BEAN COUNTING FOR A BETTER EARTH

ENVIRONMENTAL ENFORCEMENT AT THE EPA

by Jonathan H. Adler

ON 22 DECEMBER, THE ENVIRONMENTAL PROTECTION AGENCY announced that in 1997 it imposed higher penalties and referred more civil and criminal cases to the Justice Department for prosecution than ever. "The record level of environmental enforcement by the Clinton Administration is essential to ensure the protection of the health of the American people," proclaimed Steven Herman, the EPA's Assistant Administrator for Enforcement and Compliance in an Agency news release.

Yet there is reason to be skeptical about whether the EPA's record level of enforcement represents an unprecedented level of environmental protection. More enforcement actions could imply that the number of violations have increased. After all, if perfect compliance with federal environmental laws existed, EPA enforcement would shrivel away to nothing. At the very least, if after decades of enforcement, violations were falling, one would expect the number of enforcement actions to fall as well.

Evaluating environmental protection by the number of enforcement actions taken is a bit like rating a mutual fund on the number of stocks bought and sold in a given year. Such actions make for a good bureaucratic bean-counting exercise, but it is a poor proxy for actual results.

The EPA's seeming obsession with running up the tally of prosecutions for violations of environmental regulations subjects innocent parties to unjust punishments and hides whether particular regulations or their enforcement actually improve environmental quality.

Enhancing environmental enforcement was an early priority for the Clinton Administration. Justifiably or not, the Bush Administration was seen by some as too lax on corporate polluters. When the Clinton team took over, the crackdown on environmental "criminals" began almost immediately. On 16 July 1993, EPA Administrator Carol Browner announced the filing of twenty-four civil enforcement actions against "illegal polluters." With those actions the EPA was "sending a clear signal that under the Clinton Administration EPA will use all of its powers to identify illegal polluters and enforce the law, protect our environment, and ensure the health and safety of the American people," proclaimed Browner at a press conference announcing the actions. "Whether these companies were careless, or calculating, or simply ignorant, we believe that every one of them acted illegally and that some endangered public health," she added. Tighter enforcement of environmental regulations, Browner suggested, is the key to ensuring environmental quality.

PUNISHING HONEST FIRMS

Yet it is not clear that increased environmental enforcement is the best means of environmental protection. Indeed, in some cases the emphasis on enforcement, and the demand for ever greater levels of fines and criminal actions, may even be counterproductive. Taylor Lumber and Treating, one of the twenty-four firms targeted by Browner's initial enforcement efforts, is a small family-owned sawmill and wood-treating plant in Sheridan, Oregon. As recounted by Taylor's attorneys in *Environmental Law*, in 1990 the company discovered that, eight years earlier, its maintenance foreman had filled an unused water holding vault with debris from around the plant, including treated lumber, scrap metal, and most importantly from the EPA's perspective, over one hundred barrels of sludge from the wood treating operation, classified as hazardous waste under federal law. The vault was covered with concrete to create a usable surface. When Taylor learned of the foreman's actions after an anonymous tip to the Oregon Department of Environmental Quality (DEQ), it took immediate action. The vault was opened, cleaned and backfilled with gravel. There was no evidence that any sludge or other hazardous material had leaked from the vault, and all of the debris was sent by Taylor to a licensed disposal facility.

In November 1991, Taylor submitted a plan to the EPA and DEQ for further site remediation to meet new federal regulations. Wood treating plants were now subject to more stringent controls including a mandate to install a "drip pad" to prevent groundwater contamination. That plan also included provisions to ensure that no adverse effects resulted from the foreman's disposal of waste in the vault. For two years, nothing happened. The EPA neither approved nor denied Taylor's plan. Then, in July 1993, the EPA filed suit through the Justice Department, alleging that Taylor Lumber had illegally stored and disposed of hazardous wastes and engaged in a "cover

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up." Taylor was declared an "illegal polluter" recklessly endangering the health and safety of the local community despite a complete lack of evidence that Taylor's actions had produced any environmental impact, let alone posed a risk to human health.

Years of litigation and intermittent negotiations followed. Then, in April 1995, the EPA and Taylor Lumber entered into a consent agreement under which Taylor agreed to pay a modest fine and implement the remediation plan it had proposed four years earlier. The case, *United States v. Taylor Lumber & Treating*, is listed as a "significant" case in the EPA's 1995 Enforcement and Compliance Assurance Accomplishments Report. That report noted that under the consent decree Taylor will "close an unpermitted surface impoundment, conduct facility-wide corrective action, and pay a civil penalty of $70,000." Not mentioned is that as a result of the EPA's civil action Taylor spent nearly half a million dollars on legal and consulting fees to defend itself from the EPA's prosecution, "not a penny of which [was] used to clean up the environment," according to Taylor's lawyers. In the end, the civil action delayed cleanup and wasted several hundred thousand dollars on legal bills in order to obtain a modest fine for a technically illegal act, committed without the company's knowledge, rectified by the company years before the Justice Department action, that had no measurable environmental impact.

