

TRI Releases Decrease by 600 Million Pounds in 1990

In May 1992, EPA announced that industrial releases of toxic chemicals to the nation's environment declined by 600 million pounds, or 11 percent, from 1989 to 1990. The decline is reported in the initial results of the 1990 Toxics Release Inventory (TRI). The 23,648 industrial facilities reporting to TRI released a total of 4.8 billion pounds of toxic chemicals to the nation's environment in 1990.

"We continue to be encouraged by the downward trend in TRI data," said EPA Administrator William K. Reilly. "Only the United States has a program that is founded on the principle of the community's right to know and that provides a publicly accessible multimedia database of toxic releases to the environment. The successes of the TRI program have attracted international attention, and the U.S. experience with TRI has advanced the case for right-to-know principles," Mr. Reilly said.

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A summary of the 1990 TRI data shows that 2.2 billion pounds of toxic chemicals were released to the air, a decrease of 14 percent from the 1989 total of 2.5 billion pounds. Releases to the land dropped 3 percent, from 454 million pounds in 1989 to 440 million pounds in 1990. Releases to the nation's rivers, lakes, streams, and other bodies of water increased by 2 percent, or 4 million pounds, in 1990.

Releases to some especially sensitive ecosystems also declined. From 1989 to 1990, for example, total releases of toxic chemicals into the Great Lakes Basin declined by 20 percent. Total releases in states bordering the Gulf of Mexico decreased by 9 percent, and in states bordering the Chesapeake Bay, releases dropped by 20 percent.

The TRI data serve two broad purposes.

First, TRI is a source of information on the amounts, locations, and types of toxic emissions. The information is useful to citizens who are interested in

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Seventeen Win EPA Awards for Preventing Pollution

On May 13, 1992, EPA Administrator William K. Reilly presented Administrator's Awards to 17 organizations for outstanding achievements in preventing pollution. The Administrator's Awards were established in 1991 to recognize excellence in efforts toward a cleaner environment. Last year, the awards focused on recycling.

"Pollution prevention is a central part of the Bush administration's environmental strategy for protecting human health and the environment," Mr. Reilly said in announcing the award winners.

"We are delighted with the tremendous response to this year's awards program and with the high quality of pollution-prevention projects, which made selection of our winners a very difficult task. In fact, all of the finalists were outstanding," Mr. Reilly said.

Winners were awarded in the following categories: environmental, community, and nonprofit organizations; large and small business; educational institutions; federal government; state government; and local government.

EPA regional offices received more than 840 applications for the awards. The regional administrators chose 225 of these for further consideration. A panel of pollution-prevention experts, convened by the independent group Renew America, narrowed the field to 35 finalists, and Mr. Reilly chose the 17 award winners.

■ *Award winner profiled on page 3.*

Administrator's Award Winners

Organization	Program	State
<i>Environmental, nonprofit, and community organizations</i>		
Inform, Inc.	Chemical Hazards Prevention Program	New York
North Carolina Alternative Energy Corp.	Energy-Efficient Lighting for Poultry	North Carolina
Alaska Center for the Environment	Green Star Program	Alaska
<i>Small and large business</i>		
Kryptonics, Inc.	Mold Release Spray System	Colorado
Statler Tissue Co.	Hazardous Materials Minimization Program	Maine
IBM Corp.	Aqueous Processes Eliminate CFC Use for Disk Drive Parts Cleaning	California
Chrysler Corp.	Jefferson North Assembly Plant Design	Michigan
Mead Corp.	Volatile Organic Compound Reduction Program	Georgia
Eastman Chemical	Texas Eastman Pollution Prevention Program	Texas
<i>Local government</i>		
Orange County	Pollution Prevention Sanitation District	California
Bourne, Plymouth, and Wareham Planning Boards	Buttermilk Bay Nitrogen Overlay Protection District	Massachusetts
Osage Municipal Utilities	Demand-Side Management Project	Iowa
<i>State government</i>		
Department of Natural Resources	Agricultural-Energy-Environmental Initiative	Iowa
Department of Economic and Community Development	Energy Management Technical Assistance Program	North Carolina
<i>Federal government</i>		
U.S. Navy	Development and Implementation of Unicoat	Pennsylvania
U.S. Air Force	Comprehensive Pollution Prevention Program	Washington
<i>Educational institution</i>		
Virginia Polytechnic Institute	Agricultural Nonpoint Source Pollution Prevention	Virginia

EPA Region 7 Expands the 33/50 Concept

A community-oriented approach to reducing toxic emissions is gaining a foothold in some parts of the nation. Facilities in six counties and four metropolitan areas in the Midwest are working to voluntarily cut their aggregate toxic releases from 425.4 million pounds in 1988 to 281.6 million pounds in 1995.

Over 550 facilities are expected to participate in the program, which covers the more than 325 toxic chemicals reportable to the Toxics Release Inventory (TRI). The agreements will achieve the reductions years ahead of what the Clean Air Act Amendments of 1990 and other laws require.

The largest commitment received to date is from Sedgwick County, Kansas, where McConnell Air Force Base

and 25 companies are participating in the program. If the facilities meet their targets, their TRI emissions will drop from 152 million pounds in 1988 to 10.4 million pounds in 1995, a 93 percent reduction. Reductions will result from recycling, point-source reduction projects, process changes, conservation, and substitution of materials.

Part of national strategy

EPA believes that voluntary efforts to prevent pollution have a great potential for reducing risks. In the 33/50 Program, initiated in January 1991, the agency asked industry to voluntarily reduce releases of 17 toxic chemicals. Staff in EPA's Region 7, which encompasses Iowa, Kansas, Missouri, and Nebraska, decided to

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Profile of an Administrator's Award Winner

Mead Packaging Division

The Mead Corporation's packaging division won the EPA Administrator's Award for reducing its emissions of volatile organic compounds by more than 900,000 pounds. The reduction took place over 15 years and reflects the company's longstanding commitment to prevent pollution.

In 1975, the management of Mead Packaging Division decided to switch from solvent-based inks to water-

based inks at all five of its plants. Concerns had been raised about the toxicity of methyl ethyl ketone and toluene, constituents of the solvent-based inks. These substances also contribute to volatile organic compound (VOC) emissions, which contribute to ozone pollution.

Few water-based inks were available in 1975. So, the packaging division set out to develop the inks, coatings, and application techniques that were

needed. Since the effort began, the Mead Corporation has reduced its VOC emissions by over 85 percent. The company has also begun to sell its water-based inks and varnishes, helping other companies cut VOC emissions.

The Mead Corporation participates in EPA's 33/50 Program to achieve voluntary reductions of toxics, and the company is continuing to seek ways to minimize or eliminate pollution.

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develop a similar program with a geographic focus.

Region 7 staff pinpointed the areas in each state with the highest TRI releases. EPA Regional Administrator Morris Kay and state environmental program directors then asked representatives from facilities associated with TRI releases as well as facilities not required to report to TRI (including federal facilities and utility companies), county and local officials, and representatives from trade organizations and public interest groups to make an areawide commitment to reduce total toxic releases and transfers by 50 percent by 1995.

"We made it easier to see the connection to long-term benefits for their own communities," said Carl Walter, 33/50 Program coordinator for Region 7. For instance, Mr. Walter said, McConnell Air Force Base, which as a federal facility is not required to report to TRI, was "eager to participate and work to make the community better."

At meetings held in 10 geographical areas, one or more participants volunteered to take the lead in organizing the group and setting emissions-reduction goals. Region 7 staff are supporting the voluntary efforts by providing information about waste minimization, pollution prevention, and technology.

Getting the jump on meeting federal requirements

The Clean Air Act Amendments of 1990 and other statutes are tightening the controls on toxic releases to the environment. "A number of facilities are looking at the environmental regulations coming down the road and searching for ways to meet them," Mr. Walter said.

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"I don't think we can write enough regulations to control everything. Voluntary programs like this one give companies a bookkeeping method to look at what they are doing to the environment and a stimulus to try to improve," Mr. Walter said.

Activity in other geographic areas

In addition to Sedgwick County, industrial facilities in nine other

areas, listed below, are working to formulate 1995 release-reduction goals. Several of these areas cross state boundaries, and senior officials from these states, EPA Region 5, and EPA Region 7 are working collaboratively to achieve the goals.

- St. Louis metropolitan area (Missouri and Illinois)
- Lancaster County and Lincoln (Nebraska)
- Polk County and Des Moines (Iowa)
- Quad Cities metropolitan area (Bettendorf, Iowa; Davenport, Iowa; Rock Island, Illinois; Moline, Illinois)
- Kansas City metropolitan area (Kansas and Missouri)
- Douglas County and Lawrence (Kansas)
- Black Hawk County, Waterloo, and Cedar Rapids (Iowa)
- Omaha/Council Bluffs metropolitan area (Nebraska and Iowa)
- Springfield and Green Counties (Missouri)

For more information

To obtain more information about EPA Region 7's pollution-prevention initiative, contact Rowena L. Michaels, director, Office of Public Affairs, U.S. EPA, Region 7, 726 Minnesota Avenue, Kansas City, Kansas 86101; telephone, (913) 551-7003.

Pollution Prevention Information Clearinghouse

Information on source reduction and recycling in the United States and internationally is available from EPA's Pollution Prevention Information Clearinghouse. The clearinghouse consists of a pollution-prevention hotline, a repository of documents, and a number of databases available through a computer network.

Pollution-prevention hotline

Technical specialists are available to help locate and provide general and industry-specific information and to assist users of the clearinghouse's electronic network. The Pollution Prevention Information Clearinghouse Technical Assistance Service (pollution-prevention hotline) operates Monday through Friday, from 9 a.m. to 5 p.m. Eastern time.

Information repository

The clearinghouse repository contains state, national, and international information on reducing or eliminating industrial hazardous waste. The pollution-prevention hotline provides information searches of the repository when requested and sends materials to the public. To obtain a list of documents available for distribution from the repository, contact the hotline.

Pollution Prevention Information Exchange System (PIES)

PIES is an interactive network that is available free to users 24 hours a day. PIES provides access to

- hundreds of case studies on reducing pollution;

- a bulletin board for exchanging information with other PIES users;
- a directory of more than 400 state and federal pollution-prevention contacts;
- summaries of corporate, state, and federal pollution-prevention grant programs, research projects, and training and outreach activities;
- information about state and federal pollution-prevention legislation that has been introduced or signed into law; and
- a number of mini-exchanges on specialized topics.

How to access PIES

PIES can be accessed through any personal computer equipped with a 1200-baud or 2400-baud modem and appropriate communications software. The specifications needed to access PIES are

- **NUmber** (703) 506-1025
- **MOde** Call
- **DAta** 8
- **PArity** N
- **STop** 1
- **GO**

A free PIES User Guide is available from the pollution-prevention hotline.

Access to PIES is free

There is no charge for using PIES, but use is limited to one hour a day for each user.

State and local governments can access PIES using a toll-free number. To obtain the number, call (703) 821-4800.

PIES can also be accessed through a local call from anywhere in the United States or internationally via SprintNet. To obtain local-access information, call (800) 877-5045.

How to obtain information

- **By phone.** The pollution-prevention hotline can be reached at (703) 821-4800.
- **By FAX.** Requests for documents can be faxed to the clearinghouse at (703) 821-4775.
- **By mail.** Documents can be requested by writing to Pollution Prevention Information Clearinghouse, Science Applications International Corporation, 7600A Leesburg Pike, Falls Church, Virginia 22043.
- **Through a computer bulletin board.** Documents can be ordered by leaving a message on the PIES bulletin board.

Other resources for information about hazardous waste minimization

- The Resource Conservation and Recovery Act/Superfund Hotline: (800) 424-9346
- The Small Business Ombudsman Hotline: (800) 358-5888

Information will Help Small Companies Make Environmentally Sound Decisions

The Office of Pollution Prevention and Toxics (OPPT) has developed a program to provide information about chemical risks to small businesses. The information will help owners and managers of small businesses weigh the use of one chemical over another, compare the benefits and disadvantages of different processes and technological alternatives, and take actions to reduce the pollution their companies generate.

OPPT's efforts are part of its Design for the Environment (DfE) initiative. The goal of the DfE initiative is to encourage industry to voluntarily shift toward designing chemicals, processes, and end products that are environmentally sound.

DfE activities for small business are focused on three industries: dry cleaning, printing, and aerosol spray paint manufacturers. OPPT's objec-

tive is to provide information from preliminary screening of chemicals to businesses quickly, so they can put it to use, rather than waiting until full studies are completed. OPPT will disseminate this preliminary screening information, as well as other pollution-prevention information, to small businesses through trade associations, video teleconferences, and other means, as appropriate.

Printing Companies Join EPA In Pollution-Prevention Project

In choosing products for individual applications, printers work with chemicals contained in hundreds of inks and solvents. Frequently, printers use these products without access to information about the comparative risks of the chemicals they contain. Last year, Printing Industries of America, an industry trade group, asked EPA to help (1) identify safer substitutes and work practices for printers and (2) sort out the myriad environmental regulations printing companies must comply with.

