United States
Environmental Protection
Agency

Office of Pollution
Prevention and Toxics
(7408)

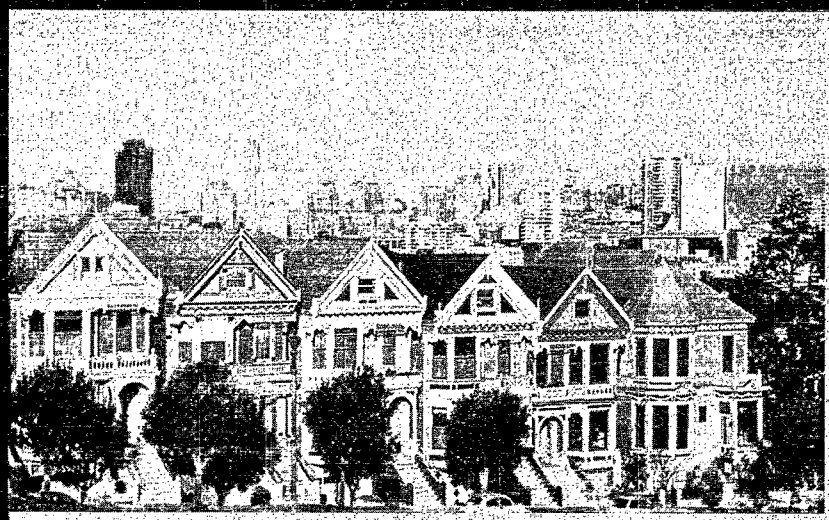
EPA 745-S-96-001
June 1996

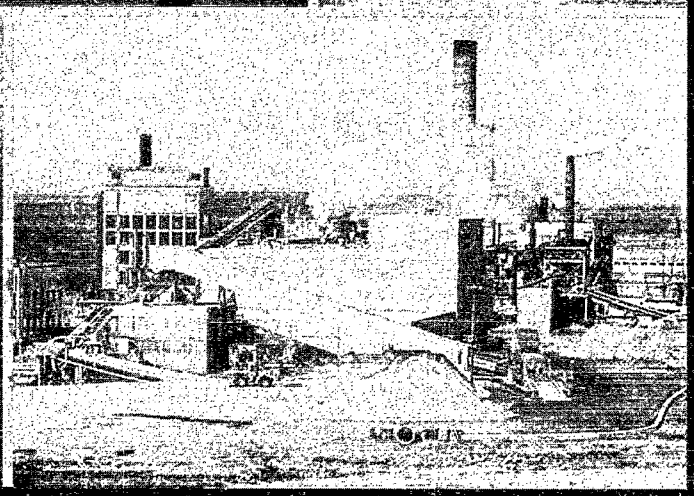
EPA

1994 Toxics Release Inventory

Public Data Release

Executive Summary





How Can I Learn More about TRI?

1994 PUBLIC DATA RELEASE REPORTS

This booklet summarizes the 1994 Toxics Release Inventory (TRI) data. More detailed information appears in the *1994 Toxics Release Inventory Public Data Release* and *1994 Toxics Release Inventory Public Data Release State Fact Sheets*. These documents can be obtained from EPA using the order form on the inside back cover of this booklet.

EPCRA HOTLINE

EPA operates a toll-free Emergency Planning and Community Right-to-Know Act (EPCRA) Hotline to provide information to the public and to the reporting community about TRI and other aspects of EPCRA. The EPCRA Hotline can answer your questions about TRI and help you obtain TRI-related publications. Call 1-800-535-0202; Monday – Friday, 8:30 a.m. to 7:30 p.m. Eastern Time.

STATE AND EPA REGIONAL TRI CONTACTS

Each of the 10 EPA regional offices has a TRI coordinator who can help you find out more about TRI programs in your state and region. Each state has also designated a TRI contact. These state and EPA Regional TRI contacts are listed at the back of this booklet.