The Taylor case does not seem to be an isolated incident of out-of-control bureaucrats. The Denver Water Board is currently under investigation by the EPA. The Board had an excellent record; it never violated or exceeded a drinking water standard. The Board's headquarters was located on an industrial site that had been occupied by it or predecessor companies since 1879. On 7 August 1995 consultants informed the Board that some sinks and drains were connected to an old pipe that emptied into the Platte River rather than into a sanitary sewage facility. Because the pipe was of undetermined age and emptied into the river below the water line, there was no easy way to determine and no reason to suspect the problem. It took an environmental audit of the plant to discover the problem.

There was no indication that any discharges had been made through the pipe that might have endangered public health and safety. On the day the infraction was discovered the sinks and drains connected to the old pipe were shut down so no further discharges would go into the river. By 23 August the old pipe had been cut off from the facility's sinks and drains, which had been diverted into sanitary sewer pipes.

The Water Board's own investigation had led to the voluntary disclosure of the drain pipe emptying into the river. While the state's environmental agency worked with the Board to correct the problem and improve the Board's environmental performance, the EPA sent threatening letters demanding further disclosures. "The EPA directed its letters solely to gathering as many documents as possible, covering as many topics as possible, obviously in the hope of discovering a basis for an enforcement action," testified Denver Water Board General Counsel Patricia Wells on 17 March 1998 before the U.S. House of Representative's Commerce Subcommittee on Oversight and Investigations. "In Denver Water's situation, EPA seems to be focusing its attention and resources on the punishment of sins rather than improvement of the environment," Wells concluded.

To date there has not been an exhaustive independent review of the EPA's enforcement activities. However, the above cases illustrate that environmental enforcement does not always equal environmental results. Escalating fines, penalties, and jail terms may make for good politics, but they do not necessarily produce a cleaner environment.

ENVIRONMENTAL ENFORCEMENT DOES NOT ALWAYS EQUAL ENVIRONMENTAL RESULTS.

That presents a dilemma for federal environmental officials. Government agencies wish to demonstrate results; indeed under the Government Performance and Results Act (GPRA) agencies must report the results of their efforts every year. Yet measuring the environmental impacts of civil and criminal enforcement is difficult. When the EPA slaps a fine on a firm for failing to file the proper permit is the air any cleaner? Are risks to public health reduced? It is much easier to document enforcement actions than it is the environmental improvements that may result.

EARLY ENFORCEMENT

The tension between bean counting and ensuring environmental results has complicated enforcement efforts since the EPA's founding. From the outset, enforcement was a top concern at the EPA. In 1970, several months after the first Earth Day, President Richard Nixon consolidated the various pollution control agencies that were strewn across the Departments of Interior, Agriculture, and Health, Education, and Welfare among others, into the new EPA. The idea was that a single executive agency focused on pollution control efforts would have the political profile and uniformity of mission to advance pollution control and elevate the issue of environmental protection.

During its first two months of operation, the EPA "brought five times as many enforcement actions as the agencies it inherited had brought during any similar period," noted Marc Landy, Marc Roberts, and Stephen Thomas in their 1990 book *The Environmental Protection Agency: Asking the Wrong* Questions. No doubt, the consolidation itself was part of the reason. Prior to the creation of the EPA, the various federal pollution control agencies were housed within Departments that had competing institutional missions. For instance, pesticide regulation—which accounted for the vast majority of EPA enforcement efforts during the first several years—had been part of the Department of Agriculture, where the fining and prosecution of agricultural interests was balanced against helping farmers and agriculture companies; no longer. The EPA was a single mission agency,

and environmental enforcers were no longer subject to such institutional restraints.

Personnel also played a role. The first generation of EPA operators and managers was ideologically committed to protecting the environment from what they saw as the excesses of corporate America; some saw themselves as "shock troops" committed to clamping down on business. Moreover, the EPA's first administrator, attorney William Ruckleshaus, placed a heavy emphasis on enforcement. The aggressive pursuit of environmental scofflaws was a means of demonstrating the nascent agency's commitment to environmental protection and independence from the business community. In that manner the Nixon Administration, like subsequent Republican administrations, sought to use tough environmental enforcement to burnish its environmental image. "To convey a tough enforcement message to industrial and municipal sources of pollution, the agency directed many of its initial efforts against large national corporations in big cities," recounts former EPA attorney Joel Mintz in his 1995 book *Enforcement at the EPA: High Stakes and Hard Choices*. Proposing new legislation, control programs, and regulatory initiatives would be a long and time-consuming process. Even the most successful efforts would not produce measurable changes in environmental quality for years. With a growing staff of lawyers on hand, in the EPA's first two years its enforcement staff increased nearly five-fold to fifteen hundred personnel.

