

Toxics Release Inventory

TRI Releases Decrease by Almost 800 Million Pounds in 1989

Initial results of the 1989 Toxics Release Inventory (TRI) show that 5.7 billion pounds of toxic chemicals were released into the nation's environment by 22,650 industrial facilities. The release data represent a decrease of almost 800 million pounds from releases reported for 1988, EPA Administrator William K. Reilly said May 17 when the 1989 data were released.

The inventory shows that in 1989, 189 million pounds of toxic chemicals were released into rivers, lakes, streams, and other bodies of water; 2.4 billion pounds were emitted into the air; 445 million pounds were disposed of in landfills; and 1.2 billion pounds were injected into underground wells. An additional 551 million pounds were transferred to municipal wastewater treatment plants, and 916 million pounds were transferred to treatment and disposal facilities.

From 1987, the first year for which TRI data were collected, to 1989, emissions and transfers of all TRI chemicals decreased by 1.3 billion pounds. Estimated air releases, which account for 42 percent of all releases and transfers, decreased by 8 percent; releases to water decreased by 54 percent; and releases to land decreased by 39 percent. About half of the decline in releases to water and land, however, may be attributable to facilities' faulty estimates of 1987 releases of mineral acids and metal compounds.

Evidence suggests, though, that the numbers indicate real reductions in toxic emissions. First, 2,000 more facilities reported for 1989 than for 1987. Second, industrial production by the majority of industries required to submit reports increased between 1987 and 1989.

The TRI's effectiveness as a tool for improving environmental management has far exceeded EPA's expectations. "TRI has been extensively used by citizen groups, government agencies, and corporations to assess the potential health

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TOXICS RELEASE INVENTORY

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General Accounting Office Releases Report on TRI Implementation

In a review of the implementation of the Toxics Release Inventory (TRI), the General Accounting Office (GAO) found that TRI information is valuable in helping to reduce pollution and recommended certain changes to improve its usefulness.

GAO presented a report on its review—*Toxic Chemicals: EPA's Toxic Release Inventory Is Useful, But Can Be Improved*—to Congress in June 1991. The report was required by the 1986 Emergency Planning and Community Right-to-Know Act (EPCRA), which established the TRI.

The first year for which TRI data were collected was 1987. The GAO observed that since 1989, when the first data were published, the TRI has shown itself to be a valuable information resource. TRI data were used by

Congress to support more stringent clean air legislation and by EPA, states, and industry in efforts to control and reduce pollution.

GAO recommended that EPA improve the TRI in a number of ways, including the following:

- identify additional sources of toxic emissions, including nonmanufacturers and facilities with fewer than 10 employees, that should be required to submit TRI reports;
- identify additional toxic chemicals for which reporting should be required;
- develop a public outreach strategy to more effectively publicize data availability;
- develop an inspection strategy for EPA regional offices to use to

identify facilities that have failed to submit TRI data and issue national guidance for implementing this strategy; and

- place greater emphasis on verifying data quality, with particular attention to assessing the reasonableness of emissions estimates.

GAO recommended to Congress that it amend the law (1) to require that any federal facility meeting the reporting criteria be required to submit annual reports on its toxic emissions, unless doing so would threaten national security, and (2) to provide EPA with explicit authority to inspect facilities subject to TRI reporting requirements.

To order a copy, call GAO at (202) 275-6241 and request document number RCED-91-121.

Information about EPCRA Available from Hotline

The Emergency Planning and Community Right-to-Know Act (EPCRA) Information Hotline provides information about EPCRA-related issues such as

- the Toxics Release Inventory (TRI) provisions of EPCRA,
- emergency planning and notification,
- trade secrecy provisions, and
- emergency and hazardous chemical inventory reporting.

The EPCRA Information Hotline operates from 8:30 a.m. to 7:30 p.m. Eastern time, Monday through Friday. The hotline can be reached by calling (800) 535-0202 or (703) 920-9877.

Analysis of 1989 TRI Data to Be Released in Fall

EPA will publish an analysis of the data collected for the 1989 Toxics Release Inventory (TRI) in fall 1991. The report, *Toxics in the Community*, will provide detailed information about the scope and requirements of section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA), which established the inventory. It also will present a comprehensive analysis of the 1989 data, including comparisons with data from previous years.

To help the public use TRI more effectively, *Toxics in the Community*

will provide examples of different ways the data can be used and various methods for analyzing the data. It will also report on activities carried out by federal and state governments, citizen groups, and other users of TRI data.

For more information about *Toxics in the Community*, contact Ken Mitchell, Economics and Technology Division (TS-779), Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460; phone, (202) 260-3960.

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, MD 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 collections 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) or the U.S. Government Printing Office (GPO). The years for which the data are available and ordering numbers are listed below. For additional information, please contact NTIS at (703) 487-4650 or GPO at (202) 783-3238 (microfiche or report form) or (202) 275-0186 (CD-ROM or magnetic tape).

TRI Data Available for Purchase

	CD-ROM	Microfiche	Diskette	Magnetic Tape	Report
NTIS	1987 National inventory #PB90-502311	1987 National inventory *	1987 and 1988 National inventory *	1987 National inventory #PB-89-186068	1987 Complete report #PB-208144
		1987-Individual state *	1987 and 1988 Individual state *	1988 National inventory #PB-90-502030	1987 Executive summary #PB-208151
				1989 National inventory #PB-91-507509	
GPO	1987 National inventory #055-000-00356-4	1987 National inventory #055-000-00320-3	1988 National inventory *	1987 National inventory *	1987 Complete report #055-000-0290-8
		1987 Individual state *	1988 Individual state *	1988 National inventory *	1987 Executive summary #055-000-0289-4
				1989 National inventory *	1988 Complete report #055-000-00363-7

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

Toxics Release Inventory Section 313 Petitions

Receipt Date	Chemical Name	Submitter	Action Requested	180-Day Deadline	Proposed Rule FR Pub Date	Final Rule or Denial Pub Date
PETITIONS DENIED						
11/25/86	Inorganic Fluorides	Safe Water Foundation of Texas	List	/ /	/ /	05/29/87
04/30/87	Orthophenylphenol	Dow Chemical Company	Delist	/ /	/ /	10/29/87
05/15/87	Cobalt and Compounds	Hall Chemical Company	Delist	/ /	/ /	12/03/87
05/15/87	Nickel and Compounds	Hall Chemical Company	Delist	/ /	/ /	12/03/87
05/15/87	Manganese and Compounds	Hall Chemical Company	Delist	/ /	/ /	12/03/87
07/13/88	Ethylene	Chemical Manufacturers Assoc.	Delist	/ /	/ /	01/27/89
07/13/88	Propylene	Chemical Manufacturers Assoc.	Delist	/ /	/ /	01/27/89
09/09/88	Cyclohexane	Chemical Manufacturers Assoc.	Delist	/ /	/ /	03/15/89
04/14/89	Cadmium Selenide	SCM Chemicals, Inc.	Delist	/ /	/ /	10/19/89
04/14/89	Cadmium Sulfide	SCM Chemicals, Inc.	Delist	/ /	/ /	10/18/89
05/15/89	Decabromodiphenyl Oxide	Great Lakes Chemical Corp.	Delist	/ /	/ /	11/03/89
06/27/89	Cr/Sb/Ti Buff Rutile	Dry Color Manufacturers Assoc.	Delist	/ /	/ /	01/08/90
08/07/89	Barium Sulfate	Petroleum Equipment Suppliers Assoc.	Delist	/ /	02/12/90	05/23/91
09/05/89	Antimony Compound	Synthetics Product Company	Delist	/ /	/ /	02/13/90
09/07/89	Zinc Borate Hydrate	U.S. Borax Research Corp.	Delist	/ /	/ /	03/20/90
09/19/89	Barium Sulfate	Dry Color Manufacturers Assoc.	Delist	/ /	02/12/90	05/23/91
12/12/89	Sulfuric Acid	ECOLAB Inc.	Delist	/ /	/ /	06/18/90
01/29/90	Zinc Sulfide	Ore and Chemical Corp.	Delist	/ /	/ /	08/01/90

PETITIONS GRANTED

08/24/87	Titanium Dioxide	duPont de Nemours and Co.	Delist	/ /	02/19/88	06/20/88
08/19/87	Titanium Dioxide	SCM Chemicals, Inc. and Didier Taylor Refractories Corp.	Delist	/ /	02/19/88	06/20/88
08/19/87	Titanium Dioxide	Didier Taylor Refractories Corp.	Delist	/ /	02/19/88	06/20/88
10/06/87	Titanium Dioxide	Kemira Oy.	Delist	/ /	02/19/88	06/20/88
10/06/87	C.I. Acid Blue 9, Diammenium Salt	Ecological and Toxicological Assoc. of the Dyestuffs Manufacturing Industry	Delist	/ /	04/12/88	10/07/88
10/06/87	C.I. Acid Blue 9, Disodium Salt	Ecological and Toxicological Assoc. of the Dyestuffs Manufacturing Industry	Delist	/ /	04/12/88	10/07/88
10/07/87	Melamine Crystal	Melamine Chemical Company	Delist	/ /	06/20/88	03/29/89
04/22/88	Sodium Hydroxide Solution	Chlorine Institute, Inc.	Delist	/ /	12/09/88	12/15/89
06/01/88	C.I. Pigment Blue 15	Dry Color Manufacturers Assoc.	Delist	/ /	05/15/91	05/23/91
06/01/88	C.I. Pigment Green 7	Dry Color Manufacturers Assoc.	Delist	/ /	05/15/89	05/23/91
06/01/88	C.I. Pigment Green 36	Dry Color Manufacturers Assoc.	Delist	/ /	05/15/89	05/23/91
08/09/88	Sodium Sulfate	Hoechst Celanese Corp.	Delist	/ /	02/17/89	06/20/89
09/30/88	Alum. Oxide (Non-Fibrous)	Aluminum Association et al.	Delist	/ /	04/12/89	02/14/90

Toxics Release Inventory Section 313 Petitions

Receipt Date	Chemical Name	Submitter	Action Requested	180-Day Deadline	Proposed Rule FR Pub Date	Final Rule or Denial Pub Date
07/27/89	Terephthalic Acid	Amoco Corp.	Delist	/ /	02/15/90	12/10/90
01/09/90	Seven CFCs and Halons	Natural Resources Defense Council and Governors Mario Cuomo of New York, Madeleine Kunin of Vermont, and Thomas Kean of New Jersey	List	/ /	03/21/90	08/03/90

PETITIONS PENDING

11/19/90	Phosphoric Acid	The Fertilizer Institute	Delist	05/18/91	/ /	/ /
05/21/91	Chromium (III) Compounds	California Products Corp.	Delist	11/17/91	/ /	/ /

PROPOSED RULES

02/09/87	Butyl Benzyl Phthalate	Monsanto Chemical Co.	Delist	/ /	07/20/87	/ /
01/23/89	Ammonium Sulfate (SOLN)	Allied Signal, Inc.	Delist	/ /	03/30/90	/ /
12/24/90	Sulfuric Acid	American Cyanamid	Modify	07/13/91	07/02/91	/ /

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and environmental risks posed by chemical emissions and to target reductions where the opportunities are the greatest," Administrator Reilly said.

The laws passed in 15 states to prevent pollution or to reduce the use of toxic chemicals demonstrate the important role that the TRI can play in supporting the passage of new legislation. Many of these laws resulted from lobbying by local environmental and citizen action groups using TRI data from their regions. Use of specific TRI data has also been the basis for petitions filed by citizen groups in 10 states to designate additional bodies of water as "toxic hotspots" under the Clean Water Act. Such a designation triggers a requirement for tightened effluent

limitations in discharge permits. Public involvement has also raised the awareness of manufacturing facilities about the toxic chemicals they release into the environment.

Use of TRI data through the National Library of Medicine's TOXNET system has increased steadily, as have telephone calls to EPA's TRI User Support service. In both areas, activity and requests by local citizens show an increased knowledge of the information contained in the TRI. (See article on page 3 for information about how to obtain access to TRI data.)

