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Enforcing Environmental Laws

Enforcing Environmental Laws

Traditionally, protectors of the environment have been seen as "nice guys." However, with increasingly aggressive enforcement of environmental cleanup requirements, the image is changing. This issue of EPA Journal explores the trend.

The issue includes an interview with Thomas L. Adams, Jr., about how EPA is meeting its enforcement challenge. Adams is the Agency's Assistant Administrator for **Enforcement and Compliance** Monitoring. A report on a major enforcement case in which a white collar polluter was sent to jail illustrates the tougher approach in environmental cleanup. An article traces the increase in penalties in EPA's enforcement efforts. Another

article describes how EPA is deterring violations of cleanup standards by using a range of tools from arbitration to regular audits.

In a change of pace, another feature projects EPA's approach to enforcement in the year 2000, as technology and compliance procedures evolve.

Environmental enforcement trends are also examined from vantage points outside EPA headquarters, including the U.S. Department of Justice, EPA regional offices, the states, and local government.

The Journal's review of environmental enforcement concludes with reports from some of EPA's senior enforcement officers on current initiatives, and an article about the "sludgebusters" on assignment from EPA's National Enforcement Investigations Center in Lakewood, CO.

Two special features on other environmental matters are next: The first is an article by U.S. Senator Quentin N. Burdick (D-ND), the new Chairman of the Senate Environment and Public Works Committee, outlining his priorities for the Committee in this Congress. Second is an explanation of the major provisions of the new Clean Water Act.

This issue of EPA Journal concludes with a regular feature—Appointments. □



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Front Cover: EPA enforcement engineer records observations of a hood which collects emissions from a basic oxygen furnace in a steel mill. Photo by Donald N. Emmerich.

Design Credits: Donna Wasylkiwskyj Ron Farrah Jim Ingram Correction: The scene on the cover of the January/February issue of EPA Journal was described to us by an outside photo house as a New England village. It is in fact a picture of Cumberland, Maryland. One of our sharp-eyed readers pointed this out. The Editor regrets the error.

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Enforcement Today

An Interview with Thomas L. Adams, Jr.

To get a perspective on the job of enforcing environmental laws, EPA Journal interviewed Thomas L. Adams, Jr., the Assistant Administrator in charge of EPA's Office of Enforcement and Compliance Monitoring (OECM). The text of the interview follows:



Thomas I. Adams, Jr.

In the past, EPA has been criticized as not being tough enough in enforcing the law. Is that criticism still valid?

A Absolutely not. We responded to that criticism and the enforcement program today is the strongest the Agency has ever had. We've got a strong criminal program, a strong civil program, and we've got the figures to prove it.

Speaking of figures, how do the results of this year's enforcement efforts compare with past years'?

A 1986 was a record enforcement year. We referred 342 judicial cases to the Department of Justice, compared with 276 cases last year. And the regions referred 386 cases to headquarters or the Justice Department, up from 323 last year and only 93 cases in 1981. Of these, Justice followed through on 245 cases. We also brought criminal charges against 94 defendants for violating federal environmental laws. The year before, we only filed 40 such charges. So I think you can see a distinct improvement.

Q How do numbers of enforcement cases translate into positive environmental results?

A Sometimes you can see direct results, as when an enforcement action stops a chemical discharge into a stream. But usually it's not so simple. We can't always link every action with a subsequent environmental improvement.

We're looking to get away from sheer numbers and instead target cases with "strategic value:" cases that will establish an important precedent, are part of an explicit enforcement initiative, or address major regional or national concerns. This increased emphasis on the strategic value of each case means that the Agency will be giving highest priority to those enforcement actions which are likely to result in the cleanup of major sources of pollution.

You're still fairly new at EPA. What's on your agenda? What would you most like to accomplish as the new Assistant Administrator for Enforcement?

A I've been with EPA three years now, mostly dealing with regional issues, and that intimacy let me come to OECM with definite ideas about what I wanted to do, such as streamlining our processes and enhancing the criminal enforcement program. I have also developed an understanding of some of the headquarters/regional challenges that arise in this office, so that now we're making an effort to be more sensitive to regional concerns, finding ways to help with cases when the regions get overloaded.

I see enforcement more and more as a strong support shop, providing training, monitoring, and guidance, and also acting as a facilitator among the regions, the headquarters technical program offices, and also the Department of Justice. I think you'll find that the enforcement staff is cognizant of the benefits they provide in acting as facilitators.

As for enhancing our criminal enforcement, I told the Senate confirmation committee that I really wanted to give our efforts there a genuine boost. The strengthened criminal enforcement provisions in the recent amendments to the Clean Water Act, Safe Drinking Water Act, and Superfund indicate that Congress understands the benefits, including the ultimate deterrent effect, of strong criminal enforcement.

By way of example, suppose the Internal Revenue Service just accepted filed returns—no checking, no auditing. You can imagine what would happen. Well, many of our environmental programs depend on self-monitoring, self-reporting. And we have had cases where people have submitted facts and figures to us that turned out to be false information. If we didn't have authority to go after violators like these with criminal charges, perhaps we'd end up with only periodic inspections by the states and EPA and, as a result, we would have a weaker program.

What specific remedies do you have for enforcing environmental laws and how do you use them?

А Well, basically there are three: administrative action, civil action, and criminal prosecution. Administrative actions can only be enforced through a subsequent court order. For instance, if a company enters into a consent agreement to pay an administrative penalty and then refuses to pay, the Agency would go to a District Court seeking a court order directing the company to make payment. The main benefit of an administrative action is that if the company complies with the administrative agreement or order, the Agency avoids the cost and time of litigating. Administrative actions generally are taken by the regions without assistance from headquarters. In fiscal year 1986, we had over 2,600 of these.

We take civil judicial action in more complex cases, or where there have been egregious violations or repeated violations of administrative orders. These originate in the regions and are sent through headquarters to the Department of Justice for filing by the U.S. Attorney's Office. In both civil judicial and administrative actions, the Agency is normally seeking both a penalty and future compliance.

Finally, we can prosecute on criminal charges where there is evidence of a knowing violation. Criminal cases really enhance our administrative and civil enforcement programs because the possibility of being hit with a large fine or even a prison term has a dramatic deterrent effect.

Criminal enforcement is a fairly new weapon in the environmental field. What is the role of a criminal program—badges, guns, etc.—in a regulatory agency like EPA?

We usually reserve criminal enforcement proceedings for the most serious cases of intentional wrongdoing, where we're also likely to find other factors such as risk of harm to people or the environment, or false



reporting. In contrast to administrative and civil cases, where violators are almost always corporations, in criminal cases we charge culpable individuals as well as corporations. As I said before, there is a great deterrent effect.

Q Badges and guns aside, what else are you doing to beef up criminal enforcement?

A As I mentioned earlier, we've really enhanced our criminal enforcement program. In the past, I think enforcement was divided unequally, with one office for civil enforcement and another that handled criminal enforcement, pesticides and toxics, and policy. Loading all those areas onto one office, sometimes one person, meant that criminal enforcement didn't get as much attention as it needed. We've reorganized the office to deal with that problem.

In addition to our own reorganization, we've got some very successful federal-state training programs down at the Federal Law Enforcement Training Center (FLETC) in Glynco, GA. State enforcement programs range from the very rudimentary levels to the highly sophisticated. EPA, through the coordinated efforts of the National Association of Attorneys General, the National Environmental Enforcement Council, and FLETC training, is encouraging further program development in states that have little or no criminal enforcement capability. We also strongly encourage attendance at FLETC by EPA civil inspectors, so that they can learn to better recognize and support EPA criminal cases.

Q Has the philosophy of enforcement changed over the years? What about new or innovative enforcement tools?

A I would say that the overall philosophy hasn't changed, but the

process has. We're a young program, really. Environmental law has only been developing since the early 1970s. And it's continually evolving, continually changing. We as enforcers have to change our methods along with it. Sometimes we can pull old tools out of the closet, clean the rust off. and use them again; sometimes we develop new ones, such as the "traffic ticket citation" concept for minor infractions discovered during an inspection. In fact, we have quite an arsenal of new enforcement techniques, such as environmental audits, ADR (alternative dispute resolution), and contractor listing. (For further discussion of these techniques, see the article by Terrell Hunt on page 10.)

Is business more cooperative now in complying with regulatory requirements, or is the need for enforcement action about the same as it has always been?

A I think the interest in cooperating is continually growing within the regulated community. The positive response to environmental auditing is one example. For a long time, I think there was a mindset in industry that saw environmental protection as an unnecessary cost or something to avoid. Now, the wisdom is that it is simply part of the cost of doing business today. So I think that's a very distinct change in philosophy on the part of the regulated community.

That does not mean we can cut down on our enforcement effort, though. Part of enforcement is taking actual legal action against some party; another part is monitoring to make sure that everyone is doing what they say they're doing. That's when legal action comes into the picture. It reinforces the value of voluntary compliance by penalizing those who refuse to comply.

So the prospect of enforcement action serves as a big deterrent against polluters?

A Very much so, I think. Of course, there is no way to count violations that did not occur because we run a vigorous enforcement program, but the more you get the news around that something is going to happen to you or your company, even criminal charges, the more you have people say to themselves, "Hey, I'd better not do that. I'd better not run that light. I may get a fine."

Every enforcement action we take helps prevent the need for another one. We let people know that they can expect to be caught if they're doing something wrong, and that penalties and other punitive actions will be imposed very quickly after we detect a violation. Another important point is that no one is going to gain any economic benefit from delaying compliance.

Q So it doesn't pay to pollute? It's not better to wait to get caught before complying?

A There's no benefit. We take any unfair gain into account when we assess financial penalties. Our policy at the very least is to recover whatever profits a company may have gotten from noncompliance, as well as an additional punitive amount. This second amount is based on several factors, but the most important is the seriousness of the harm caused by failure to comply. In fact, we've even developed a computer program to help us calculate how much benefit a firm may have enjoyed and how much we should assess as punitive damages. Removing the financial benefits of noncompliance will foster an attitude that it is better to spend the

money on compliance now than to wait and be penalized later.

Q Several levels of government are involved in enforcing environmental laws. What are their roles, and how do they fit in with your goal of streamlining the enforcement process?

A We rely very, very heavily on the states. We have to, Without the states. we wouldn't have a very good enforcement program-or, for that matter, environmental program. To a large degree, the legal process moves from the states to the region, from the region to headquarters, from headquarters to the Department of Justice. So we all have to work together. The majority of environmental enforcement actions are initially taken by the states who are on the front lines. In fiscal year 1986, they filed over 4,800 administrative orders and more than 543 civil judicial referrals. Of course, EPA has oversight of the state programs, and is authorized to take action if the states should fail to do so. The key is to continually refine and improve EPA/state coordination, so that we all know the circumstances under which EPA or the states should take action. It's part of the constant balancing that goes on.

What can headquarters do to support the regional offices and the Department of Justice in developing and prosecuting cases?

A We have a very important leadership role, particularly in the area of fostering innovative approaches to enforcement, and it's our job to produce a cohesive, consistent program and act as national spokesman. One advantage of OECM is that we have an overview of the entire enforcement area. By seeing the big picture, we know where the



Two different ways to make the news!

problems are brewing. More specifically, the staff here assists regional counsels as needed. We do a lot of training out of this shop, too. For example, we recently issued an update to the regions of all the cases on a particular issue, saving our regional attorneys many hours of research. And that's what I'd like to see more of from this office. On the technical side, NEIC, the National Enforcement Investigations Center, is very helpful. We get many compliments from the programs on NEIC's excellent work.

Lastly, we at headquarters oversee the federal/state enforcement relationship and work with the Department of Justice, sometimes to the point where our attorneys have been tapped to help the U.S. Attorney's Office because of their expertise.

What are you doing to avoid enforcement backlogs?

A First of all, OECM is trying to help the regions by taking up some cases where necessary. But we're also actively looking for ways to streamline enforcement as a process, so that our resources will be available for the more complex and precedent-setting cases.

Q Is there any major change in the law that would improve enforcement?

In the ideal world, all of the present environmental laws would be

combined in a uniform statute so that many of the procedures and interpretations would be similar. That alone would certainly streamline the process.

But that's the ideal world. The real world has individual committees on Capitol Hill with jurisdiction over different laws, and it's very unlikely that they will give up their respective jurisdictions. So at this point in our history, we just have to deal with complex interpretive language in the individual statutes. Given this, I think we should have felony provisions in the laws that don't currently have them. I'd also like to see longer prison terms, administrative penalty provisions, investigative subpoena authority, and contractor listing authority for the statutes that don't now provide for them.

Q How has enforcement funding changed over the last few years?