JUST BEFORE CARTER LEFT TOWN, THE EPA INSTRUCTED THE REGIONAL OFFICES TO HIRE PROFESSIONAL CRIMINAL INVESTIGATORS.

The early emphasis on enforcement may have had a downside, however. With limited resources, stressing enforcement meant that other priorities were likely short-changed. Landy, Roberts, and Thomas believe that research and development, policy planning, and technical expertise may have all suffered due to the extended focus on enforcement efforts. The conflict between pursuing high-profile enforcement efforts and other environmental protection strategies has been a consistent problem for the EPA, and is visible within the agency today. Enforcement may generate media coverage and win plaudits from environmental organizations, but it will not always produce better environmental results than other longer term and perhaps less confrontational strategies.

REPEATED REINVENTION

The problem of using enforcement as a proxy for improving environmental quality has led to the regular reorganization and reinvention of the EPA's enforcement office; the EPA's enforcement operations have been reinvented no less than five times in less than thirty years. By the late 1970s, EPA enforcement officials began to feel that companies were negotiating with the EPA in order to drag out enforcement actions and delay compliance costs.

The Carter Administration sought increased funding for EPA enforcement efforts and appointed officials that were more aggressive, such as Marvin Durning, a committed environmental activist that was appointed as Assistant Administrator for Enforcement in 1977. Durning felt that administrative efforts took too much time and yielded minimal results. During his tenure at the EPA, administrative actions dropped and civil referrals to the Justice Department grew. Criminal referrals were soon to follow. Just before the Carter administration left town, the EPA created an office of criminal enforcement within the enforcement office, and instructed the regional offices to hire professional criminal investigators to assist with enforcement.

The trend toward more aggressive enforcement suffered a brief hiatus in the first few years of the Reagan Administration with the EPA under Anne Gorsuch. But she did not last long. Ruckleshaus was brought back to the EPA in 1983, and immediately sought to restore the morale of the managers and operators in the enforcement branch. He also reinvigorated enforcement efforts through what was now called the Office of Enforcement and Compliance Monitoring (OECM). His successor, Lee Thomas, starting in 1985, continued the trend toward increasing enforcement, and unleashed the criminal enforcement office. It was under Thomas that the EPA began to measure the success of its enforcement efforts by the number of referrals to the Justice Department. Year after year, the EPA would issue releases heralding the increase in enforcement actions. For instance, the very first page of OECM's first Enforcement Accomplishments Report (FY 1988) stressed the "new high-water marks" in enforcement, measured in terms of referrals and cases, a trend that has continued ever since.

Like the Nixon administration before it, the Bush administration was eager to burnish its environmental image. James Strock, tapped to head the EPA's enforcement efforts under EPA Administrator William Reilly, sought to significantly expand and reinvigorate environmental enforcement. So, in 1990, the EPA's enforcement office was reorganized, and renamed, yet again.

Under Strock, criminal enforcement increased dramatically. Those efforts got an additional boost from the Pollution Prosecution Act of 1990, which authorized the hiring of two hundred additional criminal investigators by 1996 and increased support staff for criminal enforcement. In addition, Strock placed a significantly greater emphasis on "multimedia" enforcement efforts, that is, enforcement of regulations in various environmental mediums at once, such as air, water, and soil. That is significant because most of the EPA's program efforts are media specific. The Water office deals with water pollution, the Air and Radiation office deals with air pollution, and so on. However, sometimes controlling an emission into one medium can effect emissions somewhere else. Reducing air pollution through scrubbers or filters can increase a facility's solid or liquid wastes. Because the Office of Enforcement's efforts are not media specific, it was more able to address those concerns than the media-specific program offices.

COMPLIANCE ASSURANCE

Although the EPA's Office of Enforcement had just gone through a makeover in 1990, it was due for another reorganization as part of the Clinton Administration's "Reinventing Environmental Regulation" effort, a component of the National Performance Review (NPR). The "reinvention" led to the formation by Clinton EPA chief Carol Browner of what is now called the Office of Enforcement and Compliance Assurance (OECA).

OECA's stated goal is "to correct past and deter future environmental problems by ensuring full compliance with laws intended to protect human health and the natural environment." As reorganized under Browner and Assistant Administrator for Enforcement and Compliance Steven Herman, OECA is designed to be the "single voice for national enforcement and compliance assurance policy and direction." In particular, Browner and Herman transferred compliance assistance efforts from the various media-specific program offices within the EPA to OECA because, according to EPA reports, "Agency officials determined that EPA needed to combine compliance assistance and promotion programs with the traditional aspects of compliance monitoring and enforcement."

