

Pollution Prevention News

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Editor's Corner

Local Governments Hold the Key to Prevention

Gerald F. Kotas Director, Pollution Prevention Division, U.S. EPA

As head of EPA's program to prevent pollution, I have continually been impressed by the initiative and innovation shown by local governments across the country. True, for many local governments, pollution prevention is still considered a luxury, at the bottom of a long list of pressing fiscal and environmental problems. But a growing number of municipalities and counties are realizing the benefits of prevention and the key role that they can play in implementing such an approach.

One prime example is in facility planning for publicly owned treatment works (POTW's). Many municipalities face aging

plants, a growth in the demand for services from residences and industry, and increasingly active community involvement in the design and siting of facilities.

A preventive approach is particularly useful when implemented at an early stage in planning. Whether a community is planning for increases in future capacity or for investment in new facilities, preventive measures can have dramatic effects on costs and capacity considerations. Such measures would involve a range of water conservation provisions and reduced toxic loadings from industry and residences.

In this issue, we are pleased to highlight a few of the varied initiatives local government have developed to tackle their environmental agendas.

Portland's Polystyrene Foam Ban

Earl Blumenauer
Commissioner for Environmental
Services, Portland, Oregon

Portland has received international attention for banning polystyrene foam products. Beginning January 1990, the City prohibited a total of 2,200 restaurants and retail food vendors from serving prepared food in foam food containers.

These products are used for five minutes and they last forever as litter, or in our landfills. The foam waste generated by one major fast-food chain alone would fill one of the World Trade Center towers in New York City each week. This epitomizes the problems associated with our "throw away society."

The City's decision was made after months of research and input from industry representatives, concerned citizens, restaurateurs, and environmental groups. Industry representatives requested the City Council not issue a ban, but support polystyrene foam recycling programs.

The City was convinced that the ban of certain polystyrene foam products was appropriate. Local plastic recycling programs were immature and of limited effectiveness. American cities face reductions in landfill capacity, concerns about garbage incineration, threats from toxic waste, and pollution generated by product manufacture. Portland's ban, together with

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Local Governments & EPA Region 9 Cooperate to Prevent Pollution

Elizabeth Cameron EPA Region 9 Pollution Prevention Program

In 1986, Contra Costa County, California generated over 400,000 tons of hazardous waste. A study conducted by the County's Community Development Department and Health Services Department estimated that this San Francisco Bay county could reduce its waste generation by 40 percent by the year 2000 through an effective hazardous waste minimization program and the cooperation of industry and the public.

One of the first projects in the program, jointly sponsored by the County and EPA Region 9, was to provide hazardous waste management and minimization information for the auto repair and auto body industries. Multi-media workshops were held in conjunction with Alameda County that brought together speakers from the State, sanitation districts, the Air Board, EPA, and the County.

The County and EPA are also working with large quantity generators which produced approximately 80% of the County's hazardous waste in 1986. Contra Costa and EPA have engaged the cooperation of the largest generators in the County to ensure that each facility has an effective waste minimization plan. Survey information submitted by

these facilities is being reviewed to determine progress towards the County's 40% waste reduction goal.

To help Contra Costa staff develop their own expertise, Region 9 is funding a two-day Waste Minimization Assessment Training course, available to Contra Costa and other Bay area governments this fall. Participants will learn to conduct hazardous waste minimization opportunity assessments at small and medium generators. After completing the course, County staff will conduct assessments at selected facilities.

Region 9 participation in the Contra Costa County program has benefited the County program and allowed increased cooperation between EPA, the state, and local governments in promoting pollution prevention. As a successful first year comes to a close, Contra Costa and Region 9 are key players in organizing a hazardous waste minimization roundtable for local governments in California, scheduled for this fall. Action plans developed at the conference will be used to guide hazardous waste minimization activities in Contra Costa and throughout California over the next five years.

For more information on these and other activities in the Contra Costa Hazardous Waste Minimization Program, contact Gina Gargano, Waste Minimization Coordinator, at 415-646-2286.

