



Pollution Prevention News

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Your comments and
letters are welcome!
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Editor's Corner

This month marks the publication of the first EPA data gathered as part of the Toxics Release Inventory (TRI). The inventory shows a staggering total of 10.4 billion pounds of pollutants released into water, land, and air in 1987. Although it is difficult to quantify the risk associated with these emissions, and many of them are managed under EPA or state regulations, the levels are still far too high.

In some ways, the TRI data is a lot like going for a physical after years of avoiding the doctor's office. The news is both good and bad. If your doctor is like my doctor, the bad news always comes first: your food is too rich, your cholesterol is too high, it's time to take care of your body. The good news is that maybe there's still time to do better.

As a nation, the TRI data is giving us a very similar prognosis. We have been producing and releasing too many toxic chemicals, not recycling enough, and not taking care of our natural resources. The good news is that we have finally gone for a checkup, and there may still be time

for change. The TRI data are telling us that we have succeeded as well as we can hope to succeed with a traditional diet of end-of-pipe controls. Despite good compliance with environmental regulations, the level of emissions, releases, and discharges of pollutants into our environment is still unacceptable. We need solutions, and by all accounts, prevention has got to be at the top of the list.

If we are willing to work together and seek innovative and creative solutions, maybe our checkups over the next few years won't be so hard to swallow.

In this issue, we're pleased to report on North Carolina's program and its director, Roger Schecter, a key player in the national prevention movement. Also, news from a number of offices at EPA that are involved in building bridges across sectors of society, exchanging information, and moving forward on the many facets of municipal solid waste.

Priscilla Flattery
Priscilla Flattery

Reports from EPA Offices

Office of Cooperative Environmental Management

In an effort to coordinate environmental management activities among EPA, state and local governments, industry and academia, EPA has established the Office of Cooperative Environmental Management (OCEM). OCEM absorbs and expands the functions of the Agencywide Technology Transfer Staff. Under the leadership of R. Thomas Parker, the new office's main objectives will be to build working rela-

tionships across organizations to explore new approaches to environmental problem-solving, to improve communications, and to increase voluntary compliance by the regulated community, both public and private.

"Our job is bringing people together," explains Robert Hardaker, director of OCEM's State and Educational Programs Staff. "What OCEM tries to become is a catalyst to involve outside organizations in environmental issues, and move government out of its regular bounds. EPA will never have enough resources to do

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this on our own, so we need to rely on business and academic resources."

OCEM will place a high emphasis on technology transfer, training, and the development and sharing of new technologies. OCEM supports the operations of the National Council for Environmental Technology Transfer (NACETT), a 37-member council representing government, business, academia, and public interest groups. Four NACETT committees have been created in the areas of education and training, technology innovation and economics, and international cooperation, and state and local programs.

OCEM is divided into two staffs. The Technology, Economics and International Cooperation Staff, led by William Garetz, seeks to reduce technical and institutional barriers to effective environmental technology transfer. The State and Educational Programs Staff, among other activities, seeks to develop an environmental ethic and infuse environmental education into school curriculums. Despite a small staff size, OCEM is an organization with big plans. Says Hardaker, "We're rolling a lot of snowballs down the hill and hoping they become avalanches." For further information, contact OCEM at (202) 475-9741.

Public-Private Partnerships

Faced with a growing shortfall in the funds necessary to meet pollution control costs, EPA is seeking to increase the private sector's investment in environmental projects through public-private partnerships and alternative financing mechanisms. EPA is assisting in exploring financing opportunities for drinking water, wastewater treatment, and solid waste disposal facilities. Partnership options include loan funds, privatization of wastewater treatment facilities, turnkey development projects, and developer financing.

EPA estimates that federal, state, and local governments spent \$40 billion in 1987 for environmental protection. If recent trends continue, annual government expenditures in the year 2000 will need to rise to over \$55 billion just to maintain 1987 levels of environmental compliance and quality. Meanwhile, 22 regulations issued in the last two years will impose an additional

\$5.3 billion price tag on local governments.

For further information on Public-Private Partnerships, contact David Osterman in EPA's Office of the Comptroller, Resource Management Division, (202) 475-8227.

Sources of Lead and Cadmium in Municipal Solid Waste

Two toxic constituents, lead and cadmium, are found in high concentrations in municipal waste combustor ash. In all, over 213,000 tons of lead and 1,700 tons of cadmium are currently discarded annually in municipal solid waste.

As a first step towards addressing this problem, EPA's Municipal Solid Waste Program commissioned a study to identify the sources of lead and cadmium in municipal solid waste (MSW). The study, conducted by Franklin Associates, found that in 1986 two primary sources — lead-acid batteries and consumer electronics — accounted for over 90 percent of the lead in MSW. Lead-acid batteries are the largest source of lead in MSW, despite the fact that some 80 percent of lead-acid batteries are recycled. Without recycling, an additional 700,000 tons of lead could find its way into municipal waste. Other much smaller sources of lead in MSW include glass and ceramics, plastics, soldered cans and pigments.

