired permits at major facilities at the end of 1999 and were given a "failing grade."⁶⁹ The only states that had issued more than 50 permits for major facilities and met the 10% target were Georgia and Kentucky.⁷⁰ Thirty-one states and the District of Columbia failed to meet the 20% goal, while seven states and the District of Columbia

^{63.} Karl S. Coplan, Of Zombie Permits and Greenwash Renewal Strategies: Ten Years of New York's So-Called "Environmental Benefit Permitting Strategy, 22 PACE ENVTL. L. REV. 1, 3 (2005) (citing data from the EPA's NPDES Permit Backlog Reduction).

^{64.} DUTZIK, supra note 18, at app. B.

^{65.} The EPA's "Region 10" comprises the states of Idaho, Oregon, Washington and Alaska, as well as 270 Native American tribes located within these states. U.S. Envtl. Prot. Agency, EPA, Region 10 (Pacific Northwest & Alaska), http://www.epa.gov./region10/ (last visited Feb. 23, 2007).

^{66.} OFFICE OF INSPECTOR GEN., U.S. ENVTL. PROT. AGENCY, REGION 10'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT PROGRAM, AUDIT REP. NO. E1HWF7-10-0012-8100076, at 13 (1998) [hereinafter REGION 10].

^{67.} FRIENDS OF THE EARTH AND ENVIRONMENTAL WORKING GROUP, CLEAN WATER REPORT CARD: HOW THE REGULATORS ARE KEEPING UP WITH KEEPING OUR WATER CLEAN 2 (Mar. 2000).

^{68.} Id.

^{69.} Id.

^{70.} Id.

had a backlog of over 50%.⁷¹ Interestingly, none of the eight jurisdictions where the NPDES permit program is directly administered by the EPA met the 20% goal.⁷² According to the report, no improvement was evident in the backlog between the issue of the OIG report in 1998 and the end of 1999. OIG has concluded that allowing expired permits to govern adversely affects water quality.⁷³ One of the most extreme examples given in the OIG report was that a major discharger on the South Fork Coeur d'Alene River, the most contaminated in the Pacific Northwest, had been operating on an expired permit for 17 years.⁷⁴

a. Administrative Response

The EPA and the states have initiated a number of strategies to deal with the permit backlog, such as increased efficiencies, use of outside contractors, and changes in priorities. These have reportedly resulted in a reduction in the permit backlog to 14% of major permits. However, at least one commentator has questioned whether efforts to reduce the backlog have resulted in a truncated permitting process, leading to fewer improvements in standards and reduced public participation. To

b. Judicial Response

Recently, environmental groups have started to challenge the validity of administrative extensions that last for much longer than the maximum term of a permit. For instance, a New York court has ruled that in the context of State Pollutant Discharge Elimination System ("SPDES") permits, which are limited to five year terms, ⁷⁸ the maximum term applies to a permit that has been effectively re-

^{71.} Id.

^{72.} *Id.* at 2. The nondelegated programs are in New Mexico, Arizona, Alaska, Maine, New Hampshire, Massachusetts, and Puerto Rico. *Id.*

^{73.} REGION 10, supra note 66, at 9.

^{74.} Id. at 10.

^{75.} OFFICE OF INSPECTOR GEN., U.S. ENVIL. PROT. AGENCY, EFFORTS TO MANAGE BACKLOG OF WATER DISCHARGE PERMITS NEED TO BE ACCOMPANIED BY GREATER PROGRAM INTEGRATION, REP. No. 2005-p-00018, at 8 (2005).

^{76.} Id. at 29.

^{77.} Coplan, supra note 63, at 2.