A Well, when you look back over time, you'll find that Congress has significantly increased our resources for regional enforcement activities, and there's been a proportionate expansion in criminal enforcement. The public has made it clear to their representatives that it wants a commitment to protect the environment. The checks and balances being what they are in our political process, I don't see this situation changing in the future.

In fact, if I could end on this thought, I'd like to see this heightened public awareness continue. Environmental protection is ultimately up to the public, because there is only so much a government agency can do. Public awareness is brought about by education, and I would like to see EPA working more in this area, doing more public service announcements, for example. There are still people who aren't aware of environmental consequences and the fragility of the environment. From my point of view. the best environmental protection will come from people and businesses saying, "Maybe I shouldn't dump this oil down here because it's going to go into the water and the streams, where it will take years for the system to clean it out." I feel strongly that solving our environmental problems will require the self-imposed enforcement that only comes with education and the use of sound common sense.

What is the role of EPA enforcement regarding the disposal of PCBs by the Texas Eastern Gas Pipeline Company, an environmental case which has been in the news recently?

A Enforcement is really leading the Agency's response. We're using authorities under three federal statutes to collect information from the company, assess whether any of those sites poses a threat to human health and the environment, determine whether violations of those laws occurred, and ultimately achieve a cleanup that is protective of human health and the environment.

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Pollution Doesn't Pay: A Landmark Case

by Matthew Coco

The Environmental Protection Agency, the U.S. Attorney's office, and the State of Washington have a clear message for environmental polluters in the Pacific Northwest: convicted white-collar polluters can't count on getting off with a slap on the wrist. They face a real prospect of going to jail.

One polluter who learned this hard fact of life is William Kaser, Manager of the Fleischmann's yeast manufacturing plant on the lower slopes of towering Mt. Rainier. He pled guilty in federal court to two charges involving the illegal pollution of the White River upstream from the city of Tacoma. Even though he was convicted on the basis of evidence gained by EPA enforcement agents through nightlong surveillance of the Nabisco Brands, Inc. subsidiary, and his plant operations director pleaded guilty to 28 acts of illegal dumping into the picturesque mountain river, Kaser, backed by hundreds of community supporters, maintained that he did not deserve to go to jail. The federal government disagreed, and so did the judge. Today the Nabisco executive is serving a year and a day in federal prison.

The story of the EPA investigation and subsequent criminal enforcement actions is illustrative of our national experience with environmental regulation. It begins in 1913, when a yeast-making plant was built in the city of Sumner, now a suburban community of 5,500 people. It was built on the banks of the then pristine, glacier-fed White River on the flanks of Mt. Rainier, at a point where the river meanders through lowland forests toward Puget Sound.

The White River was a convenient natural sewer. In the 1960s, well before the passage of the 1972 Clean Water

(Coco, an attorney, is a Program Analyst in EPA's Region 10 Planning Branch) Act, the company built a large wooden tank to store wastes remaining after the yeast was grown and filtered out of the culture medium. The "yeast liquor" wastes were flushed into the river, promoting the growth of algae and threatening to choke off fish and desirable plant life.

When the plant came under the Clean Water Act in the 1970s, the water discharge permit required the tank to be emptied into storage lagoons instead of the river. From the lagoons the wastes were to go into the Sumner municipal wastewater treatment system. The permit allowed only unpolluted cooling water to go directly from the plant into the river. The plant's legal troubles began in October 1985, when the Washington State Department of Ecology imposed a \$5,000 administrative fine for a discharge of yeast liquor from the wooden tank into the river. At the time, the pollution was characterized by the firm as an isolated incident resulting from a pipe rupture.

But in February 1986, a plant employee confidentially told the state agency that the company was dumping its industrial waste into the river on a regular basis. The tip was passed on to EPA's Federal Office of Criminal Investigation (OCI) in Seattle. OCI agents led by Special Agent-in-Charge Dixon McClary staked out the plant. From a concealed location on the opposite riverbank, they saw a Nabisco employee unlock and open a valve near the tank. Immediately thereafter, according to EPA agent Ken Purdy, "a large, very noticeable boiling of frothy brown liquid (came) from the area of the submerged (outfall) pipe. The boiling discharge lasted for at least an hour, and a strong smell of molasses—a growth medium for yeast-filled the air." This happened several times in the middle of the night during the surveillance period. The surveillance provided the basis for the securing of a criminal search warrant by the OCI teams. To execute

this warrant, Region 10's investigators were joined by additional special agents from EPA Regions 8 and 9, and three members of Region 10's Environmental Services Division technical staff, who had prepared a sampling plan to trace the waste stream from the tank to the river.

Having become familiar with the pattern of environmental misconduct at the plant, the agents decided the best time to conduct the search would be when an illegal discharge was about to happen. On the night of March 26, 1986, high-power telescopes were trained in the direction of the waste tank. When a Nabisco employee was seen opening the tank valve, the surveillance team radioed other agents across the river. The agents were ready to enter the plant site with flood lights and video cameras to film the frothy brown polluted brew as it boiled to the surface. The cameras rolled as the Nabisco employees were in the act of polluting the river.

The EPA team worked through the night, gathering documents and sampling the yeast waste in the river. The corporate records showed that the company had been concealing its illegal dumping of wastes for several years. Seized wastewater samples were sent to the regional EPA laboratory in Manchester, WA, where forensic tests linked the brown waste found in the river to the Nabisco plant operation. Kaser, the plant manager, was interviewed at length. After first denying any knowledge of the illegal discharge and trying to put the blame on subordinates, he finally admitted that he had directed the systematic permit violations. The strength of the government's evidence prompted the entry of guilty pleas by the Nabisco Corporation, Kaser, and the production manager, William Parks. Parks was convicted of conspiring to discharge pollutants, fined \$2,500 and given three years probation. Nabisco, convicted of 28 illegal discharges in violation of the Clean Water Act, was fined \$300,000 and ordered to pay an additional \$150,000 into an environmental trust fund administered by the Washington State Department of Fisheries for the environmental enhancement of the river harmed by the company's actions. Also, Nabisco and all its subdivisions nationwide were placed on three years' probation.

Sentencing the plant manager was more difficult. Kaser pled guilty to one misdemeanor count of conspiracy to violate the Clean Water Act and one felony count of conspiracy to violate the Clean Water Act and one felony count of mail fraud based on the mailing of his letter to the Department of Ecology falsely stating that the company was disposing of its wastes through an approved land-irrigation system. Federal District Court Judge Jack Tanner received 270 letters extolling Kaser as a community leader and asking that he not be sent to jail. Kaser himself appealed for the court's leniency, saying that his falsehoods were designed to keep the plant open and save his employees' jobs. Assistant U.S. Attorney David Marshall later described this outpouring of community support as a fundamental problem in dealing with environmental crimes-the branding of people as criminals who usually are not perceived as criminals.

Responding to the pressure to keep Kaser out of prison, Marshall emphasized the plant manager's persistent history of falsehoods, and called for imprisonment as a deterrent to other business management polluters. Special Assistant U.S. Attorney Katherine Mix added: "The effectiveness of the Clean Water Act depends and revolves around voluntary reporting of the substances they're putting into the waters. Without that voluntary, accurate reporting, those laws are almost impossible to effectively administer."

Judge Tanner was unpersuaded by Kaser's arguments and community appeals and sentenced him to a \$5,000 fine on the conspiracy charge and a year and a day in jail for mail fraud, of which he must serve a minimum of nine months and 16 days.

This case illustrates the favorable outcome of skilled investigation and an effective criminal law enforcement program. Among its valuable lessons for the future are:

• Surreptitious polluting requires a strong stance by EPA. The water permit program has assumed good faith by point source dischargers, but unless there is a criminal deterrent, many polluters just wink at the law. Criminal enforcement raises the stakes for the polluters. Corporate treasuries may be able to pay fines, but there is no dollar value that can be placed on the loss of a manager's personal liberty and community esteem. A vigorous criminal enforcement program will play an enhanced role in maintaining a clean environment.



In March 1986, yeast liquor bubbles into the White River from a submerged outfall at a Fleischmann's plant in Tacoma, WA. A special agent from EPA's Office of Criminal Investigation is using the pole to take a water sample.

 Effective criminal enforcement requires close collaboration by criminal investigators, technical support staff, lawyers, and administrators. In the Nabisco case, smooth teamwork was critical to the investigation. Everyone involved learned first hand that round-the-clock enforcement is more than just an EPA slogan. Moreover, energetic support of the investigation and prosecution by key EPA regional officials and state agency leaders created a favorable climate for criminal law enforcement endeavors. Staff personnel knew that their efforts were supported from the top down.

• Federal-state law enforcement coordination is advantageous. In this case, prosecution on the federal level was preferable. While the state had no felony measures for environmental crimes and the Clean Water Act at the time lacked a felony provision, federal law provided the offense of mail fraud as a basis for sending Kaser to prison. Not only was there cooperation between the EPA and the State's Department of Ecology, but an attorney with the State's Office of Attorney General was made a Special Assistant U.S. Attorney to assist in the federal prosecution.

 Criminal enforcement can be a vehicle for achieving broader environmental goals. Not only was Nabisco required to establish an environmental trust fund, but a condition of Nabisco's three year probation is that it not violate any environmental laws. EPA's Region 10 has coordinated a program to monitor the environmental compliance of all Nabisco's operations nationwide. The enforcement action involving the Sumner facility has triggered a "domino effect" with broad implications for the corporation's future behavior. A great deal will be at stake for the corporation in the event of future violations.

Since the federal court convictions. Nabisco has sold the Fleischmann's yeast facility. Deprived of its illegal White River "sewer", the plant remains out of compliance. The state has given the plant until May 1987 to reach compliance. The city, of course, wants the plant and its jobs to stay in Sumner, but Sumner's sewage treatment facility is already exceeding water quality standards because of the increased load from the yeast manufacturing wastes. The city cannot attract new industry because of this overload. If the wastes had not been illegally dumped into the river, the city would have been forced to confront the need to upgrade its treatment plant long ago; now it is paying an economic price in lost economic development because of the violations at the Nabisco plant.

This case demonstrates the nationwide potential for developing an environmental "no illegal dumping" ethic to replace the attitude of many corporate polluters who have complacently seen fines as just another cost of doing business. The jail sentence for the plant manager in Sumner proves that environmental violations are increasingly being treated as real crimes. \Box



Penalties on the Rise

by Carol Hudson Jones

The use of penalties has a long history at EPA, but their importance to the effective enforcement of our programs has increased greatly in the last few years. Since 1974, when EPA imposed its first penalty, cash penalties totalling approximately \$70 million have been imposed during the course of over 2,700 civil and administrative cases. However, a large proportion of those penalties were imposed in recent years.

Congress granted EPA the authority to impose or pursue enforcement penalties in all of its major programs, and these penalties are an important feature of our continuing effort to discourage violation of the nation's environmental laws and regulations. While EPA implements some programs directly, many programs are implemented by state agencies, which have various penalty authorities under state statutes. EPA works with state programs to use penalties most effectively, and the Agency has recently issued a policy on overseeing and strengthening penalties imposed by states

Penalties are a critical element in EPA's three-pronged approach to deterring violations. The first element consists of monitoring and inspecting a broad range of facilities to create a strong likelihood that violations will be detected, in much the same way that the IRS routinely audits selected tax returns and thus creates an incentive for everyone to report truthfully. Secondly, where violations are found, EPA and states quickly notify the violator and if

(Jones is a Program Analyst in the Compliance Policy and Planning Branch in EPA's Office of Enforcement and Compliance Monitoring.) necessary take enforcement action to ensure that violations are corrected. In the third element of the approach, violators are penalized through dollar penalties or other sanctions are imposed—e.g. an operating permit may be withdrawn. All of these elements are vital in the Agency's struggle to reduce violations.

In fiscal year 1985, EPA clearly signalled its increased commitment to the use of penalties both to punish violators and to act as a strong future deterrent. More than 30 percent of all of EPA's penalties were imposed in fiscal year 1985 alone, yielding some \$21 million. These proceeds were four times greater than those obtained the previous year. A new penalty policy issued in 1984 was the fundamental force behind the Agency's increased enforcement activity, coalescing into one coherent statement a number of enforcement ideas. As a result of the use of this new policy and others directly derived from it, a large increase was achieved in the number of penalties as well as in the size of individual penalties.

The penalty policy is based on the concept that a penalty should be at least as large as any economic advantage gained by noncompliance. For example, let us say that a manufacturing plant is required to install equipment in a smokestack to meet emissions standards at a cost of \$315,000 for installation and \$15,750 for yearly operating costs. If the company waits for 14 months before installing the equipment, it can use those funds for other purposes (including simply placing the money in a bank) and reap a financial benefit. In this case, the financial gain to the company as a result of waiting to make the installation would be over \$36,000. EPA's new penalty policy is that the penalty should therefore be at least that amount. Nullifying any advantage gained by violating environmental laws and regulations also ensures that other companies which compete with the violator are not placed at a financial disadvantage by complying with EPA's requirements.