The report identified rechargeable nickel-cadmium household batteries as the number one source of cadmium in MSW. The second major source is plastics products. Cadmium additives can be found in nonfood packaging, footwear, housewares, records, furniture, and other plastic products. Additional smaller sources of cadmium are older consumer electronic units and appliances, pigments, and glass and ceramics.

EPA is currently evaluating the availability of substitutes for lead and cadmium in these products, and is developing guidelines to help states, localities, and waste managers remove leading sources of lead and cadmium from MSW prior to incineration and land disposal.

For information on obtaining copies of the executive summary and/or complete study report, contact the RCRA Hotline at 1-800-424-9346 (or 382-3000 in Washington, D.C.). Questions on lead and cadmium in MSW can be directed to Paul Kaldjian at EPA, (202) 382-2349.

EPA Region 4

The Southeast Waste Reduction Resource Center has recently opened in North Carolina to support the activities of Southeast states. The Center will be operating a library/clearinghouse of pollution prevention materials, providing technical assistance support to state agencies and industries in the Southeast, publishing recent case studies, and maintaining a list of contacts and referrals in the pollution prevention field. Southeastern states can contact the center through a toll-free number. For further information, contact Roger Schecter, (919) 733-7015.

On March 1, Governor Jim Martin of North Carolina issued an executive order requiring permit applicants to show that they have undertaken source reduction and recycling efforts and that their wastewater discharges and incinerator emissions are at the lowest levels that are reasonably technologically and economically achievable. The order also calls for an expedited development and implementation of rules to control incinerator emissions of toxic air pollutants and to set ambient air standards for toxic pollutants. Legislation is pending in North Carolina to require annual statements of waste reduction from all permit holders.

The Southeast Hazardous Waste Roundtable is producing a TV program intended for use on public TV and by citizen groups in the Southeast states. The program will focus on the capacity for treatment and disposal of hazardous waste in the Southeast, with an emphasis on the need to prevent waste from being generated in the first place.

For more information on EPA Region 4 pollution prevention efforts, contact Betsy Shaver, (404) 347-7109.

People and Places in the News: North Carolina's Roger Schechter

Operating with a philosophy that "pollution prevention pays," North Carolina started the first cross-media waste reduction program in the country in 1983. The North Carolina Prevention Program provides technical assistance, sponsors research and education, and funds challenge grants to the state's industries and communities. Using a nonregulatory approach, the program operates out of the Department of Natural Resources and Community Development, in coordination with the Solid Waste Management Section and the Governor's Waste Management Board.

The program has funded research and education projects in a variety of industries including textiles, fabricated metals, food processing, and furniture. Over 50 publications have been prepared on general waste reduction issues as well as on specific technologies for individual industries. The program operates a clearinghouse and handles about 200 telephone and letter requests for assistance each month. North Carolina also provides matching grants of up to \$10,000 for developing waste reduction programs. Since 1985, the state has put up \$370,000 in matching funds on 68 pollution prevention and waste reduction projects, with another \$630,000 supplied by the private sector.

Credit for much of the success of North Carolina's Pollution Prevention Program goes to the program's director, Roger Schechter. PPN spoke to him recently in an interview:

PPN: Looking back on the first five years, what do you consider the most important achievement of your program?

RS: The most important achievement in North Carolina is the increasing credibility with industry and local governments for contacting our program and actually implementing real waste reduction efforts.

PPN: Where do you expect to concentrate your efforts in the next 2-3 years? Will it be a continuation of the past or are you setting forth in new directions?

RS: We are continuing the focus on direct technical assistance but we also plan to shift into two new areas. First, in line with the industrial waste management bill currently pending in the legislature, we will be look-

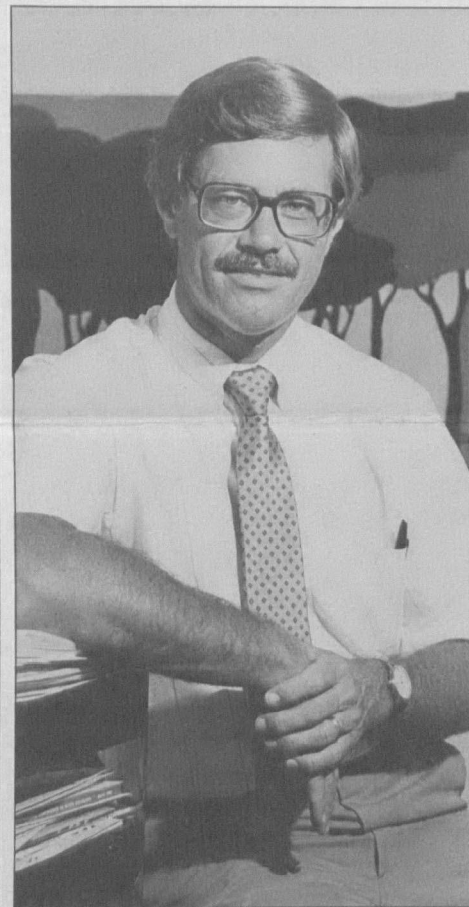
ing at the documentation accompanying permit applications on source reduction and recycling activities. What we will use it for is to see where waste reduction opportunities have not been taken. Not in a regulatory sense — as in "your plan did not include the following..." but for example, to go to electroplaters who say they are not doing any waste reduction and have no plans for the future, and provide them with information on product substitution, on recovery of metals, on recycling electroplating sludge and reusing water.