In theory, the shift was designed to ensure a greater focus on the ultimate aim of enforcement efforts—environmental protection—and less institutional emphasis on bean counting. According to Herman, "The OECA reorganization was designed to augment the Agency's traditional 'deterrent based' enforcement approach with a complementary emphasis on compliance promotion employing both technical assistance (e.g., promoting pollution prevention and similar innovative processes), compliance assistance (especially to small businesses and communities), and compliance incentives." The combination of enforcement and compliance assurance is better suited to the multimedia approach that grew out the late 1980s, according to Browner. As she testified in 1994, "This reorganization is necessary because the nation can no longer afford the limitations that are inherent in a single program, stature-by-statute enforcement focus." Bringing enforcement and compliance assurance efforts together, the theory goes, will allow the agency to utilize those tools—carrots or sticks—that will generate the greatest environmental results in any given situation.

Also, OECA was supposed to take a less adversarial approach to compliance. "The adversarial approach that has often characterized our environmental system precludes opportunities for creative solutions that a more collaborative system might encourage," declared the Clinton Administration's 1995 *Reinventing Environmental Regulation* report.

ENVIRONMENTAL BEAN COUNTING

The EPA's 1995 Enforcement and Compliance Assurance Accomplishments Report claimed that "In every medium, and in every state, environmental enforcement actions have led to huge reductions of pollutants that would otherwise spoil our environment in violation of our laws." It further claimed that "Environmental results are EPA's bottom line." The only problem is that there is little data gathered by the EPA with which to measure the effectiveness, or lack thereof, of the Agency's enforcement and compliance assurance efforts toward that "bottom line."

EPA regulations have historically been justified on what can be called a "deterrence" model: Strict enforcement, followed with appropriately stiff penalties, deters violations before they occur. As the EPA has noted in several of its enforcement Accomplishments Reports, "EPA enforcement actions are sending a clear deterrence message to would-be violators. . . . When EPA prosecutes violations and publicizes the results, it sends an unmistakable message to violators: 'If you threaten the health of and safety of the public, you will be caught and you will be prosecuted.'"

That is also one reason that the EPA continues to emphasize criminal, as opposed to civil, enforcement actions. The Agency reasons that, "Individuals are more likely to be deterred from criminal environmental misconduct because of the stigma associated with a criminal conviction, as well as potential imprisonment. Those who are convicted and sentenced to jail cannot pass the sentence on as another 'cost of doing business;' it must be served by the violator."

Despite the EPA's focus on enforcement, there is not necessarily any correlation between increased levels of enforcement and prosecutions with improved environmental quality. Indeed, were there no environmental problems, one would expect enforcement activity to drop precipitously for there would be no violations to police. As political scientist James Q. Wilson noted in his landmark study *Bureaucracy*, "Suppose a police