In addition to eliminating any economic benefit gained by noncompliance, the policy holds that the size of the penalty should reflect the severity of the violations and any environmental damage caused. This is termed the "gravity component".

The largest cash penalty imposed by EPA was over \$6 million in a case decided by a judge in 1985. In this case, brought for violations of sulphur dioxide emission limits and permit requirements under the Clean Air Act, the economic benefit portion of the penalty was roughly \$3 million and the gravity component was about \$3 million.

Although a dramatic increase in the number of penalties occurred in 1985, the size of penalties has increased steadily during EPA's entire history. The average penalty in the Stationary Source Air Program has increased 700 percent since 1979 to a figure of \$253,000 in 1985. Under the Clean Water Act, the average was \$103,700, an increase of over 600 percent. Significant increases also took place in most of the Agency's other programs.

EPA has discretion in using its penalty authorities, but usually pursues penalties in cases which involve serious environmental damage or danger, or a person or facility with a long history of violations. In 82 percent of EPA's enforcement cases (based on present data through fiscal year 1985), a penalty was imposed.

Although this high percentage of penalty use is significant, EPA does not see the imposition of penalties as a "business tax," nor as a cost of doing business. EPA used penalties to create an atmosphere in which facilities know that everyone must comply with the regulations and that no one will gain financially by violating environmental requirements. Ultimately, if EPA is successful in deterring violators, the need for penalties will decrease. More realistically, however, we anticipate a continuing need to spread the message in order to reduce violations. Creating this level of awareness and deterrence is becoming increasingly important as many of EPA's programs are expanding, and more and more facilities are included under our regulations.

Because creating an atmosphere of deterrence is important, EPA's focus is not solely on cash penalties. The states and EPA may use other effective "sanctions" to impose a financial burden on the violator, such as halting operation of the facility, thereby depriving the violator of his ability to conduct business.

We supplement our use of financial penalties with other approaches because we know that other factors besides cold, hard, economic realities

can motivate or deter individuals and groups. As an example, settlements of enforcement cases may require that the violator publicize in trade or public media the fact that his company violated the law and was caught, and advise the reader not to make the same mistake. By publicizing cases in this way, EPA creates an expectation that you or your company might be required to reveal to the public the facts surrounding your violation of the law. This type of disincentive may be very effective in certain circumstances and can strengthen the impact of a cash penalty.

As can be seen, EPA has taken clear steps in the past few years to strengthen its use of a variety of penalties. We now have a well articulated and well thought-out policy which is making a considerable difference in the size and numbers of penalties we obtain.

EPA shares much of the enforcement responsibility with the states. Therefore, we are encouraging states to improve their use of penalties while at the same time strengthening our own program. EPA recently issued a policy on overseeing state penalties which focuses on how to support and strengthen the states' efforts. Penalties are an important tool in both federal and state programs and EPA will continue to promote and coordinate this type of action.

We will continue to refine our approaches to deterring violations in the future, to better achieve the environmental goals established by the statutes. The recent changes in the use of our penalty authorities should send a clear signal that EPA is committed to deterring violation of our environmental requirements. \Box



Tools to Deter Violators

by Terrell E. Hunt

Enforcement is an essential part of the Eimplementation of each environmental program. It is the means by which actual violations are corrected and potential violators learn the consequences of careless or intentional misconduct. Over the last three years, we've stepped up the pace of state and federal inspections, expanded the number of civil and criminal cases brought, and increased the severity of penalties sought and imposed. This aggressive stance is already paying off: last year, we developed a record 386 new judicial cases, a 20 percent increase over the record high of the previous year.

In the face of this expanding workload, EPA is searching for new ways to 1) help well-meaning firms prevent violations before they occur, 2) streamline our casework and reduce the "transactions costs" of individual enforcement actions, and 3) maximize the deterrent impact of cases brought against serious violators.

Consider the hypothetical XYZ Corporation. XYZ is a large chemical manufacturing operation with plants in eight states. EPA and state inspectors have visited these plants seven times in the last 10 years. Each inspection has revealed serious violations resulting in enforcement actions, one of which has been in litigation for over three years. Inspection of the California facility detected serious chemical contamination around a discharge lagoon, with strong evidence of ground-water contamination. The Texas facility was found to have continuing major water violations and some serious PCB cleanup problems, and the Boston plant had not kept up with its

(Hunt is Director of the Office of Enforcement Policy in EPA's Office of Enforcement and Compliance Monitoring.) record-keeping and reporting requirements. In addition, XYZ has failed to comply with premanufacture notification requirements for several of its chemical products, and it has recently been notified that it is a potentially responsible party (PRP) in a major Superfund cleanup. The number and scope of its environmental compliance problems make XYZ a good candidate for several innovative enforcement techniques. These techniques are being developed to prevent violations, streamline the enforcement process once violations are found, and increase the "stigma" felt by serious violators.

Preventing Violations

Environmental Auditing

EPA has long encouraged corporations to establish programs to monitor or audit their operations for environmental compliance. More recently, it has also begun to require firms with repeated or continuous violations to set up auditing programs as a condition of settling major enforcement cases. These internal auditing programs would carefully monitor firms' entire operations, enabling top management to institute appropriate corrective action without EPA intervention.

For compliance auditing programs to become fully integrated into a firm's "culture," they must be incorporated into its basic management systems. EPA also may require a firm to conduct an environmental management audit to determine whether the firm has established and communicated to its employees clear policy on environmental compliance and whether management systems are in place to ensure that the policy is carried out.

XYZ has consistently violated requirements at many of its facilities. It has no program to monitor its compliance and has failed to establish a management system that would prevent future violations. Under EPA's new policy encouraging the implementation of internal auditing, the Agency will be very reluctant to settle enforcement actions until XYZ can explain the flaw in its operations that allowed the violations to occcur and describe what it has done to ensure that they will not happen again.

Multi-Facility Compliance Audits/National Settlements

EPA could also seek to require XYZ to audit compliance at all of its facilities as a condition to settling an enforcement action at one facility. Such audits, performed under strict guidelines and stringent EPA oversight, would enable the Agency to "leverage" a single case to achieve compliance at a large number of facilities.

In 1985, for example, the Diamond Shamrock Chemical Corporation settled a PCB disposal case against its Deer Park, TX facility with a cash penalty of \$900,000 and an audit of 43 separate facilities across the country to ensure compliance with the Toxic Substances Control Act.

A variation of the multi-facility audit is the national settlement concept. XYZ's violations all over the country normally would subject each of its facilities to individual litigation. More efficiently, however, EPA could package all the known (and currently unknown) violations at all facilities into a single enforcement action. To settle such a case, XYZ would need to agree to audit compliance at all its facilities



according to detailed procedures established and overseen by EPA, and to establish a company-wide management system to assure future compliance. The firm would also be required to correct all violations uncovered by the audits, maintain specified records, submit audit reports, and pay pre-negotiated, "stipulated" penalties for each violation identified by the audit.

EPA would consider such a settlement only if it and the affected state agencies and regional offices were confident that XYZ was firmly committed to improving its overall compliance posture. EPA headquarters would serve as neutral "broker" among the regions and states in building consensus among all parties on the terms and conditions of such a settlement.

Streamlining Enforcement Casework

Case Initiatives

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EPA's usual enforcement approach is for each state or EPA regional office to take action independently against violations occurring within its jurisdiction. In XYZ's case, the states of Texas, California, and Massachusetts and EPA Regions 6, 9, and 1 may all seek immediate correction of the violations detected, as well as civil, and punitive penalties sufficient to remove the economic benefits of non-compliance. But because of differing state and regional priorities and varying state requirements, the timing, the corrective actions and the penalties sought in the various cases may not necessarily be consistent. The direct deterrent impact of these actions may vary.

In contrast, the case "initiatives" approach seeks to expand the deterrent impact of individual cases by grouping similar cases together. In an initiative, EPA simultaneously files a number of cases involving the same law and regulation, reflecting a special emphasis in a selected program area. By "batching" the cases in this way, EPA can standardize the litigation documents, review cases in batches, and commit specialized and intensive staff effort to one area. Each initiative also is accompanied by a well-designed outreach effort to publicize the regulatory message among both the general public and specific audiences within the regulated community. Not only do initiatives offer an opportunity to use enforcement resources more efficiently, but because of the broad coverage they are afforded in the media, they also serve the goal of deterring and preventing future violations.

In the past two years, EPA has used the initiatives approach to target violations involving pretreatment, municipal discharges, premanufacture notification, and asbestos demolition/ renovation. Firms are included in initiatives if they serve as good examples of the type of conduct EPA seeks to deter. The stronger the case against them and the poorer their general compliance history, the more likely they will be included. Its violation of premanufacture notification and wastewater discharge requirements would have made XYZ a candidate for both the premanufacture and pretreatment initiatives.

Alternative Dispute Resolution (ADR) Techniques

Another approach for streamlining casework is the use of alternative dispute resolution (ADR) techniques to resolve enforcement actions. ADR uses neutral third parties to facilitate communications between parties, explore possible solutions, determine factual issues, and perhaps resolve all or part of a case. It is particularly valuable in cases that are stalled, that are technically complex, or that involve routine infractions, or multiple parties. ADR techniques include arbitration, mediation, mini-trials, and fact-finding. EPA envisions using ADR both before an enforcement action is filed, and after litigation has begun to focus the parties on their respective interests and keep the adversarial process from inhibiting resolution of cases. ADR promises to reduce the "transactions costs" of environment litigation to both government and industry in appropriate cases.

ADR could help to resolve some aspects of XYZ's enforcement problems. In the case under litigation for three years, for example, ADR could break the impasse by using a neutral mediator. Cases stall for many reasons, including personality conflicts between counsel, poor communication, inflexibility, inability to design remedies, public policy issues, or political considerations, particularly issues involving local political entities. An experienced neutral party can provide the impetus to resolve these problems.

XYZ also faces problems in designing a PCB cleanup remedy and responding to potential ground-water contamination. Placing the technically complex issues of cleanup remedies before an ADR neutral who possesses technical expertise avoids the risk that a judge with no technical background may order inappropriate, inadequate, or unnecessary actions.

At the other extreme, *minor* or routine violations, such as XYZ's water permit violations, may be good candidates for ADR. If routine cases can be resolved without costly formal litigation, both EPA and the company benefit.

Finally, XYZ Corporation has been named as one of many potentially responsible parties in a new Superfund case. A large number of parties in a case argues for the use of a neutral case manager to organize multiple defendants or plaintiffs, facilitate agreement on litigation strategies and schedules, and identify questions for resolution.

ADR is a means of resolving disputes more efficiently. EPA's consideration of ADR does not imply that the Agency would settle for less favorable terms than it would accept under conventional litigation. Use of ADR will always be accompanied by aggressive administrative, civil, and criminal enforcement efforts. Furthermore, EPA will always litigate cases that pose precendential questions of law or policy.

Field Citations

As a potential response to relatively minor violations, such as XYZ's record-keeping lapses, EPA is exploring the use of field citations. Field citations are "environmental traffic tickets," which could be issued by inspectors during inspections. If, within a specified period, companies paid the penalty and submitted proof of corrective action, no further litigation would follow. Those companies that wished to challenge the citation or penalty could take advantage of the normal administrative or civil litigation process.

Field citations would be applicable to the minor violations found at XYZ's Boston facility, but would not be appropriate to any of its other, more significant compliance problems.

Maximizing Deterrent Impact

Criminal Enforcement

Over the last three years, EPA has established a separate criminal enforcement program, involving trained law enforcement investigators and specialized criminal enforcement attorneys. This criminal enforcement capability enhances EPA's overall enforcement effort in four ways. It adds credibility to administrative and civil court actions by demonstrating the Agency's willingness and ability to bring the most serious remedies to bear against those who intentionally violate environmental laws. It enhances the integrity of the Agency's standard-setting processes by providing a powerful tool against those who may submit false reports or fraudulent data. With increasing frequency, it is used to punish with incarceration those convicted of serious environmental crimes. Finally, the stigma of criminal prosecution and the threat of individual liability and risk of imprisonment for corporate directors, presidents, and vice presidents serve as a strong deterrent against future violations. Last year charges were filed against 94 defendants. This compares with 40 defendants the previous year and 123 defendants in all prior years combined. Also last year federal judges imposed penalties of \$19 million against those convicted of environmental crimes, and imposed jail terms of over 124 years, of which over 31 years of incarceration will be served.

