



# Pollution Prevention News



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## EPA ANNOUNCES PPIS GRANT RECIPIENTS

**E**PA has announced the recipients of the Pollution Prevention Incentive for States (PPIS) grants for fiscal year 1994. The PPIS program was established by Congress in the 1990 Pollution Prevention Act to foster the development of state pollution prevention programs. For fiscal year 1994, 70 programs received funding totalling almost \$6 million.

EPA designed the PPIS program to foster the development of state pollution prevention programs and to give states

flexibility in addressing local needs. (For a description of some of the projects funded in previous years, see pages 3 and 4.)

FY 1994 grants include:

► **The Georgia Tech Research Corporation** received \$60,684 to develop strategies targeted to medium-sized companies. Most current efforts tend to focus on small companies and to study the impacts of state pollution prevention programs on corporate decision making.

*Continued on next page*

## AIR QUALITY IMPROVED OVER LAST DECADE

**E**PA announced its 21st annual urban air quality trends report on October 19. The report shows continued progress in reducing six major air pollutants over a ten year period.

The trends report shows the following improvements in atmospheric (ambient) air quality from 1984 to 1993:

- Smog (ground-level ozone) levels dropped 12 percent;
- Lead levels decreased 89 percent;
- Sulfur dioxide levels fell 26 percent;
- Carbon monoxide levels declined 37 percent;
- Particulate (dust, dirt, soot) levels decreased 20 percent from 1988-1993 (the particulate standard was changed in 1987; long-term data not available);
- Nitrogen dioxide levels fell 12 percent.

"The Clinton Administration is committed to ensuring that every American can breathe clean air," said Carol M. Browner, EPA Administrator. "This year's trends report is encouraging news that our efforts are yielding real results."

EPA released data showing that 48 of

the 91 areas designated as "non-attainment" for smog under the Clean Air Act now have air quality that meets the standard. The 1993 data also show that 28 of the 38 areas designated non-attainment for carbon monoxide now have air quality meeting the standard. In addition, 1993 was the second consecutive year in which no U.S. city violated the nitrogen dioxide standard. Nitrogen dioxide is not only a health danger by itself, but also is a prime component in the formation of smog, the nation's most pervasive air pollutant.

The study, "National Air Quality and Emissions Trends Report, 1993," deals with six pollutants for which EPA has issued National Ambient Air Quality Standards. These pollutants are regulated under the Title I non-attainment provisions of the Clean Air Act Amendments of 1990, in order to protect people from respiratory illnesses.

For more information or a copy of the report, contact the Technical Support Division of the Office of Air Quality Planning and Standards at 919-541-5558.



# NEWS & NOTES

## PPIS GRANT RECIPIENTS

Continued from previous page

- ▶ **New Mexico Economic Development Department** received \$490,800 to identify opportunities for small manufacturers to implement advanced pollution prevention technologies, and to develop a long-range plan for an integrated self-sustaining program of manufacturing extension and pollution prevention.
- ▶ **The New York State Energy Office**, Division of Energy Services received \$200,000 for its "Clean Boilers Project" which aims to increase the efficiency of approximately 2,000 boiler plants in the New York City multi-family housing sector. The Office plans to develop minimum standards for "Clean Boiler" technicians, as well as standards for efficiency for new boiler installations.
- ▶ **The Houlton Band of Maliseet Indians** (HBMI) received \$20,134 to reduce the amount of household hazardous waste released into wastewater and solid waste streams.
- ▶ **The Rhode Island Department of Environmental Management** (DEM) received \$150,169 to research, evaluate, and create a model shop to demonstrate toxics use reduction strategies for the auto finishing industry.
- ▶ **The Puerto Rico Environmental Quality Board** (EQB) received \$499,034 to establish a comprehensive pollution prevention program. EQB plans to develop pollution prevention training and assessment capabilities and to demonstrate to island businesses that pollution prevention saves money and boosts profits.
- ▶ **The Schuylkill Center for Environmental Education** in Pennsylvania received \$153,970 to strengthen the pollution prevention component of its Regional Environmental Education Program (REEP) high school curriculum, which consists of units for teachers of biology, chemistry, physics/technology, environmental science and social studies.
- ▶ **The University of Missouri — Rolla** received \$77,365 to develop an assessment

tool for the wood products industry and local government personnel to determine cost effective pollution prevention techniques.

For more information on the PPIS program, contact Lena Hann-Ferris at 202-260-2237.

## FALL SEASON BRINGS P2 PERSONNEL SHIFTS

**T**his fall has brought changes for some key members of EPA's pollution prevention team. Mark Greenwood recently left his position as Director of EPA's Office of Pollution Prevention and Toxics (OPPT) to join the Washington, D.C. office of Ropes and Gray, a law firm based in Boston. Joseph Carra, Deputy Director of OPPT, is acting as Office Director.