Local California Group Offers Practical Guides

Just before Earth Day this year, the 900 members of the U.S. Conference of Mayors each received a copy of an uncommonly helpful little publication, "Model Ordinances for Environmental Protection," published by the the Local Government Commission out of Sacramento, California.

The guide contains concise summaries of environmental issues in five areas: solid waste, toxic contamination, automobile use, ozone layer destruction, and energy use. For each issue, the guide explains how local governments can improve the situation and provides copies of actual ordinances that local governments have passed to address the issue.

This practical guide is just one of several resource publications of the Local Government Commission. The independent, non-profit group, now in its 11th year, also produces a bimonthly newsletter called "Waste Minimization Update" that reports on the activities of local pollution prevention programs and provides legislative updates.

"We aim to keep local governments from having to reinvent the wheel," explains Tony Eulo, the group's policy director. "We work with elected officials who are committed to implementing innovative policies. Elected officials don't have time to read intensive documents; we provide the basics of what they need to know, and information as to where they can find out more."

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Portland from page 1

efforts to deal with plastic in the waste stream, encourages different ways of thinking about solid waste and single use packaging.

After resolution of an unsuccessful attempt on the part of certain food vendors to overturn the ban, things are going smoothly. Restaurants have switched to permanent ware or alternative products with little difficulty. Some 85% of Portland residents surveyed

support this city law. Most non-profit food vendors in the City have voluntarily discontinued use of polystyrene foam products in response to citizen concern.

The world's only "styro cop" investigates complaints from citizens regarding potential violations. As of August 1990, 180 notices of possible violation have been mailed and 160 of those sites have been investigated.

Oregon cares for its environment and is doing something about it. Leading the

way with the "bottle bill" and a ban on aerosol products using chlorofluorocarbons, we haven't been shy about taking what some would call drastic initiatives. Our bottle bill is responsible for the return of 90% of glass, aluminum, and plastic deposit containers in Oregon.

In 18 years as an elected official, I have been involved in a variety of environmental issues. All of these issues have been difficult and controversial. No meaningful environmental legislation was ever adopted by acclamation.

South Coast's Ambitious Air Quality Plan Takes Aim at L.A. Smog

One of the strongest comprehensive local plans for improving air quality is found in the region acknowledged to have the worst air quality in the nation: Los Angeles and its environs.

Last year, the area's local air pollution authority, the South Coast Air Quality Management District (SCAQMD), adopted a plan to bring the region's air quality in line with federal standards by the year 2007. The plan outlines more than 150 measures to reduce emissions from virtually all sources of air pollution using a three-tiered approach that is estimated to cost \$2.62 billion a year.

The plan's Tier I controls are those that can be adopted over the next five years using currently available technology and legal authority, such as tighter tailpipe standards for new vehicles, bans on drive-through facilities, the introduction of buses that run on methanol and other "clean" fuels, restrictions on aerosol products and paints, and tighter regulations on industrial pollution. Given the area's expected rate of population growth, the Tier I controls are expected to bring about compliance with federal standards for nitrogen dioxide by 1997 and carbon monoxide by 1998.

The plan's Tier II controls either call for demonstrated technologies that could be made widely available in the next 10 to 15 years, or require new government funding or legislative approval. These measures include conversion of 40 percent of cars and 70 percent of trucks to clean fuels.

Target Date: 2007

The Tier III controls are those that call for major technological and marketing breakthroughs, such as commercializing electric vehicles and developing pollution-free paints and solvents. Such controls will be needed to bring the area into compliance with federal standards for ozone and fine particulates by 2007.

The SCAQMD plan was five years in the making, including a 10-month public comment period. "AQMD engaged the



SCAQMD's successful Smoking Vehicle Program uses publicity, a toll-free hotline, and the assistance of California's Highway Patrol to identify and issue warnings and citations to smoking vehicles.

public through hundreds of hearings, public forums, workshops and meetings with business and community groups, city councils and editorial boards," explained James M. Lents, executive officer of SCAQMD. "Through the course of this dialogue, AQMD emphasized the need to clean up the air, but also made clear it would remain flexible and sensitive to economic concerns as the plan is implemented."