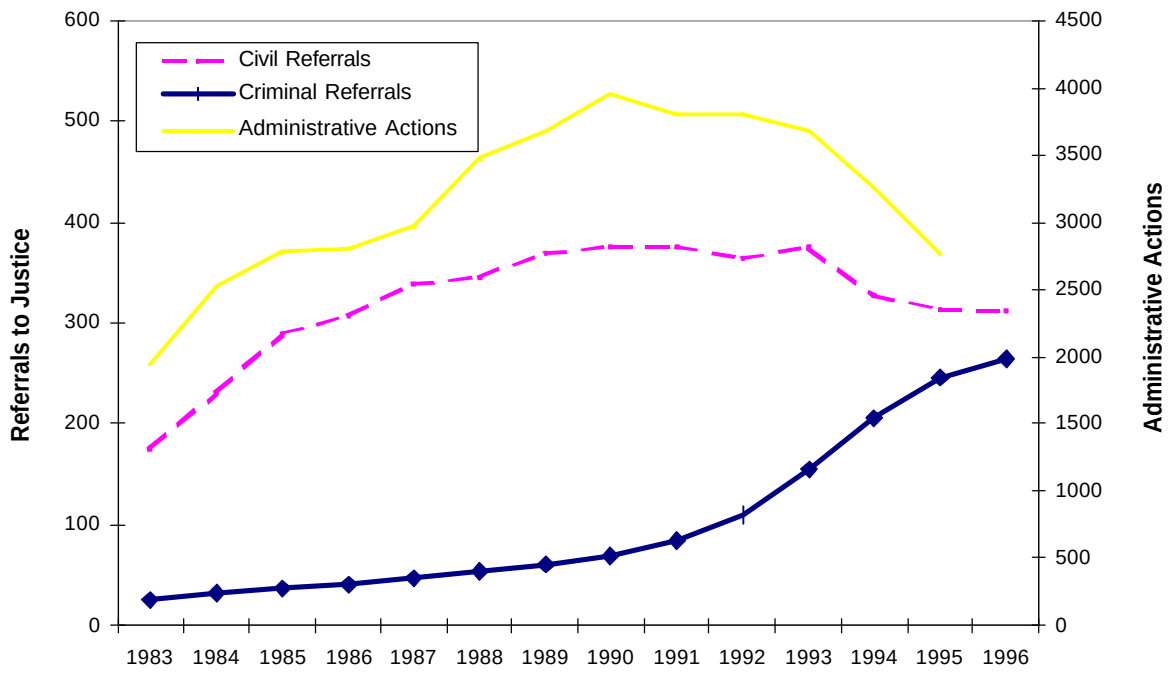
Table 1

EPA Regional Inspections

Year	1991	1992	1993	1994	1995	1996	1997
Number of Inspections	20250	20318	20283	19542	14529	18211	18530

Source: EPA

Chart 1



officer walking a beat makes no arrest. That can mean either that no crime occurred or that the officer could solve none of the dozens of crimes that did in fact occur."

While the agency has put a greater public emphasis on compliance assurance, there is no evidence that enforcement efforts are abating. Indeed, each year the EPA trumpets record or near-record levels of some enforcement category or another and continues to spend more money on criminal enforcement efforts than compliance assurance. At the same time it appears that inspections and administrative actions have declined in recent years. Both suffered a significant drop in 1995, which some would attribute to the Clinton Administration's reorganization of the EPA or the budget showdown with Congress. However, administrative actions have not increased, and inspections have yet to reach their former levels, despite the increase in investigators (See Table 1). Interestingly enough, civil referrals have experienced a similar trend, despite hitting a near-record level in 1997.

The one OECA output that has continued to climb is criminal enforcement. It is "the fastest growing component of the enforcement program," according to the EPA, despite the stated emphasis on compliance assurance over traditional prosecutorial efforts. Criminal enforcement efforts increased as civil efforts plateaued and declined. (See Chart 1.) According to the EPA, "This reflects the Agency's targeting of the most willful violators and violations with serious potential risk." Yet the data suggests otherwise. Former EPA attorney Joel Mintz summarized the situation:

> Though numerical indicators are not without significance, they are, at best, a crude yardstick that will only measure whether or not some kind of enforcement work is taking place. The reporting of raw numbers of enforcement actions gives no indication of the severity and complexity of the violations addressed, the extent to which those subject to enforcement action have committed previous offenses, the promptness with which the agency has initiated or completed action, the number and severity of violations that have not been addressed, and the extent to which the actions taken have deterred further violations.

Aware of that problem, the EPA is beginning to emphasize the nonpunitive ways of encouraging compliance with environmental standards. Indeed, it was one of the reasons behind the Clinton Administration restructuring. In 1995 the EPA announced "incentives to voluntarily comply with environmental requirements," including an environmental audit policy under which a private firm can obtain reduced penalties and criminal liability for identifying, disclosing, and remedying pollution violations. The idea is that firms are more likely to conduct internal audits, discover and disclose violations if they can be assured that they will not increase their exposure to civil or criminal prosecution in the process. Hence the EPA's effort to create new incentives.

However, regulated industries do not find the EPA's audit policy so filled with incentives. For one, while most qualifying firms can be assured that the EPA will not refer their case to the Justice Department, the EPA will not guarantee that

Justice will not prosecute on its own. Further, the EPA is adamantly opposed to granting audit immunity. Moreover, the EPA's policy is purely discretionary. There is no guarantee that auditing companies will receive any benefit for the efforts. Given the bean-counting mindset, there is clearly an incentive to use the information generated in an audit report for an easy enforcement score.

For those reasons, and the apparent reliance on enforcement quotas, industry groups maintain that the EPA's efforts are mostly cosmetic. "The policy does not protect information provided to EPA from disclosure to other government agencies or third-parties, nor does it adopt an alternative approach that would allow such a disclosure but provide limited protection to those who disclose," testified Paul Wallach of the National Association of Manufacturers. The result, at least in some cases, is that firms will forego internal audits that may generate information that could be used in a subsequent legal action against them. "The EPA's bottom line," according to environmental lawyer Chris Horner, "seems to be that enforcement actions and penalties are the keys to compliance; the regulated community is not to be trusted."