^{78. 33} U.S.C. § 1342(b)(1)(B). SPDES permits are NPDES permits issued by New York State under its delegated CWA program. *Id*.

newed by the operation of the New York State Administrative Procedure Act ("SAPA") § 401.⁷⁹ Thus, the trial judge in that case concluded that a power plant, which had been operating for twelve years on an expired permit no longer possessed a valid permit.⁸⁰

2. Failure to Identify Violations

Another approach to avoiding enforcement is a failure to identify known violators. Whether by design or neglect, statistics suggest that compliance inspections are not narrowly targeted at significant violators and they are an enforcement tool that is used by different states in very different ways. Nationally, 560 facilities officially listed as high priority violators of the CAA were not inspected during the two year period ending October 1999. Half of these uninspected violators were in Ohio (86), Indiana (81), Wisconsin (52), Illinois (49), Michigan (37) and Tennessee (37). In these states, 21% to 48% of all high priority violators were not inspected. More broadly, an average of one-third of the nation's major air polluters were not inspected for three years. Once again, considerable variation between states was evident. Illinois failed to inspect 63.2% of its major air polluters and five other states failed to inspect more than half of their major air polluters.

The figures for the CWA are equally discouraging. Two-hundred eighty-three (283) significant violators of the CWA went uninspected during the same two year period ending in October 1999, excluding the two lowest levels of inspections, which the EPA considers inadequate to evaluate compliance. Half of the uninspected

^{79.} Riverkeeper, Inc. v. Crotty, Sup. Ct. Albany Co., Index No. 7540-02 (September 2, 2004) *rev'd on other grounds* 814 N.Y.S.2d 322 (3d Dep't 2006); *see also* Brodsky v. DEC, 766 N.Y.S.2d 277 (N.Y. Sup. Ct. 2003) (de facto extensions of permit for periods over the maximum permitted term are not insulated from judicial review).

^{80.} Crotty, Sup. Ct. Albany Co., Index No. 7540-02.

^{81.} COEQUYT & WELLS, supra note 5, at 21.

^{82.} Id. at 22.

^{83.} Id.

^{84.} Id. at 23.

^{85.} Id. The other states were Massachusetts, Alaska, Idaho, Ohio, and Nebraska. Id.

^{86.} COEQUYT & WELLS, supra note 5, at 22.

^{87.} *Id.* The EPA does not consider Level 0 and Level 1 to be acceptable compliance inspections. Examples of Level 0 and Level 1 inspections include drive-by or fly-over inspections. *Id.* at 22-23.

CWA significant violators were concentrated in Texas, Ohio, Michigan and Massachusetts.⁸⁸ Texas failed to inspect 25% of all high priority CWA violators during this time period, while Michigan and Ohio failed to inspect 20% and 16% of such violators, respectively.⁸⁹

3. Failure to Report Violations

Simply failing to report violations is a direct approach to lax enforcement. In 1998 the OIG performed audits on the EPA's oversight of state enforcement of the CAA in six states: Maryland, Pennsylvania, Arkansas, Washington, Massachusetts and New Mexico. 90 A review of the inspections carried out by these states in fiscal year 1996 showed that despite performing 3,300 inspections, the states reported only 18 significant violators to the EPA. 91 When the files for 13% of the total number of major facilities in these states (430 in all) were reviewed, an additional 103 significant violators were identified.⁹² With regard to inspections above level 1, the minimum required to adequately assess compliance, 93 the report showed that inspections often did not meet the quality requirements of a level two inspection.⁹⁴ One dramatic example concerned a truck painting facility in Maryland that installed two new Volatile Organic Compound sources (e.g., sources of solvents with low boiling points) in 1991 without a pre-construction permit. 95 The state did not identify these violations for five years, despite performing many inspections at the site.⁹⁶ Thus, it was clear that the EPA oversight of the states in this area was weak.⁹⁷

^{88.} Id. at 27.

^{89.} Id. at 22.

^{90.} OFFICE OF INSPECTOR GEN., U.S. ENVIL. PROT. AGENCY, CONSOLIDATED REPORT ON OCEA'S OVERSIGHT OF REGIONAL AND STATE AIR ENFORCEMENT PROGRAMS, REPORT NO. E1GAE7-004508100244, at 8 (1998) [hereinafter Consolidated Report].

^{91.} Id. at 7.

^{92.} Id.