The 1989 local plan developed by SCAQMD had to be approved by the California Air Resource Board (ARB), which is also responsible for the vehicle emissions part of the plan, and which meshes California's 41 local district plans into one comprehensive plan to be presented to EPA. Both the ARB and SCAQMD have multi-million-dollar research budgets that allow them to stay on the cutting edge of pollution control technologies, noted ARB spokesman Jerry Martin. By law, the plan must be updated every three years to insure that

it keeps pace with technology.

Because the region's prior plan, released in 1982, was not strong enough to bring air quality up to federal standards, a court order resulting from a lawsuit brought by environmentalists required EPA to develop its own plan for cleaning up the region's air. EPA's plan, issued on July 31, includes a proposal for assigning alternate driving days during the winter months for motorists with odd and even license tag numbers.

But for now this plan is only a backup to the SCAQMD plan, and EPA officials hope it stays that way. "State and local authorities have been engaged in an extraordinary effort to address this problem themselves, which we all hope will render a federal plan unnecessary," said Daniel W. McGovern, EPA Western regional administrative director. "It is our hope and expectation that the state plan will achieve its goals well in advance of the federal plan."

Local Commission from page 2

Most of the group's members are elected officials. Funding comes from their membership dues as well as from grants from California state agencies and private foundations. The group focuses most of its efforts on California, but works with local governments throughout the country.

And the work is showing results.

About a year ago, only one county in California had a procurement policy for recycled products. The commission circulated a guide to such policies, and now more than 80 California communities are developing or have established them.

The LGC can be reached at 909 12th St., Suite 205, Sacramento, CA 95814, Tel: 916-448-1198.

Calendar of Events

Title	Sponsor	Date/Location	Contact
Haz. Waste Management & Pollution Prevention Course	Applied Environmental Technologies Corp.	Nov. 7-8/Boxborough, MA Nov. 28-29/Pennsylvania Dec. 12-13/Meriden, CT	Kimberly Moore 800-926-1AET
Mid-Atlantic Regional	Center for Earth Resources	Nov. 15-16	Annette Najjar
Symposium on Recycled Paper	Management Applications, Inc.	New Carrollton, MD	703-941-4490
2nd Annual Waste Equipment & Recycling Conf/Exhibition	Tower Conference	Nov. 28-30	Bill Harrington
	Management, Inc.	Rosemont, IL	708-469-3373
America's Sea Gulf	EPA Gulf of Mexico	Dec. 2-5	Judy Sutterfield
Symposium	Program	New Orleans, LA	800-726-GULF
Municipal Sludge	Water Pollution	Dec. 2-5	Libby Strickland
Management for the 1990s	Control Federation	New Orleans, LA	703-684-2400
6th Intl. Conference on Solid Waste Management & Secondary Materials	Journal of Resource Mgt. & Technology, EPA Region 3, Univ. of Penn., Widener Univ.	Dec. 4-7 Philadelphia, PA	Ron Mirsky 215-499-4042
Environmental Education and Training	Government Institutes, Inc.	Dec. 4-5 Arlington, VA	Grace Lee 301-251-9250

Legal Winds of Change,

an interactive videoconference for small and medium size businesses on the impacts of the Clean Air Act Amendments, will air November 28th from 1 to 4 P.M. EST. Produced by PBS, EPA and the Public Television Outreach Alliance. To participate at a PBS station, call 1-800-343-4146. To participate at a university or to act as a host station, call 1-800-257-2578.

Crossroads: Architects & The Environment.

A symposium on Nov. 13th in Washington, D.C. sponsored by the American Institute of Architects, will feature keynote speaker Amory Lovins and a discussion of AIA's plans for a reference guide on the environmental impact of common building materials.

Contact Doug Greenwood

at 202-626-7463.