Manik (Nikki) Roy was recently hired as Director of the EPA Administrator's Pollution Prevention Policy Staff, a position vacated by Eric Schaeffer, who now serves as the Deputy Director of the Agency's new Office of Compliance. Nikki comes to EPA from the Environmental Defense Fund, where one of his primary responsibilities was working with the printing industry to develop new ways to prevent pollution.

David Sarokin, Director of EPA's 33/50 Program, has accepted a six-month detail to sit at Nikki's old desk at EDF through May 1995.

Also coming on board the Pollution Prevention Policy Staff is Marty Spitzer, formerly with the Pollution Prevention Division, where he directed the Management Accounting and Capital Budgeting for Environmental Costs project.

Jocelyn Siegel (formerly Woodman) is leaving PPD to serve as leader of the pollution prevention team at the Department of Energy's Albuquerque Operations Office. She will be coordinating pollution prevention program at nine DOE defense facilities nationwide.

Congratulations to all on their new positions.



# NEWS & NOTES

## NEW POLLUTION PREVENTION GRANTS PROGRAM FOR ENVIRONMENTAL JUSTICE

**E**PA is providing grants to help bring pollution prevention approaches to bear on environmental problems faced by minority and low income communities. Potential recipients include community groups, service providers, non-profits, and academic institutions. The grants are expressly for pollution prevention and environmental justice.

The following are examples of approaches that demonstrate the value of pollution prevention approaches for environmental justice issues.

► *TRI and Public Information*: using environmental information to advance environmental justice, for example, by providing minority and low income communities with the information, software or other tools to use TRI to persuade industries to reduce emissions.

► *Financing*: providing assistance in obtaining financing for community businesses to implement pollution prevention solutions.

► *Education and Outreach*: developing and distributing educational and outreach materials on applying pollution prevention solutions that are expressly designed for issues faced in particular communities.

► *Agriculture*: providing funds to address the impact of pesticides and agricultural chemicals generally on farmworkers, by supporting alternatives to pesticide and chemical uses, and training for field personnel who can understand and apply integrated pest management in the field.

► *Resource efficiency*: encouraging better use of resources, for example, by energy efficiency, water conservation, or waste reduction in community housing and business.

EPA is also open to other approaches that communities identify. The objectives of the program are to:

► allow experimentation with a broad range of prevention approaches;

► assure that grants are available for the full range of constituencies involved in the environmental justice activities (e.g.: tribes, rural and urban communities); and

► leverage existing institutions and create partnerships to advance pollution prevention and environmental justice.

The majority of grants are expected to be under \$50,000, with a total of \$4 million available in FY 1995. Decisions on grants awarded will be made by the EPA Regional Offices. For further information on this program, please contact Chen Wen, tel: 202-260-4109, fax: 202-260-0178.

## EPA EVALUATES TRI EXPANSION PHASE 3

**E**PA's Office of Pollution Prevention and Toxics (OPPT) held a public meeting on September 28, to discuss adding chemical use inventory (CUI) information to existing information collection requirements under the Toxics Release Inventory (TRI) program.

"There's no question that there's a need for better information about the use and exposure of chemicals in the public domain," said Mark Greenwood, then-Director of OPPT. "Our hope is to find a way of designing a system for doing that that gets the maximum credibility among those who both use the data [and] those who supply the data."

A key issue at the meeting was the inclusion of materials accounting (MA) data, which consists of determining the quantity of a chemical at key junctures in its progression through a facility. Environmental organizations want the data included as public information, and groups such as labor unions are interested in EPA collecting MA data for occupational safety and health concerns.

"We think the information does deserve to be in public," said Hillel Gray of the National Environmental Law Center. Gray stressed the "need to start moving toward..."

Continued on page 11

## RESOURCES

### P2INFO

The pollution prevention information clearinghouse developed for U.S. Department of Energy facilities and contractors is up and running. Called P2Info, it is operated by Pacific Northwest Laboratory and includes pollution prevention technologies and tools, and vendor data from within and outside the DOE complex. Call 509-3P2-INFO for more information or dial in via Internet at P2info@pnl.gov.

### POLLUTION PREVENTION DIRECTORIES

EPA's **Pollution Prevention Directory** has been updated and greatly expanded to cover EPA and other federal programs, state programs in pollution prevention, a wide range of small business technical assistance, and selected resources. Available through PPIC, 202-260-1023.