EPA's Office of Pollution Prevention and Toxics (OPPT) responded by developing a joint EPA-industry project to provide printers with information on the comparative risks of alternative chemicals, processes, and technologies. This information will allow printing companies—which generally are small businesses and unaware of the pollution they generate—to make informed choices about establishing safer operations. The

joint pollution-prevention program is part of OPPT's Design for the Environment (DfE) initiative.

Project activities

EPA and representatives from the printing industry launched the project with two meetings in the summer of 1992. At the meetings, EPA outlined how the printing project is developing pollution-prevention information for the printing industry. The agency also asked representatives from graphic arts trade associations, chemical and equipment suppliers and manufacturers, printing companies, and other interested parties to join the industry-EPA effort. Almost all of the more than 90 people who attended the meetings signed up for follow-up subcommittee sessions.

Specific project activities include

- assessing the potential risks from chemicals and processes used in printing;
- developing testing protocols to

evaluate how well substitute chemicals and processes perform;

- seeking printers to use substitute chemicals and processes;
- working with industry to develop pollution-prevention materials promoting use of safer chemicals, technologies, and work practices; and
- developing the means to communicate information to small- and medium-sized printing companies, including pollution-prevention manuals and a nationwide video-teleconference scheduled for 1993.

Integrated permit

EPA is studying the possibility of developing a single cross-media permit (covering discharges to air, water, and land) that will help small printing companies comply with all relevant EPA regulations. At present, many small printing operations are confused by the multiple regulations governing discharges to environmental media.

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Roundtable Held on Pollution Prevention in the Dry Cleaning Industry

A growing awareness of potential risks from solvents used in dry cleaning has prompted dry cleaning operators, trade associations, and governments to act. Examining options for preventing or controlling pollution from dry cleaning solvents was the subject of an international roundtable held in May by EPA's Office of Pollution Prevention and Toxics (OPPT).

Options for reducing PCE exposures

The cleaning solvent perchloroethylene (PCE) is a pollutant of particular concern for the dry cleaning industry. In the United States, about 28,000 dry cleaning machines use PCE, which is a possible carcinogen. Domestic and international studies have found elevated levels of PCE in food and air in apartments and food establishments located near dry cleaning facilities; elevated PCE concentrations in homes due to freshly dry-cleaned clothing; and PCE-contaminated soil and ground water in California, Florida, and Maryland.

Among the experts attending the roundtable was a representative from Germany, which has imposed strict

emissions restrictions on PCE. These restrictions are designed to reduce workers' exposures to the solvent and to decrease concentrations of the solvent in rooms adjacent to or near dry cleaners. German manufacturers have developed dry cleaning machines to meet these emission requirements.

Experts from the Netherlands and Japan also participated. Both countries regulate the dry cleaning industry and have conducted extensive research on dry cleaning technology and reducing residual solvent levels in clothing.

In the United States, PCE is among the first group of pollutants that will be regulated under the 1990 Clean Air Act Amendments. The domestic dry cleaning industry consists of small businesses that are generally unaware of their polluting practices or of ways to prevent pollution. They may also lack the capital to invest in environmentally sound alternatives. Dry cleaning industry associations have been actively working since 1988 to publicize environmentally sound management and disposal practices among their members.

Sessions held

Also speaking at the roundtable were researchers, representatives from state and local governments in California, New York, and New England, and representatives from EPA, the Food and Drug Administration, and the Small Business Administration. Sessions were held on the following topics:

- sources of dry cleaning exposures;
- methods to reduce exposures;
- regulatory approaches to exposure reduction;
- options for financing upgraded equipment; and
- communicating information about risks.

For more information

For more information about the roundtable or to obtain a copy of the proceedings, contact Ohad Jehassi, Economics and Technology Division (TS-779), U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460; telephone, (202) 260-6911; FAX, (202) 260-0981.

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EPA expects to pilot the integrated permit within the next year.

Coordination of regulations

OPPT Director Mark A. Greenwood is heading an agencywide printing cluster group that will coordinate new EPA regulations to control land and air pollution caused by printing processes. The regulations, expected

to take effect in 1993 and 1994, will be promulgated under the Resource Conservation and Recovery Act (RCRA) and the Clean Air Act Amendments of 1990. The regulations are expected to set (1) maximum levels for emissions of 189 hazardous air pollutants discharged by major sources and (2) guidelines for controlling emissions of volatile organic compounds from lithographic printers. The agency is also considering new

solvent listings under RCRA provisions for hazardous wastes from non-specific sources (F listings).

To obtain additional information about the project, contact Cathie Ramus, Economics and Technology Division (TS-779), U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460; telephone, (202) 260-1707; FAX, (202) 260-0981.

New Form R Required for TRI Reporting

EPA has revised Form R, which is used by industry to report releases to the Toxics Release Inventory (TRI). The revised form includes new reporting elements for data EPA is required by the Pollution Prevention Act of 1990 to collect.

Form R submitters should use the revised form to report TRI information for the 1991 calendar year. Forms published by EPA to report TRI data for the years prior to 1991 do not include the new reporting elements and should not be used.

Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA), which established the TRI, requires reporting of environmental releases and off-site disposal of about 300 chemicals and 20 chemical categories.

EPCRA requires annual reporting of the previous year's releases by July 1. However, EPA was not able to obtain approval of the new Form R from the Office of Management and Budget until May 19. EPA is aware that the

delay in the distribution of the reporting package has created concern about potential enforcement actions for those facilities reporting after the July 1, 1992, deadline. In response to these concerns, EPA will not initiate enforcement proceedings against facilities that file accurate Form R reports between July 1, 1992, and September 1, 1992. Reports for the 1991 reporting year that are filed after September 1, 1992, or that contain inaccurate or incomplete information may be subject to EPA enforcement, including, but not limited to, civil penalties.

Key changes to reporting

The key changes to TRI reporting for 1991 are (1) off-site transfers of chemicals for recycling and energy recovery are now reportable and (2) section 8 of Form R, which had requested optional information on waste minimization, has been expanded and made mandatory. A summary of the information that section 8 requires follows.

- Reporting is required on the individual quantities of chemicals (1)

released on site and disposed of off site, (2) treated on site and off site, (3) used for energy recovery on site and off site, and (4) recycled on site and off site.

- Separate reporting is required on the quantity of chemicals released to the environment through remedial actions, catastrophic events, and other one-time events. This information should not be included when reporting on individual quantities of chemicals released, treated, used for energy recovery, and recycled on site or off site.
- A ratio or index that indicates the level of industrial production or activity that generated reportable quantities must be provided.
- Information about source-reduction activities that were implemented for the reported chemicals during the reporting year must be provided, along with the reason the activity was implemented.

Facilities have the option to submit additional information on source reduction, recycling, or pollution-control activities with Form R.

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determining the relative effect that such releases may have on their health and the environment. To support use of data for this purpose, the state rankings that appear in this year's printed report were determined by total facility releases, rather than by combined release and off-site transfer data as in the past.

The second purpose that TRI data serve is to identify pollution-prevention opportunities. For this purpose, EPA has combined waste-generation data, data on off-site transfers, and data on releases. The agency has also provided transfer data by state, chemical, and industry. EPA believes that the understanding of how waste generation and off-site transfers contribute to the total picture will improve next year with the availability of pollution-prevention data for 1991.

The TRI is required by the 1986 Emergency Planning and Community Right-to-Know Act. Certain industrial facilities that employ 10 or more persons full-time must provide annual emissions estimates for over 300 toxic chemicals and 20 chemical categories if those facilities manufacture, process, or use those substances in excess of certain threshold amounts. EPA received over 83,000 reports for 1990.

How to Obtain TRI Data

- **Through a computer network.** Online access to national and state TRI data is available from the National Library of Medicine's TOXNET. To obtain an account, call (301) 496-6531, or write TRI Representative, Specialized Information Services, National Library of Medicine, 8600 Rockville Pike, Bethesda, Maryland 20894. Account holders also have access to other National Library of Medicine databases on toxicology, health, and chemical substances.
- **At the library.** Access to state TRI data is available at most federal depository and county public libraries. The depository libraries holding the fiche or CD-ROM in their collection are listed in *Federal Depository Libraries: Your Source for the Toxic Release Inventory*; the names and addresses of the public libraries that have TRI on fiche are listed in the *Directory of Public Libraries*. To obtain a list of the libraries that provide TRI access or to obtain the brochure *Public Access to the Toxic Release Inventory*, call EPA's EPCRA Information Hotline at (800) 535-0202 or (703) 920-9877.
- **By purchasing one of these formats: CD-ROM, microfiche, diskette, magnetic tape, or written report.** These formats can be purchased from the National Technical Information Service (NTIS), the U.S. Government Printing Office (GPO), or the Department of Commerce (DOC). Listed below are the years for which the data are available. For additional information, please contact NTIS at (703) 487-4650; GPO at (202) 783-3238 (microfiche, CD-ROM, and report form) or (202) 275-0186 (magnetic tape and diskette); or DOC at (202) 377-1986 (CD-ROM).

TRI Data Available for Purchase*

	CD-ROM	Microfiche	Diskette	Magnetic Tape	Report
NTIS	1987 national inventory		1987, 1988, 1989 national inventory	1987 national inventory	1987 complete report
	1987-1989 national inventory		1987, 1988, 1989 individual state	1988 national inventory	1987 executive summary
				1989 national inventory	
				1990 national inventory	
GPO	1987 national inventory	1987 national inventory	1988 and 1989 national inventory	1987 national inventory	1987 complete report
	1987-1989 national inventory	1988 national inventory	1988 and 1989 individual state	1988 national inventory	1987 executive summary
		1987 and 1988 individual state		1989 national inventory	1988 complete report
				1990 national inventory	1989 complete report
DOC	1989 complete report (included in the "National Economic, Social, and Environmental Data Bank")				

* Order numbers can be obtained from the Emergency Planning and Community Right-to-Know Act (EPCRA) Information Hotline at (800) 535-0202 or (703) 920-9877.

Study Examines Effects of CBI on Access to TSCA Data

IMD Director Travers Discusses Results of Research

Last year, the Office of Pollution Prevention and Toxics (OPPT) commissioned a study to review confidential business information (CBI) regulations and procedures for data submitted under the Toxic Substances Control Act (TSCA). The objective of the study was to determine how TSCA's CBI requirements affect OPPT's programs. In the following interview, Linda A. Travers, director of OPPT's Information Management Division (IMD), discusses the findings of the study.

Q: Why did you undertake the study?

Ms. Travers: TSCA allows companies to claim information submitted to EPA as confidential, provided the information meets certain criteria. There has been a tremendous increase in the number of CBI claims in the past 15 years. We were concerned that many of the claims are inappropriate and therefore deny the public access to information to which they would otherwise be entitled. In addition, there are large costs to EPA to protect CBI.

Q: What were the overall findings of the study?

Ms. Travers: Overall, the study found that CBI claims severely limit access to TSCA data, that the majority of claims have not been substantiated, and that a significant fraction of the claims do not appear to be supportable under the statute. From 1977 to

1990, the volume of CBI claims submitted to the agency increased dramatically. The study confirmed that the number of CBI claims denies the public access to a large amount of TSCA data and requires the agency to spend additional funds to keep the information secure.

“We will explore both
regulatory and
nonregulatory methods
of reducing unnecessary
CBI claims.”

Linda Travers

Q: How much information is actually claimed as CBI?

Ms. Travers: An extremely large percentage of TSCA data is claimed as CBI, including more than 90 percent of all premanufacture notices for new chemicals and more than 95 percent of all polymer exemption submissions. Additionally, over 25 percent of all substantial risk notifications and over 20 percent of all health and safety studies are submitted as CBI, which defeats the purpose of notify-

ing the public about chemicals of concern.

The problem appears to be somewhat specific to TSCA CBI. A comparison between the Toxics Release Inventory (TRI) and the TSCA Preliminary Assessment Information Rule, two comparable information-collection systems, suggests that TSCA data are subject to substantially more confidential claims than TRI data. The study also found that some of the data claimed as CBI under TSCA may be available under TRI. We have discovered that many CBI claims are submitted because companies are unsure as to what are legitimate claims. We began a CBI Challenge Program two years ago, and companies have withdrawn or modified their CBI claims in every case that EPA attorneys have challenged.

Q: How do CBI claims affect OPPT and its program?

Ms. Travers: Besides placing a significant burden on OPPT in terms of CBI handling costs, the sheer volume of CBI claims restricts the amount of information the public can obtain about chemicals. An excellent example is silicone. EPA provided the Food and Drug Administration with all of our non-CBI information on silicone. However, the agency has additional confidential silicone information that the public could find valuable if there were a way it could be released.

Q: Does the study make any specific recommendations?

Ms. Travers: The study does not make actual recommendations but instead identifies a number of different strategies that either Congress or EPA can undertake. Congressional options include statutory authority to make so-called class determinations of what will and will not be accepted as confidential, adopting the trade-secret framework used in the Emergency Planning and Community Right-to-Know Act (EPCRA), authorizing the sharing of CBI with state governments, and enacting sunset provisions for CBI claims. Options for the agency include promulgating regulatory class determinations, streamlining burdensome agency procedures for handling CBI, issuing report cards on individual companies' CBI claims patterns, requiring upfront substantiations of CBI claims, issuing regulatory sunset provisions, and requiring fees for CBI claims.