DATABASE ACCESS

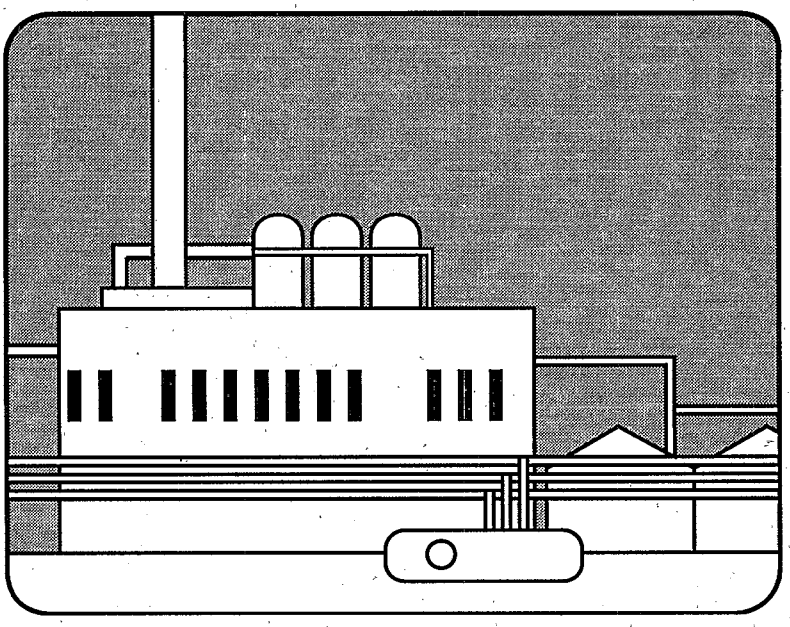
The complete TRI database is available to the public in a variety of electronic formats. On-line access is available through the National Library of Medicine's TOXNET system and through the Right-to-Know Network (RTK NET), an on-line environmental network. TRI data are also available on CD-ROM, diskette, and magnetic tape. Data tables and text files from the public data release documents, as well as simple database search capabilities, are accessible on the Internet.

EPA operates a TRI User Support Service to help the public obtain, use, and understand the TRI data. Specialists are available to answer questions and provide data search assistance. Call 202-260-1531; Monday – Friday, 8:00 a.m. to 4:30 p.m. Eastern Time.

Printed on Recycled Paper

1994 Toxics Release Inventory Public Data Release

Executive Summary



U.S. Environmental Protection Agency

Office of Pollution Prevention and Toxics (7408)

Washington, DC 20460

1994 TOXICS RELEASE INVENTORY

EXECUTIVE SUMMARY

INTRODUCTION: WHAT IS THE TOXICS RELEASE INVENTORY?

The Toxics Release Inventory (TRI) is a database which provides information to the public about releases of toxic chemicals from manufacturing facilities into the environment. TRI was established under the Emergency Planning and Community Right-to-Know Act of 1986 and expanded under the Pollution Prevention Act of 1990. Facilities report their TRI information annually to EPA and to the state in which they are located.

Who Must Report to TRI?

A facility must report to TRI if it:

- Conducts manufacturing operations within Standard Industrial Classification (SIC) codes 20 through 39 (see Box E-5);
- Has 10 or more full-time employees; and
- Manufactures or processes more than 25,000 pounds or uses more than 10,000 pounds of any listed chemical during the calendar year.

Box E-1.

What Must Be Reported?

Information reported by facilities includes:

- Amounts of each listed chemical released to the environment at the facility;
- Amounts of each chemical shipped from the facility to other locations for recycling, energy recovery, treatment, or disposal;
- Amounts of each chemical recycled, burned for energy recovery, or treated at the facility;
- Maximum amount of the chemical present on-site at the facility during the year;
- Types of activities conducted at the facility involving the toxic chemical;
- Source reduction activities undertaken to prevent pollution and waste generation;
- Environmental permits held by the facility;
- Name and telephone number of a person to contact at the facility for more information.

Box E-2.

An Explanation of Releases

Releases. A release is an on-site discharge of a toxic chemical to the environment. This includes emissions to the air, discharges to bodies of water, releases at the facility to land, as well as contained disposal into underground injection wells.