The National Pollution Prevention Roundtable's **Pollution Prevention Yellow Pages** has recently been updated. Its focus is on state and local pollution prevention programs. Contact the Roundtable at 218 D Street SE, Washington, DC 20003, tel: 202-543-7272 (\$15 Members/\$25 Non-Members).





# STATE GRANTS

## PUTTING PPIS GRANTS TO WORK

**S**ince the start of the state grant program known as PPIS (Pollution Prevention Incentives for States), over \$30 million has been awarded to hundreds of state and tribal organizations to promote pollution prevention. PPIS grants fall into four basic categories: Technical Assistance, Technical Training, Outreach and Education, and Demonstration Projects. Examples of what recipients have done with their PPIS grants follows.

### Technical Assistance

Businesses across the country are taking advantage of free technical information from state pollution prevention programs supported by PPIS grants. These programs assist businesses in reducing wastes in all environmental media — air, solid and hazardous waste, water, and energy consumption. The assistance generally results in savings to businesses by reducing waste management costs. For example, the **Florida Waste Reduction Assistance Program** saved businesses approximately \$3.7 million by reducing hazardous waste by over 4 million pounds.

In many cases, PPIS technical assistance programs offer confidential, on-site pollution and waste assessments for large and small businesses. These assessments are voluntary and take place outside the regulatory environment. Businesses learn how to save money; increase efficiency; reduce the need for new disposal facilities; and help promote a positive public image. During an assessment, engineers review all operations to uncover potential waste reduction opportunities and strategies. Companies receive a detailed report that identifies and evaluates various waste reduction opportunities and provides specific recommendations for action. The company then decides whether to proceed with the recommendations.

The pollution prevention program at the **Colorado Department of Health (CDH)** is one of the programs supported by PPIS

which offers this type of technical assistance. **Majestic Metals**, a manufacturer employing 115 people received a pollution prevention assessment from the CDH. The company adopted CDH recommendations to install high-volume, low-pressure paint guns and gun-cleaning wash system. CDH estimates that the changes will reduce Majestic's VOC emissions by 7,400 pounds, and decrease rinse water by 770,000 gallons annually. The corresponding reduction in paint usage will save the company \$25,000 per year.

Some PPIS grant recipients are going one step further and evaluating what prevents businesses from adopting pollution prevention recommendations. The **Louisiana Department of Environmental Quality** is using a PPIS grant to develop a survey for industrial waste generators to identify regulatory and non-regulatory barriers to implementing pollution prevention practices. The state hopes to use the survey results to tailor its programs to local needs.

### Technical Training

PPIS grants fund state programs that provide technical training to industry, government and student groups. Many states have programs that train business leaders on how to implement pollution prevention measures at their work sites. For example, **Utah** is conducting a series of environmental training workshops for the Utah Manufacturers Association. The training series has alerted businesses to the information and services available to them from the state's pollution prevention program. The training focuses on source reduction in hazardous waste, solid waste and air toxics, and protection of drinking water and wetlands.

The **Tennessee Waste Reduction Assistance Program (WRAP)** has trained over 12,000 people in waste reduction. WRAP has combined waste assessments and training into Solid Waste Focus Groups. This program, in conjunction with the Tennessee Chamber of Commerce, trains industries to conduct



## STATE GRANTS, CONTINUED

snapshot assessments of their solid waste. This program has allowed WRAP staff to assist more companies, more quickly than other methods.

PPIS grants have also been used to train state and local officials to focus on pollution prevention opportunities during the course of their work. For example, **Cornell University** used PPIS funding to develop a comprehensive package of training and informational materials to serve as a guide for local officials responsible for pollution prevention. Local officials from 36 New York counties attended the first training session.

**Rhode Island** also has a PPIS-supported program to train state officials. Rhode Island is training employees at its largest water treatment facility to focus on pollution prevention in all forms during compliance audits and assessments. Other states are training employees in state environmental agencies to identify source reduction opportunities during the course of their work.

Several of the established state pollution prevention programs have trained new PPIS grant recipients in technical skills and management strategies. The **Alabama** program, for example, has trained staff in Vermont, New Hampshire, Iowa, Mississippi and South Carolina.

### Outreach and Education

PPIS has supported the development of a range of materials and activities designed to educate people about pollution prevention.

PPIS funded the **University of Maine's** Department of Chemical Engineering in an educational program for groups dealing with the public or students. Activities undertaken included an intensive short course called "Understanding and Managing the Chemicals in Our Lives," a conference on pollution prevention and risk reduction held annually, a clearinghouse for information on pollution prevention, working with the news media to disseminate pollution prevention material, and developing a "Guide to Chemicals in Consumer Products."

PPIS also supports education and outreach projects which target consumers and businesses. Grant recipients have developed newsletters, fact-sheets, videos and television programs to increase awareness of source reduction opportunities. Many of the programs sponsor workshops and conferences, and make presentations to business and civic organizations.