^{93.} See CONSOLIDATED REPORT, supra note 90, at 14; see also id. at 18 (quoting personnel as saying "anything less that a Level 2 inspection is largely inadequate to determine compliance").

^{94.} Id. at 15.

^{95.} Id.

^{96.} Id.

^{97.} Id. at 2, 22.

Officials in Pennsylvania said that most states, including their own, were disregarding the EPA's Timely and Appropriate Enforcement policy ("TAE"), which defines a significant violator as any major stationary source of air pollution that is violating a federally-enforceable regulation and requires states to report such facilities to the EPA within one month. 98 The audit cited numerous reasons for state non-compliance with the TAE. 99 One of these reasons was knowing disregard of the standard by the states. 100 For instance, Pennsylvania actually assessed a civil penalty against a facility for a 4 year history of violations, but did not report the facility as a significant violator, even though the TAE definition was clearly met. 101 Other reasons identified by OIG were that: i) certain EPA regions were unclear as to whether existing enforcement policies were actually requirements which must be followed or merely intended to be viewed as guidelines which could be ignored; 102 and ii) certain EPA regions did not use their power to withhold funds from section 105 grants, 103 even though the Section 105 agreement specifies that states identify and report significant violations in accordance with the TAE. 104 Therefore, the report concluded that problems within the EPA as well as at the states contributed to the failure to report non-compliance properly.

In fact, in a follow up report, the EPA found that five of the ten EPA regions do not use the EPA's policy on compliance monitoring at all and "engage in only minimal inspection planning and oversight with their states." The same report found that only ten of the twenty two states surveyed follow some or most elements of the compliance monitoring strategy. 106

^{98.} Id. at 9, 12.

^{99.} CONSOLIDATED REPORT, supra note 90, at 10-12.

^{100.} Id. at 11-12 (finding that states disagreed with the EPA's significant violator definition).

^{101.} Id. at 12.

^{102.} See id. at 11 (stating that Arkansas personnel argued that the TAE was only guidance and that compliance with TAE was not required).

^{103.} See id. (indicating that the Arkansas region did not require the states to comply with the TAE as a condition of the Section 105 grants).

^{104.} Id. at 12.

^{105.} OFFICE OF ENFORCEMENT AND COMPLAINCE ASSISTANCE, U.S. ENVTL. PROT. AGENCY, A REVIEW OF THE COMPLIANCE MONITORING STRATEGY 5 (1999). 106. *Id.* at 6.

4. Failure to Take Sufficient Enforcement Action

Another enforcement failure mode is the failure to take formal action once the enforcement system identifies a violator or failure to impose a sufficient penalty to deter future violations. In 1999, a newsletter published state-by-state data for 18 states in four regions for three to four-year periods. ¹⁰⁷ It found that the number of administrative orders and civil referrals dropped in all but two of the 18 states from 1993 to 1997 and concluded "state enforcement activity nationwide has plummeted over the past five years, and regional oversight of state programs has done little to prevent the slide." ¹⁰⁸

This failure to formally enforce is borne out by the findings in an OIG report about CWA enforcement in the EPA Region 10. The OIG reported that formal enforcement action was only taken against 6 of 25 dischargers found to be in significant noncompliance. The report found that for 10 dischargers in significant noncompliance for two consecutive quarters, Region 10 did not have the required written justification for not taking enforcement action in nine of those cases. The 2002 CoPIRG report identified similar failures to take timely enforcement action after identification of violations of delegated water, air, and RCRA permits.

Even where formal enforcement action is taken, an OIG audit of state programs has highlighted that, in many states, CWA enforcement action does not recover the economic benefit derived by the violators. The reasons cited included a lack of requirement to do this under state law, reluctance to assess higher penalties, lack of a prescribed methodology to calculate economic benefit and a lack of resources to compute the economic benefit. 113

IV. IDENTIFYING THE SOLUTIONS

This review has highlighted two key deficits respecting the current enforcement of U.S. enforcement laws. One is in the actual activities required to enforce the standards, such as permit renewal, in-

^{107.} NAPA, supra note 31.