FRUSTRATING STATE EFFORTS

While the EPA talks about encouraging companies to uncover and disclose environmental violations, the Agency has consistently frustrated state efforts to encourage voluntary cleanups through environmental audit privilege laws. Although federal environmental enforcement efforts get most of the attention, most environmental enforcement and monitoring is done at the state level. States are responsible for over 85 percent of enforcement actions, according to the Environmental Council of the States. Texas alone routinely performs twice as many inspections as the EPA (See Table 2). State agencies "have the resources, the sophistication, the expertise, and the commitment to run every environmental program in the country," Barry McBee, Chairman of the Texas Natural Resource Conservation Commission (TNRCC) was quoted as saying in the 9 August 1997 *National Journal.*

Over the past five years, two dozen states have enacted some form of audit privilege law. Those laws encourage companies to self-audit their facilities by granting them immunity from prosecution if violations are promptly disclosed and corrected. State officials believe those laws are very effective because no regulatory agency will ever have the manpower or political will to inspect every inch of every facility. By cutting corporations some slack, they provide an incentive for companies to police themselves. In the less-than-three years since Texas enacted its audit law, companies have conducted over 750 audits, one-fifth of which led to the disclosure of previously undiscovered violations that are now being addressed.

The EPA has been less than supportive of state audit laws, threatening several states, including Colorado, Michigan, Texas, Utah, and Wyoming, with sanctions if their laws are not modified. The EPA's primary objections are that state audit laws prevent the imposition of "appropriate" penalties and privileging audit information could discourage prosecutions. Even if violations are uncovered in a voluntary audit, the EPA insists that the violator be fined at least as much as is necessary to "compensate" for whatever economic benefit the violation provided. Thus, companies are effectively told that coming clean can cost them more than continuing with business as usual.

Federal enforcers also fear that state audit rules make information turned over by companies privileged and not subject to federal review, making federal prosecutions more difficult. Yet the TNRCC reports that it has yet to find "a single instance where an investigation was hindered" due to Texas's audit law. Even if audits did interfere with prosecutions, it does not mean they should be discouraged. "If the threat of prosecution prevents a company from taking action that would improve the environment, then making the enforcers' jobs tougher in those cases may be a good idea," noted Alexander Volokh of the Reason Public Policy Institute in the June 1997 *Washington Monthly*.

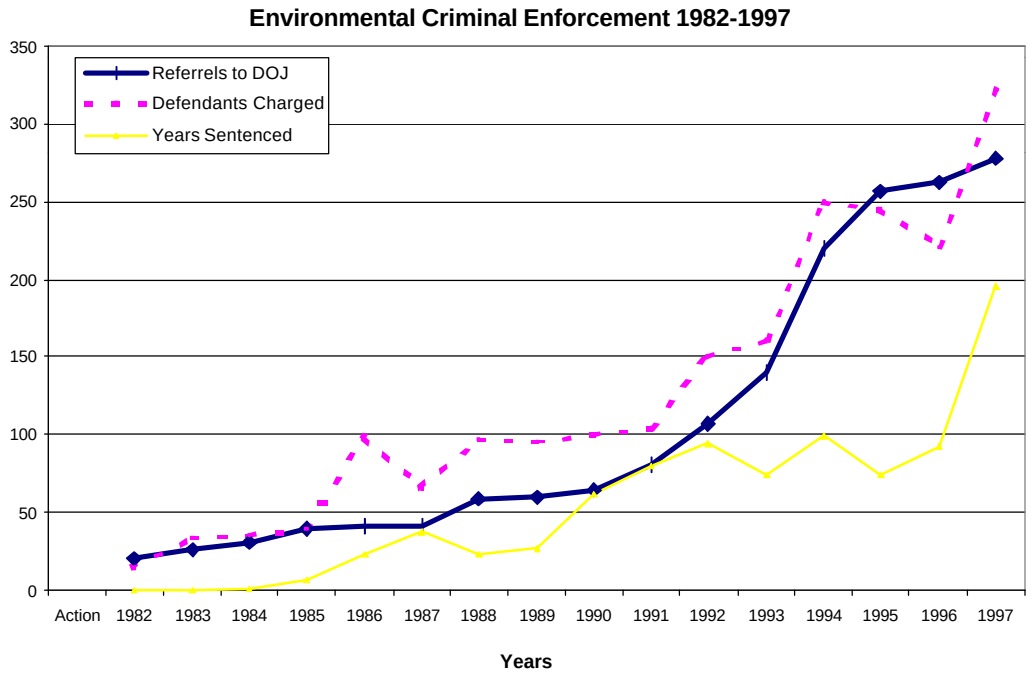
Consider the experience of Coors Brewing Company of Colorado. In 1992 that company conducted a voluntary self-evaluation of a brewery. The audit revealed that state and federal regulators had underestimated the emissions of volatile

Table 2

Regional Inspections: TEXAS v. EPA

Year	1994	1995	1996	1997
Texas	42611	34305	39031	41803
EPA	19542	14529	18211	18530

Chart 2



organic compounds from beer-making by more than a factor of ten. In other words, as far as the regulators were concerned, Coors was acting in an environmentally responsible manner. Without the self-audit, the emissions would never have been discovered, let alone controlled. Yet Coors's reward for uncovering and disclosing the information was a fine of over one million dollars, later reduced, for violations of air pollution laws. In part as a result of that incident, Colorado was one of the first states to pass an audit law protecting companies that act in a responsible manner to discover and deal with environmental problems.