Air Releases. Releases to air are reported either as stack or fugitive emissions. Stack emissions are releases to air that occur through confined air streams, such as stacks, vents, ducts, or pipes. Fugitive emissions are all releases to air that are not released through a confined air stream. Fugitive emissions include equipment leaks, evaporative losses from surface impoundments and spills, and releases from building ventilation systems.

Surface Water Releases. Releases to water include discharges to streams, rivers, lakes, oceans, and other bodies of water. This includes releases from contained sources, such as industrial process outflow pipes or open trenches. Releases due to runoff, including stormwater runoff, are also reportable to TRI.

Underground Injection. Underground injection is a contained release of a fluid into a subsurface well for the purpose of waste disposal. Most underground injection reported to TRI involves injection of waste into Class I or Class V wells. Class I wells are used to inject liquid hazardous wastes or industrial and municipal wastewaters beneath the lowermost underground source of drinking water. Class V wells are generally used to inject non-hazardous fluid into or above an underground source of drinking water. Currently, TRI reporting does not distinguish between these two types of wells, although there are important differences in environmental impact.

Land Releases. Releases to land occur within the boundaries of the reporting facility. Releases to land include disposal of toxic chemicals in landfills (in which wastes are buried), land treatment/application farming (in which a waste containing a listed chemical is applied to or incorporated into soil), surface impoundments (which are uncovered holding areas used to volatilize and/or settle waste materials), and other land disposal methods (such as spills, leaks, or waste piles).

Box E-3.

CHAPTER 1: 1994 TRI RELEASES AND TRANSFERS

For 1994, the TRI list included 343 chemicals and 22 chemical categories. Facilities file a separate reporting form, called a Form R, for each listed chemical they manufacture, process, or use in excess of reporting thresholds. Facilities report the amount of each listed chemical they release to the air, water, and land, as well as the amount they inject into underground disposal wells. Box E-3 explains these release types.

TRI data alone cannot indicate the risk that chemical releases pose to human health and the environment. Though the TRI data are useful as a starting point in identifying potential risks, other information is required to evaluate the risk in a particular area. A determination of risk depends on many factors, including: the toxicity of the chemical, the extent of exposure, the type of release, and the conditions of the environment. For example, small releases of highly toxic chemicals may present a greater risk than large releases of less toxic chemicals. Direct releases, such as air emissions, may pose a greater threat to human health and the environment than more contained releases, such as underground injection.