^{108.} Id.

^{109.} REGION 10, supra note 66, at 23.

^{110.} Id.

^{111.} DUTZIK, supra note 18, at 17.

^{112.} WATER ENFORCEMENT, supra note 35, at 46.

^{113.} Id. at 48.

spection, results review, and action to remedy noncompliance. The other is in the information systems required to track those activities and results. There is no silver bullet that can improve state level enforcement. However, a number of largely complementary options are suggested below.

A. Adopt a Performance-based Approach

Under the general rubric of reinventing government, there has been a widespread demand for a shift in emphasis away from counting activities to counting results, an objective given legal force by the Government Performance and Results Act ("GPRA"). Internationally, environmental management systems complying with the International Organization for Standardization ISO14001 also adopt this broad approach by requiring a system to set performance goals, measure the achievement of those goals, and review to assess how performance can be improved.

The data reviewed above shows that at present there is much confusion about EPA enforcement policy both within the EPA itself and among the states. In addition, the data systems that track compliance are severely compromised. The first step in a performance-based approach is to set clear ambitious achievable goals. ¹¹⁶ Ironically, the effort to reinvent government, which was supposed to be a shift towards performance-based management has led to confusion about what the performance goals are. The EPA continues to emphasize deterrence-based enforcement, while many state politicians want to shift towards compliance assistance. This means state environmental enforcement officials receive a mixed message about what they should be doing. ¹¹⁷

In reality, deterrence and assistance are not mutually exclusive and a performance-based approach would be neutral on which approach

^{114.} See 31 U.S.C. §§ 1115-1119 (2007) (requiring government agencies to prepare annual performance plans and establish performance indicators to compare and assess the outcomes of agency goals and objectives).

^{115.} The International Organization for Standardization develops standard techniques that are internationally applicable. ISO 14001 concerns environmental management systems. See The ISO14000 Environmental Management Group, ISO14000 Series Environmental Management Systems, http://www.iso14000-iso14001-environmental-management.com/iso14000.htm (last visited Apr. 3, 2007).

^{116.} NAPA, supra note 31, at 12.

^{117.} RECHTSCHAFFEN & MARKELL, supra note 4, at 295-96.

to apply. The performance metrics should measure outcomes, and so should be the same, regardless of whether compliance is achieved by assistance or deterrence-based enforcement. For example, violations must be identified, because the number, duration and severity of violations should form one of the key performance targets.

Having set targets, the EPA should emphasize the need to accurately track enforcement interventions, site-level compliance, permit backlogs, and, if possible, ambient conditions. If the states and the EPA could effectively work together to provide timely, comprehensive, comparable information on enforcement activities, including compliance assistance and deterrence-based enforcement, in addition to site level compliance, it would be possible to systematically analyze the effectiveness of initiatives to divert resources from deterrence-based enforcement to compliance assistance. A performancebased approach would allow the states to act as genuine policy laboratories and should mean that over time states will gravitate towards the most effective mix of deterrence-based enforcement and compliance assistance. Thus, the EPA's role should not be to try to dictate that mix, but to ensure that states require reasonable levels of compliance with federal standards by setting targets in this area and then auditing the performance of the states.

In their comprehensive book on this area Professors Rechstschaffen and Markell make a similar call for a more performance based approach, but continue to recommend that state enforcement policies should emphasize deterrence-based enforcement. 118 While this is a reasonable normative conclusion from the data, there is a question about whether the EPA should direct states to continue deterrencebased policies. I believe that state environmental agencies are now able to make such choices for themselves. In addition, realistically, states will need some incentive to overcome their natural resistance to putting more resources into reporting their performance to the EPA. If the EPA offers less oversight of policy choices as a reward for more disclosure by the states of performance statistics, this may provide the impetus needed to start implementing reforms in the enforcement area, rather than merely debating them. Finally, the EPA oversight resources are already thinly stretched. 119 By forgoing any attempt to supervise policy choices, the EPA may be able to find sufficient resources to supervise information disclosure.

