

Bulletin

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In an effort to save costs, we are updating our mailing list for Chemicals in Progress Bulletin. If you would like to continue to receive your free copy of the Bulletin, you must fill out and mail in the form on the inside of the back cover by February 1, 1995.

TRI Chemical Expansion Rule Issued

On November 28, 1994, EPA finalized a rule to add 286 chemicals to the list of chemicals for which Toxics Release Inventory (TRI) reporting is required. In a related action, EPA also announced a final rule allowing facilities that report low volumes of chemical releases to TRI to submit a shorter, less time-consuming form — often compared to the IRS's E-Z tax form — by establishing "streamlined reporting" of TRI data.

TRI is a database of toxic chemicals maintained by EPA under Section 313 of the Emergency Planning and Community Right-to-Know Act. Companies must report to EPA and the states on their releases of these chemicals into the environment and their transfer of these chemicals off-site for waste management. EPA makes the data available to the public, for use in assessing risks in their communities. The expansion of TRI by 286 chemicals brings the total number of chemicals or chemical categories on TRI up to 654.

"TRI data has allowed the public to be informed and involved in environmental decision-making as they never were before," noted Carol Browner, EPA Administrator, in announcing the expansion. "Expanding the list of TRI chemicals is a major step forward in increasing the usefulness of this instrument."

EPA believes that broadening the scope of the chemical list will provide citizens with a more complete picture of chemicals that impact

TRI Rule continued on page 5

OPPT Director Greenwood Departs

After four years as director of the Office of Pollution Prevention and Toxics and 16 years of government service at EPA, Mark Greenwood announced on October 17 that he was leaving public service at the end of October to take a position with the Washington office of Ropes & Gray, a Boston-based law firm.

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EPA Holds Public Meeting on TRI "Phase 3"

by Matt Gillen

EPA's Office of Pollution Prevention and Toxics (OPPT) held a public meeting on September 28, 1994 to hear input from stakeholders on the concept of a third phase of TRI expansion that would collect facility-level chemical use information along with additional information on occupational demographics. About 125 people attended the meeting, representing trade associations, environmental and public interest groups, labor organizations, state and federal agencies, environ-

mental justice groups, and law firms.

TRI-Phase 3 is one of two project tracks that evolved out of earlier discussions with stakeholders on the creation of a "Chemical Use Inventory" (CUI). Facility use information refers to data about the throughput of chemicals at a particular site, also known as materials accounting data. (A second project track, the TSCA Inventory Update Rule (IUR), would collect data about the commercial flow and end-use of chemicals once they leave a

manufacturing facility.)

Materials accounting tends to evoke strong opinions from all sides, and this meeting was no exception. A key focus of comments at the meeting was the value of materials accounting data, which includes such information as the amount of a toxic chemical brought on site, the amount consumed, the amount put into products, etc. Environmental community speakers strongly supported the collection of such data as a right-to-know

TRI Phase 3 continued on next page

Playback!

In his comments at the public meeting, OPPT Office Director Mark Greenwood "played back" some of the things that he has been hearing about TRI Phase 3.

To the public interest community, Greenwood stated that EPA strongly believes that additional information on use and exposure should be collected. However, he pointed out "that it is not yet clear to a large group of people that a national materials accounting approach is the best way to do that." Greenwood described industry's concerns that input and output information might not "help the public ... answer the question, Am I safe?" and that only a small number of people might eventually use the data. He also relayed industry concerns that misuse of the data may occur regardless of intentions, because it is technically difficult to use the data to make comparisons across facilities. He suggested that the environmental community think broadly about how the data will be used, and be

flexible at this early stage about the type of data elements to be considered.

To the business community, Greenwood suggested that engaging the issue of what is appropriate for reporting in this area even if some would prefer that the issue just go away. Greenwood called materials accounting "part of... an inevitable debate about the full extent and outer bounds of right-to-know." He described right-to-know as a "very powerful policy direction" that is "going to be part of your world for a long time." Information is a major element in the evolving self-empowerment approach being taken by the public, and providing information is seen as a valuable and cost-effective EPA service. Greenwood predicted that right-to-know would remain a priority no matter who runs EPA in years to come. Greenwood closed by stating that he hoped that these "tough messages" would be taken in a way that encouraged stakeholders to look for consensus opportunities and to avoid polarization as the issue moves forward.

TRI "Phase 3"

Phase 3 from previous page

issue, claiming that the data fill in important gaps. To these speakers, disclosure of these data would lead to accountability on claims of source reduction and other pollution prevention activities. Thus, it would help make TRI into a better pollution prevention scorecard. Materials accounting was also seen as providing important data for chemical accident prevention, and for tracking the amounts of toxics in products.

Industry and trade association speakers, on the other hand, were skeptical that materials

accounting data would add much value to TRI. These speakers claimed that the existing pollution prevention data elements were adequate to allow measurement of pollution prevention progress. Materials accounting data were characterized as expensive to collect and report, and while not proving very useful to citizens, could reveal valuable information to competitors. Industry speakers expressed concern that materials accounting data would confuse the public about risk, and would be a distraction from the work of reducing releases and transfers.

Other topics discussed at the meeting included the pros and

cons of adding occupational exposure indicators to TRI; whether EPA has the authority to add such data elements; the experience of New Jersey and Massachusetts, which already require materials accounting reporting; the relationship of use data to risk; and concerns about redundancy in existing agency information collection. Departing OPPT Office Director Mark Greenwood provided a series of "tough messages" to both the industry and public interest community (see box on previous page) on the need to be open at this early stage of discussion.

As TRI-Phase 3 is in the exploratory stage, future meetings are likely. EPA has not made any decisions yet on how this issue will be pursued further, other than that it will follow the chemical and facility expansion efforts that are already underway. Additional background information is provided in an OPPT Issues Paper entitled: "Expansion of the Toxics Release Inventory (TRI) to gather chemical use information: TRI-Phase 3: Use Expansion." An administrative record (AR 128) has been established to provide public access to comments provided by various stakeholders. OPPT is reviewing the comments and will proceed with further evaluation of the issues. Stay tuned.

Matt Gillen works in OPPT's Environmental Assistance Division as a project manager in charge of exploring options for TRI-Phase 3.

RTKNet to Offer Speeches

OPPT's Information Management Division is initiating a pilot project on electronic submissions for public meetings. Individuals speaking at public meetings will be invited to furnish diskettes containing their speeches to the Agency; the material will be made available on the Right-To-Know-Network (RTKNet). For further information, contact Gwen Shepard at 202-260-1607 or Lisa Flemming at 202-260-1545.

Currently, the TRI Phase 3 issue paper and several speeches presented at the September 28,

1994 TRI Phase 3 public meeting are available on RTKNet. Diskettes were supplied to EPA by the Legal Environmental Assistance Foundation, Environmental Health Coalition, U.S. PIRG, Ecology Center, National Wildlife Federation and the Louisiana Environmental Action Network.

RTKNet is an on-line, publicly accessible network that transmits information arising from the right-to-know provisions of the EPCRA legislation. For access information, contact: RTKNet, Unison Institute, 1731 Connecticut Ave. NW, Washington, DC 20009-1146, tel: 202-797-7200, fax: 202-234-8584. You can also register on-line by modem at 202-234-8570.

TRI Rule Issued

From page 1

their communities. In addition, the expansion will focus industry's attention on further pollution prevention or source reduction opportunities. Finally, the expansion will provide a broad, multimedia picture of these additional chemicals, not currently evident or possible from single-media permitting or data collection activities.

Over the past year, EPA has added 34 chemicals to the TRI list, including ozone-depleting HCFCs and chemicals regulated under the Resource Conservation and Recovery Act (RCRA). This new addition of 286 chemicals is based on the acute human health effects of these chemicals, their carcinogenicity or other chronic health effects, and/or their environmental effects. Roughly half of the new chemicals added are active ingredients in pesticides.

In introducing the streamlined reporting rule, Browner said, "We had to make some difficult decisions as to how to balance the benefits of more data with our practical concerns associated with data processing and with concerns on the part of industry about increasing the burden of reporting. On the one hand, we believe it is appropriate to streamline TRI reporting by minimizing unnecessary data collection and reporting. On the other, we are concerned about preserving a substantial amount of detailed data for the public." Browner stressed that the

streamlined reporting rule is a compromise arrived at following extensive consultation with many parties including industry, labor unions, and public interest groups.

The streamlined reporting rule has its roots in EPA's need to respond to petitions from the Small Business Administration and the American Feed Industry Association that requested relief from the TRI reporting burden. Under the new rule, facilities meeting the TRI reporting thresholds of 25,000 pounds for the manufacturing and processing of a listed chemical (and 10,000 for otherwise using a listed chemical), but which estimate that their annual reportable amount of the listed chemical does not exceed 500 pounds per year, can take advantage of an alternate threshold of 1 million pounds. Facilities that take advantage of this alternate threshold need only submit a short certification form instead of the more extensive and time-consuming TRI reporting form. In other words, the new rule stipulates that only facilities which report more than 500 pounds of a TRI chemical, or manufacture, process, or use more than 1 million pounds of a TRI chemical, need complete the longer form. Prior to the passage of this new rule, all facilities reporting to the TRI completed the same extensive form.

Future expansion plans for the TRI include expanding the type of facilities that are required to report beyond the manufacturing sector. At this point, EPA plans to include

"On the one hand, we believe it is appropriate to streamline TRI reporting by minimizing unnecessary data collection and reporting. On the other, we are concerned about preserving a substantial amount of detailed data for the public."

EPA Administrator Carol Browner

other industrial sectors which appear to have significant releases of TRI chemicals. These sectors include energy production (electric utilities), materials extraction (metal and coal mining), and materials distribution (bulk terminals and freight transportation), and waste management. Facilities in the transportation sector, primarily airports, also appear to have significant releases. A TRI facility expansion rule is scheduled for proposal in the fall. EPA is also supporting an international effort to promote the concept of toxic chemical release inventories.

For more information on these TRI rules, contact the EPCRA Hotline at 1-800-535-0202.