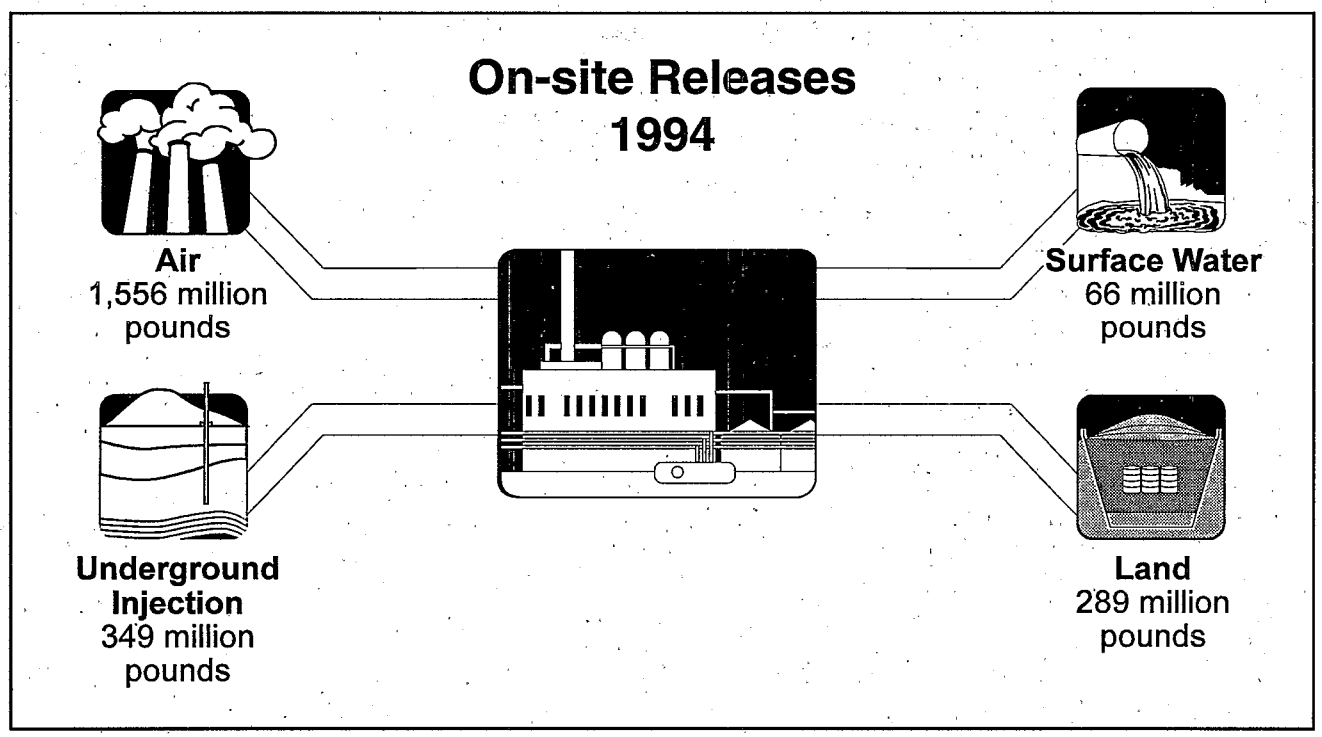


Figure E-1.

On-Site Releases

For 1994, 22,744 facilities filed 75,332 Form Rs. These facilities released 2.26 billion pounds of listed toxic chemicals into the nation's environment in 1994. Figure E-1 shows the quantity of listed chemicals released to the air, water, and land and injected underground.

Figure E-2 shows the distribution of toxic chemical releases by type of release. Air emissions constituted nearly 69% of all toxic chemical releases in 1994. Surface water releases, which include releases to rivers, lakes, oceans, and other bodies of water, accounted for less than 3% of all releases. Releases to land, which include landfills, surface impoundments, and other types of land disposal, accounted for nearly 13% of all releases, while underground injection accounted for more than 15% of all releases.

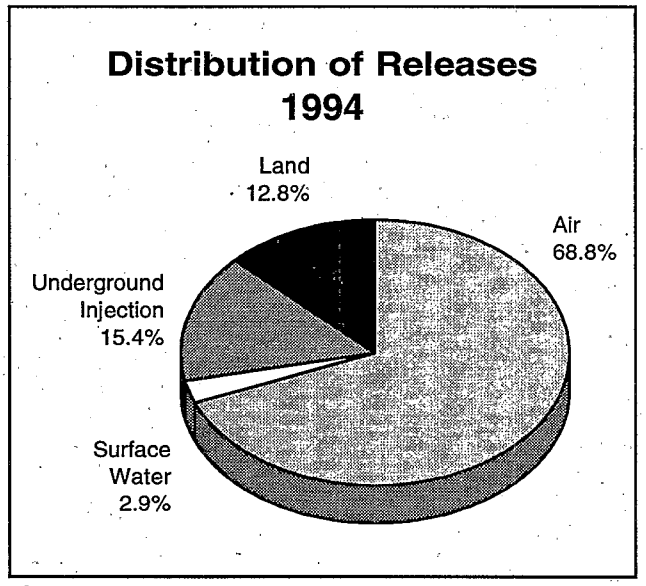


Figure E-2.

An Explanation of Off-site Transfers

Off-site Transfers. An off-site transfer is a shipment of toxic chemicals in waste to a facility that is geographically or physically separate from the facility reporting under TRI. Off-site transfers represent a movement of the chemical away from the reporting facility.