Several states have used PPIS grants to increase coordination of different regulatory agencies. For example, the **Washington Department of Ecology** has established a mechanism to increase communication among state agencies, and within the Department itself. The Department formed an intergovernmental committee to meet periodically on pollution prevention. The state also has developed an interagency workgroup of employees in each of the media programs.

### Demonstration Projects

Demonstration projects test and support innovative pollution prevention approaches and methodologies. Funding these projects allows EPA and the states to learn how new ideas will work, before business or government invests significant time and money. PPIS has supported demonstration projects in areas such as alternative pollution prevention technologies, community waste reduction and recycling programs, and management approaches to pollution reduction in specific industries.

For example, Nevada is studying alternatives for the mining practice of analyzing the gold and silver content of ore. The current process, fire assay, wastes lead and contaminates the final refuse. Researchers conducted a literature review of techniques which do not use lead and are examining several promising alternatives in the laboratory.

For more information on the state programs, contact Lena Hann-Ferris at 202-260-2237.

**Funding these projects allows EPA and the states to learn how new ideas will work, before business or government invests significant time and money.**





# INTERNATIONAL NEWS

## ENVIRONMENTAL POLLUTION PREVENTION PROJECT (EP3)

**T**he U.S. Agency for International Development (USAID) has established an Environmental Pollution Prevention Project (EP3) to support sustainable pollution prevention pro-

grams in developing countries. Paid and volunteer U.S. industry and pollution prevention experts work with EP3 engineers to conduct pollution prevention assessments at industrial facilities in host countries. These experts also are available to help the companies implement the pollution

prevention options identified through the assessments.

EP3 currently has offices in Chile, Ecuador, Egypt, Indonesia, and Tunisia. In addition, EP3 has ongoing or completed projects in the Czech Republic, India, Poland, Sri Lanka, Thailand and Zambia.

An example of EP3's work is found in Chile, where an EP3 team conducted pollution prevention assessments at three leather tanneries and four textile dyeing plants. Chilean consultants worked alongside the U.S. experts as a way of training local engineers and building in-country pollution prevention expertise.

Preliminary results from the first assessments are promising. EP3 teams are identifying many changes that will save plants thousands of dollars in operating costs, in addition to reducing pollution. For example, in one tannery, a process modification costing less than \$5,000 is expected to save approximately \$60,000 annually, as well as significantly reduce chrome effluents. At one of the textile

plants, modifications costing less than \$1,500 will greatly reduce water use and are expected to result in annual savings of about \$100,000 per year.

USAID is using three methods to get EP3 off the ground. First, USAID has a cooperative agreement through which EPA staff and resources support EP3. Second, USAID has a contract with a primary contractor and sixteen subcontractors that provide core support to design and manage EP3 and the capacity for USAID Bureaus and Missions to buy-in to the project. Third, USAID has a cooperative agreement with the Water Environment Federation (WEF) that provides WEF staff and resources to supplement core EP3 activities. WEF also supplies volunteers to work on EP3 projects.

So far, EP3 has completed 16 assessment audits in Chile and nine audits in Tunisia. Other EP3 activities include:

**Clearinghouse.** The EP3 Clearinghouse responds to requests for information from developing countries and USAID Missions throughout the world. The Clearinghouse catalogue includes over 1,000 pollution prevention references focusing on industry-specific applications of pollution prevention techniques.

**Training Programs.** EP3 has developed a train-the-trainer workshop aimed at individuals responsible for delivering or managing pollution prevention training in developing countries.

**Volunteer Program.** The Coalition for International Environmental Research and Assistance (CIERA) coordinates the EP3 volunteer program. The program provides a mechanism for people with expertise in many areas to participate in an EP3 project. The individuals volunteer their time for a specific project and EP3 covers the costs. Volunteers have participated in activities such as pollution prevention assessments in Chile, Ecuador, Egypt, Indonesia, Tunisia and Zambia.

For more information, contact Audrey Pendergast at 703-351-4004.



Waste heat recovery was one of the pollution prevention opportunities identified at a textile dyeing plant in Chile audited by EP3.



## INTERNATIONAL, CONTINUED

### SUSTAINABLE DEVELOPMENT IN TOURISM

**A** Nebraska heritage trail and a resort on Costa Rica's Osa Peninsula are two examples of a trend toward sustainable development in tourism. These developments seek to promote local development through tourism that has a minimal impact on the environment.

At a recent conference on sustainable tourism, participants from around the world discussed new approaches to the tourism and hospitality industries. "Building a Sustainable World Through Tourism," organized by the International Institute for Peace through Tourism, was held September 12 - 16, 1994, in Montreal, Quebec.