Contractor Listing

The Clean Water and Clean Air Acts empower EPA to bar facilities with continuing or recurring violations from obtaining future federal contracts, grants, and loans. Such contractor listing ensures that the federal procurement process does not reward facilities whose production costs may be lower because they fail to comply with environmental laws.

EPA has recently simplified its listing procedures, making listing a more effective and useful remedy. Listing is an automatic consequence of a criminal conviction under the Clean Air or Clean Water Acts, and may be a discretionary result of civil violations of those laws. EPA's new guidelines encourage the states and regional offices to recommend the listing of any facility with continuing serious Clean Water or Clean Air Act violations, even while the formal underlying enforcement action is still pending. A public stigma attaches to being included on EPA's "List of Violating Facilities," and provides a strong incentive for the facility to correct its violations and resolve the underlying enforcement action.

Public Outreach and Communications

One further element of our program to increase the deterrent impact of individual enforcement actions is our expanded use of public outreach and publicity. To help prevent violations, we recognize that EPA has a duty to tell the regulated community what standards apply to them and what actions they must take to comply with those standards. To help deter violations, on the other hand, we will seek to disseminate broadly to the general public and to specialized segments of the regulated community information about serious misconduct detected and punished. Such conscious and targeted outreach efforts are an essential component of our program to make the public aware that EPA (and the states) are serious about enforcement, and to make the regulated community aware that the consequences of getting caught can be severe and unpleasant. 🗆

Enforcement in the Year 2000

by Richard H. Mays and Julie C. Becker



Ready for satellite relay of monitoring data . . .

Environmental enforcement is a dynamic process, constantly adopting more efficient, effective procedures and using new technology to obtain and analyze information on environmental compliance. Many of the procedures and much of the technology in use today were not generally known 10 years ago; 10 years from now, they may be obsolete. To see just how far EPA may go in adapting to the challenges of environmental enforcement, let us take you into the future to the year 2000.

May 1, 2000

Resisting intense pressure from chemical industry lobbyists, Congress passes a law regulating the manufacture, storage, use, and disposal of the highly toxic chemical tetradichloroxylene (TDTOX, commonly known as "TOX"). Animal studies have shown that TOX, a major chemical ingredient in the manufacture of a wide variety of products, is a highly potent carcinogen which bioaccumulates in living organisms and the environment. In the year 2000, high levels of TOX have appeared in all environmental media—air, water, and land.

The crackdown on TOX was prompted by recent industrial releases of the chemical which claimed 12 lives and caused numerous injuries, forced the evacuation of several communities, caused major fish kills, and, in one particularly egregious instance, led to a federal government "buyout" of hundreds of properties in Beverly Hills, California. TOX is manufactured in the United States by 40 companies in 150 facilities, is stored in 5,000 storage facilities, and is used by 20,000 plants in their manufacturing processes.

(Mays is Senior Enforcement Counsel in EPA's Office of Enforcement and Compliance Monitoring and Becker is his Special Assistant.) Upon signing the TOX bill into law, the President declares enforcement of the new law to be "the highest priority for EPA since the establishment of the Superfund program."

May 15, 2000

To decide on an appropriate enforcement strategy, EPA's Office of **Enforcement and Compliance** Monitoring directs its main enforcement computer ("ENFOMAIN") to generate a profile of the companies affected by the TOX law. Within minutes, ENFOMAIN identifies every facility in the United States that manufactures, stores, or uses TOX. It then profiles each facility, showing the age of each facility, the volume of TOX handled, the type of process used and the products produced, the size and financial status of the company, the number of facilities owned by the company, the enforcement history of each facility, permit data, past inspection results, and the existence of internal corporate environmental auditing procedures. ENFOMAIN's report also includes information drawn from state and local databases.

May 16, 2000

Based on the computer profiles and preliminary risk assessments, EPA identifies the MegaCorporation (Megacorp) as the Agency's number one enforcement priority. Megacorp has a sordid compliance history, including major violations of environmental regulations. With 30 plants nationally, the company has only one officer to oversee compliance with environmental regulations. In addition, most of its facilities are old, using obsolete control technology, and many of them are located in or near residential areas. In the past five years, these areas have The technology and innovation of the coming decade can only make enforcement more efficient and effective.

repeatedly been subjected to accidental releases of TOX emissions. In one instance, TOX-contaminated gases from a Megacorp plant caused dozens of workers and people nearby to suffer severe illness; damage to plant and animal life was also extensive.

Megacorp's environmental practices, including its handling of hazardous wastes, have for some time been under investigation by EPA, the Department of Justice, and the FBI. Although two major criminal investigations were initiated, no indictments resulted.

May 20, 2000

After the selection of Megacorp as the initial target for the "TOX Initiative", EPA enforcement staff direct ENFOMAIN to rank the 30 Megacorp manufacturing facilities in order of priority for upcoming inspections, giving highest priority to those posing the largest potential risk to the public. The computer then schedules inspections for each of these facilities, taking into consideration available inspection resources and other Agency priorities.

May 21-24, 2000

Regional inspectors, assisted by experts from the National Enforcement Investigations Center (NEIC) in Denver, conduct multi-media inspections at each of the 30 targeted Megacorp facilities. Using document readers and portable computers with sampling and analysis capability, the inspectors are able to instantaneously record corporate documents and produce sampling results.

May 25, 2000

After four days of onsite inspections, the inspectors return to the EPA regional office. Information from the portable computers is fed into ENFOMAIN, which is programmed to determine where violations have occurred, to rank the violations according to their significance, and to calculate the appropriate penalty for each violation according to the Agency's penalty policies.

For all non-significant violations (those not potentially endangering human health or the environment) ENFOMAIN issues a "traffic ticket" citation to Megacorp assessing a penalty of \$500 per violation per day. The company can either challenge the citation or settle by paying all of the penalties within 30 days.

May 30, 2000

For the more serious violations, ENFOMAIN prepares an administrative order for each of the Megacorp facilities incorporating each of those violations and assessing the maximum statutory penalty for each violation.

June 1-5, 2000

After reviewing the administrative orders, EPA Headquarters and regional enforcement officials agree that it would be more efficient and effective to combine all of the violations into a single administrative order rather than conduct separate proceedings for each facility. Headquarters will coordinate the case, with regional offices addressing facility-specific issues. The violations are combined into a single administrative order, and the order is issued to Megacorp headquarters in Newark.

ENFOMAIN also helps the staff develop the range of penalties EPA will consider against Megacorp. Penalties are

not arbitrary figures; they are based on several factors, including the firm's ability to pay, the severity of its violations, and its willingness to go beyond minimum statutory requirements in correcting these violations. For Megacorp, the staff decides on penalties ranging from \$20 million to \$50 million, depending on how the company plans to remedy its violations. Possible remedial actions include using BLOBs (Biologically Liberated Organo-Beasties), genetically engineered microorganisms that consume TOX in soil and ground water, and installing ECHH systems (Electro-Catalytic Hyper-Heaters) to control air emissions.

In addition to penalties and remedial actions, the staff will also require Megacorp to conduct risk assessments and environmental compliance and management audits at all of its TOX facilities.

June 20, 2000

Megacorp electronically transfers \$150,000 to EPA for the minor citations, and because even in the year 2000, formal litigation is enormously expensive and time-consuming, EPA and Megacorp agree to negotiate a settlement for the remaining major violations.

July 15, 2000

Negotiations begin via teleconference, with a neutral third party mediating. The final settlement is a consent order committing Megacorp to pay a penalty of \$30 million and to use BLOB and ECHH technologies. In addition, the company agrees to have an EPAapproved audit firm perform multi-facility, corporate-wide audits of its environmental management and compliance practices, and to pay pre-agreed penalties for certain minor violations found by the auditor. The Agency reserves its right to seek appropriate relief from Megacorp for more serious violations uncovered by the audit firm.

The consent order also includes provisions designed to prevent future accidental TOX emissions. In addition to conducting compliance and management audits, Megacorp agrees to risk assessments aimed at identifying those areas of the company's facilities where industrial accidents are most likely to occur, and to take preventive measures as recommended by the auditor. Further, Megacorp agrees to provide training equipment, as recommended by the audit firm, to reduce the risk of such accidents.

Finally, Megacorp agrees to participate in the Agency's new computerized self-reporting system. This system involves the installation of electronic sensors at emission points in Megacorp's facilities which continuously relay information on those emissions to ENFOMAIN for analysis and comparisons to emission limitations. This will provide EPA with a monthly compliance profile of all 30 Megacorp manufacturing facilities, automatically identifying violations and tracking compliance, and allowing EPA to issue citations and administrative orders more quickly.

That's the future. But the year 2000 is not as far off as it seems. The fact is that EPA already is implementing or planning a number of these futuristic enforcement tools.

Although a central enforcement computer system and portable computers to aid inspectors are still dreams of the future, today the NEIC feeds corporate compliance information gathered from the various program offices' data bases, the regions, states, and many other sources, into a mini-computer which enables EPA to target facilities for inspections. When EPA wishes to emphasize an enforcement priority, the Office of **Enforcement and Compliance** Monitoring (OECM) can determine through the NEIC computer which companies and facilities are in the regulated universe, and, through criteria like those used for the selection of Megacorp as the target for the "TOX Initiative," can determine which are most likely to be in violation.

The "traffic ticket" approach to minor violations is now under development in

OECM, and EPA is currently requiring companies to perform multi-media environmental audits as part of the remedy outlined in certain settlement agreements. Requiring a company to perform risk assessments to prevent accidental emissions (rather than addressing them after the fact) may be the next logical step toward reducing environmental risks.

When one considers the developments in technology which have occurred in the past ten years, and which will surely continue, the vision which we have of enforcement in the next decade is not unreasonable. EPA's ability to achieve that vision is limited only by our willingness to accept new technology and to attempt innovative approaches to enforcement. In the end, the technology and innovation of the coming decade can only make enforcement more efficient and effective and, as a result, raise compliance and environmental consciousness throughout the entire regulated community.



The Justice Department: When the Polluter Meets the Judge

by F. Henry Habicht II

The Department of Justice, through Division, represents the United States, its agencies, and officials in matters relating to environmental quality, public lands and natural resources, Indian lands and native claims, and wildlife and fishery resources. The Division's most frequent clients include the Departments of Agriculture, Commerce, Defense, Energy, Interior, and Transportation, as well as the Environmental Protection Agency.

The Division handles environmental enforcement litigation under a wide range of statutes designed to protect the public health and the environment from pollution of our air, soil, surface water, drinking water, and ground water. Most enforcement litigation arises out of statutes designed to address cleanup of hazardous waste sites (the

(Habicht is the Assistant Attorney General for the Land and Natural Resources Division of the U.S. Department of Justice.) **Comprehensive Environmental** Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986), the ongoing disposal of hazardous wastes (the Resource Conservation and Recovery Act), the pollution of our waters and wetlands (the Clean Water Act and the Rivers and Harbors Act), the integrity of our drinking water (the Safe Drinking Water Act), and the quality of our air (the Clean Air Act). These statutes are enormously complex and regularly present challenging opportunities for the Division to address the proper interpretation of the law to novel factual circumstances and to complex, difficult, technical matters.

The Division is the principal enforcer of the federal environmental laws, often representing our leading client, the Environmental Protection Agency. Enforcement cases are referred to the Division from EPA regions or headquarters or from one of the Division's other client agencies. Generally, with respect to EPA cases, the Division files the action within 60 days after the referral, unless additional factual information is needed. After receiving a litigation report, the Division conducts a thorough evaluation of the referral, ensures that technical and other litigation support is available from EPA, and drafts the necessary court papers and pleadings.

During the fiscal year ending September 30, 1986, the Division received more than 400 enforcement case referrals, in addition to 450 matters pending at the beginning of the fiscal year. Also during fiscal year 1986, we concluded with opposing parties over 175 settlements that were entered with the court as consent judgments. The Division also tried and received favorable court judgment in over 30 district court cases. The rest of the matters considered and referred during fiscal year 1986 remain pending. The Division has also successfully prosecuted more people and corporations for criminal violations of the environmental laws than ever before, obtaining over 257 guilty pleas and convictions since 1981 that resulted in over \$3 million in fines and almost 150 years in jail sentences. We have filed more civil environmental enforcement suits than ever before—over 1,000 since 1981—and in our hazardous waste cases alone, we have obtained court-ordered cleanups worth nearly \$400 million.

During the last year we have had outstanding success in various enforcement litigations. Under the Clean Air Act, we successfully tried a major penalty action against the St. Joe Minerals Corporation. Following a lengthy trial, the company agreed to a finding of liability and a \$1.2 million penalty for violating sulfur dioxide emission rules. The Division was also successful in concluding several difficult enforcement cases aimed at curbing volatile organic compound emissions, which contribute to the nation's ozone problem. Among these was an action against Smurfit Diamond Packaging, which resulted in injunctive relief valued at over \$800,000 and a \$120,000 penalty.