The Pollution Prevention Act of 1990 significantly expands TRI data collection. In the TRI reporting forms due by July 1992, facilities

will be required to submit information about changes in and projections for future waste reduction, treatment and recycling, source reduction practices, methods used for calculating reductions, and estimates of one-time chemical releases not associated with routine production processes.

The TRI is required by law under the 1986 Emergency Planning and Community Right-to-Know Act (EPCRA). The law requires that certain industrial facilities with 10 or more full-time employees provide annual emissions estimates for more than 300 toxic chemicals and 20 chemical categories that are manufactured, processed, or used in excess of certain threshold amounts. EPA received more than 80,000 reports for 1989.

Process to Review Existing Chemicals Shows Results

RM1 Process Worked Well in First Year of Implementation

Last year, the Office of Toxic Substances (OTS) initiated a new effort to increase the number and effectiveness of actions taken to reduce or eliminate potential health and environmental risks posed by chemicals currently in production.

Chemicals currently in production—referred to as “existing chemicals”—are listed on the Toxic Substances Control Act (TSCA) Inventory. Of the approximately 70,000 chemicals on the inventory, OTS’s Existing Chemicals Program is focusing on the 14,000 nonpolymeric chemicals pro-

duced in quantities greater than 10,000 pounds annually. (OTS’s New Chemicals Program assesses “new chemicals”—chemicals not yet in production.)

Two levels of review

The new Existing Chemicals Program has two levels of review: Risk Management One (RM1) and Risk Management Two (RM2). An explanation of the RM1 process and a summary of how it worked in its first year of implementation follow. On page 9 is a report on how opportunities for pollution prevention are identified

during the RM2 process, the second stage of review. The RM2 process will be summarized in a later issue of the *Chemicals-in-Progress Bulletin*.

Risk Management One (RM1)

The purpose of RM1 is to identify chemicals that require further action. The first step in the RM1 process is to screen chemicals for review. OTS identifies screening candidates from its own analyses and databases and receives nominations from international organizations, states, environmental groups, labor organizations, and other EPA offices, including regional

RM1 Decisions

Risk Reduction List

Acrylonitrile
Aniline
Bromoethane
Carpet emissions pollution prevention and testing program
Chloranil/violet 23
Chloroethane
Chlorinated paraffins
C.I. Direct Blue 15
1,2-Dichloroethane
1,2-Dichloropropane
Hydrazine
Hydroquinone
2-Nitropropane
1,2-Dichloropropene
Phosphoric acid production wastes
Refractory ceramic fibers
Sodium cyanide
o-Toluidine

Recommended for testing

Acetophenone
Acrylic acid

Arylphosphates
Brominated flame retardants
Butyraldehyde
Chloroethane
Cyclohexane
Developmental/reproductive endpoint test rule (12 chemicals)
2,6-Dimethylphenol
Ethyl acetate
Glycidols
Mesityl oxide
Neurotoxicity endpoint test rule (10 chemicals)
Phenol
N,N-Dimethylaniline
1,1,2,2-Tetrachloroethane
Persistent bioaccumulators cluster (initial set of 34 chemicals recommended for ecotoxicity testing)
Sodium cyanide
Subset of Toxics Release Inventory (TRI) chemicals
4-Vinylcyclohexene

Referred to other programs for possible action

Antimony and compounds
C-9 aromatic hydrocarbons
Cresols
Cumene
Cyclohexanone
1,2-dibromoethane
Dichlorobenzidine
Dicyclopentadiene
2-Ethylhexanoic acid
Hydrogen cyanide
Isophorone
Phenoxyethanol/acetate
Propylene glycol, t-butyl ether
Vinyl acetate

Dropped with no further action

Diisodecylphenyl phosphite
Oleylamine
Propylene oxide
1,1,2,2-tetrachloroethane

offices. After OTS identifies screening candidates, the process of selecting which chemicals to screen begins.

First, OTS reviews current scientific literature, newly submitted test data from industry, and other information to weigh the potential health and environmental effects of individual chemicals. When data indicate potential health or environmental concerns, OTS places the chemical into RM1 review. Since April 1990, OTS has screened more than 900 reports submitted by industry or other sources. Industry submits reports to the agency under section 8(e) of TSCA or on a For Your Information (FYI) basis (see pages 28 to 34). Other sources of reports on chemicals include such programs as the National Toxicology Program/National Institute for Environmental Health Sciences, which provided a number of cancer bioassay reports over the past year. During the screening of these chemicals, OTS determined that most of the cases did not need further review.

Second, the program looks at whether there are any large groups of chemicals that possess common characteristics and may present common concerns. OTS uses this approach to identify health and environmental risks that might otherwise go unrecognized. For instance, the decision to screen a "cluster" of hundreds of chemicals found in consumer products was prompted not by specific toxicological data, but by concern that

chemicals used extensively every day in the home should be evaluated for safety.

During the past year, OTS initiated RM1 reviews on four clusters:

- about 1,000 commercially produced chemicals with physical and chemical properties that indicate a potential for bioaccumulation and persistence in the environment;
- about 250 chemicals in consumer products that may contribute to indoor air pollution;
- about 1,200 existing chemicals whose molecular structures resemble those of chemicals known to be toxic; and
- 28 Toxics Release Inventory (TRI) chemicals that have raised well-

established toxicity concerns, including chronic toxicity and carcinogenicity.

Which chemicals warrant review?

To establish the order in which chemicals should be reviewed, chemicals are initially assigned to the following categories:

Priority 1: Chemicals referred to OTS by other EPA programs or government agencies.

Priority 2: Chemical clusters that present common concerns and allow broad-scale testing, risk reduction decisions, and pollution prevention actions.

Priority 3: Chemicals for which EPA required industry to develop test data under TSCA section 4.

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Factors Considered in Identifying and Selecting Screening Candidates

- TSCA jurisdiction
- Toxicity
- Exposure
- Assessment and regulatory status
- Testing needs
- Opportunities to reduce risks and prevent pollution
- Needs of EPA regulatory programs
- Recommendations of the EPA Science Advisory Board in *Reducing Risk: Setting Priorities and Strategies for Environmental Protection*

Review continued from page 7

Priority 4: Chemicals for which information has been submitted to EPA through TSCA section 8(e) notices and FYI reports or by referrals from the National Toxicology Program, OTS's New Chemicals Program, and others.

After a chemical is placed in one of these four groups, OTS considers several other factors in setting final priorities:

- Chemicals that pose significant risk to human health or the environment will be designated for immediate review regardless of other factors.
- If the chemical is associated with an existing regulatory activity, the chemical will receive a higher priority, since OTS favors an integrated regulatory approach to products or process categories.
- A chemical referred by more than one source or in more than one screening category will receive a higher priority. Paint stripper substitutes, for example, form a use cluster that is also an important product category in the consumer product/indoor air pollution cluster.
- The availability of existing data or assessments that allow OTS to perform necessary analyses and reviews quickly will raise a chemical's priority.

C.I. Direct Blue 15, a dye, offers an example of how this flexible approach works. C.I. Direct Blue 15 was initially assigned a relatively low priority, since it was submitted via a National Toxicology Program study. During the review of the study and other risk/exposure factors, however, OTS determined that C.I. Direct Blue 15 posed a significant potential risk of cancer. As a result, the substance was placed in the high-priority classification for further review and consideration of risk management activities.

Grouping together chemicals related by a set of defined characteristics allows OTS to make "generic" decisions about an entire cluster and increases the number of chemicals OTS can screen.

Results of RM1 review

From April 1990 to June 1991, the Existing Chemicals Program completed screening on more than 40 cases, representing over 150 chemicals. RM1 screening decisions are based on evaluation of a chemical's *potential* for significant hazard or exposure, since conclusive data about chemicals are rarely available during RM1 screening. What follows is a summary of the decisions made from April 1990 to June 1991.

- Four cases were dropped from fact-finding or risk-management activities because the facts assembled did not indicate the need for further action.
- Fourteen cases were dropped from further OTS assessment but were referred to other federal agencies for possible risk assessment or management activities.
- Eighteen cases were identified as presenting potentially significant concern and were placed on the Risk Reduction List, which is the entry point for RM2—the second stage of review in the Existing Chemicals Program. Chemicals are not removed from the Risk Reduction List until the concerns they present have been addressed and resolved through voluntary action or regulation.
- Efforts to implement TSCA section 4 testing requirements have been initiated on 115 chemicals.
- Testing was recommended under TSCA section 4 for 20 cases covering more than 140 chemicals; these chemicals have been placed on EPA's Master Testing List for future testing.
- Seven cases have been identified for development of "letters of concern." These letters alert manufacturers and users of the chemicals to OTS's concerns about the possible risks posed by the chemicals and recommend that pollution prevention measures to reduce exposure and releases be considered.

Administrative Record Open to Public

The Office of Toxic Substances (OTS) encourages active public participation in the Existing Chemicals Program through comment on the administrative record, which documents decisions reached on chemicals reviewed in Risk Management One (RM1) and Risk Management Two (RM2). The administrative record includes

- a screening dossier containing relevant exposure and hazard information, a recommendation from the screening workgroup, and the supporting rationale for that decision;
- copies of summaries of major studies cited in the pre-RM1 dossier;
- summaries of the RM1, RM2, and regulatory development meetings;
- copies of any letters of concern to industry and industry replies; and
- comments and correspondence from other parties outside of EPA.

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

1. In person, by going to 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 4:00 p.m., Monday through Friday.
2. By writing to EPA/OTS/PDB (TS-793), Attention: RM1 Process, Room G-004, Northeast Mall, 401 M Street, S.W., Washington, D.C. 20460.
3. By calling (202) 260-3587.

OTS Uses Pollution Prevention Scoping Methodology in Review of Existing Chemicals

Every chemical on the Office of Toxic Substances (OTS) Risk Reduction List (see page 6) is reviewed to determine how any risks it may pose to human health or the environment can be eliminated or reduced. In the view of EPA, as well as other health and environmental experts, preventing pollution before it occurs is the most effective way to reduce or eliminate these risks.

The Existing Chemicals Program, which is part of OTS, has developed a scoping methodology to evaluate opportunities to prevent pollution. Through this methodology, OTS incorporates pollution prevention criteria into the development of regulatory and nonregulatory options for reducing or eliminating risk.

Chloroethane and acrylonitrile were among the first chemicals to which OTS applied the pollution prevention scoping methodology. What follows is a synopsis of the steps taken during the scoping process for these two chemicals, which began in April 1991.

First, researchers collected information on chloroethane and acrylonitrile that identified five separate uses for each chemical. Manufacturing sites and capacities, trade data, and end-product information were provided for each of the 10 uses. With this information, OTS scientists conducted a lifecycle analysis for each use to identify where exposures to the chemical might occur.

At the same time, OTS staff searched for potential substitutes for chloroethane and acrylonitrile. When appropriate, these substitute chemicals or products were reviewed to

determine if their use might create any potentially hazardous exposures.

Using the information collected during the use and substitute analyses, preliminary risk characterizations were performed for each use of the chemicals. These preliminary assessments allowed OTS to identify areas where it might be possible to reduce risks from use of chloroethane or acrylonitrile.

At this point, EPA is ready to assess avenues for reducing or eliminating risks to health or the environment for those uses that result in exposures and for which a risk was identified. For each use, EPA will consider the following hierarchy of pollution prevention options:

- reducing or eliminating use of the chemical;
- process changes to reduce the use of the chemical or changes in management practices to reduce exposures;
- methods to recycle wastes that cannot be reduced or eliminated at the source; and
- adding or modifying equipment to make emissions safer for release to the environment.

If more than one option is possible to implement, EPA would select whichever option achieves the greatest risk reduction for the least cost.

The pollution prevention scoping methodology will also be used to integrate pollution prevention criteria into the development of regulations. It is currently being used to identify high-exposure uses of lead solder for regulatory consideration.