Transfers to Publicly Owned Treatment Works (POTWs). A POTW is a wastewater treatment facility (sewage treatment plant) that is owned by a state or municipality. Wastewaters are transferred through pipes or sewers to a POTW. Treatment or removal of a chemical from the wastewater depends upon the nature of the chemical, as well as the treatment methods used by the POTW. Not all TRI chemicals can be treated or removed by a POTW. Some chemicals are destroyed in treatment. Others may evaporate into the atmosphere. Some chemicals, such as metals, are removed but are not destroyed by treatment and may be disposed of in landfills. Some chemicals pass through the POTW and are discharged to receiving waters.

Transfers Off-site for Recycling. Toxic chemicals sent off-site for recycling may be recovered or regenerated by a variety of methods, including solvent recovery, metals recovery, and acid regeneration. Once recycled, these chemicals may be returned to the originating facility or sold for further processing or use.

Transfers Off-site for Energy Recovery. Toxic chemicals sent off-site for energy recovery are combusted off-site in industrial furnaces (including kilns) or boilers that generate heat or energy for use at that off-site location. Treatment of a chemical by incineration is not considered to be energy recovery.

Transfers Off-site for Treatment. Toxic chemicals sent off-site may be treated through a variety of methods, including biological treatment, neutralization, incineration, and physical separation. These methods result in varying degrees of destruction of the toxic chemical. In some cases (such as stabilization or solidification), the chemical is not destroyed but is prepared for further waste management, such as contained disposal.

Transfers Off-site for Disposal. Toxic chemicals sent off-site to a facility for disposal generally are either released to land or injected underground (see Box E-3 above) at the off-site location.

Other Off-site Transfers. In this report, "other off-site transfers" means transfers that were reported without an appropriate waste management activity code and therefore could not be assigned to a transfer category.

Box E-4.

Off-site Transfers

Facilities also must report the amounts of each listed chemical they ship to other locations for recycling, energy recovery, treatment, or disposal. Except for off-site transfers for disposal, these quantities do not necessarily represent entry of the chemical into the environment. Box E-4 explains each transfer type.

Transfers for treatment and disposal have been reported since 1987. Transfers for recycling and energy recovery have been reported since 1991.

In addition to quantities transferred, facilities also must provide the name and location of the site which will receive the shipment.