Coors' experience is not all that unusual. Several companies that voluntarily disclosed violations to the TNRCC in Texas have since been investigated by the EPA, possibly as a preliminary step to some form of punitive action. Federal enforcers also sought information from state officials about a dozen companies that disclosed violations to the Michigan Department of Environmental Quality. That discourages companies from investigating and uncovering environmental problems. The investigation of the Denver Water Board was based on its audit report to the State. "Without the audit, the discharge might not have been discovered for many years," testified Wells. "This kind of effort and expense is unlikely if the outcome of an environmental audit is only regulatory enforcement, more expense and greater liability."

While most industrial corporations have some sort of internal environmental audit program, a March 1995 Price-Waterhouse survey revealed that fear of prosecution was a reason not to expand the program further. The survey also found that for most companies, the amount of information that they will disclose is partially a function of whether regulators or environmental activists seeking to file citizen suits can use that information against them. Thus, the EPA's insistence on preserving the right to prosecute auditing companies will discourage audits from happening in the first place.

MEASURING THE IMPACT

As part of the Clinton Administration's reinvention efforts, EPA officials have at least talked about making enforcement efforts more result oriented. The EPA's Herman acknowledges that "traditional 'output' data by themselves do not necessarily demonstrate environmental improvement. We need complementary data on the 'outcomes' of our enforcement and compliance activity in order to complete the picture." On that basis, the EPA began a series of initiatives. They include participation in the National Performance Measures Strategy, to develop better means to measure the actual benefits for EPA actions, as opposed to the traditional reliance on the number of enforcement actions as a measure of results. Yet at the same time, the EPA's 1999 *Annual Plan*, released earlier this year, evinces the traditional bean-counting approach to enforcement.

One of the EPA's ten "strategic goals" is "a credible deterrent to pollution and greater compliance with the laws." According to the 1999 plan "a strong and vital enforcement program is critical to the success of the EPA's environmental programs" because it encourages compliance, mandates remediation, and "maintain[s] a level playing field by protecting companies that comply with environmental requirements from being placed at an economic disadvantage relative to those who do not."

The EPA will measure progress toward its enforcement goals by evaluating a series of "key performance measures."

Those are essentially quotas for inspections, referrals, compliance orders and the like. Among those performance measures the EPA will seek to meet in 1999 are 86 lab integrity inspections, 2,300 import/export notifications, 28 federal facility inspections, 2,030 stationary source inspections, 1,060 Resource Conservation and Recovery Act inspections, 100 administrative orders, 505 NPDES compliance orders, and 310 criminal referrals. The closest any of the measures comes to evaluating the real-world environmental impact of enforcement is the EPA's plan to identify five "high priority areas" for enforcement in 1999.

The EPA also has developed "key performance measures" as a means to increase the use of auditing and self-policing policies. While the EPA has committed to doubling the number of small businesses that receive relief as part of the Agency's "Small Business Policy" and increasing the number of self-disclosures, the remaining measures entail little more than maintaining the current number of compliance centers and sector guides and ensuring federal government compliance with applicable rules and standards.

To the EPA's credit, the Performance Strategy final report, issued in December 1997 acknowledges up front that the number of referrals, inspections, fines and so on "do not reveal . . . the environmental results and impact from enforcement . . . nor the extent to which important environmental objectives and problems are being addressed." To address that shortfall, the EPA will select a handful of environmental objectives, such as ambient air quality or childhood lead levels, and evaluate whether national standards and goals are being met.

But even that approach begs the question: Is strong EPA enforcement necessary to achieve the established goals? It is exceedingly difficult to quantify the relative contribution of federal policies to actual improvements in air and water quality, let alone public health. For instance, it is an indisputable fact that air quality has improved in most urban areas over the past three decades. It is also clear that new automobiles emit fewer pollutants in part because the EPA imposed standards upon them. But was the prospect of EPA enforcers bearing down on the automakers, threatening fines and prosecutions, the reason they complied? Many companies comply with what they see as reasonable regulations in large part because they wish to be good corporate citizens or at least do not wish adverse publicity for being environmental scofflaws. A million dollar fine for a multi-billion dollar company is only a minor nuisance. Further, a 1993 survey in the *National Law Journal* found that only 30 percent of corporate counsels believed it was actually possible to be in full compliance with all state and federal environmental standards. If in fact full compliance with vague, contradictory, and costly regulations is impossible, more fines certainly will not bring about compliance, let alone improve environmental protection.