Interagency Testing Committee Revises TSCA Section 4(e) Priority Testing List

In its 28th Report, the Interagency Testing Committee (ITC) placed nine chemicals and eleven chemical groups on the Toxic Substances Control Act (TSCA) Section 4(e) Priority Testing List. The ITC designated six of these chemicals for EPA to act upon within 12 months.

Congress created the ITC to screen chemicals for their potential health and ecological effects and chemical fate. The chemicals reviewed by the ITC and recommended for testing may present an unreasonable risk of injury to health or to the environment, or they may involve significant or substantial human exposure or substantial environmental release.

To gather the information necessary for making testing decisions about individual chemicals, the ITC works through its members. ITC members, who represent 18 federal organizations, link the committee to hundreds of other federal organizations that may have relevant data available from industry or from their own testing. For example, the U.S. Department of Agriculture (USDA) representative provides a conduit to 26 separate agencies organized under the USDA.

Additional information is collected through TSCA sections 8(a) and 8(d). When the ITC places a chemical or chemical group on the priority testing list, TSCA sections 8(a) and 8(d) require industry to provide recent production and exposure information and unpublished health and safety

studies on the chemical. Through the ITC, these studies are available to all federal agencies for use in decision-making and regulatory activities.

The ITC uses the data submitted by industry to determine whether chemicals on the priority testing list should be withdrawn or "designated." The ITC's mandate from Congress allows the committee to determine

The chemicals reviewed by the ITC and recommended for testing may present an unreasonable risk of injury to health or to the environment, or they may involve significant or substantial human exposure or substantial environmental release.

the order in which EPA should act on ITC recommendations by designating chemicals to which EPA should respond within 12 months. The agency must either begin rulemaking under section 4 of TSCA or explain to the public why the testing is unnecessary. EPA also has the option to implement testing for any chemical that is on the priority testing list.

The committee revises its priority testing list at least twice a year and

submits the list to the EPA administrator.

The testing recommendations for chemicals and chemical groups that have been added to the TSCA Section 4(e) Priority Testing List are listed below.

Designations

The ITC designated six chemicals listed in EPA's Integrated Risk Information System (IRIS): acetone, n-butanol, isobutanol, di-(2-ethylhexyl) adipate, thiophenol, and dimethyl terephthalate.

Testing: health effects, chemical fate, or ecological effects.

Rationale: The EPA's Reference Concentration (RfC)/Reference Dose (RfD) Workgroup asked the ITC to recommend testing of IRIS chemicals to provide data to develop or improve RfC or RfD values. An RfC or RfD value is an estimate of how much of a chemical people can inhale or ingest daily without experiencing deleterious effects during part or all of their lifetime.

The ITC designated the six IRIS chemicals to increase confidence in health effects data and to reduce the uncertainties in the assessment of risk. The ITC requested that EPA implement testing for these chemicals by May 31, 1992, due to concerns and uncertainties related to substantial production volumes and potential exposures and releases.

Recommendations

The ITC recommended three chemicals listed in IRIS: *m*-dinitrobenzene, allyl alcohol, and 2,4-dichlorophenol.

Testing: health effects, chemical fate, or ecological effects.

Rationale: The ITC recommended *m*-dinitrobenzene, allyl alcohol, and 2,4-dichlorophenol to increase confidence in health effects data and to reduce the uncertainties in the assessment of risk. The committee is interested in reviewing additional data before deciding whether to designate these chemicals for testing. The data to be reviewed are production and exposure information and unpublished health and safety studies—which are automatically required under TSCA sections 8(a) and 8(d) for any ITC recommendation—and voluntary submissions of use exposure and release information and physical chemical property data. Information submitted or developed regarding these chemicals is likely to satisfy the data needs of a number of federal organizations represented on the ITC.

The ITC recommended 11 chemical groups: alkynes, nitroalcohols, phosphoniums, hydrazines, oxiranes, alkoxysilanes, aldehyde hydrates, propylene glycol ethers and esters, methyl ethylene glycol ethers, isothiocyanates, and cyanoacrylates.

Alkynes, nitroalcohols, and phosphoniums

Testing: physical chemical properties

and biodegradation rate screening.

Rationale: These three chemical groups were selected because of concerns and uncertainties related to production and use, potential exposures

ITC members link the committee to hundreds of federal organizations that may have relevant data available from industry or from their own testing.

and releases from production, processing, and use, and for the potential for persistence in the environment. Information submitted or developed is likely to satisfy some of the data needs of EPA, the Department of Transportation (DOT), the Department of the Interior (DOI), and state and local governments involved in assessing the effect of chemical releases to the environment. The ITC will review the nonpublic data submitted under TSCA sections 8(a) and 8(d) before designating any of the individual chemicals in these groups.

One of the alkynes—3-butyne-2-ol, 2-methyl (CAS number 115-19-5)—is among the 53 chemicals in the Organization for Economic Cooperation and Development's (OECD) Screening Information Data Set (SIDS) phase-one voluntary testing program. Submission of reliable data or data

development through the OECD SIDS program could change the ITC's testing recommendation for this alkyne.

Hydrazines, oxiranes, alkoxysilanes, and aldehyde hydrates

Testing: ecological effects.

Rationale: Hydrazines, oxiranes, and alkoxysilanes were recommended because of concerns and uncertainties related to production and use, potential exposures and releases from production, processing, and use, and for their potential to cause adverse ecological effects. Information on aldehyde hydrates is needed to complete the ITC's recommendation process for aldehydes, which were recommended with intent-to-designate in November 1990. Data submitted or developed are likely to meet the data needs of EPA, DOT, DOI, and state and local governments involved with assessing the effect of chemical releases to the environment.

The ITC will review the nonpublic data submitted under TSCA sections 8(a) and 8(d) before designating any of the individual chemicals in these groups. Hydrazine, methylhydrazine, 1,1-dimethylhydrazine, and 1,2-diphenylhydrazine are listed in the 1990 Clean Air Act. EPA's RfC/RfD Workgroup may develop RfC values to assess the risk of these chemicals. If the TSCA section 8(d) submissions do not allow the RfC/RfD Workgroup to develop or improve

continued on page 12

continued from page 11

RfC values, the ITC may designate testing that will permit the workgroup to make these developments or improvements.

Propylene glycol ethers and esters and methyl ethylene glycol ethers

Testing: reproductive effects or developmental toxicity.

Rationale: Chemicals in these groups are suspected of causing birth defects. Data submitted or developed are likely to satisfy some data needs of the Consumer Product Safety Commission, the National Institute for Occupational Safety and Health, the Occupational Safety and Health Administration, and others.

One propylene glycol ether—propanol,[(1-methyl,1,2-ethanediyl)bis(oxy)]bis (CAS number 24800-44-0)—is among the 53 chemicals in the OECD SIDS phase-one voluntary testing program. Submission of reliable data or data development through the OECD SIDS program could change the ITC's testing recommendation for this propylene glycol ether. The ITC will also work with the National Toxicology Program regarding the program's current prechronic toxicity studies of 1-methoxy-2-propanol and 1-(1,1-dimethylethoxy)-2-propanol (CAS numbers 107-98-2 and 57018-52-7) and oxybispropanol (CAS number 25265-71-8).

Glycol ethers are also listed in the 1990 Clean Air Act. EPA's RfC/RfD Workgroup may develop RfC values to assess the risk of these chemicals. If the TSCA section 8(d) submissions do not allow the RfC/RfD Workgroup to develop or improve RfC values, then the ITC is likely to designate testing that will permit the workgroup to make these developments or improvements.

Isothiocyanates

Testing: persistence.

Rationale: Isothiocyanates were recommended so that the ITC could complete the recommendation process

for isocyanates and isothiocyanates.

Cyanoacrylates

Testing: physical chemical properties.

Rationale: Cyanoacrylates are chemicals with commercially important bonding applications, and insufficient data are publicly available to reasonably determine or predict physical and chemical properties. Data submitted or developed in response to these recommendations are likely to satisfy some multiple data needs of EPA, DOT, the National Cancer Institute, the National Toxicology Program, and others.

Chemicals Deferred from Further Consideration

The Interagency Testing Committee (ITC) has deferred more than 800 chemicals from further consideration because the chemicals were not reported to EPA or to the U.S. International Trade Commission as being recently produced. The group of deferred chemicals included 243 alkynes, 26 phosphonium compounds, 141 oxiranes, 268 alkoxysilanes, 38 isothiocyanates, and 114 hydrazines.

The committee also deferred phosgene from consideration for testing because of concerns that inhalation toxicity studies on the chemical cannot be properly designed. The ITC deferred consideration of testing for methyl isothiocyanate because it may be used exclusively as a pesticide and thus would probably fall outside the statutory scope of the Toxic Substances Control Act (TSCA).

New production information on deferred chemicals is reassessed by the ITC's computerized processes to identify when the chemicals should again be considered for testing as a result of increased production.

Industry Is Working with EPA to Reduce Emissions of 17 Toxic Chemicals

A number of companies have agreed to reduce by half the wastes they generate that contain one or more of 17 high-priority chemicals targeted by EPA. These companies have told EPA they will eliminate over the next four years at least 201 million pounds of the 17 chemicals that they now release into the environment or transfer to waste management facilities.

The companies' efforts, which are completely voluntary, are part of EPA's 33/50 Project. The 33/50 Project takes its name from its goal of reducing releases of the 17 chemicals by 33 percent by the end of 1992 and by 50 percent by the end of 1995.

The participating companies are among the 600 businesses identified by EPA as having discharged into the environment or transferred to waste management facilities the greatest amounts of the 17 chemicals in 1988. Last February, EPA invited these companies to participate in the 33/50 Project. EPA has since identified another approximately 5,400 companies—6,000 firms in all—that also generate large amounts of the chemicals, and it is contacting all of these companies about how to participate in the voluntary program.

Data from the 1988 Toxics Release Inventory (TRI) indicate that the 6,000 companies released to the environment or transferred to waste management facilities 1.4 billion pounds of the 17 chemicals. Close to 80 percent of the total releases and transfers of the 17 chemicals—1.1 billion

pounds—were generated by the 600 firms identified last winter.

By the end of 1991, EPA expects to receive additional commitments from industry that will meet or exceed the national goal of reducing total releases and off-site transfers of the 17 chemicals by 700 million pounds by the end of 1995. The commitments received so far from 140 companies to reduce dis-

The commitments received so far from 140 companies to reduce discharges and transfers of the 17 chemicals by 201 million pounds represent a substantial first step.

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EPA's efforts to work with industry to reduce toxic risks through voluntary action are meant to supplement the agency's regulatory approach to reducing risks. The 33/50 Project is expected to reduce emissions of the 17 chemicals in less time than would be required to enact statutes or put regulations into place. TRI data, which are updated every year in accordance with the Emergency Planning and Community Right-to-Know Act (EPCRA), will be used to track reduction of emissions of the 17 chemicals. Any changes will be measured against 1988 data. In tracking

industry efforts to cut generation of toxic waste by one-half by 1995, the 33/50 Project will also evaluate the effect the program is having on overall pollution prevention.

Companies that have not been contacted by EPA are also invited to participate. For more information, write to 33/50 Project, EPA, TS-792a, 401 M Street, S.W., Washington, D.C. 20460; or contact the TSCA Assistance Information Service (TSCA hotline). See page 35 for information on how to contact the hotline.

EPA encourages all companies, whether they are participating in the 33/50 Project or not, to take steps to reduce or eliminate generation of pollutants and wastes.