Q: What do you mean by class determinations?

Ms. Travers: By classifying the types of information that we will and will not accept as confidential, we would be able to identify frivolous or clearly invalid claims at the time of submission, thus saving resources. For example, the agency could prohibit claims that a chemical name is confidential business information when health and safety studies are submit-

ted under section 8(e) of TSCA. Authority for use of class determinations can be either statutory or regulatory.

Q: What is a sunset provision?

Ms. Travers: A sunset provision would limit how long a claim could remain confidential. For example, instead of a CBI claim in a premanufacture notice remaining CBI forever, the claim would expire in, say, four or five years. Each type of claim could have a different expiration date, based on the importance of its remaining confidential. Of course, a claim could remain confidential longer than the standard period for that type of claim if the company submits a substantiation of why it must remain CBI.

Q: How does OPPT plan to proceed?

Ms. Travers: While Congress is considering amending TSCA, which might change CBI procedures, OPPT will go ahead and implement some of the strategies discussed in the study. We will explore both regulatory and nonregulatory methods of reducing unnecessary CBI claims. We will also discuss voluntarily limiting CBI claims with industry.

Q: What will be the benefits of reducing the CBI burden?

Ms. Travers: The program will really benefit everyone. Declassifying more of our CBI data will help industry

and the public better understand our decision and rulemaking processes. What we are trying to eliminate are unnecessary CBI submissions. It just doesn't make sense for a company to submit information under TSCA as CBI and then turn around and submit the same information under EPCRA or to another federal agency without any restrictions. Of course, OPPT will continue to protect valid confidential claims. If a chemical process is truly confidential business information today, it will be treated as confidential business information tomorrow.

EPA will also experience enormous savings since we provide the same level of protection to a frivolous CBI claim as we do to a valid CBI claim. Clearly articulated CBI procedures will also ease the burden on companies trying to determine what constitutes a valid CBI claim. Overall, the program will simplify procedures for the agency and industry and provide the public better access to the information, which was Congress's intention in enacting TSCA.

EPA Continues to Review Microorganisms under 1986 Policy Statement

Agency Plans to Propose New Regulations

EPA is planning to propose new regulations to fully implement its program for microorganisms under the Toxic Substances Control Act (TSCA). The agency plans to send draft proposed rules to the Office of Management and Budget later this year. Until final rules are promulgated, EPA will continue to assess living microorganisms under its 1986 policy statement, which was issued as part of an interagency statement on federal regulation of biotechnology.

This article (1) provides information about the current requirements of EPA's biotechnology program and (2) indicates how the draft proposed rules would affect current requirements.

Microorganisms are regulated under TSCA

TSCA authorizes EPA to regulate all chemical substances except those covered by other federal laws or under the jurisdiction of other agencies. EPA considers living microorganisms to be chemical substances subject to review under TSCA just as traditional chemicals are. EPA assesses new microorganisms produced for environmental, industrial, or consumer uses that are subject to TSCA. These uses include bioremediation of Superfund sites, enhanced oil recovery, metal extraction and concentration, and specialty chemical production.

The agency is proposing new rules that specifically address potential risks posed by certain new microorganisms because the concerns they raise differ from those raised by traditional chemicals.

Microorganisms subject to review under section 5 of TSCA

Current requirements. TSCA section 5 mandates review of new chemical substances. The statute defines a "new chemical substance" as any substance not listed on the TSCA Chemical Substance Inventory, commonly referred to as the TSCA Inventory. The inventory is a compilation of chemical substances that were in the U.S. marketplace in 1975 or have since entered the marketplace.

Anyone who plans to manufacture or import a new chemical substance must submit a premanufacture notice (PMN) to EPA at least 90 days prior to the activity. The New Chemicals Program, which is part of the Office of Pollution Prevention and Toxics (OPPT), reviews PMN submissions and identifies new chemical substances that require regulatory action.

In determining which microorganisms warrant PMN review, EPA first differentiated microorganisms that occur in nature from genetically modified microorganisms. (The agency's policy is to treat naturally occurring traditional chemicals and naturally occurring microorganisms as if they are listed on the TSCA Inventory.) EPA then distinguished between microorganisms that have been modified to contain different genera—called intergeneric microorganisms—and other genetically modified microorganisms.

The agency determined that intergeneric microorganisms are the microorganisms most likely to exhibit traits

and behaviors not found in nature. The unpredictability of their behavior presents significant uncertainties about their risks. In the 1986 policy statement, EPA defined "new microorganisms" as intergeneric microorganisms. Since then, intergeneric microorganisms have been subject to PMN review.

The document *Points to Consider in the Preparation and Submission of TSCA Premanufacture Notices (PMNs) for Microorganisms* contains guidance on the subject. For information on how to obtain the document, see the end of this article.

Proposed changes. EPA's draft proposed rules would require PMN submissions for new microorganisms that contain deliberately modified hereditary traits. Microorganisms would be excluded from reporting if they are naturally occurring or fall into one of four exclusion categories that encompass microorganisms that exhibit behaviors likely to be found in nature. Excluding these categories from PMN review would allow EPA to focus on screening genetically modified microorganisms that pose greater potential risks.

Changes in significant new use rules (SNURs) are also proposed. First, the draft proposed rules would establish reporting requirements for significant new uses of new microorganisms. No specific SNURs are proposed, however. Second, the agency proposes dropping its current policy of requesting voluntary SNUR reporting for new uses of certain nonagricul-

tural releases of pathogens. Until the new rules become final, the current policy remains in effect.

Exemptions from PMN reporting for research and development

Current requirements. Section 5 of TSCA allows EPA to exempt new chemical substances manufactured in small quantities for use solely in research and development from PMN and SNUR reporting requirements. However, because small quantities of microorganisms released into the environment can reproduce and spread beyond the amount originally released, EPA in 1986 indicated it planned to allow the exemption for research and development to be applied only to new microorganisms used in contained systems.

Since 1986, the agency has asked companies engaged in research and development to voluntarily (1) submit PMNs prior to releasing new microorganisms into the environment and (2) report any releases into the environment of modified pathogens. (For information about the research and development exemption, see 40 CFR section 720.36.)

Proposed changes. The draft proposed rules would (1) abbreviate the reporting process for research and development involving environmental releases; (2) continue to apply the research and development exemption only to research conducted in contained structures; and (3) establish an exemption process for certain environmental research and development activities. "Contained structure" is

defined broadly, so that structures other than fermentation systems would be eligible for inclusion.

Exemptions from PMN reporting for use in closed systems

Current requirements. Section 5 of TSCA allows EPA to exempt from PMN reporting new chemical substances that the agency finds will not present unreasonable risks. To date, consistent with the 1986 policy statement, the only new microorganisms exempted from PMN reporting have been those produced in small quantities solely for research and development in closed systems.

Proposed changes. In 1986, EPA indicated that it would explore exempting from PMN reporting general commercial uses of new microorganisms in closed systems, such as fermentation systems. EPA has determined that new microorganisms used in closed systems generally present lower risks to human health and the environment than do the same microorganisms released to the environment. The draft proposed rules would exempt from PMN reporting certain general commercial uses of specified microorganisms in contained structures. The microorganisms and the specific criteria for the exemption will be listed in the draft proposed rules.

Reviews completed thus far

Since publication of the 1986 policy statement, EPA has completed reviews of 31 intergeneric microorganisms. Twenty of these reviews were for microorganisms used in field tests

for research and development. All but one of these microorganisms were nitrogen-fixing bacteria that were genetically modified for enhanced nitrogen fixation and specific antibiotic resistance. Through TSCA section 5(e) consent orders, the PMN

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Effect of Policy on Bioremediation Industry

Bioremediation involves the use of microorganisms to degrade persistent and often toxic chemicals. To date, the bioremediation industry has used naturally occurring microorganisms, which are not subject to premanufacture notice (PMN) reporting. However, companies are seeking to increase degradative capabilities of microorganisms through development of genetically modified microorganisms.

Companies conducting research and development using intergeneric microorganisms, which contain genetic material from different genera, in contained systems are exempt from PMN reporting. EPA encourages voluntary submission of a PMN before intergeneric microorganisms are tested in the environment. Companies are required to submit a PMN to EPA before an intergeneric microorganism can enter commerce.

For more information, a contact is provided at the end of the main article on page 14.

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submitters in all of these cases agreed to limit use of the intergeneric microorganisms to specific field tests. EPA has reviewed data from the field tests and found no harmful effects.

The other 11 PMN reviews were for intergeneric microorganisms used as intermediates in closed fermentation systems to produce specialty chemicals. In nine of these cases, no regulatory action was necessary. In the

other two cases, EPA allowed limited production of the microorganisms under test-marketing exemptions.

For more information

A draft of the proposed rules is available to the public as part of a package of material prepared for a meeting of EPA's Biotechnology Science Advisory Committee in June 1991. The draft proposal and the *Federal Register* notice describing EPA's current policy (51 FR 23313, June 26, 1986) are available from the TSCA Assis-

tance Information Service (TSCA hotline). See page 38 for information on contacting the hotline.

For information about whether specific microorganisms are subject to reporting under section 5 of TSCA, contact Ellie Clark at (202) 260-3402 or David Giamporcaro at (202) 260-6362, or write to them at the following address: Chemical Control Division (TS-794), U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460; FAX, (202) 260-1216.

EPA Proposes PMN Rule Amendments

EPA is proposing to amend four regulations affecting new chemical substances subject to agency review under section 5 of the Toxic Substances Control Act (TSCA). Public comment is being accepted on the proposed amendments, which were published in the *Federal Register* this summer.

The proposed amendments would affect the premanufacture notice (PMN) rule, the polymer rule, the low-volume exemption rule, and the generic significant new use rule (SNUR). (A more complete description of these proposed rules is in *Chemicals-in-Progress Bulletin*, volume 13, number 1.)

Summaries of Meeting on Pollution Prevention Are Available

Representatives from the chemical industry, EPA, and environmental groups attended a symposium in Washington, D.C., in April to discuss how to encourage pollution prevention during development of new chemical substances. Among the issues discussed were agency efforts to incorporate pollution-prevention information into review of new chemicals and establishment of an EPA award to industry to encourage pollution prevention in the development of new chemicals. Representatives from Allied Signal Corporation

and 3M Corporation also presented information about their companies' new-chemical pollution-prevention activities.

EPA's New Chemicals Program and the Chemical Manufacturers Association sponsored the symposium. Summaries of the presentations and breakout sessions are available from the TSCA Assistance Information Service (TSCA hotline). For information on contacting the hotline, see page 38.

■ *Related article on page 15.*

Pollution-Prevention Data Can Influence EPA's Review of New Chemical Substances

Whenever possible, EPA incorporates pollution-prevention information into its review of new chemical substances. The agency asks companies to voluntarily include this information on page 11 of the premanufacture notices (PMNs) they submit to EPA before manufacturing or importing a new substance. Providing pollution-prevention information to EPA may result in reduced regulation of the new chemical if the information sufficiently mitigates agency concerns about the toxicity of the new substance, human exposures to the substance, and releases of the substance to the environment.

Some pollution-prevention data, however, are too vague for EPA to use in assessments. This article provides some general information about the types of data the agency finds helpful in evaluating the pollution-prevention potential of new chemical substances. Questions about individual cases can be discussed with the prenotice coordinators at (202) 260-1745 or (202) 260-3937.

Some examples of pollution-prevention information

EPA is interested in assessing overall net reductions in toxicity and exposures and avoiding the potential transfer of risks from one medium to another.

In determining what types of information to provide to EPA, consider the following:

1. Look at the environmental effects of the new substance over its entire life cycle.

This process includes considering the chemical's potential for preventing pollution due to design, the way it will be produced, how it will be used at a customer site or at the site of the customer's customer, how it will be disposed of, and factors that will lower occupational or consumer exposure.

2. Take a broad view of what pollution prevention is.

One PMN submitter, for example, claimed a new chemical would produce a more durable final product. The agency considered this a valid claim since a more durable product would result in less frequent disposal and would reduce manufacturing and processing of replacement products and generation of concomitant wastes.

3. Provide EPA with information to use in evaluating pollution-prevention claims.

Simply claiming that a new chemical can substitute for an existing volatile organic chemical (VOC) is not

enough. The submitter should provide the name of the VOC, as well as any toxicity information on the VOC that has not already been submitted to the agency. An estimate of the reduction in VOC emissions should also be provided, if possible.

4. Note whether the new chemical can be used as a substitute for commercial chemicals.

If a new chemical is a possible substitute for a chemical already on the market, EPA is interested in information describing possible reductions in toxicity, human exposures, and environmental releases that would result if the substitution occurred.

5. Brag a little.

EPA encourages PMN submitters to make any claims that are consistent with the definition of pollution prevention in the Pollution Prevention Act of 1990.