1987-1992 TRI Now Available on CD-ROM

by **Geraldine Nowak**

TRI data from 1987 to 1992 are available on CD-ROMs. The new CD-ROM format updates and supersedes all previously published TRI data on optical disc. Beginning in 1991 facilities subjected to TRI reporting also provided data on their source reduction and recycling activities for past, current, and projected reporting years.

The CD-ROM disc includes a separate file of information about the health, safety and ecological effects of TRI chemicals. The information is derived from the Hazardous Substance Fact Sheet prepared by the New Jersey Department of Health Right to Know Program and is supplemented by EPA's Office of Pollution Prevention and Toxics.

TRI is updated annually and has many uses. It is an important tool for national analysis across chemicals and/or industries, and provides a basis for linking with other environmental data. It is also a good tool for finding information about toxic chemicals used and released in neighborhoods, helping grassroots groups

as well as EPA work with industry to reduce emissions, and identifying areas with environmental justice issues.

The software supports search, retrieval, and display of TRI records, export of data to dBASE or Lotus 1-2-3 format, computing of basic statistics, plus many more features for accessing specific data.

The CD-ROM operates on an IBM PC or compatible platform, requiring 640K RAM (with 540K RAM for the TRI files), DOS 3.3 or above, a CD-ROM drive, Microsoft CD-ROM extensions, monitor, hard disk drive and printer (optional). The CD-ROM is published by the U.S. Government Printing Office (GPO) using the KAware Retrieval System developed by Knowledge Access International of Mountain View, California.

The CD-ROM can be ordered from GPO or the National Technical Information Service (NTIS). GPO: stock number 055-000-00469-2, \$33, tel: 202-512-1800, fax: 202-512-2250. NTIS: order number PB94-504230, \$45, tel: 703-487-4650, fax: 703-321-8547.

Information about TRI and customer assistance is available

The software supports search, retrieval, and display of TRI records, export of data to dBASE or Lotus 1-2-3 format, computing of basic statistics, plus many more features for accessing specific data.

from the TRI User Support (TRI US) desk at 202-260-1531 (tel) or 202-260-4659 (fax). A limited supply of CDs are available free to EPA staff, other government offices, and public or academic libraries. Customer comments on the TRI CD-ROM are welcomed by fax or mail (address: TRI US, 401 M Street SW (7407), Washington DC 20460).

Geraldine Nowak is project leader for the Information Management Division's TRI CD-ROM program.

EPA Calls for New Dioxin Data to Complete Reassessment Effort

On September 13, 1994, EPA released a draft reassessment of dioxin risk and issued a sweeping call to scientists, industries, federal, state, and local governments, public interest groups, and hospital facilities across the nation for new data on dioxin. This effort to collect additional data is designed to fill gaps in EPA's knowledge of dioxin sources and emissions so that the final dioxin reassessment document is as accurate and up-to-date as possible.

The draft dioxin reassessment is the result of EPA's three-year scientific review, the most exhaustive scientific review of a single compound ever undertaken by the Agency. While it expands EPA's understanding of dioxin toxicology, the reassessment is not yet complete and is not expected to be until late 1995, after the completion of scientific peer review.

The draft reassessment comprises six volumes and totals over 2,000 pages. It deals with both cancer and non-cancer effects, known sources of dioxin in the environment, and current levels of human exposure. The report

reaffirms the link between dioxin and cancer and concludes that dioxin exposure at some level may result in a number of non-cancer health effects in humans. The report also identifies sources of dioxin known to contribute to environmental contamination.

During the 120-day comment period, EPA will be taking public comments on the draft document. Early in 1995, the Agency's Science Advisory Board (SAB) will

conduct a formal scientific peer review. The Agency will conclude the reassessment later in 1995, incorporating appropriate changes from public comments and the SAB review. Copies of the draft reassessment are available from:

CERI/ORD Publications Center
U.S. EPA
26 W. Martin Luther King Drive
Cincinnati, OH 45268
Tel: 513-569-7562.
Fax: 513-569-7566

OPPT Director Greenwood Departs

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"For me this is an opportunity to return to my profession, a step I have always expected to do at some point in time," Greenwood wrote in an all-hands memo, "From a professional and personal point of view, I look forward to this new endeavor with great excitement."

Assistant Administrator Lynn Goldman announced that upon Greenwood's departure, Joe Carra, Deputy Director, will serve as Acting Director. Carra appointed Susan Hazen, director of the Environmental Assistance

Division (EAD), to fill the deputy's position on an acting basis. Jim Willis, Hazen's second in command, will be acting division director of EAD during her absence.

Lynn Goldman, Assistant Administrator for Prevention, Pesticides and Toxic Substances (OPPTS), will be responsible for naming a new director of OPPT, the sixth since the passage of the Toxic Substances Control Act (TSCA) and the creation of the office in 1976. At press time, no successor to Greenwood had been named.

OPPTS and Region 5 Convene Mercury Task Force

Dr. Lynn Goldman, Assistant Administrator for OPPTS, and Val Adamkus, Region 5 Administrator, have formed an EPA-wide task force to improve coordination within EPA on mercury-related issues and actions. The Great Lakes National Program Office (GLNPO) suggested the need to create such a national task force as an outgrowth of work underway within Region 5. GLNPO had developed a series of recommendations designed to help achieve the virtual elimination of mercury from the Great Lakes ecosystem, and some of

these recommendations, if adopted, may require issuing national policies or regulations.

OPPTS and Region 5 received nominations to the task force from all major program offices at EPA Headquarters and from all of the Regional Offices. The first task force meeting occurred on October 12, 1994 in Washington, D.C. The task force briefed Lynn Goldman and Val Adamkus on the uses of mercury, the sources and nature of releases, existing regulations which control mercury, and current Agency activities

involving mercury which need to be coordinated across EPA. These activities include the Office of Solid Waste's rulemaking on the disposal of mercury lights, the Office of Air's Report to Congress on Mercury, and the formulation of an EPA position regarding the sale of mercury from the National Defense Stockpile.

For further information on the Mercury Task Force, contact Jim Darr (202-260-3441), Dave Topping (202-260-7737), or Elizabeth LaPlante (312-353-2694).

TSCA Testing and Product Stewardship Agreements Signed for DGEBCA

Three major manufacturers of the diglycidyl ether of bisphenol A (DGEBCA) have signed a TSCA §4 Enforceable Consent Agreement (ECA) to conduct certain needed health effects tests as well as glove permeation tests on DGEBCA. The companies are Shell Chemical Company, the Dow Chemical Company and the Ciba-Geigy Corporation.

The TSCA §4 ECA became effective on August 1, 1994, the date of its publication in the *Federal Register* (see 59 FR 38917). This ECA resulted from OPPT's "Open

Season" initiative wherein testing proposals were solicited from the industry on chemicals for which final TSCA §4 test rules had not as yet been issued (see 57 FR 31714).

A unique feature of the DGEBCA testing program is that it is accompanied by a Memorandum of Understanding (MOU) between OPPT and the three DGEBCA manufacturers. Under the MOU, the companies have agreed to develop and implement a voluntary DGEBCA Product Stewardship Program. This MOU, which went

into effect on August 1, 1994, reflects OPPT's ongoing efforts to expand the use of its TSCA Chemical Testing Program to achieve documentable progress by the industry in important OPPT mission-related activities such as pollution prevention, waste minimization, risk communication, and risk reduction. Copies of the DGEBCA TSCA §4 ECA and MOU can be obtained from OPPT's Public Docket Office (Docket # 542168).

OPPT Launches Information Gathering Effort on the New River

EPA and SEDESOL join forces to address pollution

by Michelle Price

EPA has launched an information gathering effort aimed at addressing pollution in areas near the New River, which flows north from Mexico into the United States through Mexicali in Baja California and the Imperial Valley of California. On September 21, 1994, Assistant Administrator Lynn Goldman issued administrative subpoenas under TSCA section 11 to 95 U.S. parent companies with facilities in the vicinity of Mexicali, Mexico. The purpose of this information gathering exercise is to develop information to assist in conducting a monitoring program for the New River, to ensure citizens in the New River vicinity are protected in the event an imminent hazard or unreasonable risk exists, and to ensure that citizens are provided with information on chemicals released into the New River.

Also on September 21, EPA and Mexico's environmental agency, the Secretariat for Social Development (SEDESOL), announced a cooperative effort aimed at addressing pollution in the New River area. Under current environmental agreements between the U.S. and Mexico regarding industrial waste management in the border area, EPA and SEDESOL agreed to carry out

measures expanding cooperative efforts to reduce pollution in the New River on both sides of the border. In this regard, and in accordance with each country's applicable laws, both agencies agreed to exchange information on industrial waste generation and management.

Citizens living in the vicinity of the New River have expressed concern about the river's pollution and the threats it might pose to health and the environment through several citizens' petitions. Since December 1993, EPA has received three petitions under TSCA section 21, one from Imperial County, CA, and two joint petitions (EHC et al.) from the Environmental Health Coalition (EHC), Comité Ciudadano Pro Restauración del Cañon del Padre y Servicios Comunitarios (Comité Ciudadano), and the Southwest Network for Environmental and Economic Justice (SNEEJ). EPA responded to the Imperial County petition in the *Federal Register* on March 23, 1994. As a result of the action taken on September 21 by EPA and SEDESOL, EHC et al. withdrew their petitions.

The requested information will allow EPA and SEDESOL to conduct risk assessments, determine the relative contribution of industries in each country to the

New River pollution, narrow the scope of the monitoring program of the New River to be conducted by EPA in cooperation with SEDESOL, the State of California, and the U.S. Geological Survey, and assist in the health consultation on the New River to be done by the Agency for Toxic Substances and Disease Registry. EPA and SEDESOL plan to make the information collected through this effort available to the public, to the extent possible.

Michelle Price works in OPPT's Environmental Assistance Division. She is project manager on this information gathering effort.

Use Cluster Scoring System: A Use-Based Approach to Setting Priorities

EPA's Office of Pollution Prevention and Toxics is developing a system for use in screening and prioritizing chemicals, known as the Use Cluster Scoring System (UCSS). The UCSS was designed around the concept of identifying and analyzing clusters of chemicals that can be used to perform a particular task.