Chemicals Targeted by the 33/50 Project

- Benzene
- Cadmium and compounds
- Carbon tetrachloride
- Chloroform
- Chromium and compounds
- Cyanides
- Dichloromethane
- Lead and compounds
- Mercury and compounds
- Methyl ethyl ketone
- Methyl isobutyl ketone
- Nickel and compounds
- Tetrachloroethylene
- Toluene
- Trichloroethane
- Trichloroethylene
- Xylene(s)

List of Participating Companies as of June 1991

3M	Chaparral Steel	Geneva Steel	Manville	Reynolds Metals	Thomas Industries
Acme Steel	Chem-Tech Rubber	Georgia-Pacific	Marion Merrell Dow	Rhone-Poulenc	Thomas Steel Strip
Aerovox	Chevron	Gillette	Martin Marietta	Rockwell International	Thomson Consumer Elect.
Air Products and Chemicals	Ciba-Geigy	Grumman	Masco Corp.	Rohm and Hass	Timken
Akzo Chemicals	CMC Steel Group	Guardsman Products	Masco Industries	Rolscreen	Trinova
Aladdin Industries	Coleman Outdoor Products	Hadco	McDonnell Douglas	Roseburg Lumber	Union Camp
Aldan Rubber	Corning	Halstead Industries	Mead	RSR	Union Carbide
Allegheny Ludlum	Crown Cork and Seal	Handy and Harman	Merck	Rubicon	Union Zinc
Allied Signal	Cyclops Industries	Hanlin Group	Milliken	Russell	Uniroyal Chemical
Aluminum Co. of America	Dallas Woodcraft	Hercules	Mobil	Sartorius	United Technologies
American Cast Iron Pipe	Dalton Foundries	Hewlett-Packard	Modine Manufacturing	Schering-Plough	Unocal
American Cyanamid	Degussa	Hoechst Celanese	Molded Fiber Glass Co.	Scott Paper	Upjohn
American Safety Razor	Dittler Brothers	Hoffman-La Roche	Monroe Auto Equip.	Shell Oil	U.S. Steel
American Standard	Doe Run	Honda	Monsanto	Sherwin-Williams	USS-Posco Industries
American Synthetic Rubber	Dow	IBM	Moore Business Forms	Shuford Mills	Varian Associates
Amer. Telephone & Telegraph	Dow Corning	ICI American Holdings	Morton Thiokol	Simpson Paper	Velsicol Chemical
Amoco	duPont	Illinois Tool Works	Motorola	Slater Steels	Vulcan Materials
Amsted Industries	Duo Fast	Inco United States	Newell Operating	SmithKline Beecham	Vytech
Andersen	Duracell Inc.	Ingersoll-Rand	North Star Steel	SnyderGeneral	Washington Steel
Archer Company	Eagle Ottawa Leather	Inland Steel Industries	Northrop	Sonoco Products	Weirton Steel
Arco Products	Eagle-Picher Industries	Intel	Occidental Chemical	Standard Industries	Westinghouse Electric
Aristech Chemical	Easton Foam	International Paper	Olin	Star Enterprise	Westvaco
Armstrong World Industries	Eaton	IR International	Oregon Steel Mills	Steelcase	Weyerhaeuser
ASARCO	Eli Lilly	Irving Tanning Co.	Owens-Corning Fiberglas	Sterling Chemicals	White Consolidated Ind.
Ashland Oil	Emerald Packaging	J & L Specialty Products	O'Sullivan	Storeys Transprints	Witco
Auburn Foundry	Engelhard	Jade Systems	Packaging Corp of Amer.	Syntex Agribusiness	Wolverine Tube
Avondale Industries	Ethyl Corp.	James River	Parker Hannifin	Tecumseh Products	Woodbridge Holdings
Barnhardt Manufacturing	Evanite Fibers	J.I. Case	Peerless of America	Temple-Inland Forest Prod.	W. R. Grace
BASF	Exxon	Kalama Chemical	Pennzoil	Texaco	Xerox
Bassett Furniture	Facile Holdings	Keene	Perrigo	Texas Instruments	
Baxter International	Federal Mogul	Kennecott	Pfister Chemical		
Bayer USA	Federal Paper Board	Kern-Liebers USA	Pfizer		
Bayou Steel	FINA	Kerr-McGee	Phillips Petroleum		
Bethlehem Steel	Finite Industries	Kodak	Photocircuits Corp.		
Boeing	First Chemical	Lincoln Electric	Polaroid		
Boise Cascade	Flexcon	Lockheed	Poly Pak Industries		
Borden	FMC	Lomac	Potlatch		
Bowater	Ford Motor	Louisiana Pacific	PPG Industries		
BP America	Franklin Industries	LTV Aerospace	Precision Castparts		
Bristol-Myers Squibb	GAF	LTV Steel	Printed Circuit		
B. F. Goodrich	Gencorp	Lyondell Petrochemical	Procter and Gamble		
Cabot	General Dynamics	Mac Lean-Fogg	Providence Metallizing		
Cargill	General Electric	Madix	Raytheon		
Carpenter Technology	General Motors	Mallinckrodt	Republic Engineered Steels		
Champion International					

This list includes all of the companies that provided EPA with numerical commitments to the 33/50 Project, as well as those that indicated commitments are pending. Not listed here are the companies that submitted letters supporting the 33/50 program without explicit commitments. After EPA clarifies these companies' commitments, the companies will be included in future reports.

Petroleum and Lead Industries Are First Targets of EPA/OSHA Joint Work Plan

EPA and the Occupational Safety and Health Administration (OSHA) have agreed to help one another's enforcement efforts. Cooperative efforts will focus on increasing protection of workers in the petrochemical and lead smelting industries.

Under the agreement, EPA and OSHA inspectors will exchange data, police each other's jurisdictions when making site visits, and participate in cross-training to help inspectors recognize violations of environmental and health and safety laws.

"Our experience indicates that facilities with violations of OSHA standards often have violations of EPA standards as well," OSHA Administrator Gerald F. Scannell said. "Both EPA and OSHA are concerned about

the threat to workers and the public by chemical explosions and exposure to lead."

The program will support OSHA's petrochemical special emphasis inspection program and EPA's lead exposure reduction strategy. The OSHA initiative has identified 28 major petrochemical facilities for special review. The EPA strategy includes a major enforcement initiative to reduce lead pollution at 28 lead smelters.

According to the agreement, EPA will join OSHA on as many as six inspections of petrochemical facilities. EPA inspectors will focus on compliance with environmental standards for air, water, toxic substances, and hazardous waste. EPA is also

providing OSHA with inventories of chemicals used at each facility and data on accidental chemical releases that have occurred at those sites.

OSHA will inform EPA of reports of accidents or worker complaints that would trigger an OSHA inspection. OSHA is also providing EPA with files on cases resulting from inspections of five of the targeted lead smelters.

The agencies also agreed to set up a complaint referral and tracking system concerning potential hazards identified by the agencies. The work plan approved by the two agencies applies only to fiscal 1991; the agencies will meet annually to set goals for each succeeding fiscal year.

EPA Seeks \$35.4 Million Fine for Improper Disposal of PCB-Contaminated Sludge

General Motors Corporation (GM) and two New York-based hazardous waste disposal companies face a combined proposed penalty of \$34.5 million for improperly disposing of sludge contaminated with polychlorinated biphenyls (PCBs). The penalty is the largest ever proposed for alleged violations of the Toxic Substances Control Act (TSCA).

GM was charged with sending about 31,000 tons of PCB-contaminated sludge to various unauthorized disposal sites from February 1984 through October 1987. The alleged

violations were uncovered during an EPA inspection at the GM facility in Massena, N.Y., in 1988.

According to the complaint, lubricating fluids containing PCBs were collected and processed through GM's wastewater treatment system. Sand and limestone were added to the reclaimed fluids to form sludge and shipped off site for disposal. This sludge contained PCBs in excess of 500 parts per million. Any wastes with PCB concentrations of more than 500 parts per million must be incinerated, according to EPA rules.

EPA separately charged two of the commercial landfills used by GM with violating their PCB disposal permits. CWM Chemical Services, a subsidiary of Chemical Waste Management Inc., and CECOS International, a subsidiary of Browning Ferris Industries, were charged with failure to test the wastes to determine their PCB concentration, as required by the companies' TSCA permits.

The complaints propose penalties of \$14.17 million against GM, \$14.15 million against CECOS International, and \$7.07 million against CWM Chemical Services.

Penalties Reduced Against Two Companies That Submitted TRI Reports after EPA Inspections

Companies that report toxic emissions to EPA after the deadline for Toxics Release Inventory (TRI) reporting has passed should not be held liable for failure to report, even when an inspection by EPA appears to have impelled the submittal, according to two rulings by EPA administrative judges.

EPA had sought a \$15,000 penalty against Pease and Curren, a Rhode Island metals recovery firm, under the agency's Emergency Planning and Community Right-to-Know Act (EPCRA) enforcement policy, which states that a late report submitted by a facility after contact by EPA should be treated as a failure to report. Pease and Curren submitted the TRI report after an inspection by EPA revealed that it had not been filed. At that point, the TRI report was 13 months past the reporting deadline.

EPA Chief Administrative Law Judge Henry B. Frazier III reduced the penalty to \$9,000 for late filing, saying the EPCRA penalty policy is "arbitrary and opposed to the expressed interest in arriving at civil penalties in a fair, uniform, and consistent manner."

In the case of CBI Services, Inc., of Illinois, EPA had sought a fine of \$125,000 against the company for its failure to file TRI reports. The company had filed the reports more than 180 days after the reporting deadline was passed and three months after the company had been inspected for

EPCRA compliance. Ruling that EPA's penalty policy was arbitrary, Administrative Law Judge J.F. Greene reduced the fine to \$99,000 for filing a late TRI report.

The decisions in these cases supported an earlier case against Riverside Furniture Corporation, of Arkansas, in which EPA's policy of characterizing a report made after an inspection as a failure to report, rather than a late report, was judged to be arbitrary.

In all three cases, however, the judges affirmed the significance of TRI reporting. Writing in the Riverside case, the administrative law judge stated that "the success of EPCRA can be attained only through voluntary, strict, and comprehensive compliance with the act and regulations . . . and a lack of such compliance will weaken, if not defeat, the purposes expressed [in the act]."

EPA Reduces Kodak Penalty by \$2.4 Million

EPA has mitigated a \$2.5 million penalty assessed against Eastman Kodak Co. to \$100,000. The company was fined for manufacturing four chemicals on multiple occasions without properly completing the new chemicals review process. The fine was assessed against Kodak in 1988, two years after the company voluntarily disclosed the violations to EPA.

Kodak and EPA participated in ongoing discussions between 1979 and 1984 on filing premanufacture notices—required before a new chemical is manufactured—based on an end use of a material. According to a Kodak spokesman, the company later learned that premanufacture notices were required when any reactants are introduced into the process.

After prolonged discussions between EPA and Kodak, the agency decreased the proposed penalty by \$700,000 in recognition of Kodak's prior efforts to seek guidance from EPA regarding when to file premanufacture notices with the agency. In reducing the penalty, however, the agency did not drop the allegations associated with EPA guidance.

EPA also reduced the fine by \$521,000 in exchange for Kodak's commitment to destroy 36 transformers and 11 capacitors containing polychlorinated biphenyls (PCBs). Kodak's agreement to destroy the equipment, which has a life expectancy of up to 46 years, is intended to remove and destroy more than 14,000 gallons of PCBs in an environmentally safe manner years in advance of scheduled disposal.

Additional reductions to the penalty were made for Kodak's "good attitude" in pursuing settlement for all four allegations and for taking all steps reasonably necessary to ensure that existing stocks were not sold during the review of the premanufacture notices.

State Loses Bid to Intervene in Texas Eastern Suit

The Commonwealth of Pennsylvania has lost its bid to intervene in the court-approved settlement between EPA and the Texas Eastern Transmission Corporation. EPA brought the suit against Texas Eastern for illegal handling and disposal of polychlorinated biphenyls (PCBs) along 10,000 miles of natural gas pipeline in 14 states.

The EPA lawsuit was settled by a 1989 consent decree in which the company agreed to pay a \$15 million civil fine and to spend an estimated \$500 million to clean the 89 disposal pits along its pipeline into which the company routinely dumped liquids contaminated with PCBs.