For more information

EPA's Office of Pollution Prevention and Toxics expects the incorporation of pollution-prevention information into the New Chemicals Program to continue evolving. For more information about this, contact Roy Seidenstein, Chemical Control Division (TS-794), U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460; telephone, (202) 260-2252.

OPPT's RM2 Process Identifies Risk-Management Options for Existing Chemicals

The Toxic Substances Control Act (TSCA) gives EPA the authority to identify and control chemical hazards to human health or the environment. This article focuses on how the agency carries out this mandate for "existing chemicals," or chemicals currently in commerce. It focuses specifically on Risk Management Two (RM2), the second level of review, and follows the chemical chloroethane through several stages of RM2 review. (The Risk Management One (RM1) process, the first level of review, was summarized in *Chemicals-in-Progress Bulletin*, volume 12, number 3.) EPA's Office of Pollution Prevention and Toxics (OPPT) administers the Existing Chemicals Program.

During RM1 review, OPPT identifies existing chemicals (1) for which additional testing is needed and (2) that present potentially significant risk-management concern. Chemicals in need of additional testing are placed on the Master Testing List, EPA's testing agenda for the next two years. Chemicals presenting potentially significant risk-management concern are placed on the risk reduction list at the conclusion of RM1. RM2 evaluation begins when a chemical is selected from the risk reduction list.

The objective of RM2 is to answer the following questions:

- During which portions of a chemical's life does it pose a risk? What is the estimated magnitude of the risk? Does this risk warrant priority risk management?

- Are there potential solutions to the problem?
- Can the potential risk from the chemical be mitigated through voluntary measures, or will regulations be necessary?

Chloroethane in RM2 review

Chloroethane entered RM1 review because (1) a 1989 National Toxicology Program (NTP) study showed the chemical causes cancer in mice and (2) reports to the Toxics Release Inventory (TRI) showed high industrial air and water releases of the chemical in 1989. OPPT's RM1 review raised concerns about risks posed by facilities' air releases of chloroethane to nearby populations. Due to this concern, OPPT Director Mark A. Greenwood selected the chemical for RM2 review.

Preliminary life-cycle and pollution-prevention assessment (RM2 assessment)

OPPT begins the RM2 process by identifying all uses of the chemical under review. In the case of chloroethane, OPPT staff used published sources to identify four uses of the chemical. Phone calls to industry identified a fifth use, as a blowing agent in the manufacture of polystyrene foam insulation.

OPPT conducted a life-cycle analysis for each use to identify where exposures to the chemical might occur. OPPT then assessed any risks the chemical might pose to human health or the environment at every stage of its life. The final step of the process

was to evaluate options to eliminate or reduce these risks.

The life-cycle analysis mitigated agency concerns about exposures to chloroethane from four of the chemical's uses. However, the analysis showed potential risks from exposure to chloroethane released from polystyrene foam insulation. The agency became concerned about (1) consumers' exposure to chloroethane released from polystyrene foam insulation after installation in residential structures, (2) workers' exposure to chloroethane during its manufacture and processing in industrial settings, and (3) workers' exposure to chloroethane released from polystyrene foam insulation during installation. Regarding occupational exposures, EPA was concerned about the Occupational Safety and Health Administration's (OSHA) permissible exposure limit (PEL) of 1,000 parts per million, which was established prior to identification of oncogenicity concerns for chloroethane and does not take that hazard into consideration.

Stakeholders' dialogue

OPPT established "stakeholders' dialogues" with Dow Chemical Company and Amoco Corporation. Dow manufactures chloroethane, and Dow and Amoco are the sole domestic manufacturers of polystyrene foam insulation using chloroethane. Dow and Amoco were aware of the NTP study and had taken actions to respond to it. Specifically, OPPT learned the following:

- Dow voluntarily lowered its industrial hygiene standard of chloroethane exposure to 150 parts per million.
- Dow has an active product stewardship program. The company has (1) worked with customers to reduce occupational exposures of their employees to chloroethane to Dow's standard of 150 parts per million and (2) developed material safety data sheets for distribution to customers.
- Dow evaluated consumer exposure to chloroethane released from polystyrene foam insulation in residential structures. The data showed EPA had overestimated the lifetime exposure of chloroethane to occupants of buildings insulated with polystyrene foam.
- Exposure monitoring at Amoco found 5 parts per million to 117 parts per million of chloroethane in the air at its manufacturing facilities.
- Amoco is working toward finding a substitute for chloroethane by 1994.

Dow and Amoco provided OPPT with exposure studies, occupational exposure data, and other information about chloroethane. The RM2 team used this information to reestimate consumer exposure to chloroethane released from polystyrene foam insulation installed in residences. These new exposure estimates were used to recharacterize the potential risks posed by chloroethane. The data alleviated OPPT's concerns about risks to consumers from chloroethane in polystyrene foam.

Background on stakeholders' dialogues

Chloroethane was one of the first chemicals discussed at a stakeholders' dialogue. The idea for stakeholders' dialogues came from OPPT's desire to involve all stakeholders, both in industry and other sectors of the public, in the RM2 process. OPPT will identify some stakeholders in the course of researching a chemical, as it did for chloroethane. In other cases,

Stakeholders' dialogues

allow OPPT to obtain
technical information
from industry, other gov-
ernment agencies, envi-
ronmental groups, and
the public.

however, OPPT expects industry, environmentalists, and members of the public to let OPPT know they are interested in a particular chemical. This can be done by (1) contacting the project manager and (2) submitting data to the RM1 and RM2 Administrative Record. OPPT will consult the administrative record logs when setting up stakeholders' dia-

logues. (For information on how to contact a project manager or submit data to the administrative record, see page 21.)

Stakeholders' dialogues are intended to

- allow OPPT to obtain technical information from industry, other government agencies, environmental groups, and the public;
- give industry, environmental groups, and other sectors of the public an opportunity to react to the RM2 assessment;
- identify possible risk-management options beyond those identified by OPPT for reducing risk; and
- indicate opportunities for voluntary risk-reduction measures.

RM2 exit decisions

After the RM2 assessment and stakeholders' dialogue are completed, OPPT decides whether the risk-management options considered for the chemical should be implemented. If the answer is no, OPPT ceases activity on the chemical. If the answer is yes, OPPT makes a preliminary decision about whether to take a regulatory approach or a voluntary approach. After this decision, the chemical moves into a post-RM2 implementation process.

In the case of chloroethane, OPPT will work cooperatively with industry to reduce the potential risks posed by the chemical.

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Existing Chemicals Program

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Post-RM2 implementation

OPPT is working with Dow and Amoco to formulate voluntary commitments from the companies to manage the potential risks from chloroethane. EPA expects to sign agreements with Dow and Amoco that will recognize the responsible care the companies have shown in (1) recognizing the potential risks posed by chloroethane, (2) evaluating potential exposures, and (3) taking action to reduce exposures to workers. The companies are expected to agree to

- continue their programs to reduce use of chloroethane in polystyrene foam insulation;

- continue researching and developing substitutes for chloroethane in polystyrene foam insulation; and
- sponsor an industry effort to lower the American Conference of Governmental Industrial Hygienists' (ACGIH) recommended limits of chloroethane to which workers can be exposed during the workday without adverse effects (OSHA frequently bases PEL standards on ACGIH's recommended limits).

In addition, OPPT expects to work with OSHA and polystyrene manufacturers to jointly design a label for polystyrene foam insulation that includes a warning about chloroethane

releases. OSHA's hazard communication regulations require labeling of products containing toxic substances.

RM2 information is available to the public

OPPT initiated the RM1 and RM2 processes in 1990 to increase the number and effectiveness of actions taken to address potential risks from existing chemicals.

OPPT is committed to informing and involving the public in the RM processes. The administrative record documents activities in RM1, RM2, and post-RM2 implementation activities. (See article on page 21.)

Existing Chemicals Program RM1 and RM2 Activity as of July 1992

Chemical Name	RM1 Activity	RM2 Activity
Acrylic acid	Testing	
Acrylonitrile	Risk reduction	Holding stakeholders' dialogue
Alpha-chlorohydrin	Dropped	
Antimony compounds	Dropped	
Aromatic blocked isocyanates	Dropped	
Bromoethane	Dropped	
Butylated hydroxytoluene	Dropped	
Butyraldehyde	Testing	
Carpet emissions	Exposure-reduction activities Decided against feasibility of epidemiologic study of carpet emissions	Voluntary testing agreements
Chloranil (dioxin risk contamination issue)	Risk reduction	Voluntary industry agreement to convert to cleaner product

RM1 and RM2 Activity as of July 1992, Continued

Chemical Name	RM1 Activity	RM2 Activity
Chloroethane	Risk reduction	Exited RM2 in July 1992
4-Chloro-2-methylaniline	Dropped	
3-Chloro-2-methylpropene	Dropped	
2-Chloronitrobenzene	Dropped	
Cresols	Dropped	
Cumene	Dropped	
Cyclohexane	Testing	
Cyclohexanone	Dropped	
DDE Resin	Dropped	
Diethylenetriamine	Dropped	
Diallyl phthalate	Dropped	
1,2-Dibromoethane	Dropped	
Dichlorobenzidine	Benzidine pigments and dyes combined for screening	Assessment under way
2,3-Dichloro-1,4-dioxane	Dropped	
1,2-Dichloroethane	Risk reduction	Assessment under way
1,2-Dichloropropane	Dropped	
Dicyclopentadiene	Dropped	
Diethylene glycol butyl ether/acetate	Dropped	
Diisodecyl phenyl phosphite	Dropped	
Dimethylaniline	Testing	
1,3-Dioxolane	Dropped	
Ethylene oxide	Dropped	
2-Ethylhexanoic acid	Dropped	
Hydrazine	Risk reduction	Assessment under way
Hydrogen cyanide	Dropped	
Hydroquinone	Dropped	
Interagency Testing Committee (ITC) Section 4(e) Priority Testing List: Acetaldehyde, Acetonitrile, Ethylene, Ethylene glycol, Methyl ethyl ketone, Methyl isobutyl ketone	Testing	
Isophorone	Dropped	

Continued on next page

Existing Chemicals Program

RM1 and RM2 Activity as of July 1992, Continued

Chemical Name	RM1 Activity	RM2 Activity
Lead, nonresidential paint	Risk reduction	Assessment under way
Lead, nonplumbing solder	Risk reduction	Stakeholders' dialogue under way
2-Mercaptobenzothiazole	Risk reduction	Entered in queue for assessment
Mesityl oxide	Testing	
N-Methylpyrrolidone	Risk reduction	Assessment being initiated as part of paint-stripping use cluster
2-Nitropropane	Risk reduction	Assessment under way
Nonylphenol	Screening under way	
Oleylamine	Dropped	
o-Toluidine and aniline	Dropped	
Perchloroethylene (dry cleaning)	Risk reduction	Entered in queue for assessment
Petroleum refining cluster (aromatic hydrocarbons)	Screening under way	
2-Phenoxyethanol/acetate	Dropped	
Phosphoric acid waste	Risk reduction	Stakeholders' dialogue initiated. RM2 exit anticipated in August 1992
Proposed endpoint rule candidates: Acetone, Acrylonitrile, p-Aminophenol, n-Amyl acetate, Bromochloromethane, 1-Butanol, n-Butyl acetate, Carbon disulfide, Diethyl ether, Dodecylphenol, 2-Ethoxyethanol, Ethyl acetate, 2-Ethylhexanol, Hexadecanoic acid, o-Hydroxyphenol, Isobutyl alcohol, Methyl isobutyl ketone, 2-Methylpropanoic acid, Methyl ester octanoic acid, Terephthalic acid, 2,4-Toluenediamine	Testing	
Tetrahydrofuran		
Propylene glycol t-butyl ether	Testing	
Propylene oxide	Dropped	
Refractory ceramic fibers	Risk reduction	4(f) announced. Regulatory investigation initiated
Sodium cyanide	Risk reduction	Exited RM2 in March 1992
Sulfolane	Dropped	
1,1,2,2-Tetrachloroethane	Dropped	
1,1,1-Trichloroethane	Dropped	
Vinyl acetate	Dropped	
4-Vinylcyclohexane	Testing	

RM1 and RM2 Activity as of July 1992, Continued

Chemical Cluster	RM1 Activity	RM2 Activity
Aryl phosphates	Notice of proposed rulemaking under development	
Brominated flame retardants	Testing	
C-9 Aromatic hydrocarbons	Dropped	
Chlorinated paraffins	Risk reduction	Assessment under way
Chlorinated solvents	Dropped	
Consumer products/indoor air cluster	Screening under way	
Diisocyanates	Risk reduction	Entered in queue for assessment
Direct blue 15	Benzidine pigments and dyes combined for screening	Assessment under way
Glycidols	Section 4 testing	
Glycol ethers	Dropped	
Persistent bioaccumulators	Screening level testing needs identified	
Terpenes	Dropped	
Tri (alkyl/alkoxy) phosphates	Dropped	
TRI screening rule candidates	Screening level testing needs identified for 100 chemicals	
Paint-stripping cluster	Risk reduction	Assessment under way

RM Administrative Record Is Open to the Public

The administrative record for chemicals undergoing review in the Office of Pollution Prevention and Toxics' (OPPT) risk-management program is available to the public. The administrative record contains documents that record OPPT's preregulatory and nonregulatory risk-management decisions on existing chemicals.