The conference featured the presentation and discussion of over 200 case studies of successful, sustainable development. Participants from more than 80 countries from the travel and tourism industry, and related sectors including parks, culture, heritage and environment, attended the conference which was sponsored by the government of Canada, the government of Quebec, and the Hotel and Restaurant Employees International Union.

The Lapa Rios Ecotourism Resort near Puerto Jimenez, Costa Rica, which was built in 1991, is one example of the sustainable development approach to tourism. The 1100 acre site included a stand of virgin lowland rainforest that was one of the last untouched areas of its kind in Central America. The owners and developers, John and Karen Lewis, felt that ecotourism was a logical alternative to the logging and agricultural development prevalent in the area.

Lapa Rios was designed to have a minimal impact on the environment. The buildings are based on designs traditional to the area and use exposed timber construction. Wherever possible labor-intensive rather than material-intensive methods of construction were used, such as thatched roofs, in order to benefit the

local economy. Local workers also built the furniture at the site using local materials. Says architect David Andersen, "It's not so much what we did but what we didn't do. Nature is the real show here." The buildings feature solar panels to supply hot water and have roof vents that use natural breezes for cooling. There is currently a main building and 14 villas, with a total of 20 villas planned. The resort employs 33 local staff.

Another type of sustainable development is demonstrated by the Heritage Trails of Nebraska. Nebraska has several historical trails including the Oregon Trail, the Lewis and Clark Trail, the Mormon Trail, and the Pony Express Trail. According to Prof. Brian Hill of the University of Nebraska at Kearney, these historical trails are suited to sustainable development for several reasons. First, the linear nature of trails allows for tourism developers to space out tourists, minimizing impacts. Further the trails contain different attractions suited to different tourists; a military history buff may visit an old fort, while a family with children may visit a historic town. Thus while promotional materials can promote certain trails, the impact of those tourists is dispersed.

Because the development of heritage trails for tourism is not dependent on large scale development or large numbers of tourists, it encourages small businesses and small tour companies. These smaller businesses provide jobs in the communities and are less disruptive to the environment than large scale development might be.

For information on the International Institute for Peace Through Tourism, call 514-281-1822. For information on the Lapa Rios Resort, contact John and Karen Lewis at 506-735-5130. For information on the Nebraska Heritage Trails, contact Brian Hill at 308-234-8727.

**"It's not so much what we did but what we didn't do. Nature is the real show here."**

Lapa Rios architect  
David Andersen





## INTERNATIONAL, CONTINUED

### POLLUTION PREVENTION COMES TO BALTIC REGION

by Perry Frank

**N**othing signals recent environmental progress in Central Europe as dramatically as the opening of several recreational beaches along Gdansk Bay, Poland, for the first time in 20 years. Pollution of the bay as a result of industrial and household wastes, as well as stormwater and agricultural runoff, had reached the level of a national scandal by the 1990s, as drinking the water was prohibited and beaches were closed to swimmers. Even walking on the magnificent beaches of Gdansk and Sopot, once famous summer resorts, had become difficult and unpleasant due to refuse and debris washed or tossed onto the shore.

Three years ago the municipalities in the region began working toward cleaning the

water supply and opening the beaches. Support from the ECOBALTIC Foundation led to the enormously successful Earth Day Tri-Cities Beach Clean-Up event, as well as to the establishment of a Stream Watch program that coordinates the efforts of students and scouts. ECOBALTIC has also mounted intensive public education campaigns to reduce the use of phosphorus-based detergents, implicated in the contamination of the Baltic Sea.

Other environmental groups have built coalitions to help promote new approaches to environment and natural resource protection. The Coalition Clean Baltic (CCB) consists of 25 nongovernmental environmental organizations representing the nine countries bordering the Baltic Sea. Its guiding principles include ecological sustainability, use of user fees and "green taxation" as incentives toward conservation, free access to information, and comprehensive planning. Another coalition, the Union of the Baltic Cities, was established in 1991 with 32 founding

cities to achieve a better standard of life for the 80 million people living in the drainage area of the Baltic; environmental protection is one of the Union's five key initiatives.

On a diplomatic level, the Helsinki Convention on the Protection of the Marine Environment of the Baltic Sea Area (HELCOM), originally formed in 1974, was renewed in 1992 and charged with the mission of protecting the internal waters draining into the Baltic Sea. The Convention established fundamental principles as a basis for environmental action, including pollution prevention and "polluter pays." In 1992 HELCOM ratified a Joint Comprehensive Program (JCP) to clean up the region and put sustainable programs in place. Of the roughly \$22 billion proposed for the program's cost over a 20-year period, about \$16.8 billion was allocated to combat point source pollution through wastewater treatment and industrial pollution control. A smaller, but still significant amount, about \$4.2 billion, was allocated to nonpoint source pollution to work on problems stemming from agricultural runoff, livestock operation, rural settlements, etc.