Nineteen of the disposal pits are in Pennsylvania, and the state sought to intervene in the federal action in order to levy civil penalties on Texas Eastern and to force the company to clean up PCB-contaminated sites in the state. The appeals court ruled that Pennsylvania failed to show how the settlement between EPA and Texas Eastern impaired the state from enforcing its laws to protect its environment and its citizens. The state in 1987 had signed its own consent agreement with the company. In the agreement, Texas Eastern agreed to identify contaminated sites within the state. The state also levied \$61 million in penalties and assessment costs for groundwater and site remediation against Texas Eastern.

The federal consent decree was shaped to leave state rights intact, said Helene Ambrosino, an EPA attorney. EPA envisioned that the states would take enforcement actions under their laws and did not intend to interfere with enforcement of state law, she said. The consent decree also includes a section on how state and federal actions should be coordinated.

Other Enforcement Actions

■ EPA has proposed a penalty of \$688,125 against Altana, Inc., of Connecticut, for failing to notify EPA of its intent to import a new chemical substance into the United States. Section 5 of the Toxic Substances Control Act (TSCA) requires that EPA be notified at least 90 days before a new chemical is imported. "Failure to comply with the notification requirements of TSCA is very serious, since it restricts EPA from identifying new chemical hazards and instituting means to minimize potential risk," said Paul G. Keough, the deputy administrator of EPA's Region 1.

The proposed penalty against Altana, which was formerly BYK-Chemie USA, includes a 25 percent reduction because the company voluntarily disclosed the violation.

■ A church-operated school has been fined \$4,000 for failing to develop an asbestos management plan as required by the Asbestos Hazard Emergency Response Act (AHERA). Cornerstone Baptist Church, located in Union City, Indiana, had argued that EPA lacks jurisdiction over the school because it is run by the church and thus is protected under the First Amendment. The First

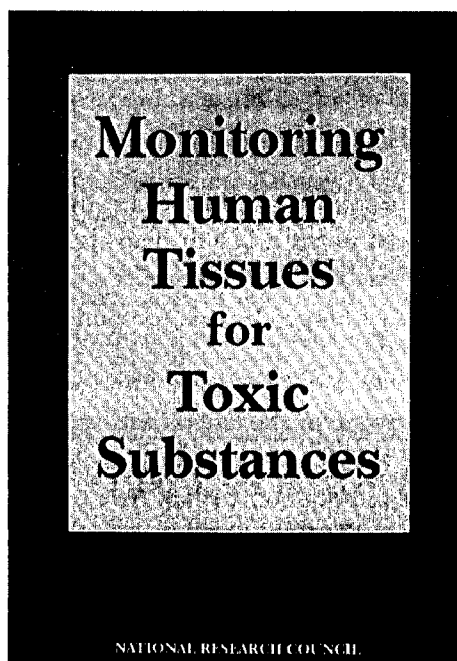
Amendment forbids any law affecting the establishment of or practicing of religion. EPA Administrative Law Judge Spencer T. Nissen ruled that the church was a local education agency operating a school as defined in AHERA. "Inasmuch as there is no evidence that the act . . . prevents the church from practicing its religion or coerces it in any way as to the nature of those practices, the claim that the First Amendment is a bar to the enforcement of the act and regulation . . . is rejected," Judge Nissen wrote. He imposed the full penalty for non-compliance.

NAS Recommends that EPA Continue Adipose Tissue Study

A national program to analyze human tissue for selected chemicals should be continued, according to a National Academy of Sciences (NAS) review released in May. The report on the review, *Monitoring Human Tissues for Toxic Substances*, recommends that the National Human Monitoring Program remain at EPA in an office at the highest organizational level in the agency. The program is currently administered by EPA's Office of Toxic Substances (OTS).

In 1988, OTS decided to terminate the monitoring program due to a lack of resources. After the scientific and public health communities objected to the decision, Congress directed EPA (1) to obtain a review of the program from the National Academy of Sciences and (2) to continue the program until the review was completed.

The NAS review strongly supports continuing a national human monitoring program. Through the National Human Adipose Tissue Survey (NHATS), the main component of the EPA program since 1970, OTS collects human adipose tissue specimens from the general U.S. population and analyzes them for such chemicals as organochlorine pesticides, polychlorinated biphenyls, halogenated dioxins and furans, and diphenylethers. The academy recommends significantly changing



the program to focus primarily on collecting and analyzing blood specimens. To run the program, the academy recommends that a full-time staff and a minimum annual budget of \$5 million be provided. The report also identifies areas for improvements. The academy recommends the current program continue until the recommended changes can be made.

EPA is reviewing *Monitoring Human Tissues for Toxic Substances* and will give serious consideration to its recommendations before making a final decision on the future of the program. Copies of the report are available from the National Academy Press for \$29 plus shipping. To purchase the report, call (800) 624-6242 or, if calling from Washington, D.C., (202) 334-3313.

EPA Evaluates Implementation of Law Requiring Schools to Assess and Manage Asbestos

The Office of Toxic Substances (OTS) has completed an evaluation of how well the nation's schools have carried out key aspects of the 1986 Asbestos Hazard Emergency Response Act (AHERA). AHERA requires the nation's primary and secondary schools, both public and private, to conduct inspections of their school buildings for asbestos-containing material, develop plans for its management, and take steps to control it.

The purpose of the evaluation was to determine (1) whether AHERA has helped to reduce the risks from asbestos exposure in schools and (2) which elements of AHERA, if any, might be useful in a program for public and commercial buildings. In 1988, EPA told Congress it would objectively assess the program before deciding whether to proceed with additional regulations for public and commercial buildings.

The evaluation report, *Evaluation of the Asbestos Hazard Emergency Response Act*, focuses on how well most of the key aspects of AHERA have been implemented and how specific factors have affected implementation. It does not address whether schools have complied with all requirements of the law, nor does it address the degree to which AHERA reduces exposure to asbestos in schools or reduces the incidence of asbestos-related diseases caused by exposure to asbestos in schools.

Participation in the evaluation was voluntary. The evaluation was conducted in 198 schools in 30 communities. Specially trained inspectors reinspected each sampled school building, and their findings were compared with the schools' AHERA inspection reports to determine how well the original inspections identified, assessed, described, and quantified any building materials that might be asbestos. Additional information was collected through interviews with each school principal, the AHERA contact person for each school district, the inspector who performed the original AHERA inspection, the head of the PTA or another active parent, and an active teacher in the school. Focus groups were also conducted in nine locations with parents and teachers or with school maintenance and custodial workers.

High rate of identification

The report shows that AHERA inspectors were successful in identifying the vast majority of the suspect asbestos material in schools. Almost 90 percent of suspect material was identified. Despite the relatively high percentage of materials identified and material quantities reported, however, 82 percent of school buildings had at least one material that was unidentified in the original AHERA inspection. Floor tile, ceiling tile, and all types of thermal system insulation were regularly identified as materials that might contain asbestos. Certain types of materials, however, were not regularly identified: vibration dampening cloth, fire doors, and linoleum.

Training of maintenance and custodial workers

Many maintenance and custodial workers who work around asbestos in schools may not be receiving the amount of training required by AHERA. The report found that frequent unprotected and inappropriate work practices are used in schools in the five communities in which the focus groups were held. On the whole, these inappropriate work practices occurred during cleanup of fiber release episodes of less than three linear or square feet or during routine maintenance and custodial activities.

Maintenance and custodial workers at 85 percent of the schools received training. The length of training for maintenance workers, however, was less than that required by AHERA for people who work directly with asbestos-containing building materials. The length of training for custodial workers was not statistically different from that for maintenance workers.

Many management plans need improvement

Plans for managing asbestos were evaluated on completeness and usefulness as a resource for custodial and maintenance workers and the public. Eighty-one percent of the plans for managing asbestos were found to be complete. However, 39 percent of the plans were readily understandable only by people who had some college coursework, and another 22 percent of the plans were not usable unless the reader had specialized instruction.

Other findings

Among the other findings reported in the evaluation:

- There does not appear to be a correlation between the training received by an inspector and the thoroughness of his or her inspection.
- Parents in fewer than 20 percent of the schools reacted to receiving notification about the existence of an asbestos management plan. Half of the parents and 25 percent of the teachers contacted during the evaluation did not recall being notified about the management plan or the contents of the notification.

Additional information is available

To obtain *Evaluation of the Asbestos Hazard Emergency Response Act (AHERA): A Summary Report*, contact the TSCA Assistance Information Service (TSCA hotline). See page 35 for information about contacting the hotline.

To receive a copy of *Evaluation of the Asbestos Hazard Emergency Response Act (AHERA) Final Report*, which includes the full findings of the evaluation along with the statistical methodologies and questionnaires, contact the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161; phone, (703) 487-4650. The report's document number is 566/4-91-013.

U.S. ENVIRONMENTAL PROTECTION AGENCY
PREMANUFACTURE NOTICE
 FOR NEW CHEMICAL SUBSTANCES

AGENCY USE ONLY

GENERAL INSTRUCTIONS

PART I. GENERAL INFORMATION

Companies Voluntarily Providing Information about Pollution Prevention Activities

New Chemicals Program Will Evaluate Data to Assess Potential Risks from New Substances

Many companies are voluntarily providing EPA with information about pollution prevention activities associated with new chemical substances. The information is requested on the revised premanufacture notice (PMN) form, which is used in accordance with section 5 of the Toxic Substances Control Act (TSCA) to report to EPA the manufacture of a new chemical substance. The revised form became available for use in March 1991.

Forty-two PMNs were submitted to EPA on the revised form in June 1991, the month in which use of the form was officially required. Of these, 20 included information about efforts to prevent pollution. Among the efforts described were recycling and the reduction of use of toxic chemicals during production or in packaging.

EPA will use this information in assessing the potential risks from new substances and in weighing the need for regulatory actions. The Office of Toxic Substances (OTS) has created a New Chemicals Pollution Prevention Workgroup to develop ways to better promote pollution prevention in the New Chemicals Program.

OTS Developing Biotechnology Rules

The Office of Toxic Substances (OTS) is developing biotechnology rules under the Toxic Substances Control Act (TSCA).

In 1984, EPA's Office of General Counsel announced that living organisms, including microorganisms, were chemical substances under TSCA. Thus, these organisms would be subject to review by EPA under TSCA. OTS, which implements EPA's New Chemicals Program, has recently integrated its biotechnology activities with its new-chemical activities.

EPA currently reviews intergeneric microorganisms under the 1986

Policy Statement on Microbial Products Subject to the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and TSCA (51 FR 23313, June 26, 1986), which is part of the Federal Coordinated Framework for Regulation of Biotechnology. In accordance with an agreement with EPA, manufacturers voluntarily submit to the agency information about intergeneric microorganisms, which contain genetic material from different genera, if the microorganisms are going to be released into the environment for research and development projects. Additionally, persons who manufacture or process intergeneric microorganisms for general commer-

cial use are required to submit a premanufacture notice to EPA under TSCA.

The biotechnology rules being developed by OTS are based on the "Principles for Federal Oversight of Biotechnology," published by the Office of Science and Technology Policy (55 FR 31118 [July 31, 1990]). Before the rules are published in the *Federal Register*, they must be reviewed within EPA and by the Office of Management and Budget and the Biotechnology Working Group of the Vice President's Council on Competitiveness.

Provisions Can Be Used to Establish Airborne Exposure Limits

The New Chemicals Program in EPA's Office of Toxic Substances has recently developed provisions to establish airborne exposure limits for new chemicals subject to agreements negotiated under section 5(e) of the Toxic Substances Control Act (TSCA). The provisions, known as New Chemical Exposure Limits (NCELs), will be used to establish airborne exposure limits that prevent unreasonable risks to workers from inhalation exposure to new chemical substances.

The NCELs provisions offer companies an alternative way to protect their workers from risks associated with inhalation exposure to new chemicals. In the past, when a premanufacture notice (PMN) indicated a potential risk, the New Chemicals Program addressed the risk by negotiating with the manufacturer or processor to require use of appropriate respirators in the workplace. Reliance on respirators has several drawbacks, however: some

workers do not wear respirators because they are uncomfortable; because respirators are cumbersome, they can be detrimental to other aspects of workplace safety; respirators are inappropriate for some combinations of chemicals and for some workplace conditions; and they may not be cost-effective.