For example, instead of considering a single chemical that is used in paint stripping, a set of chemicals that can perform as paint strippers is considered. By screening and scoring these "use clusters," EPA can work directly with industries and users on effective

means of risk reduction. The UCSS may also assist other public and private sector organizations in identifying clusters of potential concern and providing an initial indication of potentially safer substitutes for classes of chemicals.

The computerized version of the UCSS contains nearly 400 clusters with over 3700 chemicals. The system is under review by the Engineering Committee of the Science Advisory Board and has received comments from various EPA program offices as well as non-EPA interested parties.

35th ITC Report Transmitted

The 35th Report of the TSCA Interagency Testing Committee (ITC) will be transmitted to the Administrator of EPA in the near future. In this Report, the ITC is revising its TSCA section 4(e) Priority Testing List by designating a group of 25 chemicals for dermal absorption testing because they are of regulatory interest to the Occupational Safety and Health Administration. The ITC is also revising its List by removing 110 previously-recommended chemicals, including 28 of 43 isocyanates, 27 of 89 aldehydes, 25 of 26 sulfones, 7 of 11 cyanoacrylates, 4 of 14 diaryl ethers, and 19 of 35 chemicals originally recommended for subchronic (90-day) toxicity testing.

DfE Reaches Milestone in Printing Project

Screen Printing CTSA Released

EPA's Design for the Environment (DfE) Printing Project recently achieved a major milestone, releasing a draft analysis, called a Cleaner Technology Substitutes Assessment (CTSA), on Screen Printing in September 1994. This CTSA represents the culmination of many months of research into alternative methods for reclaiming screens in screen printing. 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.

In screen printing, inks are pressed through a screen mesh to print an image onto paper, plastic, or electronic equipment. Instead of discarding screens after each use, printers clean or "reclaim" their screens in order to print additional images. Screen reclamation involves using a solvent to remove the ink, stencil, and sometimes a "ghost image" or haze that may remain on the screen. DfE and the screen printing industry have been working together to evaluate alternative ways to reclaim screens in order to make the process more environmentally benign, cost effective, and productive.

The CTSA closely examines five screen reclamation processes. These processes were first tested in a laboratory setting. Then, 23 volunteer printing facilities tested the methods in 30-day production runs. Information collected included the time spent on ink removal using the alternative systems, the volume of products used, and the appearance of the screen following each step in the reclamation process.

Lithography and Flexography are Next

The DfE Program is also planning to complete CTSAs for both the lithographic and flexographic segments of the printing industry. Draft CTSAs in these areas are expected to be completed in 1995.

Lithography is a printing process that applies different colors of ink onto paper (such as posters, reports, and flyers) using large rollers. When a job is completed, inks must be washed from the rollers using solvents, a process called "blanket washing," in order to apply a new color or to start a new project. DfE is working with the lithography industry to identify alternative blanket washes.

Laboratory analysis of 40 alternative blanket washes has been completed to date. In October, volunteer lithography shops tested these alternatives, which were donated by suppliers.

DfE is also forging a partnership with the flexography industry to assess the environmental risk, performance, cost, and pollution prevention opportunities in using alternative flexographic inks. Flexography is a process used to print on the packaging of many frozen, boxed, and canned foods. Many different types of inks can be used for flexography, some of which are solvent-based.

Based on these different technical studies, DfE will develop several information products to assist the printing industry in making environmentally informed choices. EPA is producing case studies and a video highlighting successful pollution prevention and waste minimization strategies in screen print companies. For more information on these and other technical assistance tools, call EPA's Pollution Prevention Information Clearinghouse at 202-260-1023.

Dry Cleaning CTSA in the Works

The DfE Dry Cleaning Project will soon release CTSA's comparing the trade-offs between traditional and alternative professional garment cleaning technologies. EPA expects to release a draft CTSA on existing technologies first, and a second on emerging technologies in late 1995.

The first CTSA will examine traditional, solvent-based technologies. The new or alternative technologies to be addressed in the second CTSA include the following:

- **Multiprocess wet cleaning** — A method of customized hand cleaning that uses soaps and a controlled application of water/steam.
- **Machine wet cleaning** — A mechanized, water-based method that varies the washing technique based on the type of fabric involved.
- **Liquid CO₂ technology** — A technology that uses the solvent properties of CO₂ at high pressures to clean clothes.
- **Microwave drying** — A "quick-dry" technology that uses microwaves instead of heat, thereby reducing garment shrinkage. Microwave technology could potentially make water-based techniques more viable.

The CTSA is the culmination of two years of EPA research con-

ducted in a cooperative partnership with interested parties ranging from Greenpeace to Dow Chemical. The overall mission of the partnership is to promote pollution prevention and better work practices within the professional garment cleaning industry.

The Dry Cleaning Project is also pursuing one promising alternative technology identified in recent research — multiprocess wet cleaning. A short-term study on the performance and costs of multiprocess wet cleaning was completed in 1993. To further test the viability of this and other water-based approaches, EPA will soon launch an 18-month demonstration project. Three demonstration sites, located in cities across the United States, will mirror typical neighborhood dry cleaning shops in terms of size, pounds of clothing cleaned daily, and number of employees. One facility will offer alternative cleaning technologies only, while the other two will offer both wet and dry cleaning services.

To advance the use of safer alternative cleaning methods, EPA has also been working with the Federal Trade Commission to make the garment care label "Dry Clean Only" less restrictive. Public comment is being received through October 16, 1994, on a *Federal Register* notice regarding proposed changes to the label.

The dry cleaning CTSA is the culmination of two years of EPA research conducted in a cooperative partnership with interested parties ranging from Greenpeace to Dow Chemical. The overall mission of the partnership is to promote pollution prevention and better work practices within the professional garment cleaning industry.

In an ongoing effort to keep the dry cleaning industry and the public up-to-date on the project, EPA is conducting many outreach activities. These include developing brochures and fact sheets on alternative cleaning processes, compiling case studies and success stories, and exhibiting at trade shows.

EPA Lays Groundwork for PWB Study

Printed wiring boards (PWBs) are the substrates that connect vital electronic components (e.g., semiconductors, electronic chips) of electronic assemblies. Several major U.S. industries, including the automotive, computer, and defense industries, depend on efficient PWB production for use in their products.

Although the electronics industry is generally thought of as "clean," a 1993 industry-led study found that PWB manufacture accounts for a majority of the environmental impact associated with computer workstation production. In fact, 79% of the energy used, 95% of the water used, and 95% of the hazardous waste generated during the manufacture of a computer workstation occurs during the production of PWBs.

The results of this study led EPA's DfE Program to form a partnership with the PWB industry to jointly evaluate ways to minimize the industry's environmental impacts and yet remain competitive. The DfE project stakeholders are currently in the process of identify-

ing and engaging other stakeholders in the project, including representatives of the environmental, environmental justice, and labor communities. Anyone interested in participating in this project is encouraged to contact the Pollution Prevention Information Clearinghouse at 202-260-1023.

During the initial phase of this project, EPA, industry, and other stakeholders have begun to lay the groundwork necessary to begin developing a CTSA for a key process step in PWB manufacture. At the first meeting of the DfE PWB Technical Workgroup in September 1994, the workgroup identified four PWB manufacturing process steps as candidates for detailed analysis in the CTSA, based on their perceived environmental and human health risks and associated regulatory compliance costs to PWB manufacturers. EPA will evaluate candidate process steps and rank them by relative risk using EPA's use cluster scoring system—a system for comparing the relative risk of various process steps (see story, p. 10).

Other documents will be developed during the course of the project, including a pollution prevention survey of the PWB industry, a profile of the size, distribution, and economic status of the industry, and a description of available processes and chemicals used to carry out each major PWB manufacture process step. After the development of these technical work products and the CTSA, EPA will assist the PWB industry and other project stakeholders to demonstrate alternative processes and technologies and to develop a variety of outreach tools to promote pollution prevention, including training materials and workshops. EPA also plans to develop software to help small PWB companies identify and monitor pollution prevention activities. The long-term goal of the DfE PWB project is to effect voluntary behavior changes within the PWB industry that result in the generation of fewer toxic and non-toxic materials, reductions in workplace exposures, and less use of energy and natural resources.

CTSA: Key Information Tool

EPA's DfE Program forms cooperative partnerships with industry, government, institutions, and professional groups to identify pollution prevention and waste minimization opportunities. In each area of partnership, EPA and its partners gather information on the performance, cost, and environmental and health risks of existing and

alternative technologies. This information is then compiled and analyzed in a document known as a Cleaner Technologies Substitute Assessment (CTSA). A CTSA examines the tradeoffs among different options and provides DfE partners with the knowledge to make informed decisions about altering their products and operations.

DfE: The Environmental Paradigm for the 21st Century

by Joe Breen and Paul Anastas

DfE: The Environmental Paradigm for the 21st Century was the subject of an international symposium at the ACS National Meeting held in Washington, DC on August 21-25, 1994. The event was sponsored by OPPT in collaboration with the American Chemical Society's Committee for Environmental Improvement and Division of Environmental Chemistry, the Dow Corning Corporation, the Council for Chemical Research, and the Gulf Coast Hazardous Substance Research Center. The symposium afforded an opportunity for analytical and synthetic chemists, chemical engineers, economists, industrial and environmental scientists, management, and policy makers to report progress and exchange ideas on the implementation of pollution prevention as an integral part of our national environmental and economic policies.

Businesses operating in the 1990s face a variety of competing demands to keep costs low and quality high while staying competitive in a global marketplace, and meeting consumer preferences for more environmentally friendly products. Designing for the environment is a real-world strategy for organizing and managing these demands for the next century. EPA's DfE program, building on a concept pioneered by industry, aims to help busi-

nesses incorporate environmental considerations into the design and redesign of products, processes, and technical and management systems.