Under the Clean Water Act, the Division pursued several cases against municipal violators and resolved a major action against the City of Los Angeles. In that settlement, the city agreed to undertake an important remedial program to eliminate discharge into the Pacific Ocean and Santa Monica Bay. Moreover, the city agreed to pay a \$625,000 civil penalty. The Division also resolved enforcement actions against several major industrial violators in 1986. In U.S. v. Phelps Dodge, for example, the company agreed to install an \$8 million run-off control system to abate unpermitted copper



mining run-off and to pay a \$1 million penalty. Litigation was also successfully concluded in a number of very complex Superfund cases. In U.S. v. Reilly Tar, the defendants agreed to implement a \$50 million remedy at a site just outside St. Louis Park, MN. Similarly, in U.S. v. Western Processors, the defendants agreed to implement a remedy valued at over \$40 million at a site near Seattle, WA.

Despite the Division's unique success in pursuing environmental enforcement actions, these actions are extremely difficult and time-consuming to prosecute. U.S. v. Kaiser Steel Corporation is a perfect illustration. In this action under the Clean Air Act, EPA and the Department of Justice had three goals: to force Kaiser to stop operating four blast-furnace casthouses in violation of the law; to require Kaiser to undertake a plan to bring these blastfurnace casthouses swiftly into compliance with the Clean Air Act; and to assess substantial civil penalties for violations of the law.

In many ways this was a relatively straightforward enforcement action, with well-documented, clear violations involving only one defendant. Yet this "simple" action required over three months' full-time preparation for a highly experienced Lands Division attorney. During trial, the U.S. was represented by a local Assistant U.S. Attorney, and EPA enforcement counsel, and two Washington-based Lands Division attorneys-all of whom put weeks of considerable effort into lengthy negotiations, careful witness preparation, legal research, and drafting of numerous legal documents. Weeks of attorney time were spent interviewing the various potential witnesses, especially the expert witnesses. This activity is commonly known as the taking of depositions. The defendant took a deposition of one of our experts during more than three full days; the government also spent about three days

taking the deposition of one of the defendant's expert witnesses. The trial lasted nearly two weeks. The United States had the burden of proving its case and presented 11 witnesses-one technical official from the state to show evidence of past noncompliance; six EPA investigators who observed the violations;* two state experts who testified on the Clean Air Act National Ambient Air Quality Standards to demonstrate to the Court the seriousness of the violations; and two employees of the defendant who admitted that the standard had been violated.

In total, the United States presented over 286 exhibits containing such information as plant data, emissions data, corporate financial data, and other technical and scientific information. Kaiser entered into evidence over 35 exhibits. There were thousands of pages of exhibits alone. The trial transcript, a verbatim record of everything that was said during the trial, contained over 1,000 pages. At the conclusion of the trial, the important legal papers such as the pleadings, the exhibits, the trial



transcript, and the Court's decision completely filled a standard file cabinet.

In the Kaiser Steel case, as in most of our enforcement litigation, the Division prevailed. The Judge assessed the maximum penalty: \$825,000 plus costs and interest.

RCRA and CERCLA litigation are typically even more complex. The number of defendants, number of legal and technical issues presented, amount of monies sought, and the length of time required to implement the remedies all significantly complicate RCRA and CERCLA litigation. The Division's efforts on these cases in negotiation, witness preparation, the taking of depositions, legal research, the drafting of various legal documents, and the actual trial are, consequently, also greatly expanded.

Environmental enforcement is a complicated process that involves many challenging legal and technical issues. A number of important variables contribute to our unusual record of success. Some of the most important are the high quality and professionalism of our Division's attorneys, as well as the EPA attorneys; excellent referrals from our client agencies, especially EPA, containing well-documented, well-researched cases of clear violations of the nation's environmental laws; the high priority we place on cooperation with the states; and also the strong technical support provided by EPA during the litigation process. Only through these close cooperative working relationships with our client agencies have we been able to employ the courts to drive home to polluters the great cost of harming the environment.

^{*}The violations documented were of the visible emissions standard of the State Implementation Plan (SIP). The inspectors had observed 45 violations of the SIP.

EPA's Regional Offices: A Case of Being on the Front Line

by Victor J. Janosik

EPA's Office of Enforcement and Compliance Monitoring develops enforcement policy, coordinates complex or precedent-setting cases, and generally tracks compliance with environmental laws nationally. It's the states and regional offices, however, that provide the first-line defense against violators. In fiscal year 1986, the regions took over 2,600 administrative actions on their own, and originated a record 386 judicial cases that were referred either to EPA headquarters or to the Department of Justice.

This high level of enforcement action resulted from strong cooperation between the states, the EPA regional offices, and headquarters.

The following article from EPA's Region 3 illustrates the environmental results that come from state and regional enforcement efforts. Most people associate Superfund cleanups with dramatic moon suits and high-tech equipment. The drama is there, all right, but so is the plain, old-fashioned paperwork. It's not glamorous but it's absolutely essential. Long after the mobile labs roll away, Superfund staffers are still following paper trails, trying to find the parties responsible for the site.

"Responsible parties" is Superfund terminology for people or businesses who might be liable for cleaning up certain hazardous waste pollution situations. Categories of potentially responsible parties include individuals or companies that own property polluted by hazardous substances; that owned the property or operated there at the time of disposal; that arranged to have hazardous substances transported to a site where they caused health or environmental hazards; or that chose a site and transported hazardous materials to that site. If they can be implicated at a given site, any or all of these parties could be responsible for performing or paying for a cleanup.

Many times, however, the responsible parties are not immediately evident, and EPA must step in to do the cleanup. Because these operations can be enormously expensive, EPA has tried to preserve its Superfund money by aggressively seeking cleanup or cost recovery from the parties responsible for the pollution. The Superfund law has made this task a little easier by giving EPA the authority to gather information identifying the hazardous substances at a site, the extent of the pollution, the persons responsible, and their ability to pay for or perform a cleanup. In practice, however, getting cleanup done or recovering costs, or even identifying the responsible parties, may require anything from a few phone calls to months of tracking and detective work.

(Janosik is a Remedial Project Manager in the Superfund Branch of EPA Region 3.)

One case resolved with a few phone calls occurred in EPA Region 3. In a small town in northeastern Pennsylvania, an inspector for the state's Department of Environmental Resources (DER) discovered two small, deteriorated buildings filled with rusted, leaking barrels and other containers. At DER's request, a Region 3 assessment team investigated and found toxic heavy metals, corrosive liquids, and flammable substances leaking into the air and onto the ground. Not only did the site pose a threat of fire and explosion, the buildings which housed most of the containers were collapsing and easily accessible by neighborhood children and other residents. The elderly woman who owned the property could tell EPA only that her son had stored the materials in the buildings many years earlier.

The Superfund enforcement staff got in touch with the town's mayor. Many local government officials often know quite a bit about their constituents; in this case, the mayor seemed to know nearly everything about everyone in his small community, including the fact that the woman's son worked at a Kerr **Glass Manufacturing Corporation facility** in southeastern Pennsylvania. When questioned by EPA, the son explained that he had received the materials over several years from both Kerr Glass and the previous operator of the plant before it was bought by Kerr. They were simply excess stock or of no further value to the companies, and he had requested the materials for no other reason than that they were free. What had started out as an innocent act of accumulation had evolved into a hazardous waste site requiring expensive emergency action completely beyond his financial ability or resources.

Enforcement then contacted Kerr Glass, who volunteered to enter into a written agreement with EPA to hire a contractor who would perform the



removal activities. By its quick response, Kerr Glass made the community considerably safer and also saved \$71,000 of Superfund money for use at other sites.

The Kerr Glass Manufacturing Corporation was an exceptionally good citizen in this case, but the situation itself was not atypical. A significant percentage of Superfund sites start out as back yard collections or small businesses that just grow out of hand and are then forgotten. Some, in fact, are so-called historic sites that go back 30, 40 years or more, leaving persons whose intent was anything but the creation of a hazardous waste problem caught with the potential for major legal and financial responsibility. Until an emergency arises, many of these people are unaware of the dangers inherent in a situation involving hazardous wastes and have little or no knowledge of environmental laws.

A man in rural West Virginia, for example, inherited land on which his father had conducted a salvage business. The business had involved buying and storing just about anything that could have a future buyer, including waste oil, industrial paints, herbicides, pesticides, solvents, and other chemical mixtures. When the owner died, his heir had no interest in the business and the entire operation was simply abandoned, corroding containers and all.

Thirteen years later, however, two local residents were overcome by fumes while hiking across the property and had to be hospitalized. When the West Virginia Department of Natural Resources (DNR) inspected the site, they found hundreds of drums of waste

The Kerr Glass Manufacturing Corporation saved Superfund \$71,000 by volunteering to hire a contractor to remove leaking barrels and other debris from this site in northeastern Pennsylvania. The whole process of identifying and settling with responsible parties can be hostile and protracted, involving long-gone owners, managers, operators, haulers, and witnesses.

chemicals, large areas of contaminated soil, and a contaminated pond. Waste drums were stacked four-high in places along the road that bordered the site, and collapsing buildings and abandoned trailers and other vehicles littered the landscape. The smell of pesticides and paints permeated the whole area. Because of the apparent magnitude of the problem, DNR asked EPA to conduct an emergency removal to avert the threat to public health and the environment.

While Region 3's On-Scene Coordinator supervised the cleanup, the enforcement staff went to find the responsible parties. A search of deed and tax records identified the heir as owner of approximately 25 acres of contaminated property, including a heretofore "lost" parcel of land in the middle that had never been deeded, assessed, or taxed. When he was notified by EPA that he might be a responsible party as defined by the Superfund law, and thus responsible for performing or paying for a cleanup, the owner was bewildered. He had never heard of Superfund, but wanted to help. He proposed to bulldoze all the containers into a large hole and cover them with dirt. When EPA told him this was unacceptable because it would endanger the neighborhood, further contaminate the soil, and endanger the ground water, he suggested an alternative. Instead of burying the containers, he would bulldoze them into a mountainous pile and burn them. EPA's On-Scene Coordinator advised him that the bonfire idea was also unacceptable. The wastes would have to be transported, stored, treated, or disposed of in an environmentally sound manner and in accordance with federal and state laws. Cleanup was expected to cost at least several hundred thousand dollars. The owner said he couldn't contribute more than a few hundred dollars, and took off for a week of bass fishing.

Enforcement then tried finding the manufacturers and distributors of the various products on site, but for four months, the investigation kept running into dead ends. When the extensive research effort was concluded, EPA determined that the owner was the only party who might be considered potentially liable, and he didn't have the resources to contribute to a cleanup. Cost recovery actions were abandoned, and EPA completed the cleanup at a cost of more than one million dollars.

Some recoveries are stymied not by financial inability or the absence of responsible parties, but by uncooperativeness. The whole process of identifying and settling with responsible parties can be hostile and protracted, involving long-gone owners, managers, operators, haulers, and witnesses. In these situations, EPA uses chemical analysis, land-title searches, neighborhood surveys, aerial photography, and the specialized talents of the Agency's toxicologists, engineers, geologists, biologists, accountants, radiation experts, and attorneys to uncover and develop the necessary information.

In another Pennsylvania case, a man appeared to be associated with a site that had been abandoned for more than 14 years. Waste ponds had spilled over and seeped into the ground, and barrels which contained hazardous substances had rusted through and finally exploded, bringing EPA to the scene for an emergency cleanup. Though identified by local officials as the owner of the site, the man disclaimed all responsibility and refused either to conduct a cleanup or to pay for it. In any event, he insisted that he had no way of paying for a cleanup. Because of the continuing threat of fire and explosions, EPA spent more than \$300,000 of Superfund money to

stabilize the site and make it reasonably safe, with even more costly measures to clean up soil and water contamination still a possibility.

Again, enforcement set out to track the responsible parties, and again, all roads led back to the initially-identified man. EPA discovered that the man was an officer of, and in some cases. president of, a number of small corporations. In addition to estimated personal monetary assets of more than \$400,000, he also owned much of a small village in northern Pennsylvania and had extensive land holdings. These holdings were being taxed at the uncommercialized property rate, though some were in fact built on and others reportedly were used for timber, oil, and gas production. Most importantly, he was also the owner, president, and sole employee of both the corporation that currently owned the site and the corporation that had previously operated there. At the time the wastes were abandoned, the man had been vice-president of the land-owning company and general manager of the manufacturing operations. Based on these factors, the Superfund enforcement staff recommended that legal actions be taken to recover the costs of the cleanup.