^{118.} Id. at 296.

^{119.} COEQUYT & WILES, supra note 5, at 2.

B. Selection of Appropriate Performance Metrics

In designing any performance-based system, the initial issue is to select the right mix of performance metrics. Because the metrics shape behavior, excessive emphasis on one metric can lead to undesirable consequences. For instance, the desire to reduce permit backlogs may have led to renewals which did not incorporate the most up to date requirements. To measure enforcement success, at minimum metrics are needed for permit backlog, enforcement activities and site-level compliance. However, one major conceptual criticism of measuring these factors is that they are merely the means employed to produce good environmental quality, which is what the public wants and what the environmental statutes are really designed to achieve. In addition, the states reasonably point out that the results achieved by compliance assistance programs, such as self-assessment, are not currently included in the enforcement statistics.

The latter criticism is merely an argument that the activity metric should include compliance assistance in addition to deterrence-based actions. This would be entirely reasonable if states were willing to expand their information disclosure to the EPA to include measures of this activity. The former criticism is more telling. It rests on the hypothesis that measures of enforcement activities and site level compliance may not be good proxies for measures of ambient environmental conditions. This could become true if permit standards were relaxed in order to improve compliance rates.

Thus, there is a good argument for adding in a metric that takes account of ambient environmental quality to guard against gaming of the system in this way. However, ambient metrics cannot replace metrics derived from site level data for a number of reasons. First, the resolution of ambient data is necessarily sparse. Unlike site level

^{120.} See Stephen Goldsmith & Mark E. Schneider, Partnering For Public Value: New Approaches In Public Employee Labor-Management Relations, 5 U. PA. J. LAB. & EMP. L. 415, 417 (2003) (noting that "compensation system design in the private sector is an ever-evolving discipline tied closely with vigorously contested metrics of value creation" and "performance-based pay thus requires quantifiable, neutral metrics." Similarly performance-based management of compliance and enforcement requires careful metric design to reflect the desired outcomes).

^{121.} See generally Coplan, supra note 63.

^{122.} See, e.g., NAPA, supra note 31.

^{123.} ENVTL. COUNCIL OF THE STATES, supra note 28, at 2-3.

data, the payments for measurements and analyses needed to compile such information generally comes from the public purse. This inevitably leads to coarser temporal and spatial resolution. Therefore, it is likely that some spatially localized or short duration problems that are currently detected would no longer be noticed, if source level data was not compiled in addition to ambient data. Second, although ambient data may identify problems, it cannot identify solutions, because knowledge about the sources contributing to the problem is required. Lastly, site level data is needed to decide whether a given problem is due to lack of compliance with existing standards or is due to the inadequacy of those standards.

C. Disclose Information to the Public

A critical part of the performance based approach suggested above is that states candidly disclose information to the EPA. A second critical element is that the EPA candidly disseminates information to the public and to state officials. Recently some commentators have started to point to information disclosure strategies as a way to provide incentives for effective enforcement. 124 As the Toxic Release Inventory ("TRI") initiative has shown, public disclosure of sitelevel environmental information can be an important factor in motivating many stakeholders to play their roles more effectively. 125 In the case of environmental enforcement, stakeholders include regulated entities, state and federal agency staff, politicians, environmental groups and the general public. The Environmental Defense's Scorecard website allows access to TRI data by zip code and, in its first twenty-four hours of operation, it had more than one million hits.126 This shows that there is significant demand for easily accessible information on local environmental emissions.

The EPA has taken a first step to providing a similar system for enforcement site-level data. The Enforcement and Compliance History Online ("ECHO") website 127 provides easy access to CWA, CAA

^{124.} E.g., Clifford Rechtschaffen, Enforcing the Clean Water Act in the Twenty-First Century: Harnessing the Power of the Public Spotlight, 55 ALA. L. REV. 775 (2004).

^{125.} NAPA, supra note 31, at 10.