More important, there is certainly reason to believe that air quality would have improved to some degree even absent the EPA's intervention. Other factors, including productivity and technology improvements, an economic base changing from

manufacturing in heavy industries to high tech and information-based industries, and increased wealth and public concern about environmental issues also played a role in the environmental improvement of the last three decades. Paul Portney of Resources for the Future argues that, "The fact that at least some measures of air quality were improving at an impressive rate before 1970 suggests that other factors in addition to the [Clean Air Act] are behind . . . recent improvements." There are also cases, as noted above, where increased enforcement or regulatory impositions can actually delay environmental improvements.

Another EPA initiative to demonstrate the environmental benefits of enforcement is the compilation of "Case Conclusion Data Sheets" for enforcement activities. They are summaries of the "qualitative and quantitative impacts and results of administrative and judicial enforcement cases." The summaries outline any injunctive relief that will produce environmental results, as well as supplemental environmental projects that violating firms agree to undertake as part of a settlement agreement.

Based on that information, the EPA attributes to its enforcement actions substantial emission reductions and increased corporate expenditures for pollution abatement. For instance, when announcing its 1997 enforcement accomplishments in December, the EPA crowed that "polluters spent a total of $1.98 billion to correct violations and take additional steps to protect the environment." The EPA then went on to list pollu-

tion reductions, for example, 576.5 million pounds of PCBs, 62.5 million pounds of volatile organic compounds, and 7.6 million pounds of benzene, attributable to federal enforcement of environmental laws. However, there is no direct correlation between aggregate reductions in releases of chemicals, gases or other substances, let alone corporate spending on regulatory compliance, or greater protection for public health.

Consider one of the two enforcement actions highlighted by the EPA in its 1996 *Accomplishments Report* as evidence of the positive environmental impact of enforcement actions that made national headlines. In December 1995, General Motors was fined $11 million, the second-largest civil penalty ever assessed under the Clean Air Act, because approximately a half-million Cadillacs were equipped with a "defeat device" that increases emissions of carbon monoxide when the air conditioner is turned on.

EPA Administrator Carol Browner told the press that "These devices sacrificed public health and defied the laws that are in place precisely to prevent the long-term health effects caused by carbon monoxide air pollution." However there was one problem with that interpretation. Carbon monoxide is a wintertime problem. Most federal carbon monoxide control programs, such as the oxygenated fuels requirement that is imposed in many cities, are only operable in the winter. While there are air pollution problems in the summer months, most notably ozone ("smog"), carbon monoxide is not one of them.

That is notable because the criminal Cadillacs emitted excess carbon monoxide only when the air conditioning was turned on. Presumably that means that the vast majority, if not all, of the offending vehicles fully complied with the emissions standard when it matters–in the winter. One would assume that few drivers use their air conditioning in the winter. The cars may well have violated the Clean Air Act, but the prosecution of General Motors can hardly be seen as a victory for environmental protection or public health, unless one assumes that such cases in which heavy fines are imposed in and of themselves encourage compliance. Thus, even when emission reductions can be identified, it does not necessarily demonstrate that public health or environmental protection–presumably the EPA's ultimate goals–have been advanced.

CONCLUSION

"There is a kind of Gresham's Law at work in many government bureaus," James Q. Wilson observes. "Work that produces measurable outcomes tends to drive out work that produces unmeasurable outcomes." A corollary to that rule, at least for agencies such as the EPA that are in the public eye, is that work that produces high profile outcomes tends to drive out work that produces little noticed outcomes. If enforcement goes down, the EPA risks being attacked by environmental groups or politicians for being "soft" on polluters. Thus, the EPA prefers criminal enforcement actions, which are more newsworthy and high profile than civil and administrative actions. That is particularly true since the EPA must compete for budget allocations and faces a potentially hostile legislative branch.

The problem is not unique to any particular administration. The EPA is responding to the institutional system. Both internally and externally the success of the EPA is judged by the extent to which it can demonstrate that it enforces laws that may or may not serve a valid environmental purpose. Backing off enforcement to focus on solving tangible environmental problems reduces measurable actions creating the appearance of going "soft" on polluters.

Despite Browner's nice-sounding rhetoric about focusing on the most significant threats to human health, there is little, if any, evidence that the Agency's priorities are tied to quantifiable risks to human health or environmental quality. Indeed, few environmental standards enforced by the EPA against private firms can even be characterized as health based in the first place. As a result, environmental enforcement is often a meaningless exercise, a form of bureaucratic bean counting, with little demonstrated environmental value. But until EPA officials will acknowledge that fact and seek appropriate changes in federal environmental laws, the situation is unlikely to change.

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