The administrative record is organized in files by chemical or class of chemicals. Each file contains information from the Risk Management

One (RM1) and Risk Management Two (RM2) processes and is indexed. As of June 1992, the administrative record contained files on 72 chemicals and chemical clusters. The following information is placed in these files as it becomes available.

- From the RM1 process: supporting rationale for screening decision, which includes a summary of exposure and hazard information; summaries of major studies; summaries of meetings; letters sent to industry citing EPA's concerns about certain

chemicals, along with any industry replies; press releases; and public comments.

- From the RM2 process: RM2 life-cycle and pollution-prevention assessments (RM2 assessments); summaries of meetings held with industry, environmental groups, labor unions, and other interested parties (known as stakeholders' dialogues); memoranda on exit decisions; and the newly developed

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chemical status sheet. The chemical status sheet indicates where the chemical is in the RM2 process and projects the timeframe for an RM2 exit. It is updated quarterly.

How to become involved in a dialogue

To notify OPPT of interest in participating in a stakeholders' dialogue on a particular chemical, contact the RM2 project manager for that chemical. RM2 project managers are listed on the chemical status sheet, which is part of the administrative record.

How to gain access to information

The public can gain access to the administrative record in four ways:

1. In person, by going to the Public Reading Room, in room G-004 of the Northeast Mall, EPA headquarters, 401 M Street, S.W., Washington, D.C., between 8:00 a.m. and noon and 1:00 p.m. and 4 p.m., Monday through Friday.
2. By writing to EPA/OPPT/PDB (TS-793), Attention: RM Administrative Record, Room G-004, Northeast Mall, 401 M Street, S.W., Washington, D.C. 20460.
3. By calling (202) 260-3587.
4. By FAXing (202) 260-4655, Attention: RM Administrative Record.

Who Uses the RM Administrative Record?

Between October 1, 1991, and June 1, 1992, the RM Administrative Record received 206 requests for materials used during OPPT's risk-management proceedings.

User	Percentage of Requests
Industry	26%
EPA and EPA contractors	19%
Trade associations	14%
Law firms	10%
Media	10%
Health associations	8%
Schools	6%
Federal, state, and local agencies	3%
Private citizens	2%
EPA regional offices	2%

Distribution of RM1 and RM2 materials

- EPA distributes RM1 data to other federal agencies to promote consolidation of chemical activities. For instance, information about chemicals that are likely to raise occupational concerns are sent to the ONE Committee. The ONE Committee consists of representatives from the Occupational Safety and Health Administration (OSHA), the National Institute for Occupational Safety and Health (NIOSH); the Mine Safety and Health Administration; and EPA.
- RM1 information on chemicals for which EPA required industry to develop test data under section 4 of the Toxic Substances Control Act (TSCA) is sent to OSHA, NIOSH,

the American Conference of Governmental Industrial Hygienists, the Consumer Product Safety Commission, and the company or companies that developed the test data.

- RM2 assessments are automatically sent to anyone who has submitted information to the administrative record for a particular chemical and to other stakeholders whom EPA has identified.

Expanded distribution considered

EPA is considering expanding its distribution of RM1 and RM2 materials to meet the growing interest in its assessment of existing chemicals. OPPT is also considering notifying interested parties when a chemical enters RM2 assessment.

Companies Receiving RM1 Inquiry Letters Provide Data to EPA

During preliminary reviews performed from May 1990 through April 1992, EPA identified eight chemicals currently in the marketplace that may pose a potential risk to human health or the environment. As a result, the agency has sent 109 letters of concern, now known as RM1 (Risk Management One) inquiry letters, to 77 companies notifying them of agency concerns. Each of the 77 companies has a facility that manufactures, processes, or uses one or more of the chemicals.

The letters also asked the companies to provide to the RM1 administrative record any information they believe is pertinent to the case. (See page 21 for a description of the administrative

record.) In addition, the letters encouraged the companies to voluntarily act to reduce exposures to the chemicals, implement pollution-prevention practices, and undertake their own hazard and exposure assessments.

Response is positive

A number of companies receiving RM1 inquiry letters have contacted EPA with information about the chemicals. Among the types of information provided were descriptions of improvements to facilities to better protect employees, voluntary chemical substitutions, and pollution-prevention programs. Some companies provided notification that the company no longer uses a particular chemical,

made technical comments, or provided data about chemical volumes, uses, waste generation, and waste minimization.

EPA's Office of Pollution Prevention and Toxics (OPPT) continues to assess the chemicals through the Risk Management Two (RM2) stage of its Existing Chemicals Program. In RM2, OPPT decides whether the potential problems posed by a particular chemical warrant risk management. Any information or corrected data provided in response to the RM1 inquiry letters are considered during RM2 assessment and can influence its outcome.

Industry Agrees to Switch to Low-Dioxin Chloranil from Contaminated Chloranil

EPA and industries making or using chloranil-derived products have entered into voluntary agreements to use only low-dioxin chloranil. By switching to low-dioxin chloranil, the industries will reduce potential risks to health and the environment.

Chloranil is an industrial intermediate used in tire manufacturing and dye and pigment production. In May 1990, EPA received test results showing that chloranil was heavily contaminated with dioxins. Dioxin, a generic term for a group of 75 related compounds, is a highly toxic chemical. It is classified as a probable human carcinogen, and it per-

sists in the environment and can accumulate in the tissue of fish, other wildlife, and people.

Over the past two years, EPA learned that manufacturers could reduce dioxin contamination levels in chloranil by over two orders of magnitude, from more than 3,100 parts per billion to less than 20 parts per billion, by changing the feedstocks and manufacturing process. The resulting product is referred to as low-dioxin chloranil.

Upon learning of low-dioxin chloranil, EPA's Office of Pollution Prevention and Toxics (OPPT) began

efforts to complete an industrywide switch from the contaminated chloranil to low-dioxin chloranil. No chloranil is manufactured in this country, so the agency sought voluntary agreements with chloranil importers and domestic manufacturers who use chloranil in their products.

OPPT held a signing ceremony on May 4, 1992, for manufacturers and importers who agreed to switch to low-dioxin chloranil. Voluntary agreements were mailed to companies that were unable to send representatives to attend the ceremony. In all, sixteen companies signed the voluntary agreements.

U.S. Is Participating in UN Program to Promote Safe Management of Chemicals

The United States is one of 110 nations participating in a program to exchange technical information on pesticides and industrial chemicals. The Prior Informed Consent (PIC) program, developed by the United Nations (UN), focuses specifically on substances that participating nations have banned or severely restricted to protect human health or the environment. PIC's objectives are to

- establish an effective international information-sharing network on pesticides and industrial chemicals;
- give importing countries, especially developing nations, adequate information to determine whether to allow imports of these substances;
- establish an international process for preventing export of banned or severely restricted substances to nations that do not want to accept them; and
- monitor and control the introduction of dangerous substances into developing countries until those countries establish the necessary chemical-management infrastructure.

EPA's Office of Prevention, Pesticides, and Toxic Substances (OPPTS), which is the U.S. contact for PIC, has developed a list of pesticides and industrial chemicals that are banned or severely restricted domestically. EPA has provided this list to the UN's International Register of Potentially Toxic Chemicals (IRPTC) and is incorporating aspects of the PIC system into the export notification programs required by the Toxic Substances Control Act (TSCA) and the Federal Insecticide,

Fungicide, and Rodenticide Act (FIFRA).

The PIC process

The PIC process has four key parts:

- Participating nations notify the IRPTC when they ban or severely restrict a chemical or pesticide.
- The IRPTC summarizes the hazards of, controls for, and other relevant information about the chemical or pesticide and provides the summary to participating countries.
- Each importing nation notifies the IRPTC regarding its decision to allow, restrict, or halt imports of the substance.
- Exporting countries are responsible for preventing chemicals or pesticides from being exported to nations that have notified the IRPTC that they do not want imports of those substances.

The PIC procedure is designed to operate within the limits of national authorities and to be consistent with fair trade practices.

U.S. industry participation

The UN has formally adopted the PIC program, and it has wide international support. However, industry participation in the PIC program is voluntary. EPA is working with trade groups and industry to ensure voluntary compliance. The agency has mailed information about the PIC program to industry and will hold a public meeting in Washington, D.C., to further inform industry and other interested parties about the PIC program.

Industry trade groups have indicated that U.S. industry will comply with decisions by importing countries to prohibit or limit imports of PIC substances. EPA will monitor compliance by tracking industry reports made to EPA's existing export notification programs under TSCA and FIFRA.

For more information

For information about the chemicals component of the PIC program, contact Jim Willis, Existing Chemical Assessment Division (TS-778), U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460; telephone, (202) 260-3489; FAX, (202) 260-8168.

For information about the pesticides component of the PIC program, contact Dan Rosenblatt, Office of Pesticide Programs (H7501C), U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460; telephone, (703) 305-7102; FAX, (703) 305-6244.

EPA has established an administrative record for the PIC program. The administrative record can be used by (1) going to the Public Reading Room, in room G-004 of the Northeast Mall, EPA headquarters, 401 M Street, S.W., Washington, D.C., between 8:00 a.m. and noon and 1:00 p.m. and 4 p.m., Monday through Friday; (2) writing to EPA/OPPT/PDB (TS-793), Attention: PIC Program, Room G-004, Northeast Mall, 401 M Street, S.W., Washington, D.C. 20460; (3) calling (202) 260-3587; and (4) FAXing (202) 260-4655.

Chemicals and Pesticides Proposed by EPA for UN PIC List

Banned chemical substance

- Polychlorinated biphenyls

Severely restricted chemical substances

- All fully halogenated chlorofluoroalkanes
- Certain halons
- Carbon tetrachloride
- Methylchloroform
- 1-Chloro-2-bromoethane
- Hexamethylphosphoramide
- Methyl n-butyl ketone
- Pentachloroethane
- Urethane
- Tris(2,3-dibromopropyl)phosphate
- Polybrominated biphenyls
- Asbestos

Banned Pesticides

- Aldrin
- Benzene hexachloride (BHC)
- 2,3,4,5-Bis(2-butylene)tetrahydro-2-furaldehyde (repellent-11)
- Bromoxynil butyrate
- Cadmium compounds
- Calcium arsenate
- Captafol
- Carbon tetrachloride
- Chloranil
- Chlordimeform
- Chlorinated camphene (toxaphene)
- Chlorobenzilate
- Chloromethoxypropylmercuric acetate (CPMA)
- Copper arsenate
- Cyhexatin
- Dibromochloropropane (DBCP)
- Decachlorooctahydro-1,3,4-metheno-2H-cyclobuta(cd)pentalen-2-one (chlordecone)
- Dichloro diphenyl trichloroethane (DDT)
- Dieldrin

- Dinoseb and salts
- Di(phenylmercury)-dodecenylsuccinate (PMDS)
- Endrin
- O-ethyl o-p-nitrophenyl phenylphosphonothioate (EPN)
- Ethyl hexyleneglycol (6-12)
- Hexachlorobenzene (HCB)
- Lead arsenate
- Leptophos
- Mirex
- Monocrotophos
- Nitrofen (TOK)
- Octamethylpyrophosphoramide (OMPA)
- Phenylmercuric oleate (PMO)
- Potassium 2,4,5-trichlorophenate (2,4,5-TCP)
- Pyriminil (vacor)
- Saffrole
- Silvex
- Sodium arsenate
- Sodium arsenite
- Dichloro diphenyl dichloroethane (TDE)
- Terpene polychlorinates (strobane)
- Thallium sulfate
- 2,4,5-Trichlorophenoxyacetic acid (2,4,5-T)
- Vinyl chloride

Severely restricted pesticides

- Arsenic trioxide
- Carbofuran
- Chlordane
- Daminozide
- Ethylene dibromide (EDB)
- Heptachlor
- Mercurous chloride
- Mercuric chloride
- Phenylmercury acetate
- Tributyltin compounds

OECD Nations Discuss Development of International Guidelines for Assessing Chemical Exposures

Meeting Improves Understanding of Current Practices

Experts from eleven nations met in February to discuss how to improve assessments of occupational and consumer exposures to chemicals produced in large quantities worldwide. EPA hosted the Organization for Economic Cooperation and Development (OECD) workshop in Orlando, Florida.

As participants in OECD's Screening Information Data Set (SIDS) program, all the attending nations assess data to determine whether certain chemicals warrant further testing. The objectives of the workshop were to

- identify simple methods for developing initial estimates of occupational and consumer exposures to chemicals where limited data are available;
- develop guidance on how and when to use these methods in assessing SIDS chemicals; and
- identify data that would improve the quality of the initial assessment but are not now included in the dossiers of available information collected for each SIDS chemical.