^{126.} Scorecard - The Pollution Information Site, http://www.scorecard.org/ (last visited Feb. 24, 2007); see also NAPA, supra note 31, at 14.

^{127.} U.S. Envtl. Prot. Agency, Enforcement & Compliance History Online (ECHO), http://www.epa.gov/echo/ (last visited Feb. 11, 2007) [hereinafter *ECHO website*].

and RCRA compliance information for around 800,000 facilities. 128 This site has been welcomed by environmental groups, individual members of the public, and state officials. 129 Even some of the regulated community welcomed the availability of the database. 130 example, EPA found in its review of public comments that companies were finding ECHO to be an efficient and cost-saving way of tracking compliance at far flung facilities. 131 However ECHO falls short of the ideal in a number of ways. First, the data can only be accessed in limited ways. For example, it is not possible to access a list of the ten facilities which have been out of compliance for longest, have had the most penalties assessed, or just generally have the most number of violations. It is also not possible to easily query the data to obtain aggregated statistics about state programs, such as compliance rates, and inspection rates. Furthermore, ECHO also only covers a small sub-set of the regulated universe and makes no attempt to track compliance actions beyond inspections and formal enforcement. 132

The ECHO experience shows that where information is provided in an easily accessible form it can serve many interests and motivate entities to correct mistakes in the data. The usefulness of the data to states in terms of benchmarking, evaluation of new initiatives, and tracking should also help the EPA to argue that states could gain from cooperating in a more comprehensive information system. The EPA should now build on the success of ECHO by making it clear that one reason for collecting performance information is to allow its disclosure.

In the absence of such disclosure, states are presented with the possibility of gaining a short term political benefit in deciding to enforce less for very little political cost, because any resulting decline in site-level compliance is not obvious to the public. A reasonable level of disclosure is essential for the public to be able to judge whether a state government is doing an effective job at preventing pollution. Because the democratic process cannot work effectively without this information, I believe the EPA should enhance account-

^{128.} See Rechtschaffen, supra note 124, at 802; see also U.S. Envtl. Prot. Agency, ECHO Frequently Asked Questions, http://www.epa.gov/echo/faq.html#what is_echo (last visited Feb. 11, 2007).

^{129.} Rechtschaffen, supra note 124, at 802-03.

^{130.} Id. at 803.

^{131.} Id. at 804.

^{132.} See ECHO website, supra note 127.

ability by generating statistical comparisons of compliance rates, activities, and other parameters amongst the states. Given this information, the public would then be much better placed to reward success and punish failure in enforcement through the political process, reducing the need for the EPA intervention into how states run their programs and potentially leading to the allocation of more resources for effective enforcement. Consequently, the EPA would be able to focus on what is and is not achieved and would know which states most need to improve their enforcement programs.

Second, full disclosure would allow the EPA and the states to analyze which approaches to compliance work best. Ranking of the states by compliance rates, enforcement activities, time to rectify noncompliance, and other relevant metrics would stimulate much debate amongst the states about program design. This debate would be useful in shedding light on policy debates, such as comparing the effectiveness of compliance assistance with deterrence-based enforcement.

D. Devise Effective Sanctions

Once accurate comparative information on enforcement is easily available to the public, the EPA can partially rely on political accountability as the ultimate sanction. In addition, the EPA could sanction states that do not meet basic performance targets. However, initially the critical role of the EPA will be to encourage, and where necessary coerce, states into disclosing accurate information in a comparable form. This can be done through regular audits of state programs. But, if poor performance is found with regard to disclosure or actual performance, the EPA would need an effective sanction.

Unfortunately, at present, the EPA appears to lack an effective sanction. OIG has recommended that the EPA should threaten to withdraw grant funding to force disclosure of significant violators of CAA permits. Withdrawing grants is likely to reduce a state's institutional capacity to carry out federal mandates and further antagonize the very officials whose cooperation is sought. Such a sanction is therefore very unlikely to be used. Finally, although

^{133.} CONSOLIDATED REPORT, supra note 90, at 12.