Businesses design for the environment in a variety of ways:

- By implementing pollution prevention, energy efficiency, and other resource conservation measures;
- By producing and using fewer toxic and nontoxic materials;
- By making products that can be refurbished, disassembled, and recycled; and
- By keeping careful track of the environmental costs associated with each product or process.

Through its DfE program, OPPT creates voluntary partnerships with industry, professional organizations, state and local governments, other federal agencies, and the public. OPPT's efforts are directed at giving businesses the information needed to design for the environment and at helping businesses use this information to make informed choices. Within each business, the DfE program works to ensure that information reaches the people who make the choices — from buyers to industrial design engineers to molecular designers.

The role of the chemist — the Benign By Design Chemist — is central to the success of the DfE

OPPT is promoting the fundamental revision of undergraduate and graduate school curricula in chemistry to promote and incorporate the concepts of environmentally benign chemical synthesis and processing.

approach. The traditional syntheses of high-volume industrial chemicals use toxic feedstocks or catalysts, or they create hazardous and toxic by-products. In cooperation with the National Science Foundation and the Department of Energy, OPPT is encouraging university research into alternative production methods that minimize or eliminate hazardous substances. OPPT is also promoting the fundamental revision of undergraduate and graduate school curricula in chemistry to promote and incorporate the concepts of environmentally benign chemical synthesis and processing.

The DfE Symposium in Washington involved 14 sessions including a plenary, with some 110 presen-

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Design for the Environment

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tations overall. The program included sessions on designing chemistry curricula to reflect environmentally benign synthesis and processing, designing safer chemicals for industry and agriculture, and integrating environmental concerns into industrial process analytical chemistry. Case studies from the printing, drycleaning, aerospace, and video film processing industries were presented. The case studies reported on DfE as the new environmental paradigm formulated to meet our national goal of "prosperity without pollution" in the next century.

Highlights of the Symposium

Environmentally Benign Synthesis and Processes in the Chemistry Curriculum. There are a variety of issues involved in the interface between chemistry and the environment. These two sessions dealt with different approaches to the teaching of environmental chemistry; the use of microscale equipment and other techniques to bring pollution prevention into the laboratory, and ways to bring environmentally benign synthesis into the curriculum at different academic levels as well as into in-service training for industrial professionals. Sunday, August 21st: AM session (2 tapes) and PM session (2 tapes).

Designing Chemical Synthesis and Processes for the Environment.

These two sessions emphasized practical examples of alternative synthetic pathways for pollution prevention. Topic explored the use of supercritical fluids and carbon dioxide as reaction media and spray paint solvents.; reactions to produce organic isocyanates, oxychemicals, emulsin, and alkylates; and new efforts to practice pollution prevention through the application of new process design techniques. Highlights included: "Chemical and Catalytic Transformations in Supercritical Fluids," by Tumas, et.al., Los Alamos National Labs.; "Expert System for Solvent Substitution," by Timberlake and Govind, University of Cincinnati; and "Biocatalytic Conversion of Halogenated Aromatic Compounds to carbohydrates and Other Chiral Synthons," by Hudlicky, Virginia Polytechnic Institute and State University. Monday, August 22nd AM session (2 tapes) and PM session (2 tapes).

DfE: Program Overview and Case Studies. This session showcased OPPT's program on full-cost accounting, cleaner dry cleaning and screen printing technologies, and the EPA-GSA green cleaning products survey. Non-OPPT presentations included: "DfE and Industrial Ecology," by Dambach, AT&T; "Effective Partnering for Improving the Environment," by Koch, Dow Chemical; and "DfE, by Fiksel, Decision Focus. Tuesday,

August 23rd AM session (2 tapes).

DfE and The Stuff of Dreams for The Year 2040. A plenary session featured two vastly differing perspectives of the 21st century. The futuristic vision of nanotechnologist, K. Eric Drexler's "Molecular Manufacturing For the Environment," and the practical insights of global technologist, Joel S. Hirschhorn's "Enabling Global Implementation of Industrial Pollution Prevention" offered thought-provoking and exciting challenges to the audience to stretch their vision of the next century.

Designing Chemical Safety in Communities and Industry and Designing Information Tools and Data Bases for Better Decisions. Two mini-sessions presented a combination of industrial efforts to implement inherently safer chemistry in the real world at Union Carbide, Dow Chemical, and Rohm and Haas, and of EPA information tools and databases as a basis for decision making.

The Tuesday, August 23rd PM session (2 tapes) included a plenary and two mini-sessions.

Cleaner Production: The International Perspective. Italy, Thailand, Japan, The Netherlands, Latin America and France were represented in this wide ranging day-long program. Six presentations by industrial and academic researchers from Italy clearly made the point that cleaner production

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has a broad base of support from the Italian government and chemical industry. Presentations included: "Opportunities for Cleaner Production in Thailand," by de Mesa, Thailand Environment Institute; "Caprolactam via Ammoxidation," by Petrini, et.al., ENICHEM, Italy; "Biodegradation, Enzymes, and Mechanisms," by Bertini and Luchinat, Universities of Florence and Bologna, Italy; and "Pollution Prevention in Italy," by Tundo, University of Venice. Wednesday, August 24th AM session (2 tapes) and PM session (2 tapes).

Designing Safer Chemicals. These two sessions explored approaches

to the design of chemicals that retain their functional efficacy while reducing their toxicity. Topics covered included bioactivation and its role in toxicity, retrometabolism, isosterism, and the use computers in toxicology. Safer nitriles, haloalkanes, marine antifoulants, emulsion polymers, and high-solids coatings were presented. Highlights were "A Biochemical Based Approach for Designing Safer Nitriles," by Devito, OPPT; and "Everybody Wins," by Sugarman, et.al., Pi-Tech. Thursday, August 25th AM session (2 tapes) and PM session (2 tapes).

Videotapes of the DfE symposium sessions are available from *Films for Educators, Inc.*, 420 East 55th Street, New York, NY 10022. (For ordering and price information, call 1-800-722-7340,

NYC local 212-486-6577, fax 212-980-9826.) Extended printed abstracts of the DfE Symposium are available from the ACS Division of Environmental Chemistry. Contact Dr. Robert Pad-dock, Center for Great Lakes Studies, University of Wisconsin-Milwaukee, 600 E. Greenfield Avenue, Milwaukee, WI 53204-2944 (414-382-1731) for details.

Information on the OPPT DfE and Green Chemistry Programs may be obtained from: Joe Breen, 202-260-1573 or Paul Anastas, 202-260-2257.

Joe Breen will be assuming the duties of chief of the DfE staff. Paul Anastas will be Acting Chief of the Industrial Chemical Branch.

FY 1994 PPIS Grants Award \$6 Million to States

OPPT and the ten EPA Regional Offices have awarded approximately \$6 million to 66 state and tribal organizations under the Pollution Prevention Incentives for States (PPIS) grant program. These grants and cooperative agreements support state and tribal programs that address the reduction or elimination of pollution across all environmental media. Since 1989, over \$30 million has been awarded to support state and tribal pollution prevention efforts. FY 1994 represented the sixth round of awards and was made through the EPA Regional Offices. The projects may last up to three years. Recipients of the grants are required to match the federal funds by at least 50 percent. The state and tribal contributions may come from dollars, in-kind goods and services, or third party contributions. For more information contact Lena Hann-Ferris, 202-260-2237, in EPA's Pollution Prevention Division. Below are the FY 1994 PPIS grant recipients:

REGION 1

Connecticut Technical Assistance Program	\$66,000
Houlton Band of Maliseet Indians (Maine)	\$10,000
Maine Department of Environmental Protection - Green Fund	\$60,000
Massachusetts Office of Technical Assistance	\$60,000

Massachusetts Toxics Use Reduction Institute	\$50,000
Mohegan Tribe (Connecticut)	\$20,000
New Hampshire Department of Environmental Services	\$70,000
Northeast Waste Management Officials' Association (NEWMOA)	\$30,000
Rhode Island Department of Environmental Management	\$70,000
Vermont Health Department	\$12,000
University of Massachusetts Department of Entomology	\$50,000
University of Vermont - Indoor Air in Schools Conference	\$12,000
Vermont Department of Environmental Conservation	\$70,000

REGION 2

New York State Department of Health	\$86,363
New York State Energy Office	\$87,880
New York State Energy Office	\$199,937
Puerto Rico Environmental Quality Board	\$205,820

REGION 3

Delaware Department of Natural Resources & Environmental Control	\$90,000
Maryland Department of the Environment	\$90,000
Pennsylvania Department of the Environment	\$90,000
The Schuylkill Center for Environmental Education (PA)	\$130,000
Virginia Department of Environmental Quality	\$90,000
West Virginia Department of Environmental Protection	\$90,000

REGION 4

Alabama Department of Environmental Management	\$80,000
Florida Department of Environmental Protection	\$80,000
Georgia Department of Natural Resources	\$85,000
Georgia Tech Research Corporation	\$9,999
Kentucky Natural Resource & Environmental Protection Cabinet	\$80,000
Mississippi Department of Environmental Quality	\$65,000
North Carolina Department of Environment, Health & Natural Resources	\$40,000

PPIS Grants

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North Carolina
Department of
Environment, Health
& Natural Resources \$80,000