Representatives of the Commission of the European Community, the Business and Industry Advisory Committee to OECD, and the International Register of Potentially Toxic Chemicals of the United Nations Environment Programme also attended the workshop.

The OECD Workshop on Occupational and Consumer Exposure Assessment was a significant step toward developing an international understanding of existing approaches for assessing occupational and consumer exposures to chemicals. The general recommendations and conclusions of the two working groups follow.

Working Group on Occupational Exposure Assessment

1. Actual measured exposure data are usually preferred to estimates of exposure. The SIDS program should encourage submission of such data.
2. In the absence of actual data, a number of procedures for estimating exposure are available. The choice of which to use will depend on individual circumstances. However, a complete description of the approach should be included in the assessment to allow assessors in other countries to confirm or refine the estimate.
3. The SIDS program should encourage further development of exposure estimation protocols to achieve greater consistency in performing assessments.

Working Group on Consumer Exposure Assessment

1. Key information for assessments may be available from manufactur-

ers. The SIDS program should request this information.

2. The working group on consumer exposure assessment has developed guidance for performing exposure assessments. The SIDS program should require that the principles set forth in this guidance be followed.
3. On a regular basis, SIDS participants should exchange information on approaches used to perform consumer exposure assessments.
4. OECD members should share the burden of developing and refining approaches for assessing consumer exposures.
5. Efforts to harmonize certain elements required for assessments—e.g., agreement on inhalation rates or other physiological parameters—should be encouraged.

For more information

For more details on the OECD Workshop on Occupational and Consumer Exposure Assessment or to obtain a copy of the workshop's draft report, contact Sid Abel, Exposure Evaluation Division (TS-798), Office of Pollution Prevention and Toxics, U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460; telephone, (202) 260-3920; FAX, (202) 260-0018.

U.S. and EC Are Comparing How Different Test Data Requirements Affect Evaluation of New Chemicals

A major difference between the new-chemicals programs in the United States and the European Community (EC) is their test data requirements. In the United States, the Toxic Substances Control Act does not require that test data be generated on new chemicals prior to submission of a premanufacture notice to EPA. In contrast, the EC requires submission of a base set of test data for each new chemical that will be produced in quantities exceeding one metric ton. The EC's "minimum premarketing dataset" (MPD) requirement does not apply to polymers.

The MPD requirement gives EC nations hard data to use in their assessment of new chemicals. In the absence of such data, EPA assesses a new chemical's similarity to known toxic chemicals—called a structure-activity relationship (SAR)—to predict toxicity. The underlying error

rate of EPA's SAR approach is unknown.

Comparison of U.S. and EC methods

A study is under way to compare EC's MPD data on a series of approximately 150 new chemicals with EPA's predictions about those same chemicals. Both the EC and EPA will compare the results of EPA's SAR analysis with the EC's MPD test results.

The purpose of the study is to (1) determine the extent to which EPA's SAR-based hazard predictions would change in the presence of a base set of data; (2) determine the frequency with which EPA's SAR-based approach identifies potential concerns beyond those included in MPD data; and (3) develop data about the "error rates" for EPA's SAR-based approach.

In November 1991, EPA provided its SAR analyses to the EC, and the EC

provided copies of its MPD packages to EPA in March 1992. The two organizations were scheduled to complete their individual reviews in late summer. An expert meeting to discuss the study and its outcomes is expected to take place this fall.

Changes are possible

The EC is interested in whether the results of the study will suggest changes that should be made to MPD requirements in Europe. It is also evaluating the possible use of SAR-based analysis to set priorities in its existing chemicals program. Similarly, EPA's Office of Pollution Prevention and Toxics, which administers the agency's New Chemicals Program, will analyze the study's results to determine the strengths and weaknesses of the SAR approach and to consider any implications for the current U.S. program on new chemicals.

Consent Order Signed for Testing of Acrylic Acid

EPA has signed a consent order with BASF Corporation, Dow Chemical Company, Hoechst Celanese Chemical Group, Rohm and Haas Company, and Union Carbide Chemicals and Plastics, Inc., for testing of acrylic acid (57 FR 7656, March 4, 1992). The Interagency Testing

Committee recommended testing of acrylic acid in its 27th Report, published in March 1991.

The Basic Acrylic Monomer Manufacturers, an association of manufacturers and users of acrylic acid and acrylic acid esters, will conduct an inhalation developmental toxicity

study, an oral (drinking water) two-generation reproductive toxicity study, and a bioavailability study. Information on the bioavailability of acrylic acid will be used to develop pharmacokinetic models that will be helpful in interpreting the results of the toxicity studies on acrylic acid.

Linda Fisher Testifies before Congress on the Future of EPA's Toxics Program

In March 1992, Linda J. Fisher, EPA assistant administrator for Prevention, Pesticides, and Toxic Substances, testified before the U.S. House of Representatives Subcommittee on Environment, Energy, and Natural Resources and the U.S. Senate Subcommittee on Toxic Substances, Environmental Oversight, Research, and Development.

Ms. Fisher devoted part of her testimony to the future of the agency's toxics program in the aftermath of the October 1991 remand of the asbestos ban and phaseout rule. (Information about the court ruling is in *Chemicals in Progress Bulletin*, volume 13, number 1.) While Ms. Fisher acknowledged that the court's decision poses challenges for the agency as it considers other possible actions under section 6 of the Toxic Substances Control Act (TSCA), she affirmed that EPA will continue to use section 6 to address unreasonable risks from toxic substances.

Summarized excerpts from Ms. Fisher's testimony on the future of the agency's toxics program follow.

Key principles for the future

As a result of our changing program and in the aftermath of the asbestos court decision, we have examined what the basic objectives of a toxics program should be. While we want to use the traditional regulatory tools TSCA provides, we also see opportunities to use our statutory authorities in fresh ways, consistent with new

trends in environmental management. The Office of Pollution Prevention and Toxics (OPPT) has identified four key principles to help guide future efforts to reduce health and environmental risks from toxic substances under the various statutes we administer.

"We see opportunities to use our statutory authorities in fresh ways."

Linda Fisher

1. Promoting pollution prevention.

A primary mission of OPPT is to encourage the use of pollution-prevention principles. OPPT will work with other EPA offices to identify regulations that should be targeted for pollution-prevention options and to develop creative nonregulatory strategies for reaching public health and environmental goals.

We will be carrying the pollution-prevention message outside the agency as well, by providing information, training and education, and grant assistance. Last September, for example, we announced a grant to the University of Michigan to establish the National Pollution Prevention Center. [The center was described in

Chemicals in Progress Bulletin, volume 12, number 4.] The center's primary purpose is to develop model undergraduate and graduate curricula for engineering, natural resources, and business schools. The ultimate aim is to educate those who will design, develop, and market chemical products about the prevention ethic.

EPA's traditional focus has been the industrial sector. In the future, our pollution-prevention initiatives will carry us into new areas, such as agriculture, energy, and transportation. We will work with other federal agencies and outside groups to promote the idea that pollution prevention can be an environmentally sound and economically prudent way to approach decisions in all sectors of our society.

2. Using TSCA to promote the design, development, and application of safer chemicals.

For OPPT, adoption of a pollution-prevention ethic is a logical development, given the focus of our program on improving environmental protection through changes in the manufacture, processing, and use of chemicals. Fundamentally, our role is to push for use of safer chemicals and processes in the basic operations of the industrial sector.

Our New Chemicals Program illustrates the essence of prevention. In addition to keeping chemicals that will pose significant risks out of the

marketplace, the program also serves as a mechanism for identifying promising alternatives to existing chemicals. We have revised our premanufacture notification form, for example, to allow submitters to show how a proposed new chemical might serve as a better substitute for an existing chemical.

In the Existing Chemicals Program, we see an increasing emphasis on evaluating clusters of chemicals used in particular industrial processes, with an eye toward promoting safer chemicals and technologies. Looking at clusters, we believe, will eventually replace the tendency to focus on single chemicals, an approach that may sometimes lead to inadequate consideration of the risks of substitutes.

3. Providing stewardship for high-risk chemicals.

OPPT continues to face the task of managing several high-risk chemicals, such as lead, asbestos, and polychlorinated biphenyls (PCBs), that have been widely used for years.

Asbestos and PCBs are sometimes referred to as OPPT's "first-generation" chemicals. These substances have been around a long time; their health risks are well documented and widely known; and management of problems caused by their past use will be necessary well into the future. We have established, for example, a comprehensive framework for ad-

ressing asbestos in schools and a national accreditation network for asbestos inspection and abatement personnel. We also recently produced guidance on proper practices and procedures for managing asbestos in place.

Although lead contamination in the environment is widespread and the risks from lead are well known, some of our initiatives to deal with problems related to past use of lead are new or still under development. OPPT has developed a multimedia, agencywide strategy to address health risks from lead. This strategy encompasses a wide range of activities, including development of informational materials to help parents reduce their children's exposure to lead, studies of the efficacy of lead abatement alternatives, and new TSCA regulatory investigations of lead in plumbing fittings, fixtures, and solder.

4. Acquiring and disseminating information about chemical risks and pollution prevention.

The Toxics Release Inventory (TRI) has stimulated pollution-prevention efforts by providing an opportunity for both citizens and industry to understand the volume of toxic chemical emissions. The result has been that both groups are working to reduce those emissions. We have recognized that the right-to-know objectives of TRI can be merged with the information-gathering powers of TSCA to make additional data available to all

those who have a role in environmental decision making.

OPPT continues to make publicly available some 66,000 health and safety studies submitted under TSCA. In addition, OPPT has undertaken a number of efforts to improve access to and availability of data, including the following:

- developing the TSCA Test Submissions computerized database, a publicly available, easily accessible index of all test data submitted under TSCA;
- entering test results received under section 4 of TSCA into the National Institute of Occupational Safety and Health Registry of Toxic Effects of Chemical Substances, which provides access online and through print and magnetic media;
- systematically reviewing and, when appropriate, challenging confidential business information claims for TSCA information submissions on commercially available chemicals;
- commissioning a review and inventory of all TSCA submissions claimed as confidential, to allow the agency to assess the effectiveness of existing TSCA confidentiality provisions; and
- establishing a pollution-prevention clearinghouse to provide free, easily accessible information on source reduction and recycling efforts in the United States and other countries.

EPA Is Reviewing Comments on Proposed Grout Rule

EPA is reviewing the rulemaking record on its 1991 proposed rule for an immediate ban on the manufacture, distribution, and use of acrylamide grout. The proposed rule would also ban all uses of N-methylolacrylamide (NMA) grout except for sewer line repair. That use, along with the manufacture, importation, and distribution in commerce of the NMA grout, would be banned after a period of three years. Public comment on the proposed rule was completed in March 1992.

In its monomeric form, acrylamide has only a few end uses, the largest of which is sewer grouting. NMA is a derivative of acrylamide. In its non-toxic polymeric form, acrylamide is also widely used as a suspension agent in the water treatment and petroleum industries.

Background information

In 1978, the Interagency Testing Committee (ITC), established under the Toxic Substances Control Act (TSCA), recommended that acrylamide be tested for carcinogenicity, mutagenicity, teratogenicity, and environmental effects. At that time, the substance's neurotoxicity was already well documented.

Dow Chemical Company, American Cyanamid Company, and other acrylamide producers initiated a cancer bioassay. The results of the cancer bioassay showed significant increases in tumors in both male and female rats. EPA and the National

Institute for Occupational Safety and Health conducted exposure studies, which indicated significant dermal exposures to grouting workers. In response to these studies, EPA began a regulatory investigation of acrylamide grout in 1987.

Proposed rule

On October 2, 1991, the agency published a notice of proposed rulemaking (56 FR 49863) for acrylamide and NMA grouts under the authority of sections 6 and 8 of TSCA. The proposed rule was based on EPA's finding that use of acrylamide and NMA grouts presents an unreasonable risk of injury to human health. Acrylamide is a powerful human neurotoxin whose effects include damage to both the peripheral and central nervous systems. EPA has classified acrylamide as a probable human carcinogen. EPA believes the health effects from exposure to NMA are comparable to those from exposure to acrylamide.

At the March 1992 public hearing on the proposed rule, Avanti International, the American Cyanamid Company, Geochemical Corporation, and the National Association of Sewer Service Companies delivered presentations. EPA is now reviewing its original analyses, public comments, and testimony presented at the hearing to formulate final rulemaking.

Grouters now import acrylamide grout or use substitutes

Shortly after the ITC recommended acrylamide for testing, the American

Cyanamid Company, the sole producer of acrylamide grout in the United States, stopped making the grouting because of concerns about its potential risk to human health. While numerous state and local governments have stopped using acrylamide-based grouts because of serious concerns for worker health, other domestic users have sought foreign sources of acrylamide grout. The approximately 650,000 pounds of acrylamide grout used in the United States each year is imported by a single distributor, Avanti International, from a Japanese manufacturer.

During the course of EPA's regulatory investigation, the agency collected a large amount of information about substitutes for acrylamide and NMA grouts. Four main types of substitutes are currently available: acrylates, low-viscosity polyurethane, high-viscosity polyurethane, and polyacrylamide.