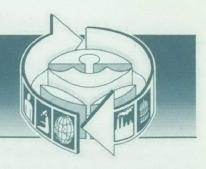
United States Environmental Protection Agency (PM–219) Washington, DC 20460

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Pollution Prevention Information Clearinghouse

USER BULLETIN



U.S. Environmental Protection Agency — Office of Pollution Prevention Office of Environmental Engineering and Technology Demonstration October 1990 — Edited by Myles Morse, Director of PPIC

ICPIC Broadens Global Pollution Prevention Network Through Budapest Center

The recent dramatic political changes in central and eastern Europe are resulting in cooperative ventures among European countries to address the many existing transboundary environmental issues. One result was the opening of the Regional Environmental Center for central and eastern Europe on September 6, 1990, in Budapest, Hungary. The Center is directed by an international Board of Trustees, made up of government officials from the U.S. and Europe, business leaders, environmental experts and non-governmental organizations. Its mission is to educate, instruct, and disseminate information. The Center will initially target its effort on three vital areas: human health impacts of environmental degradation, energy efficiency policies to support the reduction of pollution levels, and the encouragement of pollution prevention over pollution control.

ICPIC was present at the opening ceremony to welcome and instruct the invited press and dignitaries. PPIC representatives, Jocelyn Woodman and Barclay Inge were on hand to distribute informational literature, discuss the PPIC, demonstrate the PIES, and promote the ICPIC. Portions of the computer demonstrations were taped by ABC News (London).



Jocelyn Woodman of EPA's Office of Pollution Prevention demonstrated ICPIC/PPIC at the opening of Eastern European Environmental Center.

ICPIC Takes Center Stage at UNEP Conference on Cleaner Production

Cleaner production and the International Cleaner Production Information Clearinghouse (ICPIC) were the focus of an international conference sponsored by the United Nations Environment Programme's Industry and Environment Office (UNEP/IEO) and the United Kingdom's Department of the Environment, held in Canterbury, England from September 17-20. The conference provided the opportunity for pollution prevention experts from 43 countries around the world to exchange information and form a network of cleaner production expertise. The conference also tracked the progress of UNEP's industrial working groups, core group, and advisory committee, and set strategies for the upcoming year.

Topics discussed included: perspectives on cleaner production; the cleaner production network; databases and transfer of information in the field of clean technologies; tools to promote cleaner technologies; and cleaner products. Intensive working group sessions covered the four industrial areas (textiles, tanneries, solvents, and metal finishing) as well as Policy and Strategy issues, and Information Networking.

The U.S. EPA, UNEP and the United Kingdom provided ten computers for hands-on training of the ICPIC computer system. The training sessions helped familiarize participants with the



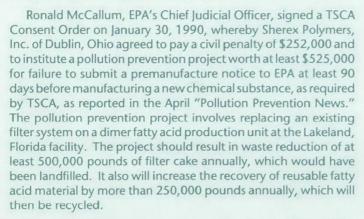
Pictured left to right, The Honorable Lone Dybkjaer, Minister of the Environment, Denmark; Baroness Blatch, Minister of the Environment, House of Lords, United Kingdom; and Jaqueline Aloisi de Larderel, UNEP/IFO

system and how to access its international data bases. The British Leather Confederation, France's Clean Technology and Waste Department, and the Indian Institute of Technology together committed to contributing several hundred case studies to ICPIC

Continues on page 4, see UNEP Conference

From Punitive Cause to Positive Effect: EPA Consent Orders Contain Pollution Prevention Programs Options

Two recent Consent Orders by EPA's Chief Judicial Officer indicate a new trend in EPA enforcement. These landmark Toxic Substances Control Act (TSCA) enforcement actions included for the first time designated pollution prevention projects.



The second Consent Order was signed on August 7, 1990. The 3-V Chemical Corporation of Charlotte, North Carolina was charged with violating several sections of TSCA. 3-V's penalty was substantially reduced in part by the company's commitment to spend at least \$150,000 to complete a pollution prevention program. The program to be implemented by 3-V is a solvent recycling system and leak detection and repair program. This program is intended to reduce the company's point source emissions of 1,1,1-trichloroethane and dichloromethane by over 50 percent. The leak detection and repair program is intended to identify and eliminate fugitive emissions of these two substances.