The NCELs provisions, which are modeled after the permissible exposure limits established by the Occupational Safety and Health Administration (OSHA), allow companies to use engineering controls and work practices to maintain a specified workplace airborne concentration. These concentrations are interim levels set by EPA; they are based on information available to the agency at the time the section 5(e) order is developed.

Provisions comparable to NCELs will soon be incorporated into significant new use rules (SNURs) promulgated under TSCA.

Emphasis on Pollution Prevention Changes Role of Analytical Chemists

Analytical chemists have traditionally focused on measuring pollution control mechanisms at the end of chemical production processes. New efforts to stop pollution before it occurs, however, are forcing analytical chemists to develop methods and instrumentation that can be integrated into the process stream itself. These methods of measurement must work as the process is under way to measure the intended product plus unintended contaminants and pollutants.

How pollution prevention is redirecting analytical chemistry—out of the laboratory and into the process stream—was the theme of an April 1991 symposium presented by the American Chemical Society's Division of Environmental Chemistry. The symposium, *Pollution Prevention and Process Analytical Chemistry*, was co-chaired by Joseph J. Breen, of the Exposure Evaluation Division of EPA's Office of Toxic Substances, and Michael J. Dellarco, of EPA's Office of Research and Development's Office of Modeling, Monitoring Support and Quality Assurance.

Michael Stahl Appointed New Director of OCM

Michael Stahl became director of the Office of Compliance Monitoring (OCM) in April 1991. Prior to his appointment, Mr. Stahl was director of the Environmental Assistance Division of the Office of Toxic Substances (OTS). OTS and OCM are both part of EPA's Office of Pesticides and Toxic Substances.

While in OTS, Mr. Stahl was responsible for implementing a national program to control asbestos in buildings, coordinating toxics control programs with EPA regional offices and state agencies, and ensuring public participation in OTS's toxics programs. As director of OCM, Mr. Stahl will direct efforts to ensure compliance with federal laws and regulations governing pesticides and toxic substances.

Abstracts are available of the symposium's sessions: Chemical and Biological Sensors; Membrane Sampling and Extraction Methods; New Approaches to Process Analytical Chemistry: Parts I and II; Methods and Measurements; Robotics; and Toxics Release Inventory and Pollution Prevention. For more information, contact Dr. Joseph J. Breen, Exposure Evaluation Division (TS-798), Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460; telephone, (202) 260-3569; FAX, (202) 260-6704.

EPA Proposes Rule to Regulate Spreading of Sludge Contaminated with Dioxins and Furans

EPA has proposed a rule to control the land application of sludge from pulp and paper mills that use chlorine or chlorine-derivative bleaching processes. This sludge is generally contaminated with dioxins and furans, principally 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) and 2,3,7,8-tetrachlorodibenzofuran (TCDF).

In proposing the rule, the agency is seeking to minimize the hazards to wildlife from TCDD and TCDF. Even in small amounts and at low concentrations, TCDD can cause reproductive damage to animals, and EPA has classified it as a probable human carcinogen. TCDF is also a highly toxic chemical.

TCDD and TCDF, as well as other dioxins and furans found in paper-mill sludge, are byproducts of the chlorine-bleaching processes used by 104 of the pulp and paper mills in the United States. Sludge is the solid material that settles out during the treatment of process wastewater. Sludge from 12 of the mills is spread on land to dispose of it and to utilize its soil-conditioning properties. The sludge is also used for revegetation at strip mines and at other land reclamation sites.

The proposed rule would set the maximum allowable dioxin and furan concentration in soil at 10 parts per trillion following the land application of paper-mill sludge. Under the proposed rule, the mills generating

the sludge would be responsible for measuring the soil concentration prior to application and for ensuring that the post-application soil concentration would not exceed the 10 parts per trillion limit. The mills would also be responsible for maintaining all records of land application activities, regardless of who owns the land or who applies the sludge. At least 45 days prior to applying sludge at a given site, the mill would be required to file notice with the appropriate EPA regional office identifying the location of the site, the TCDD and TCDF concentration in soil at the site, the amount of sludge to be applied, and the TCDD and TCDF concentration in the sludge. EPA proposed the rule on May 10, 1991, under section 6(a) of the Toxic Substances Control Act (TSCA).

The principal hazard from TCDD and TCDF in soil arises through food chain bioaccumulation. Earthworms, insects, and other soil-dwelling creatures can ingest TCDD and TCDF, which accumulate in their tissues. Birds and small mammals that consume these creatures ingest the accumulated TCDD and TCDF and can pass it to their predators. The chemicals can also affect the reproductive capability of birds and small mammals.

Humans can be affected if they eat the meat or milk products of animals that have grazed on sludge-treated lands. While very little TCDD and TCDF is taken up by the plants,

grazing animals typically consume some soil along with the foliage, and the TCDD and TCDF in that soil can accumulate in the animals.

Limiting TCDD and TCDF concentration in soil to no more than 10 parts per trillion will protect human health and limit risks to wildlife. EPA estimates that health risks to the general public from the land application of sludge are very low. Subsistence farmers and people who fish in sludge-treated areas are the only populations thought to experience significant TCDD and TCDF exposures from land application. The 10 parts per trillion limit would generally limit these persons' lifetime cancer risk associated with sludge-treated land to one in 10,000. There are no data on the size of the subsistence populations, but they are estimated to be very small.

The deadline for public comment was September 17. An informal public hearing is scheduled to begin on October 29.

The proposed rule fulfills one part of EPA's obligations under a consent decree signed in July 1988 with the Environmental Defense Fund and the National Wildlife Federation. The consent decree required that EPA assess and address dioxin risks in the pulp and paper industry. EPA is continuing regulatory investigations into other aspects of this issue, including the possible regulation of sludge disposal in landfills and surface impoundments.

TSCATS Provides Information on Unpublished Health and Safety Studies

EPA collects unpublished health and safety studies from industry under the Toxic Substances Control Act (TSCA). Information about the studies is compiled in an online database called Toxic Substances Control Act Test Submissions (TSCATS).

The agency receives studies through rules promulgated under section 4 and section 8 of TSCA. Some studies are also submitted voluntarily on a For Your Information (FYI) basis when the submitting organization is uncertain whether the findings indicate significant risk.

TSCATS categorizes studies into three broad areas: health effects, environmental effects, and environmental fate. It is possible to search TSCATS records in several fields, including chemical name, Chemical Abstract Service (CAS) number, study title, submitting organization, and type of study. The online format is similar to a bibliographic citation for a journal article or book; the database indicates where a study is located. TSCATS includes abstracts for a small number of the studies.

How to obtain access to TSCATS

The TSCATS database is accessible online through the National Library of Medicine, Chemical Information Systems, Syracuse Research Corporation, and Chemical Abstract's Science and Technology Network.

- **National Library of Medicine:** Here, TSCATS is a subfile of two separate files, TOXLINE and the Hazardous Substance Database.

TOXLINE is a bibliographic file containing information on the effects of chemicals and other agents on living systems. A search in TOXLINE will retrieve citations to records, which will point to the source of the information. TSCATS is one of 15 subfiles in TOXLINE. It is possible to retrieve only TSCATS by specifying the subfile during a search. To obtain access to TOXLINE, call (800) 638-8480.

The Hazardous Substance Database contains data on more than 5,000 chemicals, including information on chemical and physical characteristics, uses, disposal methods, hazards, and toxicology. These data are extracted from many sources, in-

cluding TSCATS. All the TSCATS entries in the database have abstracts. Once again, a search can be narrowed to look just at TSCATS information. To obtain access to the Hazardous Substance Database, call (301) 496-6531.

■ Chemical Information System (CIS):

CIS carries TSCATS as a separate file, which can be searched independently from all the other files. CIS also provides an online mechanism for ordering copies of studies. To obtain access to CIS, call (800) CIS-USER (247-8737).

■ Syracuse Research Corporation (SRC):

The TSCATS database is a separate file through SRC. To obtain access to SRC, call (315) 426-3200.

TSCATS continued on back cover

Sample Record of TSCATS Entry *

File 4; Entry 2; Accession No. 1868
 (RNO) Record Number: 017478
 (CAS) Cas Number: 2210799
 (NAM) Name: O-CRESYL GLYCIDYL ETHER
 (TSC) TSCA Section: BD
 (TLE) Title: FINAL REPORT ON THE EPOXIDES EVALUATED FOR MUTAGENICITY WITH COVER LETTER
 (CIT) Document Number: 878211534
 (DPR) Date Produced: 8-24-77
 (CNI) Contractor: UNIV of TX MEDICAL BRANCH
 (DRE) Date Received: 12-20-82
 (SUB) Submitting Organization: DOW CHEM CO
 (CRE) Chemical Category: GLYCIDOL & ITS DERIVATIVES
 (JRN) Journal/Source: U.S. EPA/OTS Public Files
 (FCH) Fiche Number: 0206138 (S)
 (PRP) Study Purpose:

Pur 1	Pur 2	Pur 3	Org 1	Org 2	Rte 1	Rte 2	Purity
HE	GTOX	MUTA	BACT		INVR		SNGL
-	-	DNAF	MAMM	HUMN	-		-
-	-	CHRM	-	MICE	ORAL		-
-	-	MUTA	-	-	DERM		-

* This entry is from the Chemical Information Systems' database. TSCATS is also accessible through other systems listed in the article above.

17 States, 1 Indian Tribe Offered Grants for Regulating Asbestos

EPA recently offered \$1.26 million in grants to 17 states and one Indian tribe for use in regulating asbestos.

Eligible activities include

- developing comprehensive state-wide asbestos management plans;
- consolidating and integrating existing state asbestos programs;
- developing state certification and inspection programs for asbestos abatement;
- establishing state assistance programs for asbestos abatement projects; and
- improving the collection of data on asbestos abatement and making the data more accessible to the public.

EPA's Office of Toxic Substances (OTS) announced the state enhancement grants in February 1991. To receive funds that have been offered, the recipient must provide a matching contribution of at least 25 percent of the project cost.

State Enhancement Grant Allocations for Regulation of Asbestos

STATE	PROJECT(S)	FUNDS
Connecticut	Development of asbestos abatement legislation and program capability.	\$ 45,000
Maine	Development of asbestos abatement legislation; establishment of accreditation programs for project monitoring, consultants, and laboratories; improvement of public access to asbestos information.	\$ 45,599
Rhode Island	Implementation of programs for public outreach, education, complaint response, licensing, and certification.	\$ 44,844
Vermont	Development of a comprehensive state asbestos management plan and state accreditation program; support for integrating existing inspection programs.	\$118,560
New York	Reevaluation of training and development of new tests for abatement workers and air-sampling technicians; development of an asbestos primer for schools.	\$ 90,112
Alabama	Establishment of an accreditation program for operations and maintenance personnel in schools; provision of technical assistance to local education agencies for operations and maintenance issues.	\$ 33,875
Kentucky	Development of administrative procedures and new statutory/regulatory authorities required for EPA approval of the state accreditation program and state inspection program.	\$ 21,125
Tennessee	Development of a computerized system to track asbestos management plans of local education agencies, to target inspections, and to improve public access to asbestos compliance data.	\$ 45,000
Michigan	Acquisition of computer hardware and software to improve access to and state tracking of asbestos compliance-monitoring data.	\$ 50,000

STATE	PROJECT(S)	FUNDS
Wisconsin	Development of an integrated interagency computer network to improve access to and state tracking of asbestos compliance-monitoring data.	\$ 50,000
Oklahoma	Development of an EPA-approved state accreditation program and new training programs for workers who take air samples and work in confined spaces.	\$ 26,157
Louisiana	Development of an inspection and management program for state-owned buildings; evaluation of existing state rules on asbestos; implementation of outreach programs; and improvement of access to program data.	\$ 91,723
Colorado	Establishment of an integrated asbestos data management and processing network to enhance access to and tracking of data.	\$ 50,000
Utah	Upgrading of state accreditation program to conform with new national standards.	\$ 44,045
California	Support to start a state accreditation program; establishment of a computer database.	\$288,808
Hawaii	Development of a comprehensive state asbestos management plan, including the drafting of new legislation to expand accreditation and to track and improve access to asbestos data; integration of existing compliance-monitoring activities.	\$ 35,518
Alaska	Development of a comprehensive state asbestos management plan and drafting of new statutes and regulations as required.	\$155,934
Shoshone Bannock Tribe	Implementation of an inspection and management program for the tribe's nonschool buildings.	\$ 24,000

\$46.3 Million Awarded to School Districts for Asbestos Abatement

In April 1991, EPA awarded \$46.3 million to school districts to undertake asbestos abatement projects. The funds were offered to 123 school districts for abatement projects in 201 schools. Four hundred and six local education agencies applied for assistance.