South Carolina
Department of Health &
Environmental Control \$80,000

Tennessee Department
of Environment
& Conservation \$79,998

REGION 5

Illinois Environmental
Protection Agency \$100,000

Michigan Department
of Commerce \$100,000

Minnesota
Chippewa Tribe \$80,000

Minnesota Pollution
Control Agency \$100,000

Ohio Environmental
Protection Agency \$100,000

Purdue University \$100,000

Wisconsin Department
of Natural Resources \$100,000

REGION 6

City of Austin, Texas \$70,000

Louisiana Department of
Environmental Quality \$77,000

Louisiana Department of
Environmental Quality \$80,075

New Mexico
Economic Development
Department \$200,000

Texas Natural Resource
Conservation Commission
(TNRCC) \$92,925

University of Texas
at Austin, LBJ School
of Public Affairs \$60,000

REGION 7

Iowa Waste
Reduction Center \$90,000

Kansas Department
of Agriculture \$15,000

Kansas State University \$30,800

Lincoln-Lancaster County
Health Department \$28,500

Missouri Department of
Natural Resources \$235,937

Nebraska Department of
Environmental Quality \$35,100

St. Louis Regional
Commerce &
Growth Association \$20,000

University of
Missouri-Rolla \$27,800

University of
Nebraska-Lincoln \$33,000

University of
Nebraska-Lincoln \$62,600

REGION 8

Colorado Department
of Health \$104,000

Montana State University \$104,000

South Dakota Department
of Environment &
Natural Resources \$101,996

Three Affiliated Tribes,
Fort Berthold
Indian Reservation \$60,000

Utah Department of
Environmental Quality \$104,400

Wyoming Department of
Environmental Quality \$102,000

REGION 9

Arizona Department of
Environmental Quality \$180,000

California Department
of Toxic Substances
Control \$200,000

University of
Nevada, Reno \$200,000

REGION 10

Chugachmiut Community
Health Services Division \$25,000

State of Alaska,
Department of
Environmental
Conservation \$100,000

State of Idaho,
Department of
Health & Welfare \$180,000

State of Oregon,
Department of
Environmental Quality \$100,000

State of Washington
Department of Ecology \$75,000

State of Washington
Department of Ecology \$100,000

EPA/GSA Cleaners Project Serves as Pilot for Defining Environmentally Preferable Products

*by Eun-Sook Goidel
and Tom Murray*

The federal government is the nation's single largest consumer, purchasing more than \$200 billion of goods and services each year. Harnessing federal purchasing power to reduce or avoid adverse environmental impacts was the rationale behind President Clinton's Executive Order on Federal Acquisition, Recycling and Waste Prevention (Executive Order #12873) signed in October 1993. Consideration is already given to performance, cost and safety issues. The Executive Order adds environmental considerations to the purchasing equation. Section 503 of the order requires EPA to "issue guidance that recommends principles that Executive agencies should use in making determinations for the preference and purchase of environmentally preferable products."

But, what is meant by "environmentally preferable?" The Executive Order defines it as "products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose." Translating this into workable policy is a challenge for OPPT, which has been tasked with writing the guidance under section 503.

There is no consensus on the meaning of "environmentally preferable," nor is there a common language or standard by which to make comparisons. Does it mean the absence or a presence of an attribute? Is one product preferable to another if it is made with a less toxic material, but requires more energy to perform its function? Is a product made with 50% recycled content, but contained in a package with heavy metals, environmentally preferable? Comparisons such as these often require trade-offs, e.g., less toxic materials for more energy/material use or less water pollution at the expense of more air pollution.

These examples, apart from showing the complexity of determining what is "better" for the environment, also illustrate the importance of a life cycle approach in determining environmental preferability of products and services. Rather than focusing on a single aspect or single impact, we need to make environmental improvements in as many life cycle stages and for as many attributes of a product as possible: from design, raw material and energy extraction, and natural resource use, through manufacture, distribution, use and maintenance to ultimate disposal.

Rather than focusing on a single aspect or single impact, we need to make environmental improvements in as many life cycle stages and for as many attributes of a product as possible.

Although a life cycle approach is conceptually desirable, tools to translate these concepts into practice, such as Life Cycle Assessment, are still under development. Until these tools are more fully developed and better scientific information is available, defining what is environmentally preferable will inevitably involve value judgements and subjective decisions. Even with more refined tools, it is uncertain whether there will ever be a commonly agreed-upon ranking of environmental problems. Local conditions may dictate very different rankings. A process that requires large amounts of water may not be preferable in water-scarce regions of the Southwest; whereas a

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process that generates large amounts solid waste may be less desirable in the landfill-scarce Northeast.

In implementing the section 503 of the Executive Order, EPA will take a two-pronged approach. First, EPA will issue general umbrella guidance which will articulate EPA's policy statement on "green" products and will also serve as a broad framework within which federal agencies can initiate efforts to orient their purchasing decisions toward environmentally preferable products. EPA plans to publish this general guidance in draft form in the *Federal Register* before the end of this year. At least one public meeting will be held to solicit comment from interested parties.

EPA will then follow up with more specific guidance for particular product categories. Product categories could include not just common supplies but also services, facilities, and/or systems. How such a program might work for a specific product category is

exemplified by the current GSA/EPA Cleaners project. This project consists of two phases. In the first phase (nearing completion), EPA and GSA are looking at specific brands of cleaning products that were field tested by GSA in a courthouse in Philadelphia. The products are used on windows, bathrooms, and other situations that require frequent cleaning. The products were tested for efficacy and reported health impacts when used by maintenance workers to clean the courthouse. EPA also conducted an assessment of risk to humans and aquatic life that might arise from product use.

In the second phase, EPA is helping GSA develop guidance that may be used to purchase environmentally preferable general purpose cleaning products. Initial guidance has been developed for cleaning products and is being circulated for review prior to use by GSA. Also in this phase, focus groups of federal purchasers of cleaning products are being put together to help EPA and GSA understand the best way to com-

municate environmental information about cleaning products.

The primary purpose of pilot projects such as this is to demonstrate the workability of general guidance and to provide practical, user-friendly information to procurement and contracting officers, i.e., those "in the trenches," that will assist them in making environmentally preferable purchasing decisions. A number of other pilots are envisioned in the short to medium term. In addition, outreach and training programs tailored to each federal agency will need to be implemented.

For additional information about environmentally preferable products guidance development, contact Eun-Sook Goidel at 202-260-3296. For information on the GSA/EPA cleaners projects, contact Tom Murray at 202-260-1876.

Eun-Sook Goidel is a project manager in OPPT's Pollution Prevention Division. Tom Murray is a branch chief in OPPT's Economics, Exposure and Technology Division.

33/50 Case Study Profiles

One of EPA's objectives in implementing the 33/50 Program is to publicize the actions taken by individual companies, large and small, aimed at reducing direct environmental releases. EPA has developed a series of concise profiles of company reduction efforts. Fourteen profiles are available individually, plus a summary document of all 14 profiles for quick review.

The following profiles are now complete:

Acme Metals Incorporated
Aldan Rubber Company
Aladdin Industries Inc.
Anchor Fence, Inc.
Carpenter Technology Corporation
Dexter Shoe Company
Douglas & Lomason Company
HADCO Corporation
Johnson & Johnson
Olin Corporation
Parker Hannifin Corporation
Printed Circuit Corporation
Raytheon Company
U.S. Steel Group

Sample contents of one of the profiles is included in the accompanying box. For more information on 33/50 company profiles, contact Mike Burns at 202-260-6394.

Snapshot of a 33/50 Company

Anchor Fence, Inc. is a manufacturer of high quality link fencing systems, gates, and specialty fencing products. The company has one facility located in Baltimore, MD, employing approximately 85 workers.

The company has undertaken the following activities to reduce releases of selected chemicals:

- Releases of methyl ethyl ketone have been reduced 93% (113,000 pounds) through substitution of water based formulations of primers for pipes and fittings. This action accounts for all of the observed decrease in releases of this chemical. In addition, all solvent based paint applications are being strictly monitored to determine which can be converted to water based products in the future.
- Improvements in the operation of the company's waste water treatment system have resulted in a 50% reduction in releases of lead, nickel, and zinc compounds between 1988 and 1992. These improvements consist primarily of adjusting the pH of the system to increase efficiency of metals removal.
- Eliminating the use of dichloromethane at the plant by shifting the PVC stripping process for off-quality products to an off-site cleaning company that uses a hot salt bath PVC removal process. This change resulted in cost savings for the company.
- Examination of solvent based cleaning processes using toluene and methyl ethyl ketone to determine where solvent evaporation can be reduced. The company intends to install a water-cooled component cleaning tank to further reduce releases of the solvents.

By 1992, Anchor Fence had reduced release of these chemicals by 87% from 1988 levels. Virtually all of this reduction was a result of substitution of methyl ethyl ketone-based primers with a water-based formulation.

33/50 Program Hits the Home Stretch: What Next?

As 1995 approaches, the 33/50 Program enters its last TRI reporting year. The Program is aiming to build on the momentum established with the early achievement of the interim 33% pollution reduction goal. Nearly 1,300 companies are being asked to boost their commitment to a cleaner environment in a healthy economy in a number of ways: (a) pushing beyond the limits of initial goals for reducing toxic releases and transfers; (b) bringing more of their facilities into the 33/50 Program; (c) expanding reduction commitments to include chemicals other than the 17 target pollutants in the 33/50 Program; (d) reducing chemical emissions in international operations; and (e) reducing toxic wastes at the source.

33/50 Public Recognition Activities

Company participation in the 33/50 Program is recognized officially in 33/50 Certificates of Appreciation. The 33/50 Program also issues Certificates of Achievement to companies that reach their pollution reduction goals. Now, the 33/50 Program is work-

ing with EPA Regional Offices and other outside groups to identify categories and criteria for 33/50 Awards in the summer of 1995. The 33/50 certificates and awards serve as powerful public symbols of going beyond the requirements of environmental regulations. Like good housekeeping seals of approval, 33/50 certificates are the mark of cleaner companies.

33/50 — The Next Generation

What happens to EPA's 33/50 Program after 1995? Consensus on the value of voluntary partnerships in promoting pollution prevention is growing. Other voluntary environmental protection programs are cropping up throughout the country. A powerful new trend toward environmental stewardship is emerging in corporate America. Should another national 33/50 Program follow the current one? If so, what form should it take? EPA is beginning the process of considering "what next" after 33/50. Ideas and suggestions are welcome; please contact the 33/50 Program Director at 202-260-6907.

Should another national 33/50 Program follow the current one? EPA is beginning the process of considering "what next" after 33/50.

EPA and Industry Associations Meet to Discuss Pollution Prevention

by **Leah Yasenchak**

Representatives from EPA, other federal government agencies, and over 120 industry and trade associations met on November 9 to discuss the role of trade associations in promoting pollution prevention. Many associations have already taken steps to promote pollution prevention and the environmentally sound use of chemicals among their members. The meeting presented an opportunity for associations to learn from one another and to build partnerships with EPA. This one-day conference sponsored by OPPT was the first of its kind for the Agency.