A key issue for implementation is financing for specific projects. Of 119 "hot spots" identified in the region, nearly two-thirds are located in countries that have recently undergone profound political changes and are still struggling with the difficult process of privatization. The ability of these countries to allocate funds or borrow in international markets is limited, while Western European countries are also strapped for cash in the wake of a deep recession. Ultimately, much of the financing for environmental protection may need to be borne by localities in the form of taxes or user fees. But there is growing recognition that the greatest long-term opportunity for reducing environmental pollution in the future may be tied to policies that require pollution prevention practices and technologies to be built into new facilities and processes as these nations modernize their infrastructures.

**"There is growing recognition that the greatest long-term opportunity for reducing environmental pollution may be tied to policies that require pollution prevention practices."**

*Perry Frank is a Washington-based writer who recently returned from a year as a Senior Fulbright Lecturer at the University of Gdansk, Poland.*





# RESOURCES

## TECHNOLOGY TRANSFER NETWORK PUTS INFORMATION ON THE LINE

**O**n-line information about air pollution control and prevention is as near as a personal computer with a modem, thanks to the Technology Transfer Network (TTN). TTN is a network of 18 electronic bulletin boards developed and operated by EPA's Office of Air Quality Planning and Standards (OAQPS).

TTN's information and technology exchange cover air pollution control, from

emission test methods to regulatory air pollution models. The service is free to the public (although users have to pay any long-distance telephone charges) and is on-line seven days a week, 24 hours a day, except Monday morning, 8-12 Eastern time, when the system is down for maintenance.

To access the system via modem, call 919-541-5742. TTN can be accessed through the Internet at "TELNET ttnbbs.rtpnc.epa.gov". For information or assistance, call the help desk at 919-541-5384 weekdays, 11-5 Eastern time.

## BULLETIN BOARDS ON THE NETWORK

**EMTIC—Emission Measurement Technical Information Center** provides access to emission test methods and testing information for the development and enforcement of national, state and local emission prevention and control programs.

**AMTIC—Ambient Monitoring Technology Information Center** provides information and all federal regulations pertaining to ambient monitoring, including information on monitoring methodology, and field and laboratory studies.

**AIRS—Aerometric Information Retrieval System** provides information and documentation on the use and acquisition of air quality and emissions data from the AIRS mainframe computer.

**BLIS—RACT/BACT/LAER Information Systems** is a compilation of air permits from local, state and regional air pollution control agencies.

**NATICH—National Air Toxics Information Clearinghouse** contains information submitted by EPA and

state and local agencies regarding their air toxics programs to facilitate the exchange of information among government agencies.

**COMPLI—Stationary Source Compliance** provides pollution prevention, stationary source, and asbestos compliance information.

**NSR—New Source Review** offers guidance and technical information within the NSR permitting community.

**SCRAM—Support Center for Regulatory Air Models** provides regulatory air quality model computer code, meteorological data, documentation and modeling guidance.

**CHIEF—Clearinghouse for Inventories/Emission Factors** contains the latest information on air emission inventories and emission factors. It provides access to tools for estimating emissions of air pollutants and performing air emission inventories for both criteria and toxic pollutants.

**CAAA—Clean Air Act Amendments** has information on the Clean Air Act

amendments of 1990, regulatory requirements, implementation programs, criteria pollutants, and technical analyses.

**APTI—Air Pollution Training Institute** describes current course offerings on air pollution, including curricula, schedules, locations and costs.

**CTC—Control Technology Center** offers free engineering assistance, a hotline, and technical guidance to state and local air pollution control programs.

**USC—User Support Center** provides support for users by offering information on modems, downloading, communication software and other communications issues. It also provides a public message area for users to share information related to the use of the TTN.

**ORIA—Office of Radiation and Indoor Air** disseminates information to state and local

governments, industry, professional groups and citizens to promote actions to reduce exposure to harmful levels of radiation and indoor air pollutants.

**USCAN—US/Canada Air Quality Agreement** provides for the exchange of permitting information between the U.S. and Canada.

**OMS—Office of Mobile Sources** provides information pertaining to mobile source emissions, including regulations, test results, models and guidance.

**AIRISC—Air RISC** provides technical assistance and information primarily to state and local air pollution control agencies in areas of health, risk, and exposure assessment for toxic and criteria pollutants.