Copies of these Consent Orders are available from the PPIC. The Consent Orders include additional details concerning the pollution prevention technologies to be implemented by Sherex Polymers, Inc. and 3-V. The PPIC repository will keep an ongoing file of all Consent Orders, which contain pollution prevention conditions. These Consent Orders are also available on PIES.

Rhode Island Receives UNEP Award for Pollution Prevention Program

On June 5, 1990, the Rhode Island Hazardous Waste Reduction Program (HWRP) was selected as one of the 1990 Friends of the United Nations Environment Programme (FUNEP 500). According to an award letter from the President of FUNEP, Richard A. Hellman, the HWRP was selected as an example to "inspire many others to similar efforts on behalf of a cleaner, healthier planet." The HWRP was also the recipient of the Environmental Achievement Award given by the National Environmental Awards Council's Searching for Success Program.

The HWRP, initiated in 1986, is a voluntary cooperative program providing technical and financial assistance to Rhode Island businesses. The Hazardous Waste Technology, Research, Development, and Demonstration grants program, supported by a \$2,000,000 bond issue, provides research grants to universities, government agencies and private organizations and demonstration grants to cities, towns and private organizations for the commercial demonstration of hazardous waste reduction, recycling, or treatment technologies. To date, financial awards have been given to ten grant recipients. Technical assistance is provided through the performance of multi-media waste reduction assessments, stewardship of in-plant employee involvement teams, education, training and information clearinghouse activities. The

Continues on page 3, see Rhode Island

New Publications

Alternative Technologies for the Minimization of Hazardous Waste

California Department of Health Services, Toxic Substances Control Program, Alternative Technology Division. July 1990

This 140-page report references new and innovative hazardous waste source reduction, recycling, and treatment technologies currently being studied by the State of California's Department of Health Services. This document provides a compilation of waste minimization strategies and technologies sponsored by the Department.

Source reduction strategies studied include material substitution for metal finishers, product substitution and process modification, and recycling opportunities for solvent waste minimization. Strategies for recycling and resource recovery of ethylene glycol and used oil also are included.

PPIC Vital Statistics

Holdings:		Calls:	
Repository	1,060	PIES	4,299
Case Studies	451	PPIC Technical Support Line	420
Video Library	10	RCRA/Superfund Hotline	550
State Legislative		SBO Hotline	198
Summaries (41 States)	353	EPA ORD and PPO Offices	1,127

Upcoming PPIC Publications

Repository Adds UNEP Collection

PPIC has acquired all of the documents listed on the UNEP bibliography distributed by the Industry and Environment Office of UNEP. This collection of "cleaner production" materials is divided into eight groups, which include industry overviews, technical reviews, technical report series, proceedings, manuals, guidelines, information transfer, and the Industry and Environment Quarterly Review. The collection includes such titles as, "Environmental Aspects of the Direct Reduction Route to Steel Making - A Technical Review" and "Pollution Abatement and Control Technology Publication for the Pulp and Paper Industry." All documents will be abstracted and available on the PIES and ICPIC data bases in the near future.

These documents will also soon be available through inter-library loan from the EPA Main Library or may be ordered electronically from NTIS. International users may wish to order these documents directly from the UNEP/IEO office at the following address:

Tour Mirabeau, 39-43, quai André Citroën, 75739 Paris Cedex 15 - FRANCE

PPIC Hotline Services

To access PPIC information by phone, call:

RCRA/Superfund Hotline
Small Business Ombudsman
(SBO) Hotline
(SBO) Hotline
(SBO) Hotline
(SBO) 368-5888
PPIC Technical Assistance
(703) 821-4800

Write to PPIC at:

8400 Westpark Drive McLean, VA 22102

International Cleaner Production Programs Demonstrate Industry Progress

Through the efforts of UNEP/IEO to compile a hard copy International Program Directory, program descriptions for a number of foreign countries are now available on the PIES. To date, 18 countries are represented in the new PIES Program Summary database, and efforts are underway to include more. Pollution Prevention or cleaner production is a way of life in many western European countries, where landfill space is scarce and pollution density high.