New Directions for EPA

EPA and industry have made great strides in environmental improvement through the traditional command and control method. However, EPA believes we are reaching the limits of what this approach can accomplish. EPA is looking at new and more effective approaches to addressing environmental concerns. The Agency is moving in the direction of voluntary programs, partnerships with industry, a focus on pollution prevention rather than pollution treatment, and a focus on chemical use in addition to chemical production. This meeting was an important step in

involving industry associations in this new direction.

After a keynote address by Dr. Lynn Goldman, EPA Assistant Administrator of OPPTS, panelists from EPA discussed resources the Agency has available to help industries engage in pollution prevention. An information fair also gave participants the opportunity to see the types of resources available, and to learn about existing pollution prevention initiatives.

Barriers Faced by Associations

A panel of association representatives discussed barriers faced by associations in encouraging pollution prevention among their member industries. Many barriers were identified during the discussion. These included lack of resources, encompassing time, money, and technically skilled staff; lack of flexibility on the part of government, industry, and associations alike; and industry confusion over the definition of pollution prevention. Anti-trust concerns were identified as a barrier to cooperation across industries, as were the varied characteristics of individual industries and the different regulations and technologies under which they operate.

Conflicts between EPA's traditional "command and control" approach and the newer pollution prevention approach were cited as causing distrust and a drain on resources; technologically specific regulations take away from the creativity and flexibility needed for a successful pollution prevention program. In addition, the lack of recognition for pollution prevention efforts, fear of unknown obstacles, and the low priority given to pollution prevention by top industry officials all contribute to an unwillingness to commit to a pollution prevention program.

The panel offered several suggestions on ways to overcome these barriers. Communication, education, and trust are keys to getting all parties to discuss problems and work out mutually acceptable solutions. Total involvement at all levels, meaning top management commitment and complete employee involvement in the program, is necessary to create a pollution prevention culture. The use of case studies illustrating successful pollution prevention programs and linking pollution prevention to bottom line profits can help to elevate pollution prevention as a priority. Associations can use their credibility with their members to get the pollution prevention message

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across, and can help leverage resources to accomplish the task.

Effective Association Leadership

Another panel discussed how these groups can effectively provide leadership for pollution prevention activities. A successful pollution prevention program for an association should be industry-based and industry-driven. The partnerships should be based on trust, carefully thought out and clearly defined, and have the broad involvement of association members. Associations should strive to provide competent technical assistance and recognize the importance of industry profits in setting program priorities. They should focus on obtaining flexible regulation compliance and encourage industry to improve performance to reduce the need for further legislation. To leverage resources more effectively, associations can create public advisory panels or work with existing pollution prevention programs, such as EPA's Design for the Environment or another of EPA's many voluntary programs.

Future Activities

The day concluded with discussions on future actions EPA and associations can take to continue the valuable dialogue and partnership. EPA plans to establish committees of association representatives to look at different areas of concern. Proposed follow-up activities include

development of a code of environmental management practices for chemical users, a recognition program to highlight pollution prevention efforts of individual companies, and development of a list of pollution prevention experts who are willing to speak at association meetings. Also under consideration is a workshop directed at association staff in building a proactive environmental program, a committee to explore the best ways to improve the technical ability and resources

of associations, and an effort to identify problems shared by several associations to allow for a coordinated solution.

A follow-up meeting is planned to continue the momentum from this meeting. If you are interested in becoming involved in this initiative, please contact Leah Yasenchak, OPPT, 202-260-7854.

Leah Yasenchak recently joined the Environmental Assistance Division and is working with environmental and industry groups.

National Pollution Prevention Roundtable 1994 Fall Conference

The National Pollution Prevention Roundtable's fall conference was hosted by the Minnesota Office of Environmental Assistance and the Minnesota Technical Assistance Program in Minneapolis on November 2-4, 1994. This season's meeting focused on a variety of pollution prevention issues with sessions ranging from facility planning to regulatory integration to measurement. EPA Assistant Administrator Dr. Lynn Goldman provided the opening keynote with Minnesota Senator Paul Wellstone. David Kling, Director of EPA's Pollution Prevention Division, and Kirsten Oldenburg, Senior Analyst at the Office of Technology Assessment, also provided key prevention issue updates.

A majority of the meeting focused on the creation of partnerships with other prevention programs and the need to share expertise. Hence, several sessions involved participants from the Clean Air Act Small Business Assistance Programs and the National Institute of Standards and Technologies' Manufacturing Extension Partnership who called for opportunities to work together, expand the horizons of pollution prevention, and build on unique programmatic strengths. These groups have been and will continue to be key stakeholders in assisting business, providing pollution prevention information, and supporting vital programs that further the mutual objectives of pollution prevention and business excellence.

Informing Families about Lead Hazards in Housing

EPA and the Department of Housing and Urban Development (HUD) recently released a joint regulatory proposal requiring the disclosure of lead-based paint before the sale or lease of most residential housing. The regulation is required under section 1018 of the Residential Lead-Based Paint Hazard Reduction Act of 1992. When final, the rule will provide families with information on protecting themselves from lead-based paint hazards.

The proposal includes a series of required actions before the sale or lease of housing built before 1978:

- Sellers, lessors, and agents will be required to provide the lessee or purchaser with EPA's pamphlet, *Protect Your Family From Lead In Your Home*, currently under development.
- Sellers, lessors, and agents will be required to disclose all known lead-based paint and/or lead-based paint hazards to prospective purchasers or lessees.
- Purchasers will be entitled to up to 10 calendar days to conduct a risk assessment or inspection for lead-based paint hazards, unless otherwise mutually agreed.
- Agents acting on behalf of the seller or lessor will be required to ensure compliance with these provisions.

Title X also required EPA to issue regulations requiring that owners and occupants receive EPA's lead information pamphlet before the commencement of paid renovations in pre-1978 housing. EPA proposed its renovation regulations in March of 1994 and hopes to issue final regulations in Spring 1995.

To support both rules, EPA is developing a lead hazard information pamphlet, in consultation with the Centers for Disease Control and Prevention, the Consumer Product Safety Commission, and HUD. Recognizing the expected distribution of the pamphlet under the two rulemakings (approximately 20-30 million people per year), EPA has taken extensive measures to craft a pamphlet that is both informative and readable to a lay audience. These actions have included a 60 day public comment period, focus test in five cities targeting lower-literacy audiences, and a public meeting to solicit informal input from stakeholders.

EPA's goal in developing the pamphlet and the regulations is to provide families with information on lead hazard exposure prevention before they take actions that may increase their exposure hazards. Approximately three quarters of the nation's housing stock contains lead-based paint. If properly managed and maintained, this paint poses little risk.

Approximately three quarters of the nation's housing stock contains lead-based paint.

If improperly managed, however, lead from paint can threaten the health of occupants, especially children under 6 years of age. Over time, low-level exposure to lead from paint, dust, and soil can cause a range of health problems including permanent damage to the brain, nervous system and kidneys. Because of its effects on fetal development, lead exposure can also be harmful to pregnant women and women of child-bearing age. In sufficiently high levels, lead can also cause health problem in adults. Such exposure is largely preventable, however, if individuals are informed of the need to take precautionary measures. EPA's and HUD's new regulations will contribute to such an informed public.



Lead Training & Certification Grants Awarded to States

EPA's Chemical Management Division is pleased to announce the award and distribution of \$11,200,000 in FY 1994 to develop and carry out authorized state programs for the training of individuals engaged in lead-based paint activities, the accreditation of training programs for these individuals, and the certification of contractors engaged in lead-based paint activities. These activities are authorized under section 404(g) of TSCA as amended, and will help to achieve the Agency's goal of preventing lead poisoning.

The new assistance program has now appeared in both the *Federal Register* (see 59 FR 10131, March 3, 1994) and in the Federal Catalog of Domestic Assistance (see 66.707). It provides for non-matching grants in the form of cooperative agreements.

In FY 1994, all parties who applied for assistance received some level of support, based in part upon a risk-based "lead-burden" calculation which considered the magnitude of the applicant's lead problem relative to other eligible jurisdictions. Forty-six states were awarded funds, along with 18 Indian Governing Bodies and the District of Columbia. Most recipients began their federally-supported program activities in mid to late 1994.

A wide array of activities are eligible for funding under the program. These include, but are

not limited to, developing state legislation or regulations, training state employees, establishing or updating lead-related databases, comprehensive planning to address lead hazards at the state level, developing procedures for training and certifying lead abatement professionals, fostering

certification reciprocity with other states, and public education and outreach activities. The underlying requirement, however, is that all such activities must lead toward the state obtaining authorization to administer its own TSCA section 404(g) program at the earliest practicable time.

Worker Training Grants for Lead-Based Paint Abatement

EPA was given \$2.8 million in Congressional add-on funds in FY 1994 for grants to be used for worker training in lead paint abatement. A *Federal Register* Notice on April 20, 1994 announced the availability of this money and solicited preproposals from non-profit organizations with prior experience in training workers to remove lead-based paint.

Applications were received from 31 eligible organizations. A review team of six EPA staff members analyzed, rated, and ranked the preproposals according to the criteria listed in the FR Notice. Eleven organizations, with scores exceeding 80%, were selected to receive grants which ranged from \$28,000 to \$708,000.

As specified in the Notice, the groups selected were environmental equity-based organizations that had experience in providing safety and/or health services to

minorities and other low-income residents of the community.

The following organizations received grants:

Maine Labor Group on Health	\$28,000
The Salvation Army	\$71,000
American GI Forum-National Veterans Outreach	\$106,000
Center for Health Promotion-Brighton Medical Center	\$138,000
Liberty Family Learning Center	\$160,000
White Lung Association of New Jersey	\$164,000
Plasterers' & Cement Masons' International	\$175,000
Midwest Center for Occupational Health & Safety	\$245,000
Temple University	\$300,000
Laborers-AGC Education & Training Fund	\$705,000
United Brotherhood of Carpenters	\$708,000

Lead Training and Accreditation Requirements: Persevering in the Battle Against Lead

In a major effort to provide a qualified workforce to assist in eliminating lead-based paint hazards, EPA has proposed a national program (as required by sections 402 and 404 of TSCA) to ensure that individuals engaged in lead-based paint activities are properly trained and certified, that training program providers are accredited, and that firms engaged in such activities are certified. The proposed rule also includes provisions for EPA to establish standards for conducting lead-based paint activities.