About \$12.8 million in grants and \$33.5 million in interest-free loans will be provided to the schools. The fiscal 1991 funds were authorized by the Asbestos School Hazard Abatement Act (ASHAA) of 1990. EPA estimates that these asbestos abatement projects will eliminate more than 2 million hours of exposure to asbestos per

week for students and school employees.

Including this year's awards, EPA has provided \$291.5 million for asbestos abatement in 1,907 schools since 1985.

Standards revised

EPA reviewed the indicators used to evaluate school districts' financial need and determined that changing two key indicators would allow more equitable treatment of all applicants. These new indicators were used during the fiscal 1991 award cycle.

First, the agency began using school districts' operating budget per pupil to evaluate both public and private

school applications for ASHAA funds. Previously, the operating budget per pupil was used for private schools only, and per capita income was used as an indicator for public schools.

Second, in determining financial qualification, the new formula weighs the cost of abatement in relation to the school district's operating budget per pupil and automatically eliminates the richest school districts from being considered for awards.

Application information

School districts will be notified by November 15, 1991, if Congress appropriates funds for awards in fiscal 1992.

EPA Will Provide \$1.2 Million to Programs Supporting Local Emergency Planning Committees

More than 35 states and Indian tribes have applied to EPA for grants to support their local emergency planning committees. These committees are required by federal law to develop local emergency response plans for use by police, firefighters, or other local officials who respond to accidents involving hazardous materials in their communities.

EPA will announce the awards in October 1991. The agency will award at least \$1.2 million in grants and cooperative agreements to state and tribal programs under the Emergency Planning and Community

Right-to-Know Act (EPCRA) of the Superfund Amendments and Reauthorization Act of 1986 (SARA), which is also known as title III of SARA.

SARA title III required that local emergency planning committees develop emergency response plans by October 1988. Most committees are now testing and revising these plans. Some committees, however, are in the early stages of developing or implementing their plans. In making the awards, EPA will consider start-up projects as well as the improvement of programs already under way.

The procedure for appointing the local emergency planning committees was established by SARA title III. The law required governors and tribal leaders to appoint state and tribal emergency response commissions, which then designated the local emergency planning committees.

The purpose of the grants is to provide money to state or tribal emergency response commissions for projects that strengthen the capabilities and operation of the local committees. The deadline for applying for the funds was June 21, 1991.

Reevaluation of Dioxin Risk Under Way

In April 1991, EPA Administrator William K. Reilly asked the agency's Office of Research and Development to reevaluate the risks of exposure to dioxin in light of new scientific developments concerning dioxin. The review, which will encompass ecological risks as well as toxicity and exposure to humans, is expected to be completed in about a year, at which time it will be made available for peer and public review.

"There has been much speculation about the effect of these new developments on our revised dioxin risk assessment," said Administrator Reilly. "Some factors may decrease the level of concern. Others may result in estimates of increased risk. We cannot draw conclusions about the results of our reassessment until a complete review has been performed and the combined effect on the overall assessment of dioxin risks determined."

Administrator Reilly also asked a group of senior agency managers to review agency actions related to dioxin that are either under way or planned for the next year and to recommend whether any changes are appropriate over the period during which the reevaluation is being undertaken. Until review of that report is completed, all ongoing activities related to dioxin will proceed as planned. "In particular," said the administrator, "enforcement cases, Superfund or other cleanup actions, and individual control strategies and permits under the Clean Water Act involving dioxin should move forward."

Compliance Audit Program Is Modified

EPA has announced the final modification of the Compliance Audit Program (CAP). CAP is a one-time, voluntary program developed to encourage companies to audit their files for substantial risk information required by section 8(e) of the Toxic Substances Control Act (TSCA).

The final modifications to CAP, announced June 20, 1991, are

- the addition of a provision for listing previously reportable TSCA section 8(e) information that was provided to EPA before June 18, 1991, under another section of TSCA or under another statute, and a stipulated fine of \$5,000 for each of the overdue filings;
- the suspension of two parts of EPA's TSCA Section 8(e) Policy Statement—part V(b)(1), which

pertains to widespread and previously unsuspected chemical distribution in environmental media, and part V(c), which addresses emergency incidents of environmental contamination (see related article on this page); and

- the availability of a TSCA section 8(e) reporting guide.

For more information or to obtain copies of the revised CAP agreement or the section 8(e) reporting guide, see page 35 for information on how to contact the TSCA Assistance Information Service (TSCA hotline). Copies of the *Federal Register* notices about CAP are also available from the TSCA hotline. CAP was announced on February 1, 1991 (56 FR 4128), and modified on April 26, 1991 (56 FR 19514), and on June 20, 1991 (56 FR 28458).

EPA Announces Review of TSCA Section 8(e) Policy Statement

EPA is assessing the information it collects under section 8(e) of the Toxic Substances Control Act (TSCA) concerning widespread environmental distribution and emergency incidents of environmental contamination.

On June 20, 1991, the agency announced it will review the data submitted under TSCA section 8(e) and other federal laws to determine with greater specificity what information should be reported under TSCA section 8(e). EPA's Office of Toxic Substances (OTS) will conduct the review, which will involve discussions with other EPA program offices and EPA regional offices, other federal agencies, state programs, the regulated community, environmental groups, and others. In the fall, EPA will announce how interested parties can submit comments on the issue.

EPA has suspended parts V(b)(1) and V(c) of the TSCA Section 8(e) Policy Statement while the review is under way. In the interim, the regulated community is advised to rely on the statutory language of section 8(e) of TSCA to determine the reportability of information of this type under CAP and to ensure compliance with the statute.

TSCA Section 8(e) Notices

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

The Office of Toxic Substances (OTS), which responds to TSCA section 8(e) submissions, has changed its format for doing so. As of October 1, 1990, OTS began issuing "submission summaries," rather than "status reports," following initial section 8(e) notices. Submission summaries contain a detailed accounting of the toxicological and other data contained within the 8(e) submission, but no information regarding EPA's evaluation or disposition of the case.

Below is a list of TSCA section 8(e) notices received between January 1, 1991, and June 6, 1991. In the list, "S" indicates that a sanitized, or nonconfidential, version of the document is available, and "P" indicates that a portion of the submission is protected under the Privacy Act.

Log No. 8EHQ-	Chemical Name	CAS No.	Type of Information
0191-1145	Phenol	108-95-2	Env. Occurrence/Release/Fate Groundwater Contamination
0191-1146 S	Phenoxyquinoxaline, Substituted	Confidential	Oncogenicity (Animal) Chronic Toxicity (Animal)
0191-1147 S	Polymeric Quaternary Ammonium Salt	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
0191-1148 S	Silane, Alkyl Trialkoxy-	Confidential	Mutagenicity (In Vitro) Acute Toxicity (Animal) Neurotoxicity (Animal)
0191-1149 S	Acetic Acid, Bromo-	79-08-3	Acute Toxicity (Animal)
0191-1150 S	1,2-Benzenedicarboxylic Acid, Diisononyl Ester	28553-12-0	Reproductive Toxicity/Terato. (Animal) Subacute Toxicity (Animal)
0191-1151 S	Halogenated Organic Solvent Based Adhesive Product	None	Acute Toxicity (Human)
0191-1152 S	Alkaryl Sulfonic Acid, Calcium Salt Alkaryl Sulfonic Acid, Magnesium Salt	Confidential Confidential	Allergenicity (Animal)
0191-1153	Benzenediazonium, 4-(Dimethylamino)-, Trichlorozincate(1-)	6087-56-5	Acute Toxicity (Animal) Ecotoxicity/Aquatic Toxicity

Log No. 8EHQ-	Chemical Name	CAS No.	Type of Information
0191-1154	Benzenediazonium, 4-(Dimethylamino)-, 5-Sulfosalicylate	124737-31-1	Subacute Toxicity (Animal) Ecotoxicity/Aquatic Toxicity
0191-1155	Benzenediazonium, 2,5-Diethoxy-4-(4-Morpholinyl)-, Sulfate (1:1)	32178-39-5	Acute Toxicity (Animal)
0191-1156 S	Heterocycle, Aromatic	Confidential	Reproductive Toxicity/Terato. (Animal)
0191-1157	1,2-Benzenedicarboxylic Acid, Bis(2-Ethylhexyl) Ester	117-81-7	Reproductive Toxicity/Terato. (Animal) Subacute Toxicity (Animal)
0191-1158 S	2-Butanone, 0, 0', 0'', 0'''-Silanetetrayl-Tetraoxime	34206-40-1	Subacute Toxicity (Animal)
	2-Butanone, 0, 0'-(Diethoxysilylene) Dioxime	93917-75-0	
	2-Butanone, 0, 0', 0''-(Ethoxysilyldiyne) Trioxime	101371-00-0	
	2-Butanone, 0-(Triethoxysilyl)Oxime	101371-01-1	
0191-1159	Benzene	71-43-2	Env. Occurrence/Release/Fate Groundwater Contamination
0191-1160	Benzene, 2-Isocyanato-1,3-Bis-(1-Methylethyl)-	28178-42-9	Acute Toxicity (Animal) Human Exposure (Product Contamination)
0191-1161 S	Acetylenic Compound, Di-Substituted	Confidential	Allergenicity (Animal)
0191-1162 S	Heterocycle	Confidential	Reproductive Toxicity/Terato. (Animal) Subchronic Toxicity (Animal) Neurotoxicity (Animal)
0191-1163 S	Heterocycle	Confidential	Reproductive Toxicity/Terato. (Animal) Subacute Toxicity (Animal) Neurotoxicity (Animal)
0191-1164 S	Amino Acid Amide, Substituted	Confidential	Oncogenicity (Animal) Chronic Toxicity (Animal)
0191-1165 S	Heterocycle	Confidential	Acute Toxicity (Animal)
0191-1166 S	Pyridine, Substituted	Confidential	Oncogenicity (Animal) Chronic Toxicity (Animal) Reproductive Toxicity/Terato. (Animal)
0191-1167 S	Tetrahydrofuran, Haloaryl-Substituted	Confidential	Reproductive Toxicity/Terato. (Animal) Subchronic Toxicity (Animal) Subacute Toxicity (Animal)
0191-1168 S	Heterocycle	Confidential	Subacute Toxicity (Animal)
0191-1169 S	Tetrahydrofuran, Halo-Substituted	Confidential	Reproductive Toxicity/Terato. (Animal)