In France, the Ministry of Environment has prepared a catalogue of clean technology used in French industry. This catalogue, which has been sent to approximately 5,000 industrial manufacturers, shows technical and economic performance of over one hundred endeavors. The catalogue is kept current and contains technical file cards that are designed to facilitate the transfer of technology. In addition, a file of about 1000 cases of cleaner production technologies is available in database form to government offices.

Finland's Ministry of Environment coordinates international cooperation in low and non-waste technology (LNWT). The Ministry also oversees a working group of government, university, research and industrial representatives. This group was established to act as a liaison for low and non-waste technology, to spread pollution prevention information, and to promote industrial applications.

In Germany, the research and development capability that is needed to develop LNWT exists primarily in the domain of the large corporations and firms. To avail small firms with access to improved product design and technologies, "Waste Management Services" (WMS) were founded in 1988 under regional environmental authorities. These WMS were initially established to promote the exchange of data on wastes and to facilitate reuse and recycling. They have now evolved into centers for coordination of technical and scientific assistance to aid in the implementation of LNWT. The cooperation between local firms, government institutions and universities on a contract basis is proving to be a fast and effective means of information and technology transfer.



Corporations Taking Initiatives In Pollution Prevention

Many U.S. companies are implementing pollution prevention measures to reap economic and environmental benefits. The new Corporate Program Summary database on PIES includes summaries for 11 U.S. companies, and will continue to be expanded as information on additional companies becomes available.

The 3M Company initiated its Pollution Prevention Pays (3P) program in 1975, and has since achieved impressive reductions in manufacturing emissions and solid waste pollutants. With a goal of reducing manufacturing emissions by 90% by the year 2000, and a 70% reduction in emissions by 1983, the 3P program has saved the company nearly \$500 million. Solid waste pollutants, both hazardous and nonhazardous, have been reduced by 535,000 tons.

At Chevron, eliminating unnecessary waste generation is now corporate policy. Under the SMART (Save Money And Reduce Toxics) program, managers are expected to integrate waste management into their normal business plans. A 28 member coordinating committee of environmental specialists and mid-level managers set a five year goal of 65% hazardous waste reduction. In the first year alone, the company reduced the quantity of hazardous waste generated by 53%, and saved \$3.8 million in disposal costs.

Polaroid Corporation launched its Toxic Use and Waste Reduction (TUWR) program in 1987, with a principal goal of reducing total wastes by 50% by the early 1990s. As a performance-measurement tool, TUWR employs a system of scorekeeping by each division and the company as a whole. Scores incorporate waste-per-unit factors as well as a factor for reduction of the most toxic materials. In addition, divisions receive more credit for using waste disposal methods that have minimal adverse environmental

impact. The TUWR program has met with much success, as illustrated by a number of case studies available on PIES.

Pollution Prevention Program at Purdue University

Purdue University's Environmental Management and Education Program (EMEP) is funded by two EPA grants: a Source Reduction and Recycling Technical Assistance (SRRTA) grant awarded to the Indiana Department of Environmental Management (IDEM), and a Pollution Prevention Incentives for States grant to implement the Indiana Point Source Pollution Prevention Program for Agricultural Industries.

EMEP's Technical Assistance Program provides on-site multi-media waste minimization opportunity assessments, and sponsors conferences, workshops, seminars and teleconferences throughout the state to interact with and address concerns of small, medium and large businesses. EMEP also administers the Indiana Waste Exchange, an information clearinghouse sponsored by IDEM that provides information on available publications and links waste generators with potential "waste" users. The clearinghouse also publishes a bi-monthly catalog which describes waste materials available for reuse or recycling, and contact information.

As part of its outreach program, EMEP joined forces with PPIC to create a Purdue Mini-Exchange on PIES. The Purdue Mini-Exchange has a message center, bulletins, and the Indiana Waste Exchange Catalog. Other databases will be added in the future. EMEP established a toll free number (800-658-8938) to provide all Indiana users with free access to PIES.

Rhode Island (cont.)