Even though the searches for persons or businesses that might be at fault in hazardous waste pollution incidents do not always produce the hoped-for results, million of dollars of Superfund money are saved every year because responsible parties are found who voluntarily or otherwise contribute to the costs of cleanups. The success rate for obtaining initial commitments by individuals and companies who are liable for hazardous waste problems, and for recovering money spent on government-funded cleanups will rise with the increasing experience and sophistication of those EPA people who enforce the provisions of the Superfund law.



Wastes from Reserve Mining, near Duluth. MN, flowed down this long sluice into Lake Superior until Minnesota won a ruling that established government's right to regulate an activity that presents a risk to health even in the face of scientific uncertainty about its actual impact.

Prior to the passage of the environmental legislation associated with the environmental movement of the early 1970s, the principal state environmental enforcement tool was the law of nuisance. A nuisance is, essentially, any activity that unreasonably interferes with the activities of another. This broad legal principle was used by states to deal with air, water, and other forms of pollution emanating from a wide variety of sources including landfills, incinerators, sewage treatment facilities, chemical plants, smelters, refineries, pulp mills, and rendering plants.

Nuisance law, however, proved inadequate to deal with the mounting national air and water pollution problems that were being increasingly recognized in the late 1960s. Some state courts struck the balance between economic development and environmental protection in a manner

(Paddock, a Special Assistant Attorney General with the State of Minnesota, is Environmental Programs Coordinator for the Attorney General. He previously served as Director of the Environment Project of the National Association of Attorneys General. The opinions expressed in this article are those of Paddock and do not necessarily reflect the opinions of the Minnesota Attorney General's Office.)

The States: Innovative Ways to Enforce the Cleanup

by LeRoy C. Paddock

favoring economic development. In still other states, the interest in even pursuing cases to protect the environment was absent.

As a result, Congress intervened in the 1970s by enacting a series of comprehensive environmental statutes, including the Clean Air Act, the Water Pollution Control Act, the Safe Drinking Water Act, the Resource Conservation and Recovery Act, and the Comprehensive Environmental Response, Compensation and Liability Act. These federal initiatives and the heightened awareness to environmental problems that spurred the federal activity also spawned innovative approaches to environmental enforcement at the state level.

Many of the environmental problems addressed by the new statutes passed in the 1970s involved emissions that resulted in a risk of harm rather than a proven harm. Consequently, one of the most important cases of this era was the Reserve Mining Case. In the Reserve case, the State of Minnesota, along with the United States, sought to stop discharges into Lake Superior of mine tailings containing asbestos-like fibers and the discharge of particulates containing the fibers from stacks at a taconite production facility. Although Minnesota was not able to prove that the fibers in fact caused health problems, it put forward the then-innovative argument that the discharge should be prohibited on the basis of evidence that the fibers could cause harm.

In its opinion, the court noted that "...the existence of this asbestos contaminant in air and water gives rise to a reasonable medical concern for public health...Such a contaminant should be removed." Thus, the Reserve case helped establish the principle, now basic to environmental law, that the government may regulate activities even in the face of substantial scientific uncertainity as to the actual impacts of the activity where the activity presents a risk to health.

Another state initiative that has had broad impact on environmental enforcement was the passage of the Michigan Environmental Policy Act and similar acts in other states. These acts authorize anyone, not just the government, to bring an action in state court to prevent pollution, impairment. or destruction of the environment. "Pollution, impairment, or destruction" is broadly defined by Minnesota's version of the act to include any conduct by any person which violates any environmental quality standard or which materially has an adverse effect or is likely to materially have an adverse effect on the environment. These statutes, often said to have created private attorneys general, opened up the enforcement process to a much wider group of persons. They are the precursor of the citizen suit provisions now common in environmental legislation.

The introduction in the early 1980s of criminal enforcement strike forces to deal with the increasing problems of illegal disposal of hazardous waste was another development initiated by the states. This movement to criminal enforcement was spearheaded by several eastern states, including New Jersey and Maryland, and was promoted through the formation of the Northeast Hazardous Waste Project.

Why was it necessary to resort to criminal enforcement? The profits that could be derived from illegal disposal were substantial, and civil enforcement was unable to achieve compliance in a number of cases. The value of criminal enforcement in achieving compliance with environmental laws was soon recognized by the federal government. Today the Department of Justice has a criminal enforcement unit in its Land and Natural Resources Division, the Environmental Protection Agency employs over 35 full-time criminal investigators, and several offices of United States Attorneys are actively involved in environmental crime cases. Further, a number of other states have enacted environmental criminal laws and developed criminal enforcement units.

States also provided important leadership in the hazardous waste site cleanup efforts. During the early 1980s, the federal Superfund program was slowed for a variety of reasons. Several states including Minnesota, Massachusetts, and New Jersey passed state Superfund laws and moved aggressively to compel responsible parties to undertake cleanup work.

In 1983 Minnesota enacted one of the most comprehensive Superfund laws in the nation. The Minnesota Environmental Response and Liability Act established a strict joint and several liability standard for cleanup of hazardous waste sites and for personal injuries resulting from exposure to hazardous waste. The state moved guickly to obtain private party cleanups under its new law. Within two years of the passage of the Act, 17 consent orders had been signed covering cleanup work valued at over \$25 million. The Minnesota Superfund law and the techniques used to implement the law have become models for many state programs.

Another innovation related to Superfund activities was the passage of so-called "Superlien" statutes by Massachusetts and several other states. These superlien statutes are designed to allow states to recover costs incurred in cleaning up a hazardous waste site by placing a lien on the site and, under some statutes, other property owned by the person responsible for the contamination. The liens are called "superliens" because they are given priority over the pre-existing liens on the property involved. Recognizing the importance of the liens to recovering Superfund money spent to clean up a site, Congress included a lien provision (although one which does not have

priority over pre-existing liens) in the Superfund Amendments and Reauthorization Act.

Cleanup responsibility laws such as New Jersey's Environmental Cleanup Responsibility Act (ECRA) provide a final example of state innovation. This relatively new approach to enforcement requires private parties to notify the state prior to the sale of certain industrial property. In addition, the owner must submit a written declaration that there has been no discharge of hazardous wastes on the site, or that any discharge has been cleaned up. In the alternative, the owner may submit a cleanup plan to the state. By one estimate, New Jersey's ECRA has already produced over 250 private party cleanups.

Banks, mortgage companies, and individuals involved in the purchase of industrial property have become increasingly concerned about the possibility that the property may be contaminated by hazardous waste. Laws such as ECRA provide both the incentive to clean up property prior to a sale and some assurance that a purchaser is buying clean property. As a result, it is likely that laws of this type may soon be adopted in several more states.

The enforcement workloads of states, already heavy, is likely to further increase over the next few years. The application of the hazardous waste rules to small quantity generators and the vast new underground storage tank programs will soon bring tens of thousands of new regulated entities into the enforcement arena. Further, EPA Administrator Lee Thomas has made it clear that he would like to see the states handle as much of the Superfund program as possible. These new responsibilities will require further innovations from the states in the years to come. D

Local Government: The Pollution Didn't Wash

by Carol Panasewich

t 5:30 a.m. on March 9, 1984, ARichard Eick, operations manager of the Rockford, IL, Sanitary District, was awakened by a telephone call that would put years of uncertainty to rest. An officer with the Loves Park Police Department, on night patrol, had noticed a truck in distress at a local car wash. Due to a heavy load of 25 drums in the back, the truck had dropped through a wooden grating in the floor, into a cleanout basin below, and it was hanging askew in the car wash-an unusual problem at any time of day, but particularly at 3:00 a.m. Investigating further, the officer noticed that the driver was dumping the contents of the drums into the car wash's drainage system.

By 6:15 a.m., when Eick arrived on the scene, several other authorities also had been called in, including the Illinois State Police. They arrested the driver for apparent violation of the Illinois law which prohibits disposal of hazardous waste and wastewater into public sewer systems. This arrest was the first step in a two year legal process that would shut down the truck driver's employer, Alloy Plating Corporation, after years of illegal activities involving the disposal of cadmium, cyanide, and other electroplating wastes. Closing down Alloy Plating Corporation also would enable the Rockford Sanitary District finally to reach and maintain safe levels of cadmium throughout its wastewater treatment system.

Since the 1980 RCRA regulations went into effect, Eick notes, the Rockford Sanitary District had faced a persistent and puzzling cadmium problem. Try as they might, the Rockford plant managers couldn't achieve a "cadmium balance" in the municipal wastewater treatment system. Levels of cadmium throughout the

(Panasewich is a Public Information Specialist who has been on detail with the EPA Office of Public Affairs.)



Winnebago County Sheriff's Office, Rockford, IL

system were too high; sludge from the plant was considered hazardous waste due to its elevated cadmium content. Further, periodic monitoring at several different points in the treatment system showed that cadmium levels in downstream, treated waters actually were higher than those "at the front door," entering the plant. This led Eick and his associates to suspect that some industrial operation on the same sewer line was bypassing the treatment plant and discharging cadmium waste directly downstream.

A series of anonymous telephone calls and reports of conversations overheard at bars about town confirmed what Eick and his colleagues had suspected, based on their knowledge of the local industries' effluent discharge and cadmium compliance records. Alloy Plating Corporation, an electroplating job shop, had exceeded cadmium effluent limits. Word was that Alloy Plating was dumping its wastewater and concentrated plating solutions, rather than hauling them to an off-site treatment facility as the company was required to do. In the months preceding the truck driver's arrest, Eick and his associates became convinced that Alloy Plating was illegally dumping its wastewater, but they had no evidence to prove it. At one point, they installed television cameras at all the sewer pipe connection points near the company to record any illegal connection activities, but these tries were unsuccessful.

These thwarted attempts to control Alloy Plating were frustrating but, as Eick says, "If you give them enough rope, eventually they'll hang themselves."—or expose themselves in a car wash in the middle of the night.

During the criminal trial, the truck driver for Alloy Plating, who turned This truck, owned by the Alloy Plating Corporation, dropped through a wooden grating while its driver was emptying 25 drums of wastewater into a Rockford. IL. car wash's drainage system.

state's evidence, admitted that the company had used the car wash disposal technique several times. They also had rented a warehouse and made certain modifications so that quantities of wastewater could be pumped out through the drainage system. Other industrial sites also had been employed to dispose of the company's wastewater, which contained residues of cyanide, cadmium, and other heavy metals.

The Alloy Plating court case was moved out of town in mid-course because it proved to be such a hot issue, consuming the attention of the local media. When the case concluded last summer, the plant manager was sent to jail for three years. In Eick's view, this was an injustice; the manager was simply, "doing what he had been told to do by the owners of the company." Meanwhile, the owners are free, and the company has been charged a \$625.000 fine that may never be collected since the company has been dissolved.

The Alloy Plating case had the positive effect, however, of increasing awareness of hazardous waste disposal issues and potential water quality problems among virtually all segments of the community. "People are paying closer attention now," says Eick. Before they pour anything toxic down a drain, they tend to check first with local authorities.

All told, over 1,000 barrels of wastes were found waiting for disposal at the Alloy Plating facility when it was shut down. A hazardous waste cleanup operation was conducted on site, funded by the new owner. He installed up-to-date, effective pretreatment equipment, and is credited with having "cleaned up the act" at this facility. Electroplating continues there today, but so far it does not involve the use of cadmium. And Eick, happily, is able to maintain a long-sought-after cadmium balance at the Rockford Sanitary District. \Box

Initiatives by EPA's Enforcement Offices

Michael S. Alushin

Associate Enforcement Counsel for Air Enforcement

Richard W. Emory, Jr.

Acting Senior Enforcement Counsel for Criminal Enforcement

With many of EPA's major regulatory programs in place and operational, the momentum is shifting from regulation development to regulation compliance. How will the Agency implement this increased emphasis on enforcement?

ÉPA Journal asked some senior EPA enforcement officials in the Office of Enforcement and Compliance Monitoring to describe initiatives underway in their offices. No part of the environment has a greater potential to affect human health than the air we breathe. Pollutants in the air present risks that cannot be avoided except by controlling their sources.

One serious air pollutant is ozone in the atmosphere close to the earth's surface. for which EPA established health-based standards in 1979. Ozone is produced when sunlight reacts with volatile organic compounds (VOCs) and nitrogen oxides. Because as many as 90 million citizens live in areas where ozone standards have not been met, we are concentrating enforcement on major VOC sources such as motor vehicles and commercial painting, printing, and coating operations to support the Agency's effort to reduce urban smog.

Another airborne pollutant and enforcement target is asbestos dispersed into the air when old buildings are demolished. EPA has begun to prosecute both contractors and building owners who undertake demolition without the necessary notification and precautions.