**SBAP—Small Business Assistance Program** provides support to state and local small business assistance programs by serving as a communications network to share materials as well as new federal rules that have been developed related to small business issues.





# DfE NEWS

## DfE MILESTONE:

### CTSA DRAFT RELEASED FOR PRINTING PROJECT

The DfE Printing Project has released its draft Screen Printing Cleaner Technologies Substitutes Assessment (CTSA). This is the first draft CTSA that EPA has completed, and it will be used as a model for future assessments of risk reduction and pollution prevention opportunities in other industries.

The CTSA evaluates 11 screen reclamation product systems which were first tested in a laboratory setting. Twenty-three volunteer printing facilities then tested the product systems in 30-day production runs. The information collected in those trials went into the CTSA.

The Printing Project also is planning to complete draft CTSA's for the lithographic and flexographic segments of the printing industry, scheduled to be released in 1995.

## CLEANING UP THE DRY CLEANING PROCESS

**E**PA, through the Design for the Environment (DfE) Program, has formed a partnership with the dry cleaning industry, solvent producers, suppliers, universities, and environmental, labor and consumer groups to evaluate current and alternative clothes cleaning technologies in an effort to reduce exposure to dry cleaning solvents.

As part of this Dry Cleaning Project, EPA is developing a Cleaner Technology Substitutes Assessment (CTSA). The CTSA is an analytical tool that methodically assesses the comparative performance, cost, and human health and environmental risks associated with traditional and alternative chemicals, processes and technologies in a specific area. For each CTSA, a specific "use cluster" is chosen. A use cluster is a set of technologies that can be substituted for one another to perform a certain task. The Dry Cleaning CTSA identifies and evaluates the currently available, newly developed and emerging technologies in the industry and shows the advantages and disadvantages of each. The goal of the CTSA is to provide accurate information to dry cleaners so that they are able to make informed judgments on the products and technologies they choose to use in their facilities.

The CTSA began by examining the basic function of dry cleaning. Customers want their garments to be professionally cleaned, and dry cleaning is the most established method to accomplish this. The dry cleaning process developed because some garments are damaged if washed with water. Dry cleaning is similar to washing clothes at home, with a chemical solvent used in place of water. Perchloroethylene (PCE) is the solvent used by over 85 percent of all dry cleaning establishments. Other solvents being used include Stoddard solvent and CFCs.

Through the CTSA several alternative clothes cleaning techniques are being evaluated. These include: (1) multiprocess wet cleaning, which relies on the controlled application heat, steam, pressing, and soaps to clean clothes that are traditionally dry cleaned; (2) machine wet cleaning, which is a mechanized method that varies the washing technique based on the type of fabric; (3) liquid CO<sub>2</sub> technology, which utilizes the solvent properties of CO<sub>2</sub> gas at high pressures to clean clothes; and (4) microwave drying, which is not a cleaning technique but which may make aqueous based technologies more viable.

The CTSA will complete risk assessments and present performance information for each alternative. The risk assessments outline the potential for adverse effects to dry cleaning workers, the general population, specific subpopulations and the environment. The performance data are necessary for the dry cleaner to choose among the various processes.

As part of the project, EPA is establishing demonstration shops in Chicago, Indianapolis and Los Angeles, in late 1994. The Chicago shop will feature alternative cleaning services only, while the other shops will offer both dry and wet cleaning services. The shops will resemble commercial dry cleaning operations in size, number of employees, and daily volume of cleaning. The demonstration shops will allow the dry cleaning industry to observe the alternative cleaning processes under field conditions. In addition, financial records will be available for inspection so that the financial viability of the processes can be examined.

Other parts of the Dry Cleaning Project focus on developing strategies to shift the behavior of dry cleaners and consumers, and getting the information to the industry and consumers.

For more information on Design for the Environment, contact the Pollution Prevention Information Clearinghouse at 202-260-1023.





# CASE STUDY

## ALADDIN INSULATES AGAINST POLLUTION

**A**laddin Industries Incorporated has slashed the amount of toxic waste it generates through its participation in EPA's 33/50 Program.

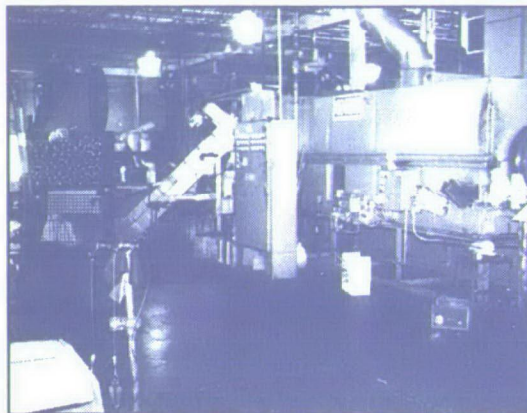
Aladdin manufactures metal and plastic hardware for consumer and industrial use. The company has its headquarters and manufacturing facility in Nashville, Tennessee. Aladdin produces a variety of products such as lunch kits, thermos bottles, hospital trays, coffee cups, lamps and coolers.