Rhode Island Department of Economic Development and a number of state and national trade associations also play an important role in Rhode Island's efforts to eliminate or reduce pollution at its source.

HWRP actively uses PIES to support its technical and document dissemination activities. Callers to HWRP are provided with fact sheets and technical information based on searches made on PIES and WRAS. As PIES and the WRAS system are fully linked, HWRP will provide input and quality control for the unified data base as part of a pollution prevention data collection network.

Networking and Outreach Efforts

DOE is "WIN"ning The Pollution Prevention Battle

In September 1988 the U.S. Department of Energy (DOE) established a pollution prevention policy to formalize its commitment to reduce and/or eliminate hazardous, transuranic, and mixed wastes. To coordinate technology transfer and information exchange in this area, DOE created the Hazardous

Waste Remedial Actions Program (HAZWRAP) support office. One technology transfer mechanism of this office is the Waste Information Network (WIN), designed to communicate throughout DOE individual facility waste management, permit, and pollution prevention progress.

The WIN is a DOE network functioning as an information tool to support environmental restoration and waste management activities, including pollution prevention. Its features include a message center, bulletins, downloadable files, on-line conferencing, spreadsheets, and a wide assortment of data bases. One data base cluster is devoted to waste reduction/pollution prevention, and it includes a directory of contacts, a conference calendar, and abstracts of journals, news items, and other documents.

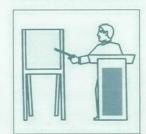
Although originally designed for use within the DOE complex, discussions are currently underway between the PPIC and HAZWRAP to establish linkages between the WIN and the PIES. At the present time an active information sharing program is being conducted to transfer information between DOE and PPIC. For more information about WIN, contact Chuck Estes at Martin Marietta Energy Systems, HAZWRAP, P.O. Box 2003, MS-7606, Oak Ridge, TN 37831-7606, (615) 435-3164.

Nearly 100 New Users Log on to PIES During EPA/IACT Conference

In June 1990, just after the last issue of the User Bulletin went to press, PPIC conducted hands on training during the International Association of Clean Technologies (IACT) conference at the Omni Shoreham Hotel in Washington, DC. Ten phone lines and personal computers were installed especially for the training effort. In this way, new users logged on to PIES while existing users asked questions and learned about new features on the system. Many new users represented international organizations throughout Europe, Scandinavia, South America, Canada, and Africa.



PPIC Training and Poster Session - EPA/IACT International Cleaner Technology Conference - Washington, D.C.



Research Mini-Exchange Underway

EPA research programs such as WRITE, WREAFs, and clean technologies research projects will be featured on the PIES Research Mini-Exchange. PPIC sent out more than 100 letters requesting pollution prevention research information from universities, U.S. and international governmental organizations,

labs and research centers, public interest groups, policy research centers and industry and trade associations during August. Recipients were asked to send research program descriptions, funding information, and project summaries for use in developing the Research Mini-Exchange. PPIC will use these responses, as well as those received in reponse to the call for information we posted in the last Bulletin, to continue expanding the Research Mini-Exchange. This portion of PIES will include program summaries, project abstracts (similar to case studies) a message center and bulletins. Keyword search capabilities will also be developed.

NEWMOA Sends Out Mass Mailing for Contact List on Region 1 Mini-Exchange

More than 400 questionnaires were distributed by the New England Waste Management Officials Association (NEWMOA) requesting information for the Region 1 Mini-Exchange pollution prevention contact list. Responses will be used to develop a database on PIES to provide pollution prevention contacts in the Northeast. Users will be able to search the file by SIC code, area of expertise and geographic location. Contact Terri Goldberg of NEWMOA,at (617) 367-8558 or the PPIC for more information.

UNEP Conference (cont.)

over the next two years. Each of the industrial working groups committed to supporting quality control for the case studies being added to the system.

Goals defined during the conference included increasing the ICPIC user network, networking data sets from other countries,



linking ICPIC to additional trade associations, and exploring an approach to facilitate transfer of information to third world countries.

UNEP Cleaner Production Conference— Representatives from 43 nations were trained in the use of PIES and ICPIC.