Criminal prosecution has become a very important option in EPA's enforcement strategies, and the word has definitely reached the regulated community that prosecution is a good possibility in many pollution cases. And because it is a powerful deterrent to violations, it should greatly increase the rate of so-called "voluntary compliance." Criminal enforcement is making the Agency more effective.

Still, more must be done to weave the criminal enforcement option more tightly into EPA's routine. Most "tips" of criminal misconduct now come to EPA "off the street"-from disgruntled employees and other members of the public. Too few leads come from Agency employees and files. To increase the number of EPA-initiated investigations, OECM has begun to train program people to identify and gather evidence of criminal misconduct in the course of their regular duties. One training exercise, for example, teaches them how to spot signs of improper hazardous waste handling at different facilities.

Criminal enforcement is also supported by the development of state capabilities in this field, and EPA is depending more and more on state help. A number of states have arranged for EPA-funded or conducted training, technical assistance, and sharing of criminal intelligence.

For all but those who commit crimes against the environment, these steps are a hopeful sign for the future.



Edward E. Reich

Associate Enforcement Counsel for Hazardous Waste Enforcement

A strong enforcement presence is key to EPA's administration of the federal hazardous waste laws, particularly the Resource Conservation and Recovery Act (RCRA). An effective enforcement program stresses EPA's seriousness of purpose in achieving compliance and in deterring violations by others, and has the additional benefit in judicial cases of retaining court oversight of complex cleanup efforts or corrective actions common in hazardous waste cases.

EPA's enforcement efforts under RCRA recently have focused on illegal operation of hazardous waste land disposal facilities. Many land disposal facilities began operating under "interim status;" that is, they had temporary authorization to accept hazardous wastes pending the issuance or denial of a permit. To ensure minimum standards of operation, RCRA requires owners and operators of these interim status facilities to monitor ground water for contamination due to leaks and to maintain the financial capability to pay both for potential damages and for the costs of closing down hazardous waste units.

When RCRA was amended in 1984, many interim status facilities were not being operated in compliance with these rules. The new amendments required owners and operators of these facilities to apply for final operating permits and certify compliance with ground-water monitoring and financial responsibility rules by November 8, 1985. Facilities that could not certify compliance lost their interim status and were required to stop accepting hazardous waste and submit an acceptable closure plan. Although 995 out of 1,538 interim status facilities lost their authorizations, all but 64 of these voluntarily ceased operations.

EPA is taking enforcement actions against these 64 facilities, with the goal of obtaining closure, forcing compliance with ground-water monitoring requirements, compelling corrective action against contamination by hazardous wastes, and obtaining significant civil penalties for violations of interim status requirements. To date, the Agency has issued administrative orders against 12 facilities and referred cases against 39 more to the Department of Justice for filing in court. Actions against the remaining 13 are still under review.



Frederick F. Stiehl

Associate Enforcement Counsel for Toxics and Pesticides Enforcement

The year 1986 was one of significant activity in the control of toxic substances and pesticide products, including actions to obtain environmental cleanups of PCBs, to control asbestos in schools and public buildings, and to ensure strict compliance with the reporting of health risk data on manufactured chemicals.

In 1987, the Agency's enforcement efforts regarding PCBs will include an expanded drive to ensure that all emergency response personnel and local authorities are informed of the location of PCB-containing electrical transformers. EPA will also continue to take the lead to enforce against violations of permits for the development of genetically-engineered organisms, and will aggressively enforce new requirements for stricter control of asbestos materials in schools and public buildings.

Another new provision to protect the public from chemical substances is included in the Superfund Amendment and Reauthorization Act of 1986. Title III of this law requires that manufacturers and users of toxic chemicals notify local authorities of the presence, amounts, and environmental release of all toxic chemicals held or used by manufacturers or users. The Agency is currently developing notification provisions needed to aggressively enforce the new law.

Finally, in our continuing effort to ensure the integrity of data on the health and environmental effects of chemical substances, the Agency enforcement efforts will focus on numerous reporting requirements of TSCA and FIFRA, particularly TSCA requirements controlling the manufacture, distribution, and use of new chemical substances.

In addition, EPA will use a variety of innovative settlement options developed over the last year to ensure long-term compliance with statutory requirements. In appropriate cases, for example, settlement agreements will include environmental auditing programs that require companies to review and improve methods of controlling toxic substances. The Agency has also begun using neutral third parties to settle factual disputes in appropriate cases.



Glenn L. Unterberger

Associate Enforcement Counsel for Water Enforcement

While we are continuing our efforts in all water-related cases, a major focus this year is the drinking water program. Last year, Congress significantly strengthened EPA's authority under the Safe Drinking Water Act to enforce regulations protecting public water supplies and controlling underground injection wells. In particular, the 1986 amendments gave EPA authority to enforce compliance through administrative orders rather than by filing lawsuits, increased civil penalties to a maximum of \$25,000 per day, and added imprisonment as a criminal penalty. Furthermore, EPA may now penalize suppliers of substandard drinking water even when violations of federal standards are not willful.

These are powerful new tools. Since 1974, EPA has taken fewer than 50 violators to court. With our new administrative authority, we expect to issue over 350 compliance orders this year alone. In addition, we have filed our first suits against unauthorized injection of fluids into injection wells. Now that Congress has acted to strengthen EPA's hand, we expect that enforcement will take giant steps forward.





"Sludgebusters" employed by the National Enforcement Investigations Center in Denver, CO, assist criminal investigators by taking samples from drums owned by a Denver company.

The Sludgebusters

by Thomas Graf



Lakewood, Colorado—From the dioxin-soaked sands of Times Beach to the polluted shores of Love Canal, local officials send for the Environmental Protection Agency "sludgebusters" when a hazardous waste problem threatens to get out of control.

And the national command post of the EPA's National Enforcement Investigations Center is in the Federal Center in Lakewood. From there, battle orders fly across Sixth Avenue to an unlikely group of environmental crusaders: the technicians in Jim Hatheway's eight-man compliance investigation team.

Their workplace—a prefabricated warehouse and mobile home sitting in

(Graf is a writer for "The Denver Post." This article is reprinted from the December 28, 1986 edition of that newspaper.] an auto junkyard on Quail Street—is the launching pad for some of the largest, most complex federal environmental investigations.

The EPA based the technicians and the enforcement center in Lakewood because of its central national location.

The EPA investigators are the fearless, blue-collar Marines of the environmental movement.

Investigators from the center send trained physical science, engineering, and laser technicians to gather technical evidence that often is the backbone for criminal investigations into some of the biggest polluters in modern-day history.

"We were at Times Beach (Mo.) early on in that investigation," said Hatheway, a Colorado State University civil engineering graduate who has been investigating violations for the EPA since its inception in 1970. "We were also at Love Canal and had a hand in that."

In Niagara Falls, N.Y., they literally had their gloved hands in Love Canal septic tanks and sewer systems taking samples later found to contain carcinogenic chemicals.

Equipped with the most sophisticated waste and pollution detectors and outfitted with oxygen masks and "moonsuits," Hatheway's team investigates big-time toxic polluters across the country.

"I think we've been involved in one way or another in every state and territory in the country," said Hatheway's boss Bob Harp, director of the center's operations division.

In Colorado, Hatheway's team has investigated the wells near the Lowry Landfill and gathered the evidence against an Arvada firm—Layton Bros. Drum Co.—that led to an indictment last May, charging the company with illegally transporting hazardous waste. The company settled out of court with the EPA last week and paid a \$37,000 fine.

The technicians' job leaves no room for error. One contaminated sample could ruin a case for federal prosecutors. So far, however, the EPA has never lost a case because of technical error or contaminated evidence, Hatheway said.

That perfect record is not lost on Jim Prange, head of the center's criminal division.

The work of Hatheway's technicians is "invaluable" to center special agents

"This is a new field of law enforcement."

as they complete the traditional law enforcement end of the investigations, Prange said.

"This is a new field for law enforcement," he added. "We depend on technical evidence in 90 percent of our investigations."

The EPA team uses tools ranging from simple trowels to a high-tech laser gun, the LIDAR—Light Detection And Ranging.

Ben Costales, laser technician and environmentalist, has his hand on the LIDAR trigger. Costales uses the laser to check smokestacks suspected of spewing too much pollution into the air. The size of the laser light's reflection off the smoke plume indicates the amount of pollution involved—the more light that bounces off the plume, the worse the pollution.

Costales is glad he rejected a high-paying job in the private sector to work for the EPA.

"I have always cared about the environment," Costales said. "The opportunity to work in this kind of atmosphere really appealed to me."

The constant travel associated with their job doesn't bother most of the technicians, who live in the Denver area when they're not out on their nationwide beat. Hatheway said he enjoys the travel, even though the hot spots his team visits aren't what one would call tourist attractions.

"I don't think the travel is too bad, but my family does," said Hatheway. "It's part of the job—and it's a job we enjoy doing." □

New Chairman of Senate Committee Lists Environmental Goals

by Senator Quentin N. Burdick

As the new chairman of the Senate Environment and Public Works Committee in the 100th Congress, I see an exciting and challenging slate before us. This Committee has proved itself enormously productive during the past two decades, and that hard-working, bipartisan tradition will continue under my leadership.

Indeed, inside a one-month period, our Committee produced the first two legislative achievements of the 100th Congress: reauthorization of the Clean Water Act, and Senate passage of the Federal-Aid Highway Act.

Unfinished Business

The Clean Water Act provides \$18 billion over the next nine years as the federal contribution toward building sewage treatment construction facilities nationwide. I regret this law was enacted over the President's veto, but it had the unwavering support of both chambers of Congress. I believe it also had the clear support of the American people. Since the Act was first passed in 1972, it has been the centerpiece of federal laws to improve and protect our water resources.

In addition to reauthorizing the sewage treatment grant program, the Act created revolving loan funds in each state for facility replacement and upgrading. The new law also makes critical improvements in current water quality programs, and takes important new steps to safeguard our rivers, lakes, streams, and coastal waters. It includes programs to address toxic pollutants

(Burdick is the new Chairman of the Senate Environment and Public Works Committee. He is a Democrat representing North Dakota.)



and non-point source pollution problems, tighten permit requirements, and deal with stormwater discharges.

More than three years of Congressional effort, with the cooperation of the Environmental Protection Agency, went into the making of the new Clean Water Act. It is a fine example of environmental legislation at its best.

By the time this article is published, the legislation reauthorizing the highway and mass transit programs will probably also have won final approval. This was another of my highest priorities for the Committee in

Sen. Bardick foresees an exciting year for environmental legislation.

1987, and an area on which the last Congress had spent a lot of time and effort. With the completion of this bill, we will be able to turn in earnest to the new agenda of the 100th Congress. We'll be ready to move forward with legislation filling gaps or further refining the fine system of environmental laws previously developed by this Committee.

Committee Organization

The Committee will operate with five subcommittees, each with at least some "environmental" jurisdiction. The Subcommittee on Environmental Protection, chaired by Senator George Mitchell (D-Maine), will control the Clean Air Act, the Clean Water Act, and legislation on ocean dumping, oil pollution, fish and wildlife, and related subjects.

Senator Max Baucus (D-Montana) is chairing the Subcommittee on Hazardous Wastes and Toxic Substances. This Subcommittee will work on the Solid Waste Disposal Act, the Toxic Substances Control Act, the Safe Drinking Water Act, the Council on Environmental Quality, environmental research and development, and biotechnology.

A new Subcommittee on Superfund and Environmental Oversight will be chaired by Senator Frank Lautenberg (D-New Jersey).

The Subcommittee on Nuclear Regulation adds the Tennessee Valley Authority to its legislative responsibilities, and will be chaired by freshman Senator John Breaux (D-Louisiana).

Our "public works" subcommittee will be Senator Pat Moynihan's (D-New York) Subcommittee on Water Resources, Transportation and Infrastructure. That Subcommittee, on which I serve, also plans to work on comprehensive ground-water legislation.

Since the late 1960s, the Environment and Public Works Committee has operated in a bipartisan fashion. This has been a conscious policy, carefully nurtured by the chairman and the ranking members through the years. I intend to give my subcommittee chairmen a great deal of latitude in going forward with hearings on important environmental issues. They are all hardworking, proven legislators, and their individual skills promise a great deal of progress on the environmental issues facing the nation.

Priorities for Action

Much of our legislative focus in 1987 will be on the Clean Air Act. Hearings in the Subcommittee on Environmental Protection will extend over several months, with several key issues to be resolved. Senator Mitchell and I intend to have the Committee report legislation on this problem for Senate passage during the coming year. Clean air legislation inevitably draws controversy. Acid rain will likely be the pivotal issue in this year's debates on the subject. Nonetheless, the time for action has come. The Subcommittee intends to fully explore options for controlling acid rain, including those contained in legislation already

Inside a one-month period, our Committee produced the first two legislative achievements of the 100th Congress.

introduced, and prepare a new legislative proposal.