^{134.} Rechtschaffen and Markell recommend retaining the option of withdrawing state authorization. See RECHTSCHAFFEN & MARKELL, supra note 4, at 329-35.

direct enforcement by the EPA acts as an informal sanction to states that are severely under-enforcing, this approach has a number of drawbacks, discussed below.

Thus, one of the problems for the EPA at present is that the sanctions it currently has available are too drastic, so that it really has no effective stick to compel information disclosure to complement the carrots it can provide. One possible solution would be to restrict a state's ability to accept applications for permits for new facilities while state programs do not gather and disclose accurate and timely information on site-level compliance to the EPA. This could be an effective sanction because states are generally anxious to attract new investment and an ability to permit new facilities is critical in that effort. In addition, this sanction could be targeted by program, industry sector or geographic region. If this sanction, or one that is likely to be equally effective, is instituted and compliance information starts to flow from the states to the EPA and then to the pubic, there should then be an opportunity to further separate and clarify the roles of the states and the EPA by reducing the direct enforcement role of the EPA where primary enforcement is done by the states.

E. Less Direct Intervention by The EPA

Placing the EPA in a role of more direct enforcement seems like the obvious solution to ineffective enforcement by states, but this has a number of drawbacks. First, it would run counter to the trend in the relationship between the states and the EPA. In 1995, the EPA and the states adopted the National Environmental Performance Partnership System ("NEPPS") to bring about a more flexible performance-based implementation of environmental protection measures. The 1998 EPA/state agreement on regulatory innovation states, "States are a natural laboratory for testing new ideas. State and local environmental professionals are closest to environmental problems and opportunities, and can often develop the most practical solutions." ¹³⁶

However, this is a very drastic option that would likely cause huge dislocation and in the short run would be likely to lead to less enforcement rather than more.

^{135.} See Markell, supra note 17, at 61.

^{136. 63} Fed. Reg. 24,784-24,796 (May 5, 1998).

The recent trend has been to devolve more and more environmental programs to the states. Having the EPA take a bigger role in direct enforcement would buck this trend and would cut down on the flexibility of the states in carrying out enforcement actions. It thus runs the risk of antagonizing state officials and could lead to a downgrading of state environmental enforcement. The state/EPA relationship is certainly one that is fraught with difficulty and confusion. Increasing direct enforcement would further confuse the relationship, reduce state accountability for poor performance, and would inevitably create friction between the EPA and the states.

Furthermore, states currently spend far more than the federal government on enforcement. 139 EPA funding is very unlikely to increase dramatically in the near future. Therefore the EPA's goal should be to encourage the states to continue to devote significant resources to enforcement, while also ensuring that the states are spending enforcement dollars effectively. As the review of state enforcement has shown, there are many opportunities for the EPA to improve its oversight of those programs. Indeed, there is an opportunity for the EPA to lever its resources to improve environmental enforcement by using them to adequately supervise the state enforcement programs. Using EPA funds for direct enforcement is likely to draw funding away from oversight activities leading to a danger of cascading failure. Finally, the CWA permit backlogs were as severe in states where the EPA was directly administering the programs. Consequently, it is not clear that the EPA would necessarily do a better job than the states as the primary enforcer, although local political interests would be diluted if enforcement decisions were taken by a federal agency.

As noted above, one important role that direct enforcement currently plays is to act as a sanction to states that fail to enforce adequately. When the EPA files an enforcement action before a state or "over-files" its own enforcement action in addition to a state enforcement action, it sends a powerful signal that under enforcement is occurring. Unfortunately, as discussed above this signal comes at a high cost in terms of the federal/state relationship. In an ideal system, states would be held accountable for the effectiveness of their own efforts without adding a layer of duplicative activity at the fed-

^{137.} COEQUYT & WILES, supra note 5, at 9-10.

^{138.} Markell, supra note 17, at 110.