EPA has received testimony and numerous comments regarding the efficacy of these grouts. Much of the testimony supports EPA's belief that the substitutes are viable alternatives to acrylamide and NMA grouts that will effectively accomplish the grouters' objectives and protect workers from serious neurological and other health-related problems. Some current users of acrylamide have testified that the substitutes are slightly more expensive than acrylamide and require different equipment and skills to use.

ITC Revises TSCA Section 4(e) Priority Testing List

The committee encourages manufacturers, processors, and users to voluntarily submit additional use, exposure, release, and physical chemical property data not required under the two rules.

In its 30th Report, the TSCA Interagency Testing Committee (ITC) placed two chemical groups—siloxanes and chloroalkyl phosphates—on the Toxic Substances Control Act (TSCA) Section 4(e) Priority Testing List and deferred action on another group of chloroalkyl phosphates. EPA gives substances on the Priority Testing List priority consideration in promulgation of test rules.

Reporting requirements

EPA automatically adds ITC-recommended substances to the TSCA section 8(a) Preliminary Assessment Information Rule (PAIR) and the TSCA section 8(d) Health and Safety Data Reporting Rule. These rules require anyone who manufactures, imports, processes, or distributes the chemicals to report production, use, unpublished health and safety data, and exposure-related information to EPA. (See 40 CFR parts 712 and 716 for more information about TSCA sections 8(a) and 8(d).)

The committee encourages manufacturers, processors, and users to voluntarily submit additional use, exposure, release, and physical chemical property data not required under the two rules. This information will help the ITC to make informed decisions before designating chemicals for testing. When the ITC designates a chemical for testing, EPA must respond within 12 months by begin-

ning rulemaking under section 4 of TSCA or publishing its reasons for not doing so in the *Federal Register*.

Recommended

Siloxanes

Testing: autoimmune effects, cancer, reproductive effects, developmental toxicity, and epidemiological studies.

Rationale: The Food and Drug Administration (FDA) requested that the ITC review the health effects of siloxanes in light of recent questions related to the safety of siloxanes for a number of medical uses, including breast implants. The ITC recommended siloxanes for testing because of FDA's request, because production volumes are substantial, because of uncertainties related to human exposure, and because of the paucity of publicly available health effects data for these substances.

The ITC added a group of 56 siloxanes to the TSCA Section 4(e) Priority Testing List. By recommending these chemicals, the ITC is providing manufacturers, processors, and distributors the opportunity to submit data under TSCA section 8 and to voluntarily submit physical and chemical property data, and use exposure information.

ITC continued on page 32

General Information

ITC continued from page 31

Chloroalkyl phosphates

Testing: physical and chemical property, chemical fate, health effects, and ecological effects screening.

Rationale: The ITC deferred action on five chloroalkyl phosphates that it

recommended for testing in 1988. The Chemical Manufacturers Association and several chloralkyl phosphate producers have approached the ITC and EPA to discuss voluntary testing for certain of the chloroalkyl phosphates. The ITC deferred action until these discussions are completed.

The ITC recently identified four

additional commercially available chloroalkyl phosphates. The ITC has added these four substances to the TSCA Section 4(e) Priority Testing List because there are insufficient data to reasonably determine or predict the substances' physical and chemical properties, persistence, and health and ecological effects.

EPA Endorses Use of Revised Methods for Testing PCBs

In 1989 and 1990, the American Society for Testing and Materials (ASTM) revised 12 of its test procedures for polychlorinated biphenyls (PCBs). EPA has reviewed the new procedures and determined that they can be used to meet the agency's PCB testing requirements.

The agency published a final rule to update references to ASTM test methods at 40 CFR part 761 on April 16, 1992. The ASTM publishes standard test methods for a variety of industries.

Designations

The designations of the new test methods are listed in the adjacent column. The last two digits of the designation refer to the year in which ASTM revised the standard; ASTM organizes its publication of test standards according to year.

New designation

ASTM D-93-90
ASTM D-482-87
ASTM D-524-88
ASTM D-808-87
ASTM D-923-89
ASTM D-1266-87
ASTM D-1796-83 (reapproved 1990)
ASTM D-1836-87
ASTM D-2158-89
ASTM D-2709-88
ASTM D-2784-89
ASTM D-3278-89

Old designation

ASTM D-93-85
ASTM D-482-80
ASTM D-524-81
ASTM D-808-81
ASTM D-923-86
ASTM D-1266-80
ASTM D-1796-83
ASTM D-1836-83
ASTM D-2158-85
ASTM D-2709-82
ASTM D-2784-80
ASTM D-3278-78 (reapproved 1982)

For more information

Copies of the standards may be obtained from ASTM, 1916 Race Street, Philadelphia, Pennsylvania 19103.

The revised test methods are available for public inspection at the OPPT

Public Docket Office, located in Room G-004 in the Northeast Mall at EPA headquarters, 401 M Street, S.W., Washington, D.C. The public docket is open from 8 a.m. to noon and from 1 p.m. to 4 p.m., Monday through Friday.

EPA Is Preparing National Plan to Reduce Childhood Exposure to Lead-Based Paint

An EPA plan for coordinating and implementing various federal strategies for reducing childhood exposure to lead-based paint is being reviewed by the Federal Interagency Lead-based Paint Task Force, which is composed of 18 federal agencies. After the task force completes its review, the report will be sent to Congress.

The House of Representatives directed EPA to work with the Department of Housing and Urban Development (HUD) and the Department of Health and Human Services (HHS) to develop the plan. EPA, HUD, and HHS have been at the forefront of federal efforts to reduce children's exposure to lead. In December 1990, HUD released its lead strategy, the Comprehensive and Workable Plan for the Abatement of Lead-based Paint in Privately Owned Housing. EPA released its Strategy for Reducing Lead Exposures in February 1991. At the same time, HHS announced its Strategic Plan for the Elimination of Childhood Lead Poisoning.

These strategies form the basis of the implementation plan. The report to Congress will describe efforts to meet strategic goals within these three agencies and will also characterize lead-based paint activities in other federal agencies.

Update: Lead-Abatement Training

Courses on proper techniques for inspecting for and abating lead are available from EPA Regional Lead Training Centers. EPA established the national network of centers earlier this year. The five university-based consortia are responsible for setting up training and outreach networks throughout their regions.

For information about courses

The regional centers began operations in July 1992. Training is available for state and local officials, lead inspectors, and other interested parties. Information about courses, schedules, and locations is available from the contacts listed here.

Center	States and Territories Covered
Charles E. Gilbert University of Massachusetts Amherst, Massachusetts 01003 Telephone: (413) 545-4222 FAX: (413) 545-4692	Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Puerto Rico, and the Virgin Islands
Scott Clark University of Cincinnati Cincinnati, Ohio 45267-0056 Telephone: (513) 558-1749 FAX: (513) 558-1756 and James Keogh University of Maryland at Baltimore, School of Medicine Baltimore, Maryland 21201 Telephone: (410) 328-7464 FAX: (410) 328-8326	Pennsylvania, Maryland, West Virginia, Delaware, Virginia, the District of Columbia, Wisconsin, Michigan, Minnesota, Illinois, Indiana, and Ohio
David Jacobs Georgia Institute of Technology Atlanta, Georgia 30332 Telephone: (404) 894-8090 FAX: (404) 894-2184	Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Alabama, Mississippi, Florida, New Mexico, Texas, Oklahoma, Arkansas, and Louisiana
Lani Himegarner University of Kansas Overland Park, Kansas 66211 Telephone: (913) 491-0221 FAX: (913) 491-0509	Nebraska, Iowa, Kansas, Missouri, Montana, Wyoming, Utah, Colorado, North Dakota, and South Dakota
David W. Carey University of California, San Diego LaJolla, California 92093-0176 Telephone: (619) 534-6157 FAX: (619) 558-8156	Washington, Oregon, Idaho, California, Nevada, Arizona, Alaska, Hawaii, American Samoa, and Guam

Update: Indoor Air Activities

EPA has identified indoor air as a major pathway of human exposure to numerous chemicals. EPA's Office of Pollution Prevention and Toxics (OPPT) is involved in two projects that are concerned with identifying and reducing the indoor sources of chemical contamination.

Indoor Air Source Characterization Project

The agency's Indoor Air Source Characterization Project is defining the sources of indoor exposures and the risks these exposures pose to people's health. Indoor air sources are broadly defined to include most materials used indoors, including building materials, consumer and commercial products, furniture, and fixtures.

The indoor air environments included in the project are single-family and multifamily residences, schools, hospitals, nursing homes, office buildings, public-access buildings, hotels, restaurants, vehicles used for mass transit, and individually owned vehicles.

The project is classifying products used indoors into groups for review. For example, carpets, wood floors, and vinyl sheet goods have been classified as floor coverings. This approach will allow EPA to compare and evaluate substitute products for each category as data become available.

A major component of the Indoor Air Source Characterization Project is

development of a source-ranking database. The database will provide a way to (1) systematically review large numbers of indoor-air source categories and (2) assign priorities for further evaluation. A prototype source-ranking database is expected to be completed by October 1992. The basic elements of the database will include

- a product classification scheme;
- exposure-related data: chemical-specific or total emission rates, estimated amount of product used per person, populations exposed to the product, the duration and frequency of exposure, and characterization of the environment;
- hazard information: qualitative judgments of effects of concern and benchmark values, such as reference dose, unit risk, and irritant level; and
- an approach for combining hazard and exposure elements to arrive at an overall ranking for the product categories.

OPPT is collaborating with EPA's Office of Air and Radiation and EPA's Office of Research and Development on the Indoor Air Source Characterization Project.

Indoor Air Cluster Project

A team of toxicologists has screened more than 270 chemicals found in consumer and commercial products used in people's homes. Use of these

products may affect indoor air quality.

The team developed a relationship between each chemical's structural similarity to known toxic chemicals—called a structure-activity relationship—to predict its toxicity and biological effects. The biological effects considered were oncogenicity, mutagenicity, developmental and reproductive toxicity, neurotoxicity, acute toxicity, absorption, and irritancy. The team also considered blood, kidney, and liver effects.

Based on its health effects, each chemical was ranked as being a high, medium, or low health hazard. All but 32 chemicals were ranked as being of moderate or high concern. EPA will further evaluate those chemicals commonly found in products to identify the substances for which toxicity testing is needed to develop reference concentrations, which are estimates of how much of a chemical people can inhale or ingest daily without experiencing deleterious effects during part or all of their lifetime.

A screening-level risk assessment for the aerosol spray paint category is scheduled to go to Risk Management One (RM1) in September. RM1 is the first stage of the agency's review of existing chemicals.

Judge Rules Statute of Limitations Does Not Apply to Assessment Of TSCA Civil Penalties

The general five-year federal statute of limitations does not apply to assessment of civil penalties under the Toxic Substances Control Act (TSCA), EPA's chief judicial officer has ruled.

The ruling resulted from EPA's appeal of a case involving the Minnesota Mining and Manufacturing (3M) Company, based in Minneapolis, Minnesota. In September 1988, EPA assessed a \$1.3 million fine against the company for importing two new chemical substances between 1980 and 1986 without submitting a premanufacture notice (PMN) to the agency for review, as required by section 5 of TSCA.

EPA Chief Judge Henry Frazier reduced the penalty to \$104,700, saying he viewed the violations as "inadvertent" and that EPA had not given sufficient weight to the company's compliance effort. The 3M Company, which imports a large number of chemicals each year, has a well-developed compliance program.

EPA appealed the reduction of the penalty on the ground that Judge Frazier had not properly applied EPA's TSCA section 5 enforcement response policy to the facts of the case. During the appeal, the 3M Company maintained that charges should not have been brought against the company for the violations. The company argued that Judge Frazier erred in narrowly construing the general statute of limitations as not

applicable to an administrative action for the assessment of a civil penalty under TSCA.

In ruling on EPA's appeal, Chief Judicial Officer Ronald McCallum upheld reduction of the penalty. He stated that the 3M Company's compliance efforts and the inadvertence of the violations should not be considered in calculating the gravity-based penalty. These factors, he ruled, did warrant consideration during the adjustment phase of analysis under the TSCA section 5 enforcement response policy.

As to whether EPA was barred from filing charges for TSCA violations

more than five years after an event had occurred, Chief Judicial Officer McCallum noted, "Federal courts have held that the United States is not bound by statutes of limitation unless Congress clearly manifests such an intention."

In a related case in May 1992, EPA's Environmental Appeals Board remanded an administrative case against Bethlehem Steel, of Pennsylvania, to Administrative Law Judge J.F. Greene, who had earlier ruled that the complaint was barred by the federal statute of limitations. (The Environmental Appeals Board now handles appeals that were formerly heard by the chief judicial officer.)