The Clean Air Act currently sets a deadline of December 31, 1987, for attaining national air quality standards for carbon monoxide and ozone, primarily produced by motor vehicles. These standards are intended to protect public health, but it appears that many communities will be unable to comply before the deadline. These communities face severe consequences, including a ban on construction of new air pollution sources or a prohibition on the use of most highway funds, if they fail to meet the deadline.

The provisions of the Act which set the deadline and outline the penalties were enacted in 1977. It is clearly time for their comprehensive reexamination. The Subcommittee has already begun staff investigations of the problem. Extensive hearings will be held in March and April to consider the health consequences of continued exposure to levels of ozone or carbon monoxide above the standards; the availability of control measures; and appropriate strategies for bringing communities into compliance. Not every community may be able to comply in the same time-frame, but we will seek to minimize the time any segment of the population must be exposed to unhealthy air.

Much of the Committee's energy in 1987 must go to oversight of the major environmental legislation passed in recent years. Senator Baucus plans extensive hearings on the implementation of the 1984 amendments to the Resource Conservation and Recovery Act, in preparation for reauthorization in 1988. Some of the key provisions, including the ban on land disposal of most hazardous wastes and corrective action requirements for operating facilities, will first be implemented in 1987. The Subcommittee will fashion its reauthorization proposals on what we learn by examining the law in action.

Implementation of the Superfund Amendments and Reauthorization Act of 1986 will also be closely examined by Senator Lautenberg's Subcommittee. This Act was the highest priority of the Committee in the last Congress, and we intend to follow closely the efforts of EPA and other federal agencies in carrying it out, especially at these crucial early stages. Along with this, the Committee will be interested in the quality of enforcement of all the environmental statutes. No law has much effect, no matter how well crafted, without fair and energetic enforcement.

A common theme in all these statutes, along with the Safe Drinking Water Act amendments enacted last year, is the protection of ground water. While there are programs in place to safeguard ground water, I believe it is time to develop comprehensive federal legislation to protect this precious resource. Existing programs are scattered throughout existing laws; I believe we need a single framework for assessing national needs in this area and the extent of the threat to ground-water supplies. Major hearings on ground-water legislation should result in a proposal later this year.

Another emerging environmental concern in which I have taken a personal interest is biotechnology. Our growing ability to engineer new organisms and substances is extremely promising, even beyond the agricultural and pharmaceutical applications that hold center stage now. Every advance in science brings with its promise new concerns. We must be sure that adequate regulatory authorities and institutions are in place to allow the development and use of biotechnology, while zealously protecting human health and the environment.

Summary

This will be an exciting year for environmental legislation. I have designed the new subcommittee structure for maximum production and quick action. I expect lively debate on the issues, and real progress on pressing environmental needs. We will go forward in the bipartisan, workmanlike spirit that has characterized our Committee for so long. I expect we will produce solid legislation in the next two years, and make further strides in safeguarding the environment.

The New **Clean Water** Act

by Roy Popkin

The recently enacted "Water Quality Act of 1987" amends and reauthorizes the Clean Water Act. The new law provides for an orderly phaseout of federally-funded construction grants, and a transition to state and local self-sufficiency. It also addresses other portions of the Clean Water Act and gives the Environmental Protection Agency new enforcement tools. Highlights of the Act follow:

Construction Grants

The Act authorizes \$18 billion for grants during the phasedown period (1986-1994). Of this amount, \$9.6 billion is for direct grants for wastewater treatment systems through Fiscal Year 1990, and \$8.4 billion through Fiscal Year 1994 to establish self-sustaining state revolving loan funds that will continue to provide needed construction assistance. The new law, under certain conditions, also allows funding of turnkey projects (in which the contractor designs and builds a plant

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and delivers it ready to operate). It also allows for reduced sewer use fees for low-income residential users of publicly-owned treatment works (POTWs), and requires that one percent of the money authorized for construction grants be reserved for dealing with the impact of combined sewer overflows on marine bays and estuaries. Under the new Act, construction grants can be made directly to American Indian tribes for reservation wastewater treatment systems.

Stormwater Discharges

The 1987 amendments make major changes in the Clean Water Act's regulation of stormwater discharges-runoff from streets and municipal, industrial, or other property that carries pollutants into sewers or streams. A large number of municipal, industrial, and residential stormwater dischargers are relieved of an immediate obligation to obtain National Pollution Discharge Elimination System (NPDES) permits unless they are contributing to an existing water quality problem. EPA is given until October 1988 to promulgate regulations for industrial and large municipal storm water dischargers, and until two years later to issue regulations for mid-sized plants. Permits for the mid-sized dischargers must be issued by October 1990.

NPDES Program Delegation

States will be allowed to seek EPA approval for partial or step-by-step delegation of permitting and

enforcement authorities, with the option of phasing in such programs over a five-year period.

Sewage Sludge

The Agency is required to identify toxic pollutants of concern in sewage sludge, establish numerical limits for each of the identified pollutants, and determine the management practices required to protect human health and the environment from reasonably anticipated effects of each pollutant. This is to be accomplished by June 15, 1988. The new Act enables EPA to regulate sewage sludge use and disposal by POTWs using NPDES permits.

Re-mining Coal

The amended Act allows decisions on applications for permits to reclaim or re-mine previously mined coal sources to be based on the permit-issuer's best professional judgment rather than otherwise applicable effluent limits. The mine operations will, however, continue to be required to meet existing water quality standards.

Anti-backsliding

The law prevents issuance of a new NPDES permit with less stringent limits than were in a previous permit if the first permit was issued on the basis of the permit writer's professional judgement rather than specific regulations. It also generally prohibits less stringent water quality-based permits unless specified procedures are followed for changing the state water quality standards.



Compliance Dates

The Act extends deadlines for industrial compliance with effluent limits based on both Best Available Technology (BAT) or Best Conventional Technology (BCT) approaches. Industrial dischargers must now meet regulatory requirements not later than three years after such limits are established, but not later than March 31, 1989. EPA is required to promulgate BAT guidelines for organic chemicals and pesticide categories.

Penalties for Violations

The EPA Administrator is authorized to impose administrative civil penalties for violations of the Act. The Secretary of the Army is authorized to impose such penalties for violations of Corps-issued Section 404 permits. These penalties may be as high as \$10,000 per day and total as much as \$125,000. They do not require court action. The Act also increases the civil penalties that may be imposed by courts to a maximum of \$25,000 per day, bringing the Clean Water Act into consistency with other environmental statutes. It also provides new criminal penalties for known violations of the CWA and for making false statements.

Chesapeake Bay Program

The Act authorizes \$13 million annually for the Chesapeake Bay clean-up program through FY 1990. Of this, \$10 million is for matching grants to Bay states and \$3 million is for federal costs.

Great Lakes Program

The law authorizes \$11 million annually through FY 1991 for the establishment of a Great Lakes National Program Office and for the Office's administrative and research activities.

Fundamentally Different Factors Variances

The Administrator is authorized to grant industrial treatment variances from national effluent guidelines when a specific facility differs in design from the types of plants considered when the guidelines were developed.

Individual Control Strategies for Toxic Pollutants

States are required to inform EPA of navigable waters not meeting quality standards because of toxic levels. They must also determine for each segment of such waters the specific point sources from which toxics are discharged, and develop an individual control strategy for both point and non-point source pollutants. Within three years after a strategy is established the standards must be achieved. If a state fails to act, EPA must implement the requirements. Also, states must adopt numeric limits to control toxic pollutants for which EPA has developed such criteria.

Clean Lakes

States are required to submit reports on the condition of their publicly-owned lakes, including identification of conditions affecting fish and plant life and the measures being taken to control lake pollution.

Management of Non-Point Source Pollution

The Act establishes a National Non-Point Source Pollution Program along with a federal grant program for its implementation. This program will deal with the problem of polluted runoff from farmlands and other diffuse sources. A sum of \$400 million is authorized for NPS control activities.

National Estuary Program

The new law establishes the National Estuary Program, authorizing the Administrator to make grants to state and interstate water pollution control agencies to develop implementation plans to protect estuaries. Funds not to exceed \$12 million for Fiscal Years 1987-1991 are provided.

Indian Tribes

The new law requires EPA to publish a regulation specifying how Indian tribes will be treated as states, or, where this is infeasible, how the goals of the Act will be achieved; and to establish a means for resolving issues that may arise when states and tribes establish different water quality standards for the same body of water. One half of one percent of construction grant funds are set aside for developing waste treatment management plans and construction of sewage treatment works for Indian tribes.



Appointments

E^{PA} Administrator Lee M. Thomas Thas announced the reassignment of nine senior Agency executives as part of an ongoing management program. Morgan Kinghorn, Comptroller for the Agency, has been named the Deputy Assistant Administrator for Administration and Resources Management.

Kinghorn has served in a number of federal offices, including the Department of State, the Office of Management and Budget, and the Department of Education. He joined EPA in 1980 as the Director, Budget Operations Division.

David Ryan, Director of the Budget Division, has been selected as the Agency Comptroller.

Ryan joined the Agency in 1978 as a Program Analyst, also serving as a Branch Chief and as Acting Director of the Budget Division before becoming the Budget Director in 1984. Prior to his service with EPA, he served in the U.S. Air Force and with the New York Division of Budget.

Richard Sanderson, formerly Associate to the Assistant Administrator for External Affairs, has been named Director of the Office of Federal Activities in the Office of External Affairs.

Sanderson has served in a number of federal offices, including the Federal Emergency Management Agency, the Department of Housing and Urban Development, the Executive Office of the President, and EPA Region 3. He joined EPA headquarters in 1983 as the Deputy Assistant Administrator for External Affairs.

Eileen Claussen, formerly Director of the Characterization and Assessment Division in the Office of Solid Waste and Emergency Response (OSWER), has been selected as the Director, Office of Program Development in the Office of Air and Radiation.

Claussen started with EPA in 1972 as a Program Analyst in the Office of Solid Waste. In 1977, she became the Chief of the Program Management and Support Services Branch in OSW and subsequently the Director of the Management and Information Staff.

Dr. Allen L. Jennings, Director, Chemicals and Statistical Policy Division, Office of Policy, Planning, and Evaluation, has been selected to be the Director, Benefits and Use Division in the Office of Pesticide Programs, Office of Pesticides and Toxic Substances.

Jennings has been with the Agency since 1971, starting as a Chemist in the Hazardous Materials Branch of the Office of Air and Water programs. He moved to the Office of Planning and Management in 1977 as an Environmental Scientist. In 1979 he became Chief of the Regulatory Analysis Branch and, in 1980, Deputy Director, Office of Standards and Regulations.

Allen Abramson has transferred from an Intergovernmental Personnel Act (IPA) assignment as the Director of the Environment in the State of Kansas to the position of Special Assistant to the Director of Pesticide Programs in the Office of Pesticides and Toxic Substances.

Abramson joined EPA in 1971 as the Chief of the Wastewater Section in Region 9. He has served as Director of External Relations and as Chief of the California Branch in that regional office. In 1979 he became Director of the Water Management Division in Region 7.

Michael Gruber, formerly Deputy Director of the Office of Policy, Planning, and Information, has been selected to join the Senior Executive Service (SES) as Director, Office of Policy, Planning, and Information in the Office of Solid Waste.

Gruber started with the Agency in 1980 as a Special Assistant to the Director of Intergovernmental Affairs. In 1981, he became the Deputy Staff Director of the Toxics Integration Project in the Office of Planning and Management, and, in 1982, was appointed Chief of the Industrial Integration Branch in the Office of Policy, Planning and Evaluation.

Jonathan Cannon has been selected as a new SES appointee for the position of Deputy General Counsel for Litigation and Regional Operations.

Cannon has been with the law firm of Beveridge and Diamond for 11 years, where he practiced primarily environmental law and litigation. He spent two years as an Adjunct Lecturer at the University of Virginia School of Law, and a year as law clerk for the U.S Court of Appeals for the D.C. Circuit.

Susan Lepow has been selected to join the SES as Associate General Counsel (Water).

Lepow joined the Agency in 1974 as a Legal Assistant in the Office of Pesticide Programs. In 1976, she moved to the Office of General Counsel and served as Attorney-Advisor in the Pesticides and Toxic Substances and Water Divisions. She received the Administrator's Unusually Outstanding Award in 1985.



Robins may soon be chirping in this nest on Maryland's Eastern Shore.

Back Cover: Commercial tulip field in Mt. Vernon, WA, north of Seattle. Photo by Gary Greene. United States Environmental Protection Agency Washington DC 20460

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