We are also using an EPA multi-media grant to look at the SARA Title 3 chemical release data, our annual state air toxics survey, monitoring reports on water toxic discharges, and the annual generator reports to see if there are indicator data for targeting future waste reduction efforts. At that point we can go to the Governor, the legislature, or the Secretary, lay before them the environmental contaminants being released in the state, and develop a plan for targeting our waste reduction efforts for the next year. Then, after a year is up, we will evaluate the targeted wastestreams or geographic areas or industries, and say, OK, how did we do? What waste were we able to reduce? What research were we able to generate? Have we met our goals or not? Then we can develop a plan for the coming years. That's a very proactive response and we're hoping it can serve as a model nationally.

PPN: Can your non-regulatory approach still produce results in North Carolina or is it reaching its limits?

RS: I don't believe there is an either-or answer. In the last 5 years, both industry and the regulatory agencies here have been learning more about waste reduction and starting to see it as one of a range of responses that needs to be taken into account. If there were only a regulatory function, waste reduction would be overshadowed by compliance assistance. You could have people coming in and saying anything they do is waste reduction. It's the technical assistance program that says, yes, waste reduction uses the verb "reduce," but we're talking about source reduction and recycling, not burning or delisting!

In the same vein, a technical assistance



Roger Schechter has been the director of the North Carolina Pollution Prevention Program since 1983. He also serves as director of the National Roundtable for State Waste Reduction Programs and the Southeast Waste Reduction Resource Center. In 1987-88, Mr. Schechter served as special assistant on waste reduction issues to EPA Assistant Administrator J. Winston Porter.

program should not be issuing permits or getting involved in enforcement. If you go to an industry and try to provide them with "mixed" waste reduction and compliance assistance, you're in a very difficult and untenable situation. I see the need to have a non-regulatory technical assistance program that works through the regulatory programs because regulatory programs characteristically are negative incentives, while waste reduction programs offer positive incentives.

And you also need a third level, in terms of educational responses at the university to

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Upcoming Conferences in May

Title	Sponsor	Date/Location	Contact
Hazardous Waste Reduction Conference	New Jersey Department of Environmental Protection	May 10, 1989 New Brunswick, NJ	Kevin Gashlin (609) 292-8341
New Regulatory Initiatives for Control and Cleanup of Industrial Wastes	Executive Enterprises, Inc.	May 15-16, 1989 Washington, D.C.	Steve Lieffer (301) 289-8660
Pollution Prevention Workshop	INFORM, Mitre Corp.	May 17-19, 1989 McLean, VA	Kit Krickenberger (703) 883-6000
CMA Regional Waste Minimization Workshop	Chemical Manufacturers Association	May 25-26, 1989 Chicago, IL	Amy Norgren (202) 887-1173
Waste Minimization & Clean Technology Conference	International Solid Wastes and Public Cleansing Assn., U.S. EPA	May 29-June 1, 1989 Geneva, Switzerland	Arthur Purcell (213) 206-5348
Waste Minimization	U.S. EPA	See below	Doug Williams (513) 569-7361
Seattle, WA Atlanta, GA Baltimore, MD	May 2-3, 1989 May 9-10, 1989 May 31 - June 1, 1989	Wood preserving, metal finishing, electronics Chemicals, textiles, wood preserving, Petroleum refining, plastics, textiles	

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train engineers, MBAs, and environmental planners and scientists to understand what waste reduction is and what their own roles are in promoting it. We need to develop the kind of educational perspective that says, instead of trying to figure out how to detoxify this heavy metal, let's do some research into product reformulation to eliminate the heavy metal from the start.

PPN: Has there been a lot of negative reaction in your state to the recent release of data on toxic air emissions?

RS: Not really. I think the report did a very good job in showing, for individual areas, where chemical releases were coming from. Some of the industries we are dealing with have acknowledged there is a problem, and they are trying to find substitutes, whereas if that material had come out 5 years ago when waste reduction was not yet a stand-alone response, they might have screamed bloody murder, and said, we can't afford the treatment technologies, we're going to go out of business. But there is a growing maturity in the industry and in the state agencies in using a range of options to deal with environmental situations.

PPN: What role can EPA play in supporting

and developing state capabilities?

RS: One of the most important roles EPA can play is a leadership role by Agency example, and with recent developments at EPA that leadership has become extremely clear. An equally important role is the development of technical information at the national level. EPA's support role is magnified 50 times when it is picked up by the states. Because it is the state agencies who need to work on an individual level with local governments, industry, environmental groups. Ultimately that is where the reality of waste reduction potential will be seen.

For further information on the North Carolina Pollution Prevention Program, call (919) 733-7015.

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