Other provisions of the proposal include procedures for states to apply to EPA for authorization to administer and enforce their own lead training, certification, and accreditation programs. Under the proposed rule, EPA would approve state programs that provide "adequate enforcement" and that are "as protective as" the federal program.

The proposed rule sets up three categories of buildings for which individuals would be trained and certified to conduct specific lead-based paint activities. The categories are:

- Target Housing (public housing and private residences built before 1978);
- Public Buildings, such as daycare centers, schools and

other facilities frequented by children; and

- Commercial Buildings and Superstructures, including facilities such as industrial warehouses, power plants, bridges, watertowers, and other structures that have been painted with lead-based paint.

Individuals engaged in lead-based paint activities in these buildings would be required to obtain training and certification in the appropriate job category or discipline. Firms would be required to use only trained and certified workers to conduct lead-based paint activities. Individuals and firms would apply for certification to an authorized state authority or EPA. The training individuals receive must be from a training provider that has been accredited by an authorized state or EPA.

The proposed rule also establishes seven work disciplines. Five disciplines are in the target housing and public building category. Two disciplines are in the commercial building and superstructure category. Course curricula for each of the seven disciplines are also included in the proposed rule. The disciplines are as follows:

Target Housing and Public Buildings:

- 1) Inspector Technician

- 2) Risk Assessor
- 3) Supervisor
- 4) Planner/Project Designer
- 5) Worker

Commercial Buildings and Superstructures:

- 1) Supervisor
- 2) Worker

Standards have also been proposed by EPA and would specifically apply to the lead-based paint activities established in the rule. Additionally the Agency proposes to segregate lead-based paint activities within the relevant building category. The lead-based paint activities established in the proposed rule are:

Target Housing and Public Buildings:

- Inspection
- Identification of lead-based paint
- Risk Assessment
- Abatement

Commercial Buildings and Superstructures:

- Identification of lead-based paint
- Deleading
- Demolition

The proposed standards are performance-based and were developed to ensure that lead-based paint activities are conducted safely, effectively and reliably.

Community-Based Lead Abatement Demonstration Project:

A Multi-Agency Approach to Environmental Justice

EPA, along with the Departments of Labor, Health and Human Services, and Housing and Urban Development have embarked on a Lead Environmental Justice Initiative. The purpose of the initiative is to support the creation of state, tribal, and local governmental partnerships with community/grassroots organizations in order to address the reduction or elimination of disproportionate lead exposure to disadvantaged communities through community-based training, education, and abatement activities.

The initiative makes grants available to support the creation of community-based activity to:

- (1) prevent the poisoning of disadvantaged children via low-cost, leaded-paint abatements;
- (2) empower the targeted, disadvantaged, urban and rural communities via education and training; and
- (3) enable the community economically via further enterprise and employment opportunities.

The grants will require the state, tribal, or local governmental entity to identify and enter into a full partnership with grassroots and/or

community-based organizations (CBO) to implement the project in a targeted, disadvantaged community. Eligible activities under the grants will include the Government/CBO partnership working together to:

- (1) prioritize the targeted community's lead problems;
- (2) plan and implement a lead-based paint abatement training program for selected community residents;
- (3) create a community-tailored lead poisoning education campaign;
- (4) devise a scheme whereby the trainees abate the community's lead-based paint hazards using the entire range of available (from low-cost to full abatement) abatement methods; and
- (5) devise a means to use funds to provide further economic development and opportunity for the targeted community.

The Administration for Children and Families (HHS), the National Center for Environmental Health (HHS), the Office of Lead-Based Paint Abatement and Poisoning Prevention (HUD), and EPA's Office of Pollution Prevention and

Toxics have been cooperating to make the initiative a reality. Currently, the partnership is working on the creation of a Memorandum of Understanding to coordinate activity on the initiative, and is investigating the prospect of releasing a joint Notice of Funds Availability to advertise the initiative.

New Pollution Prevention Grants for Environmental Justice

EPA 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.

Pollution prevention is EPA's preferred approach to environmental protection, and this grant program is designed to use the principles and approaches that have evolved under the prevention program to address environmental justice concerns of various communities. For example, tools like TRI have been powerful in helping communities to bring information to bear on environmental questions, and they should be valuable as well for issues of environmental justice. The new grants are expressly for pollution prevention and environmental justice. There are other Agency resources for addressing environmental issues that do not involve prevention.

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 minor-

ity 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 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 on farmworkers by supporting alternatives to pesticide and chemical use; and training for field personnel who can understand and apply integrated pest management in the field.

■ **Resource efficiency:** encourage 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 prevention approaches that communities might come up with. The objectives of the program are to:

■ **Allow experimentation** with broad range of prevention approaches.

■ **Assure** that grants are available for the full range of constituencies involved in the environmental justice activities (eg.: tribes, rural and urban communities).

■ **Leverage** existing institutions and create partnerships to advance pollution prevention and environmental justice.

The majority of grants are expected to be under \$50K, although larger grants may be appropriate for service providers that will pass funds through to the communities. Decisions on grants awards will be made by the EPA Regional Offices. For further information on this program, please contact Chen Wen at 202-260-4109, fax 202-260-0178.

“Common Sense” Work Begins on Electronics Industry

On July 20, EPA Administrator Carol M. Browner announced the selection of the first six major U.S. industries to participate in a new effort to transform the current process of environmental regulation into a comprehensive system for strengthened environmental protection. The new program, called the Common Sense Initiative, is designed to achieve greater environmental protection at less cost by creating pollution prevention and pollution control strategies on an industry-by-industry basis, rather than by the current pollutant-by-pollutant approach.

The six industries participating in the first phase of the Common Sense Initiative are automobile assembly, computers and electronics, iron and steel, metal plating and finishing, petroleum refining, and printing. These six industries comprise a sizable piece of the American economy, accounting for over 11% of Gross

Domestic Product and employing nearly 4 million people. They also account for 12.4% of the toxic releases reported by all American industry in 1992.

For each of the six pilot industries, Administrator Browner will convene a high-level team of stakeholders, to include industry executives, environmental leaders, government officials, and labor and environmental justice representatives. The six Common Sense Teams will examine every aspect of environmental regulation as it affects an industry and the environment. Each team will focus its work in the following six interrelated areas: pollution prevention, regulation, reporting, compliance, permitting, and environmental technology. Sector teams will use a consensus based approach so that recommendations developed for achieving “cleaner, cheaper, and smarter” environmental solutions will have the momentum to be implemented successfully.

Administrator Browner has designated OPPTS along with EPA Regions 1 and 9 as the co-leads for the Electronics and Computers industry sector. On September 26 nearly 100 stakeholders, representing environmental, environmental justice, and labor groups along with state and local officials and industry representatives, convened in Washington, D.C. for the first Electronics and Computers Sector Common Sense Initiative meeting. The purpose of the meeting was to address process issues pertaining to the initiative and to begin identifying projects to be included in a draft workplan. The next meeting of electronics sector stakeholders is tentatively scheduled for December, 1994.

For more information regarding the Electronics Industry Common Sense Initiative, please call John Robison at 202-260-3590.

CBI Reform: Final Action Plan Progress

One way of looking at OPPT's "Going Public" initiative is as a two-sided coin. On one side are the Right-to-Know initiatives aimed at making more useful toxics data available to the public. The other side of the coin is CBI Reform. The purpose behind this program is to reduce the amount of data coming into EPA as confidential business information (CBI). The goal of this effort is to have more information available to the public, thereby enhancing the public role in environmental decision making.

OPPT's TSCA CBI Final Action Plan, released in June 1994, explicitly incorporates both sides of the "Going Public" initiative into the various action items.

■ *Information Dissemination.*

OPPT has made a concerted effort to disseminate useful toxics data to the public. Raw sanitized data derived from the Inventory Update Rule (IUR) have been disseminated to states. The entire collection of non-CBI IUR data has been made available to the public through RTKNet. Additionally, summaries of section 8(e) Notice of Substantial Risk studies are available. Plans for chemical fact sheets are also being implemented.

■ *CBI Reform.* A variety of regulatory and voluntary activities related to CBI reform have been identified. In the fall, EPA released proposed amendments to the Part

2, "Public Information" regulations. These amendments provide for moderate changes in the way filings are directed to the Agency and ensure that all requests for confidential business information protection are carefully considered by submitters. Additionally a structure is provided for CBI claims to expire after a period of time.

With regard to voluntary activities, the dialogue OPPT has fostered with industry and states has begun to pay off. Industry has sponsored a series of educational activities to advise the regulated community of the importance of limiting claims to only that information which is actually confidential. Two more sessions are planned for 1995. As a result of these activities and EPA's continuing review of CBI claims, inappropriate CBI claims have been reduced.

One example of the value of the dialogue with states and industry occurred last May during the Congressional reauthorization hearings when the Chemical Manufacturers Association acknowledged that a major flaw of TSCA, as written, was that states did not have access to confidential business information. Since May, industry and states along with OPPT have been struggling to come up with ways for states to secure access to state-specific data which has been claimed as

The dialogue OPPT has fostered with industry and states has begun to pay off.

confidential. Several potential mechanisms have been identified and implementation work is under way.

For further information on TSCA CBI Reform issues, contact Frank Caesar at 202-260-0425 or Scott Sherlock at 202-260-1536, both of the Information Management Division.

FOSTTA Reports on FY 1994 Progress

The Forum on State and Tribal Toxics Action (FOSTTA) serves as a mechanism for state and tribal officials to cooperate in addressing toxics-related issues and to improve communication and coordination among states, tribes, and EPA. FOSTTA is not a lobbying organization and does not adopt formal position statements. Members of FOSTTA do not represent their respective state or tribe's position on toxics issues, but rather their own individual viewpoints.