Other Enforcement Actions

- EPA proposed a \$15,000 fine against the New Hampton School for violations of polychlorinated biphenyl (PCB) regulations under the Toxic Substances Control Act (TSCA). EPA alleged that the New Hampton, New Hampshire, school failed to properly mark the vault door where a PCB transformer was located, stored combustible materials near a PCB transformer, and failed to register its PCB transformer with the local fire department.
- A school was ordered to develop an asbestos-management plan as required by the Asbestos Hazard Emergency Response Act (AHERA). EPA sought a \$4,000 penalty for failure to develop a plan after the Delana Day School, in Chicago, Illinois, failed to comply with a notice of noncompliance and did not respond to a motion for default. The school was ordered to use the \$4,000 civil penalty to develop an asbestos-management plan and to pay any remaining amount to EPA.

National Directory of Courses for Asbestos Professionals Is Available

EPA has published a national directory of training courses for asbestos professionals. The courses are required for the accreditation of asbestos workers and have been approved by EPA or the state in which they are offered.

State and regional lists are available

The *National Directory of AHERA-Accredited Courses (NDAAC)* was first

published in November 1991 and is updated quarterly. Specialized lists of courses, such as those available in certain regions, states, or other geographically defined areas, are also available.

The NDAAC is provided free to federal and state regulatory agencies involved in implementing the Asbestos Hazard Emergency Response Act

(AHERA) and to others for a nominal fee.

For more information

A brochure containing information about ordering, fees, and how to make special requests is available from the NDAAC Clearinghouse at ATLAS Federal Services, Inc., 6011 Executive Boulevard, Rockville, Maryland 20852; telephone, (301) 984-1929.

EPA Awards Grants for Asbestos-Abatement Training

In May 1992, EPA offered \$1.5 million in grants to seven labor management training trust funds to support training for asbestos-abatement workers. The trust funds are cooperative ventures between labor unions and the management of the unions' associated industries. Each union will provide a matching contribution of at least 5 percent of the project cost.

The asbestos-abatement training supported by the grants includes

- initial and refresher courses to meet the demands for asbestos-abatement workers, supervisors, and instructors;
- refresher training materials that incorporate the newest technologies and innovative teaching techniques; and
- programs to meet the expected changes to the Model Accreditation Plan standards mandated by the Asbestos School Hazard Abatement

Labor-Management Trust Fund

Laborers-AGC Education and Training Fund
 United Brotherhood of Carpenters Health and Safety Fund
 Insulation Industry International Apprenticeship and Training Fund
 United Union of Roofers, Apprenticeship and Allied Workers
 Engineers' Research and Education Cooperative Trust
 National Training Fund (Sheet Metal and Air Conditioning Industry)
 National Ironworkers and Employers Apprenticeship Training and Journeyman Upgrading Fund

Grant Amount

\$350,000
 \$345,000
 \$325,000
 \$210,000
 \$140,000
 \$110,000
 \$ 20,000 (start-up funds)

Reauthorization Act of 1990 (ASHARA).

The funds are available only to joint labor-management training trust funds. EPA's Office of Pollution Prevention and Toxics received pro-

posals from seven of the eight labor-management training trust funds and offered funds to each of them. All the projects that were funded meet the more stringent federal accreditation standards expected to become effective late this year.

New Asbestos Training and Accreditation Requirements To Take Effect

The date on which new asbestos training and accreditation requirements take effect has been extended until November 28, 1992. The new training requirements were mandated by the Asbestos School Hazard Abatement Reauthorization Act (ASHARA) of 1990.

ASHARA requires EPA to (1) increase the amount of training that asbestos-abatement workers must have to become accredited and (2) require accreditation for certain asbestos-control personnel working in public and commercial buildings. Current accreditation requirements apply only to people working in school buildings.

Tightening accreditation standards
Under the Asbestos Hazard Emer-

gency Response Act (AHERA), EPA developed a model accreditation plan in 1987 that established minimum federal training and accreditation standards for asbestos-control professionals working in schools. States were required to adopt accreditation programs no less stringent than the EPA model accreditation plan.

ASHARA mandates that EPA increase the minimum number of training hours, including hands-on health and safety training, required for accreditation. EPA is developing training requirements to satisfy ASHARA and will publish them in a revised model accreditation plan around November 1992.

The revised model accreditation plan will also extend accreditation require-

ments to asbestos inspectors, project designers, and contractor supervisors and employees working in public and commercial buildings. Asbestos-management planners were excluded by ASHARA and will not be required to obtain accreditation to work in public and commercial buildings.

For more information

For more information about the extension of the asbestos accreditation requirements, see 57 FR 1913 (January 16, 1992) and 57 FR 20438 (May 13, 1992). A copy of the *Federal Register* notices can be obtained from the TSCA Assistance Information Service (TSCA hotline). See page 38 for information about contacting the hotline.

School Districts Awarded \$54.5 Million for Asbestos Abatement

On April 27, 1992, EPA awarded \$54.5 million in fiscal 1992 funds to school districts to undertake asbestos-abatement projects. The agency offered funds to 128 school districts for 261 abatement projects in 198 schools. Three hundred sixty-two local education agencies applied for assistance.

The funds were awarded under the reauthorized Asbestos School Hazard Abatement Act. The 1992 awards consisted of approximately \$14.8 million in grants and \$39.7 million in interest-free loans to schools. EPA

estimates that these asbestos projects will eliminate more than 3.1 million hours of exposure to asbestos per week for students and school employees.

Since 1985, EPA has provided \$346 million for asbestos abatement in 2,138 schools. EPA believes these abatement projects have eliminated 25 million student and school-employee exposure hours to asbestos per week since 1985.

Criteria for eligibility

The statute directs EPA to assist school districts that have serious asbes-

tos problems and a demonstrated financial need. The statute also directs EPA to consider abatement projects in order of hazard priority and to then determine what assistance should be offered until available funds are expended.

For information about future aid

EPA will notify school districts by November 15, 1992, if Congress appropriates funds for awards in fiscal 1993.

TSCA Hotline: Call (202) 554-1404

The TSCA Assistance Information Service (TSCA hotline) operates Monday through Friday, from 8:30 a.m. to 5 p.m. Eastern time. To speak to an information specialist, call (202) 554-1404. FAX requests for documents are received every day, at all times, on (202) 554-5603. Documents can also be requested by deaf persons who have TDD equipment by dialing (202) 554-0551.

To request assistance by mail, write to the Environmental Assistance Division at the address provided on page 39.

Availability of 8(e) Notices and FYI Submissions

Section 8(e) notices and FYI submissions are available to the public in a number of ways, which are listed below. Note that EPA no longer issues submission summaries of section 8(e) notices.

- Section 8(e) notices and FYI submissions can be reviewed and photocopied at EPA headquarters in the OPPT Public Reading Room, NE-G004, U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460; telephone, (202) 260-7099. The room is open from 8 a.m. to noon and 1 p.m. to 4 p.m., Monday through Friday.
- A copy of a full section 8(e) or FYI submission can be obtained by writing to Freedom of Information Office (A101), U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460. Duplication of the first 166 pages of any document is free. At the 167th page, there is a \$25 fee and an additional \$0.15 charge for each page. For example, duplication of a 167-page document will cost \$25.15.
- Chronological indices of section 8(e) and FYI notices are available from the TSCA Assistance Information Service (TSCA hotline) two to three months after the end of each fiscal quarter. The fiscal quarters end on September 30, December 31, March 31, and June 30. See this page for information on how to contact the hotline.

FYI Submissions

For Your Information (FYI) submissions are voluntary submissions that cover a wide variety of information and may include data on chemical toxicity and exposure, epidemiology, monitoring, and environmental fate. FYIs are submitted by chemical manufacturers, chemical processors, federal, state, and local agencies, foreign governments, academic institutions, public interest and environmental groups, and the general public.

The agency established the FYI classification system to distinguish such submissions from notices submitted formally to EPA under section 8(e) of the Toxic Substances Control Act (TSCA). The Office of Pollution Prevention and Toxics received six FYI submissions from January 1, 1992, through March 31, 1992.

TSCA Section 8(e) Notices

Under section 8(e) of the Toxic Substances Control Act (TSCA), anyone who obtains information that indicates a chemical may pose a substantial risk of injury to human health or the environment must report that information to EPA within 15 working days of obtaining it.

The Office of Pollution Prevention and Toxics (OPPT) received more than 800 TSCA section 8(e) notices from January 1, 1992, through March 31, 1992. Most of these notices were submitted by companies participating in EPA's Compliance Audit Program.

In the past, *Chemicals-in-Progress Bulletin* has listed recent section 8(e) submissions. Because of the volume of notices recently submitted, however, the list is not being published in this issue. For information on how to obtain an index of section 8(e) notices or copies of the notices, see the related article on this page.

For More Information

Send All Correspondence to

Environmental Assistance Division (TS-799)
Office of Pollution Prevention and Toxics
U.S. EPA
401 M Street, S.W.
Washington, D.C. 20460

Editor: Jane Gurin

Would You Like to Receive the *Chemicals-in-Progress Bulletin*?

The *Chemicals-in-Progress Bulletin* is published by EPA's Office of Pollution Prevention and Toxics. If you are not currently receiving the bulletin and would like to become a subscriber, or if you would like to stop receiving the bulletin, please fill out and send in the form below. Or, tape a mailing label onto it.

☐ Please add my name to the mailing list for the *Chemicals-in-Progress Bulletin*.

☐ I no longer want to receive the *Chemicals-in-Progress Bulletin*.

☐ I'd like a copy of the following publication(s):

New Publications

From the TSCA Hotline

Single copies of these publications can be obtained by calling or sending a FAX to the TSCA hotline or by filling out and mailing the form on this page.

- *Risk Assessment, Management, Communication: A Guide to Selected Sources*, Volume 4, Number 1
- *PCBs in Underground Mines*, a brochure published by EPA and the Mine Safety and Health Administration of the U.S. Department of Labor
- New Chemicals Exposure-Based Environmental Fate Testing Program (description of program)
- *Pollution Prevention through Compliance and Enforcement: A Review of OPTS Accomplishments*
- 33/50 Program information package
- *Chlorinated Dioxins and Furans in the General U.S. Population: NHATS FY87 Results*. This publication can also be ordered from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161; tele-

TSCA Hotline: Question & Answer

Q: If I remove some fluorescent light fixtures that contain polychlorinated biphenyls (PCBs) from a building I own, what EPA regulations am I required to follow?

A: Fluorescent light fixtures manufactured before 1979 usually contain PCBs, which were used to insulate the small capacitors in the light's ballast. The ballast, which is the primary electric component of fluorescent fixtures, is generally located within the fixture under a metal cover plate.

The Toxic Substances Control Act (TSCA) requires that building owners dispose of PCB-insulated capacitors as a hazardous waste if leaking has occurred. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requires that building owners notify the National Response Center if they dispose of or move (from one location to another) more than one pound of

To identify fluorescent lights that contain PCBs, check the ballast label. Ballasts manufactured since 1979 are labeled with a sticker that states they do not contain PCBs. Ballasts without a sticker should be treated as if they contain PCBs. Or, verify their contents by calling the manufacturer and providing the ballast make and model number.

Many states also regulate the disposal of light ballasts containing PCBs. So, before acting, check with regional, state, or local authorities in the area in which the light ballasts are located and, if applicable, the area in which they will be disposed of.

EPA encourages recycling

EPA encourages the recycling of PCB-containing ballasts and fluorescent lamps, which contain small amounts of mercury, cadmium, and antimony. Recycling companies remove the capacitors from the ballasts, pack them in drums and send

maintaining materials to recover the mercury, cadmium, and antimony.

For more information

- To obtain the document *Light Brief: Is there a Right Way to Dispose of Your Old Light Ballasts?*, which discusses issues concerning light ballasts, call EPA's Green Lights program at (202) 479-6936. The Green Lights program can also provide lists of ballast and fluorescent lamp recyclers and state disposal contacts.
- For information on CERCLA reporting requirements, contact the Superfund hotline at (800) 424-9346.
- The National Response Center telephone numbers are (800) 424-8802 and (202) 426-2675.
- For more information about TSCA policies, call the TSCA Assistance Information Service (TSCA hotline) at (202) 554-1404. See page 38 for additional information on contact-

Send All Correspondence to

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☐ I'd like a copy of the following publication(s):

Name

Title

Company or Organization Name

Type of Business

Street Address

City

State

Zip Code

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From the EPA Public Information Center

The updated report *Current Federal Indoor Air Quality Activities* can be obtained by writing to Public Information Center (PM-211B), U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460.

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The Toxic Substances Control Act (TSCA) requires that building owners dispose of PCB-insulated capacitors as a hazardous waste if leaking has occurred. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requires that building owners notify the National Response Center if they dispose of or move (from one location to another) more than one pound of PCBs within 24 hours. Ten to thirty ballasts would generate roughly one pound of PCBs.

To identify fluorescent lights that contain PCBs, check the ballast label. Ballasts manufactured since 1979 are labeled with a sticker that states they do not contain PCBs. Ballasts without a sticker should be treated as if they contain PCBs. Or, verify their contents by calling the manufacturer and providing the ballast make and model number.

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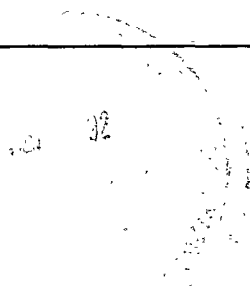
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