As a result of its reduction activities which included substituting more benign chemicals and altering processes, Aladdin has reduced its total releases and transfers of 33/50 Program chemicals by 38 percent from 1988 to 1992. In addition, Aladdin achieved a 99.8 percent reduction in releases and transfers of non-33/50 TRI chemicals from 1988 to 1992.

Aladdin completely eliminated the use of trichloroethylene, which had been used to remove petroleum oils from metal part during metal forming processes. The metal now is treated with synthetic lubricants, which is removed from the metal by an aqueous alkaline cleaner. The water from the alkaline process is treated on-site.

Methylene chloride was eliminated from the facility by replacing the polystyrene used in trays with polypropylene. Previously the polystyrene trays were cut from a sheet and blemishes around the edges were removed with the methylene chloride. The new polypropylene trays are injection molded so there are no blemishes to remove.

Aladdin also eliminated all releases of chromium, along with phosphoric acid and sulfuric acid, which are not 33/50 TRI chemicals. By utilizing a newly installed on-site waste treatment facility, toxic materials are removed from a water mixture containing chromium, phosphoric acid and sulfuric acid. Half of the water is recycled and half is of a quality to be discharged to the sewer. The sludge which remains from the treatment is considered



Aladdin's alkaline wash tank replaced its vapor degreaser.

non-hazardous and disposed of in a landfill. Prior to the installation of the on-site treatment facility, all of these wastes were transferred off-site for treatment or disposal.

The use of a different thinner eliminated the use of toluene and methyl isobutyl ketone. In addition, by changing a painting process, Aladdin eliminated small quantities of lead, xylenes and ketones.

## EPA EVALUATES TRI EXPANSION PHASE 3

*Continued from page 3*

a precautionary and preventive approach" toward exposure to toxic substances.

Industry groups were concerned about the burden of providing additional data and uncertain about the value of the MA information. "Our cost estimates indicate that any value which this data may provide will be outweighed tremendously by the cost of collecting and reporting," said Sharon Eisel, representing the Chemical Manufacturers Association. "The goal of any additional data collection should be risk reduction, not chemical use reduction," she added.

OPPT is interested in the use of information to promote pollution prevention activities and wants examples of how the data would be used in order to better gauge the benefits and costs of collecting the data.

## 33/50 PROGRAM

*The 33/50 Program is a voluntary program which derives its name from its goals—a 33 percent reduction by 1992 and a 50 percent reduction by 1995 of emissions nationwide of 17 high priority toxic chemicals.*

*This case study is one of a series of pollution prevention efforts recognized by the program.*

*For more information on the 33/50 Program, contact the TSCA Hotline at 202-554-1404.*



# CALENDAR

TITLE	SPONSOR	DATE/LOCATION	CONTACT
Building TRI and Pollution Prevention Partnerships	EPA, NEWMOA	December 5-8 Boston, MA	617-666-1431 617-628-9297
Environmental Technology Expo & Conference	EPA, Assoc. of Energy Engineers, others	December 7-9 Atlanta, GA	404-447-5083
Second Annual National Tribal Environmental Conference	National Tribal Environmental Council	December 12-14 Reno, NV	505-242-2175
Fertilizer Research and Education Program Conference	California Department of Food and Agriculture	December 14 Parlier, CA	Jacques Franco 916-653-5340
Texas Municipal Solid Waste Conference: Options for Texas '95	Texas Natural Resources Conservation Commissions, others	January, 25-27, 1995 Austin, TX	Gary Trim 512-239-6708
The 1995 Excellence in Housing Conference	Energy Efficient Building Association, Inc	March 8-11, 1995 Minneapolis, MN	612-871-0413
Low- and No-VOC Coating Technologies International Conf.	EPA Air and Energy Research Lab, Research Triangle Inst.	March 13-15, 1995 Durham, NC	919-541-5816
1995 SO <sub>2</sub> Control Symposium	EPA, DOE, EPRI	March 28-31, 1995 Miami Beach, FL	415-855-2010
Gulf of Mexico Symposium 1995: Steering a Course for the Future	Gulf of Mexico Program	March 29-April 1, 1995 Corpus Christi, TX	800-699-GULF
1995 IEEE International Symposium on Electronics and the Environment: A Life Cycle Approach for Electronics Products	IEEE	May 1-3, 1995 Orlando, FL	908-562-3878

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