In FY 1994, FOSTTA met three times, in October, February, and June. During the year, two new workgroups were created to deal with pollution prevention and environmental justice. Each workgroup is comprised of members from the four existing FOSTTA Projects — TRI, Lead, State and Tribal Enhancement, and Chemical Management. These workgroups will discuss federal and state perspectives on pollution prevention and environmental justice and take these perspectives back to their Projects, thus permitting these two important cross-program issues to permeate all of FOSTTA's efforts.

The **TRI Project** provided excellent comments and suggestions to EPA for the TRI expansion efforts. The Project was also able to have states included on the TRI facility expansion work group, and

obtained a FOSTTA membership on a subcommittee of the National Advisory Council for Environmental Policy and Technology (NACEPT).

The **Lead Project** identified approaches for encouraging reciprocity among states for training, accreditation, and certification programs, helped design a lead accreditation program at the state level, worked on developing a Model State Plan that incorporated the provisions of Title X, and is working on an approach for involving all fifty states in lead program design and implementation.

The **State and Tribal Enhancement Project** worked on developing more flexible and generic approaches to state toxics grants, developed a state toxics needs assessment that documents state toxics activities and their perceived needs for additional control actions, and worked on reforming the TSCA Confidential Business Information policy to increase state access to CBI.

The **Chemical Management Project** developed a cooperative data exchange for selected toxics information for TSCA-regulated facilities, obtained a commitment from EPA to require companies to notify states of effluent limits contained in TSCA section 5(e) Consent Orders, and helped develop procedures for state use of the Federal Insecticide, Fungi-

cide and Rodenticide Act (FIFRA) and TSCA Tracking System (FTTS).

In FY 1995, the first meeting was held on October 24-25 in Alexandria, VA; another meeting is scheduled for March. All FOSTTA meetings are open to the public; notifications of these meetings are published in the *Federal Register*.

OPPT Chemical Factsheets Project

OPPT is developing a series of two-page factsheets on TRI chemicals. These information summaries describe how people might be exposed to these chemicals, how exposure to them might affect one's health and the environment, what happens to the chemicals in the environment, who regulates them, and whom to contact for additional information. Each fact sheet has a support document that includes chemical-specific technical information and references.

Work on these documents began last spring and a draft factsheet on methylene chloride was prepared by OPPT. A set of five chemical factsheets, including four previously-available ones, were made available on TRKNet and the Internet. The purpose was to see which data elements best suited user needs and how they might be used by the public.

A total of 28 commenters responded with suggestions.

The content and format for the fact sheets are a direct result of workgroup discussions and public input to the OPPT draft. OPPT has worked together with program offices (including ORD, OW, OAR, OPPE, OPP, and OSWER) to reach agreement on the initial selection of chemicals and the content of the factsheets and support documents.

Plans for the release of the fact sheets and support documents include electronic means (i.e., Networks, NLM, CD-ROM, diskettes, etc.) with accompanying user manuals where appropriate, and developing and printing a brochure (factsheet only) for distribution to the public through the TSCA Assistance Information Service. Contact: Eileen Gibson at 202-260-6449.

OPPT Explores (and Exploits) the Internet

OPPT has entered the electronic age! In an effort to expand OPPT's information dissemination initiatives, we are participating in a pilot project, supported by EPA's Office of Information Resources Management (OIRM), which offers an EPA public access gopher server as a vehicle to reach a wide audience via Internet.

By now, most people have heard of the Internet, the network of information sources and services linking over 20 million users worldwide. With a computer, a modem, a telephone line, and certain types of connectivity software, anyone can be part of the Internet community. To access EPA's server, a connection which allows gopher access is required. **The address for EPA's public access gopher server is Gopher.EPA.GOV.**

A gopher server (named after the Golden Gopher, mascot of the University of Minnesota where the software was developed) can be imagined as an access door to information organized into layered menu options. EPA's gopher, for example, offers about fifteen choices on its primary menu, most of which will lead the user to a secondary level menu with additional choices. The user signs on to the gopher server, is presented with a top level menu, and then can "travel" up and down all the menu paths to follow whatever looks interesting.

OPPT is using the EPA public access gopher to provide frequently requested documents to the public. One such document is the instruction manual for the 1994 TSCA Inventory Update Rule, (*Instructions for Reporting for the Partial Updating of the Chemical Inventory Data Base.*) This document is found in the gopher menu area selected from the following menu options (each level of options is separated by a slash "\"): \EPA Offices and Regions\ Office of Prevention, Pesticides, and Toxic Substances \Toxic Substances \TSCA Inventory Update Rule (IUR) 1994. The document has been subdivided into chapters to make it easier to view online or download the relevant chapters. Several of the figure files must be downloaded to the local computer to be read.

In the same location is posted a Question and Answers document containing questions commonly asked of the IUR support staff. It is expected that this file may be updated regularly during the reporting cycle. Also in this location are a number of other items of interest:

- Geographical information system (GIS) files, derived on a state-by-state basis from the TRI data collection, which may be used in mapping emission patterns.
- Minimum Pre-Market Data/Structure Activity Relationships Study, in which certain endpoints for selected chemicals empirically evaluated in Europe were compared against the estimated values derived by OPPT using automated quantitative structure activity relationship (QSAR) techniques.
- Chemicals on Reporting Rules (CORR) database, which cross-references certain chemicals and their corresponding regulations.

OPPT has also placed the text of the proposed TSCA Biotechnology Rule and related support documents on the public access gopher server. These documents are found by navigating from the top level menu to Rules, Regulations, and Legislation\ Toxic Programs\ Proposed Rules\ Biotechnology Proposed Rule.

With electronic access to documents, the burden of document requests to the TSCA Hotline should be lessened, fewer photocopies made, and storage of extra copies will be minimized.

Within the next few months, OPPT will be expanding its electronic document selection. Keep your eyes open for additional offerings.

Public Access Initiative

by *Linda A. Travers*

Over the last few months, OPPT has taken a lead role in an Agency-wide Integrated Public Access Initiative. The three steps of the initiative are to set information data standards across the Agency, to create a master facility index to link major databases through a central facility identification number, and to then provide public access to the consolidated environmental data. This will be accomplished by creating a single facility identification number, by regularly collecting facility-specific identifying information for the entire Agency, and sharing this information with each specific program. This consolidated approach will provide increased access to information for the public, reduce the burden on the regulated community, and increase the utility of the data for EPA.

Why undertake such an initiative? When people ask for information about environmental risks in their communities, they do not differentiate risks to the air versus risks to the water, nor do they solely want information about possible pesticide or chemical exposure. Typically, the public wants to understand the state of the environment in which they live, including the hazardous and solid waste in their neighborhoods, the pollution in their rivers and streams, and quality of the air they breathe.

Unfortunately, the disjointed and overlapping approach of EPA's current information systems would discourage even the most diligent public user. In order to provide a comprehensive view of the state of the environment, the Agency must integrate and make available to the public complete information about sources of pollution, how people and environmental systems respond to pollutants and other stresses, and what people can do to lower risks to their health and environment.

A consolidated master facility index system will reduce the reporting burden for industry. Currently, each facility or company responding to an EPA data collection must include similar facility identification data on every form. Each Agency collection requires a slightly different variation of the data. A master facility index would allow industry to submit a single set of identifying information, which can then be referenced through a common facility ID number on all other Agency submissions. This streamlining will save industry time and resources, reduce the burden of the Agency in maintaining duplicative data, and eliminate the confusion of having conflicting information for the same facility. This integrated reporting is the first step towards identifying other opportunities for reduced reporting requirements.

When people ask for information about environmental risks in their communities, they do not differentiate risks to the air versus risks to the water, nor do they solely want information about possible pesticide or chemical exposure.

The master facility index used across the Agency's numerous databases would also provide a complete profile of the environmental status of a facility. This new linked environmental data will allow EPA to provide meaningful access to the American people of the environmental state of their communities.

This project is the logical extension of several Agency initiatives into the information resources arena. It provides a holistic approach to environmental information for the entire Agency. Once the environmental data across all programs can be linked and integrated, a comprehensive view can be examined on a ecosystem, pollution pre-

Access continued on next page

Public Access

Access from previous page

vention, or enforcement approach. Integrated information will facilitate examination of all facilities of a particular corporation or of an entire industry. Integrating environmental data encourages innovative ideas and allows flexibility in implementing environmental policy, the cornerstone of the Common Sense Initiative. Without linking cross-media data, it is difficult if not impossible to implement whole-industry initiatives.

An integrated public access approach builds on the public's right-to-know and provides all available environmental data to the general public. By improving public access to and understanding of the data we possess, we will help improve the effectiveness of citizens in protecting themselves and their environment and reduce unnecessary fears about environmental conditions

that do not present real risk. The Toxic Release Inventory has shown us the value to the public of examining all releases together, whether it is releases into the air, water, or waste disposal. This approach will be expanded to provide the public with all available data on specific chemicals, facility profiles, and complete corporate profiles.

In early 1995 EPA will begin a negotiated rulemaking process with our partners in the states, industry, labor organizations, and environmentalists. The Agency

will concurrently work on technical and data standards to assist in implementation. We will also continue dissemination efforts utilizing the Internet, in preparation for more integrated data. The Agency recognizes the limits of its own capabilities to address the tremendous range of environmental issues, and the importance of empowering the public to assist in the protection of their own environment.

Linda Travers is the director of OPPT's Information Management Division.

NHATS FY 1986 Results

Until 1992, EPA conducted an annual National Human Adipose Tissue Survey (NHATS) to quantify the levels of selected chemicals in the adipose tissue of humans in the U.S. population. Final results for FY 1986 have been published in two volumes. Copies of volumes I and II of "Semivolatile Organic Compounds in the General U.S. Population-NHATS FY86 Results" can be obtained by calling Khoan T. Dinh of the Technical Programs Branch, CMD, at 202-260-3891.

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