^{139.} Id. at 34.

eral level. Disclosure to the public and enforcement of performance goals through temporary suspensions of the authority to issue new permits are likely to act as a far more effective sanctions than occasional EPA over-filing. Thus, once an effective information disclosure system is in place, the EPA should dispense with over-filing in states where enforcement is weak, but should instead enforce performance goals.

This is another area where I differ from the approach taken by Professors Rechtschaffen and Markell, who recommend that the EPA should continue to over-file, while acknowledging that over-filing causes much tension between the EPA and states. Once again, this difference in judgment stems partly from this author's recognition that to make progress in achieving compliance, states must be encouraged to move towards an effective performance-based approach. Offering to eliminate over-filing would give the states an inventive to co-operate with the EPA in instituting and implementing effective information disclosure and auditing procedures.

Moreover, one of the key theoretical reasons for adopting a performance-based strategy is to enhance political accountability at the state level to encourage a "race to the top." By attempting to limit the worst effects of poor choices by state government the EPA obscures who is responsible for the enforcement failure. I strongly believe that the EPA should make delegated states responsible for implementing federal standards without undue interference by federal government beyond information disclosure and requiring effective performance. In this way, the state governments become more politically accountable to their electorates. The last few years have brought a number of state initiatives regarding environmental standards to the fore showing that there is potential demand for enhanced enforcement, if enforcement can be made more visible. For example, the most visible of these initiatives at present are those to regulate the emission of green house gases. 141

V. CONCLUSION

This article demonstrates that the empirical data suggest that a race-to-the-bottom could be occurring in the area of enforcement of

^{140.} RECHTSCHAFFEN & MARKELL, supra note 4, at 339-42.

^{141.} See e.g. Regional Greenhouse Gas Initiative, http://www.rggi.org/ (last visited Apr. 3, 2007).

environmental standards. The federal government has been weak in overseeing the performance of the states. The highly imperfect available information indicates that enforcement varies widely, but compliance rates are generally low. The information also shows that weak enforcement in some states is part of a publicized, deliberate effort to be more business friendly. An attitude survey showed that this type of publicity is also likely to be affecting neighboring states. All these factors together mean that a race-to-the-bottom among at least some states is probably underway, leading to poor enforcement of nominal environmental standards.

One of the precursors to such a race is the information deficit that has been caused by the EPA's lax administration of its informational function. Providing good information about site-level compliance is important for reasons of accountability, transparency and efficacy. The federal government should therefore require states to provide comparable information for both enforcement activities and sitelevel compliance, set clear compliance performance targets, and disclose comparative information on state programs to the public. This would increase the political costs for the states for failing to achieve federal standards, might gather political support for more enforcement resources, and would allow states to act as the proverbial policy laboratories, because interventions and outcomes could be systematically evaluated by the implementing state and other entities. Furthermore, over the long term, to keep the focus on the final goals of the compliance program and minimize the potential for gaming the enforcement performance metrics, the EPA should add ambient data into the performance-based approach.

In addition, to provide states with an incentive to move towards genuine performance-based management, concentrate federal resources where they can be most effective, and ease tensions with the states regarding the optimal mix of deterrence-based enforcement and compliance assistance, the federal government should offer to abandon attempts to dictate to states how to achieve compliance and to refrain from filing duplicative enforcement actions where state enforcement is weak, once a performance management system is up and running. Instead, the federal government should have the power to suspend issuance of new permits when a delegated permit program is failing to meet performance targets.

Without a strong federal hand in forcing disclosure of comparable information on the performance of state enforcement programs and holding states to performance targets, excess pollution is likely to result, leading to a nationally sub-optimal inefficient outcome in

terms of overall societal welfare. It is now time to move beyond the state versus federal debate in environmental protection and focus on assigning clear and distinct roles to both states and the federal government so that they work together effectively while remaining accountable. The federal government is uniquely placed to require and facilitate the provision of timely, accurate and comparable information on compliance with federal environmental standards. It is time for the EPA to emphasize this role. Thus, by doing less more effectively, the EPA has an opportunity to achieve more effective enforcement of federal environmental standards and move towards a federalist structure that is more genuinely cooperative.