Log No. 8EHQ-	Chemical Name	CAS No.	Type of Information
0191-1170	1,2-Benzenedicarboxylic Acid, Bis(2-Methoxyethyl) Ester	117-82-8	Reproductive Toxicity/Terato. (Animal) Metabolism/Pharmacokinetics (Human) Human Exposure (Monitoring)
0291-1171 S	Heptane, Bicyclo-	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
0291-1172 S	Benzoheterocycle	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
0291-1173 S	Benzoheterocycle	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
0291-1174 S	Alcohol, Substituted Alkyl	Confidential	Reproductive Toxicity/Terato. (Animal)
0291-1175	Diethylene Glycol	111-46-6	Reproductive Toxicity/Terato. (Animal)
0291-1176	Amines, C13-15-Alkyl, Ethoxylated	70955-14-5	Subchronic Toxicity (Animal)
0291-1177	Iron Pentacarbonyl	13463-40-6	Acute Toxicity (Animal)
0291-1178	Benzoic Acid, 2-[(2-Hydroxy-1-Naphthalenyl)Azo]-, 2-(Dimethylamino) Ethyl Ester, Monohydrochloride	118207-99-1	Subacute Toxicity (Animal) Clastogenicity (In Vitro)
0291-1179 S	Heterocycle	Confidential	Neurotoxicity (Animal) Subchronic Toxicity (Animal)
0291-1180 S	Heterocycle	Confidential	Neurotoxicity (Animal) Subchronic Toxicity (Animal)
0291-1181 S	Heterocycle	Confidential	Reproductive Toxicity/Terato. (Animal) Acute Toxicity (Animal) Chronic Toxicity (Animal) Neurotoxicity (Animal) Subchronic Toxicity (Animal)
0291-1182	Benzene	71-43-2	Env. Occurrence/Release/Fate
	Methylene Chloride	75-09-2	Groundwater Contamination
	Benzene, Ethyl-	100-41-4	
	Toluene	108-88-3	
	Xylene	1330-20-7	
	Lead	7439-92-1	
0291-1183 S	Amidophosphate, Aromatic	Confidential	Reproductive Toxicity/Terato. (Animal)
0291-1184	Ethyl Acrylate	140-88-5	Acute Toxicity (Animal)
0291-1185 S	Hexanedione (A), Cyclo-	Confidential	Reproductive Toxicity/Terato. (Animal)
0291-1186 S	Hexanedione (B), Cyclo-	Confidential	Reproductive Toxicity/Terato. (Animal)

Log No. 8EHQ-	Chemical Name	CAS No.	Type of Information
0391-1187	Cotton Dust	None	Chronic Toxicity (Human) Epidemiology/Clinical
0291-1188	Phosphine	7803-51-2	Clastogenicity (Animal)
0291-1189	Benzenamine, 4-Nitro-N-Phenyl-	836-30-6	Reproductive Toxicity/Terato. (Animal)
0291-1190 S	Pyrimidine Sulfonamide, Substituted Sulfonamide, Substituted Pyrimidine	Confidential Confidential	Ecotoxicity/Aquatic Toxicity
0291-1191	2,5-Cyclohexadiene-1,4-Dione, 2,3,5-Trimethyl-	935-92-2	Acute Toxicity (Animal)
0391-1192 S	Catalyst Ligand 23899 Phosphine, Organo-	Confidential Confidential	Allergenicity (Human)
0291-1193	Cyclopentane, Methyl- Hexane	96-37-7 110-54-3	Reproductive Toxicity/Terato. (Animal)
0391-1194	3-Buten-2-One, 4-Phenyl-	122-57-6	Acute Toxicity (Animal)
0391-1195 S	Polyol, Nitrated-Polyether	Confidential	Acute Toxicity (Animal)
0391-1196 S	Phosphonate, Thio-	Confidential	Subacute Toxicity (Animal) Subchronic Toxicity (Animal)
0391-1197 S	Benzoheterocycle	Confidential	Neurotoxicity (Animal) Subacute Toxicity (Animal) Acute Toxicity (Animal)
0391-1198 S	Hydrazine, Substituted	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
0391-1199 S	Heterocycle	Confidential	Reproductive Toxicity/Terato. (Animal) Neurotoxicity (Animal)
0391-1200 S	Arylmethyl-2-Cyclopropyl-2- Arylethyl Ether	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
0391-1201 S	Siloxane, Organomodified Polydimethyl-	Confidential	Acute Toxicity (Animal)
0391-1202	Cobaltate(3-), Hexakis(Cyano-C)-, Zinc (2:3), (OC-6-11)-	14049-79-7	Acute Toxicity (Animal)
0391-1203	Mercury Cadmium	7439-97-6 7440-43-9	Human Exposure (Monitoring)
0391-1204 S	Triazolinone, Phenyl-	Confidential	Reproductive Toxicity/Terato. (Animal)

Log No. 8EHQ-	Chemical Name	CAS No.	Type of Information
0491-1205 S	Amino Acid Amide, Aryl Substituted	Confidential	Reproductive Toxicity/Terato. (Animal)
0491-1206 S	Tetrahydrofuran, Halo-Substituted	Confidential	Reproductive Toxicity/Terato. (Animal)
0491-1207 S	Quinazoline (V), Substituted	Confidential	Acute Toxicity (Animal)
0491-1208 S	Benzoxazinone	Confidential	Subacute Toxicity (Animal)
0491-1209 S	Triazole (Fungicide)	Confidential	Reproductive Toxicity/Terato. (Animal)
0491-1210	Hydroquinone	123-31-9	Oncogenicity (Animal) Chronic Toxicity (Animal)
0491-1211 S	Pyrimidine	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
0491-1212 S	Phosphoric Acid, Mixed 3-Bromo-2,2-Dimethylpropyl and 2-Bromoethyl and 2-Chloroethyl Esters	125997-20-8	Reproductive Toxicity/Terato. (Animal)
0491-1213 S	Triazolinone, Phenyl	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
0491-1214	Lucel-3 Azo Foaming Agent	57910-39-1	Neurotoxicity (Animal) Acute Toxicity (Animal)
0491-1215	Dioxins, Chlorinated Benzenamine, 2,6-Dichloro-4-Nitro-	None 99-30-9	Human Exposure (Product Contamination)
0491-1216 S	Benzoheterocycle	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
0491-1217 S	Polypropylene Oxide, Acid Grafted	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
0491-1218 S	Pyridine	Confidential	Neurotoxicity (Human) Acute Toxicity (Animal)
0491-1219	2-Propanol	67-63-0	Reproductive Toxicity/Terato. (Animal)
0491-1220	Benzenepropanoic Acid, 3,5-Bis-(1,1-Dimethylethyl)-4-Hydroxy-, C7-9-Branched Alkyl Esters	125643-61-0	Subacute Toxicity (Animal)
0491-1221	Octanoic Acid, 1,1,3,3-Tetrabutyl-1,3-Dioxanediyl	56533-00-7	Subacute Toxicity (Animal)
0491-1222 S	Bicycloalkane	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)

Log No. 8EHQ-	Chemical Name	CAS No.	Type of Information
0491-1223	Pyrimidine, Amino-	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
0491-1224 S	Hydrazone	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
0491-1225 S	Triazole (Fungicide)	Confidential	Reproductive Toxicity/Terato. (Animal)
0491-1226	C.I. Acid Red 114	6459-94-5	Oncogenicity (Animal) Subacute Toxicity (Animal) Chronic Toxicity (Animal) Clastogenicity (In Vitro) Mutagenicity (In Vivo) Mutagenicity (In Vitro) Subchronic Toxicity (Animal)
0491-1227 S	Amino Alcohol, Substituted Cyclic	Confidential	Acute Toxicity (Animal)
0491-1228	Aluminum Complex, Organo	Confidential	Mutagenicity (In Vitro) Reproductive Toxicity/Terato. (Animal) Acute Toxicity (Animal) Subchronic Toxicity (Animal) Allergenicity (Animal) Subacute Toxicity (Animal) Clastogenicity (In Vitro) Metabolism/Pharmacokinetics (Animal)
0491-1229	Ethylene Oxide	75-21-8	Epidemiology/Clinical Clastogenicity (Human)
0491-1233 S	Propionate, Phenoxy	Confidential	Reproductive Toxicity/Terato. (Animal)

Availability of 8(e) Notices and FYI Submissions

Section 8(e) notices and FYI submissions are located in the OTS Public Reading Room, NE-G004, 401 M Street, S.W., Washington, D.C. 20460. Single copies of section 8(e) submission summaries are available from the TSCA Assistance Information Service (TSCA hotline). For more information about contacting the TSCA hotline, see page 35.

To obtain a copy of a full section 8(e) or FYI submission, write to EPA, Freedom of Information (A-101), 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.

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, processors, federal, state, or local agencies, foreign governments, academic institutions, public interest and environmental groups, and the general public.

The FYI classification system was established by the Office of Toxic Substances (OTS) to distinguish such submissions from notices submitted formally to EPA under section 8(e) of TSCA.

Listed below are the FYI submissions received between February 1, 1991, and June 6, 1991. In the list, "S" indicates that a sanitized, or nonconfidential, version of the document is available, and "P" indicates that a portion of the submission is protected under the Privacy Act.

FYI No.	Chemical Name	CAS No.	Type of Information
0291-0802	Benzene, Methyl-	108-88-3	Reproductive Toxicity/Terato. (Animal)
0391-0803	Formaldehyde	50-00-0	Chemical/Physical Properties
	Urea	57-13-6	Production/Use/Process
0391-0804	Glutarate, Bis(4-Vinyloxymethylcyclohexylmethyl)	Unknown	Guinea Pig Maximization Test
0391-0805	4-(2'-Ethoxy-4'-Diethylaminophenyl-imino)-2-(N-Propylcarbamoyl)-1,4-Naphthoquinoline	Unknown	Mutagenicity (In Vitro)
0491-0806	Ethene, Fluoro-	75-02-5	Reproductive Toxicity/Terato. (Animal)
0491-0807	Gasoline Benzene	Unknown 71-43-2	Human Exposure (Monitoring)
0591-0808	Misc. Chemicals Ethene, Chloro-	None 75-01-4	Env. Occurrence/Release/Fate Groundwater Monitoring

Send All Correspondence to

Environmental Assistance Division (TS-799)
Office of Toxic Substances
U.S. EPA
401 M Street, S.W.
Washington, D.C. 20460

Editor: Jane Gurin

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The *Chemicals-in-Progress Bulletin* is published by EPA's Office of Toxic Substances. 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 or tape a mailing label onto the form below and send it to us.

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TSCA Hotline Call (202) 554-1404

The TSCA Assistance Information Service (TSCA hotline) operates Monday through Friday, from 8:30 a.m. to 5:00 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 this page.

New OTS Publications Are Available from the TSCA Hotline

- *A Guide for Chemical Importers/Exporters: An Overview*
- *The Interim Guidance on Nonliquid PCB Disposal Methods to be Used as Alternatives to a 40 CFR 761.75 Chemical Waste Landfill*
- *PCB, Lead, and Cadmium Levels in Shredder Waste Materials: A Pilot Study*
- *Evaluation of the Asbestos Hazard Emergency Response Act (AHERA): A Summary Report*

You may request single copies of these publications by calling or sending a FAX to the TSCA hotline or by filling out and mailing the form on this page.

■ **Chemical Abstract's Science and Technology Network (STN):** TSCATS information is in STN's Chemlist file. TSCATS can be retrieved separately by qualifying the chemical by a TSCA section, for example, section 4(a). To obtain access, call (800) 848-6533.

■ TSCATS entries from 1981 through the present are also found on SilverPlatter Information, Inc.'s TOXLINE CD-ROM. To order the CD-ROM, call (800) 343-0064.

How to order studies

Copies of the studies listed in TSCATS are available from the National Technical Information Service (NTIS). NTIS requires persons ordering documents to provide the fiche numbers. The correct number

will be in one of the following formats: 0206138, OTS0206138, or NTIS/OTS0206138. (In the example on page 23, the fiche number is 0206138.) Document numbers in other formats are insufficient for ordering material from NTIS.

Material can also be ordered from CIS, which has an online mechanism for ordering paper copies printed from microfiche or microfiche copies.

Study abstracts

A small number of TSCATS entries have abstracts. EPA will abstract additional studies, starting with those that are required by a testing rule under section 4 of TSCA. Studies received by EPA under section 8(e) of TSCA will be the next priority for abstracting.

ENVIRONMENTAL ASSISTANCE DIVISION

Office of Toxic Substances (TS-799)

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