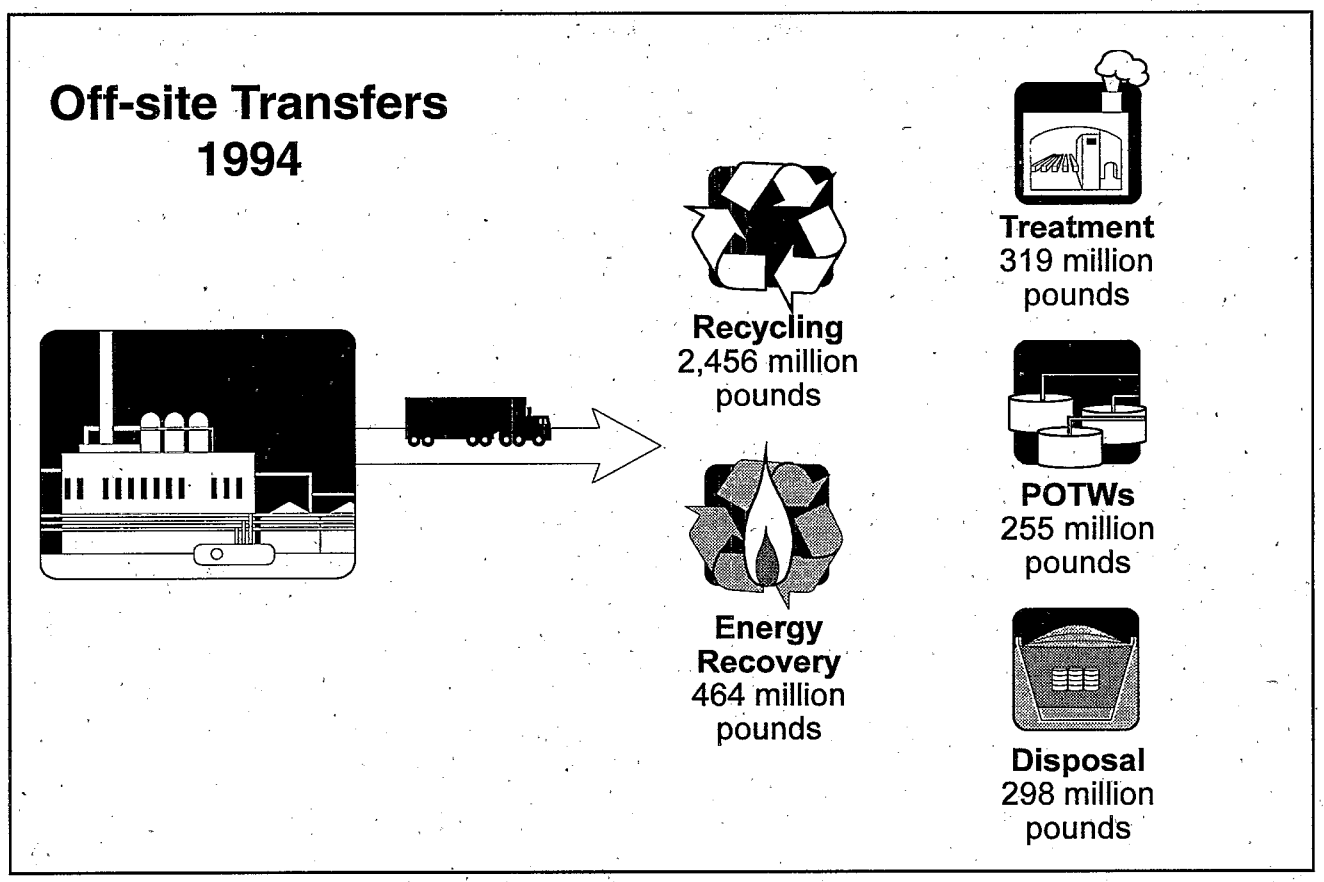


Figure E-3.❶

In 1994, facilities transferred nearly 3.8 billion pounds of toxic chemicals in waste to off-site locations for recycling, energy recovery, treatment, and disposal. Figure E-3 shows the quantity of toxic chemicals transferred to off-site locations for each type of waste management activity.

Figure E-4 shows the distribution of transfers by waste management activity. Transfers of toxic chemicals to off-site locations for recycling accounted for nearly 65% of all transfers. Less than 8% of all transfers were sent to off-site locations for disposal.

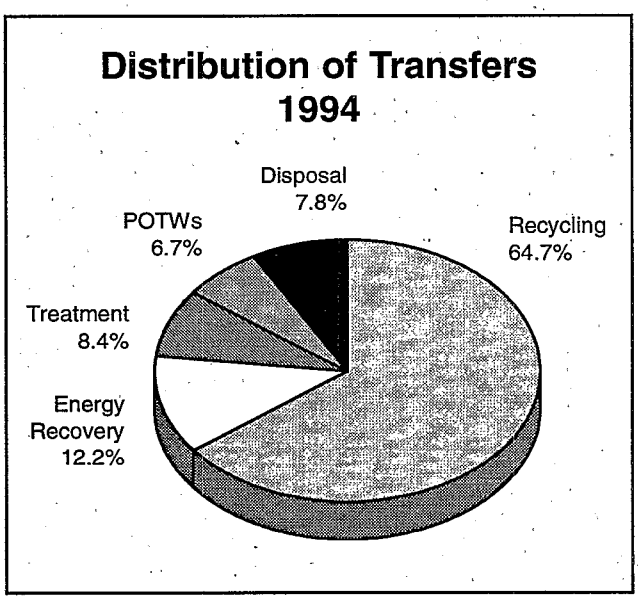


Figure E-4.❶

❶ Does not include "other" off-site transfers, i.e., those reported without valid waste management codes (4 million pounds).

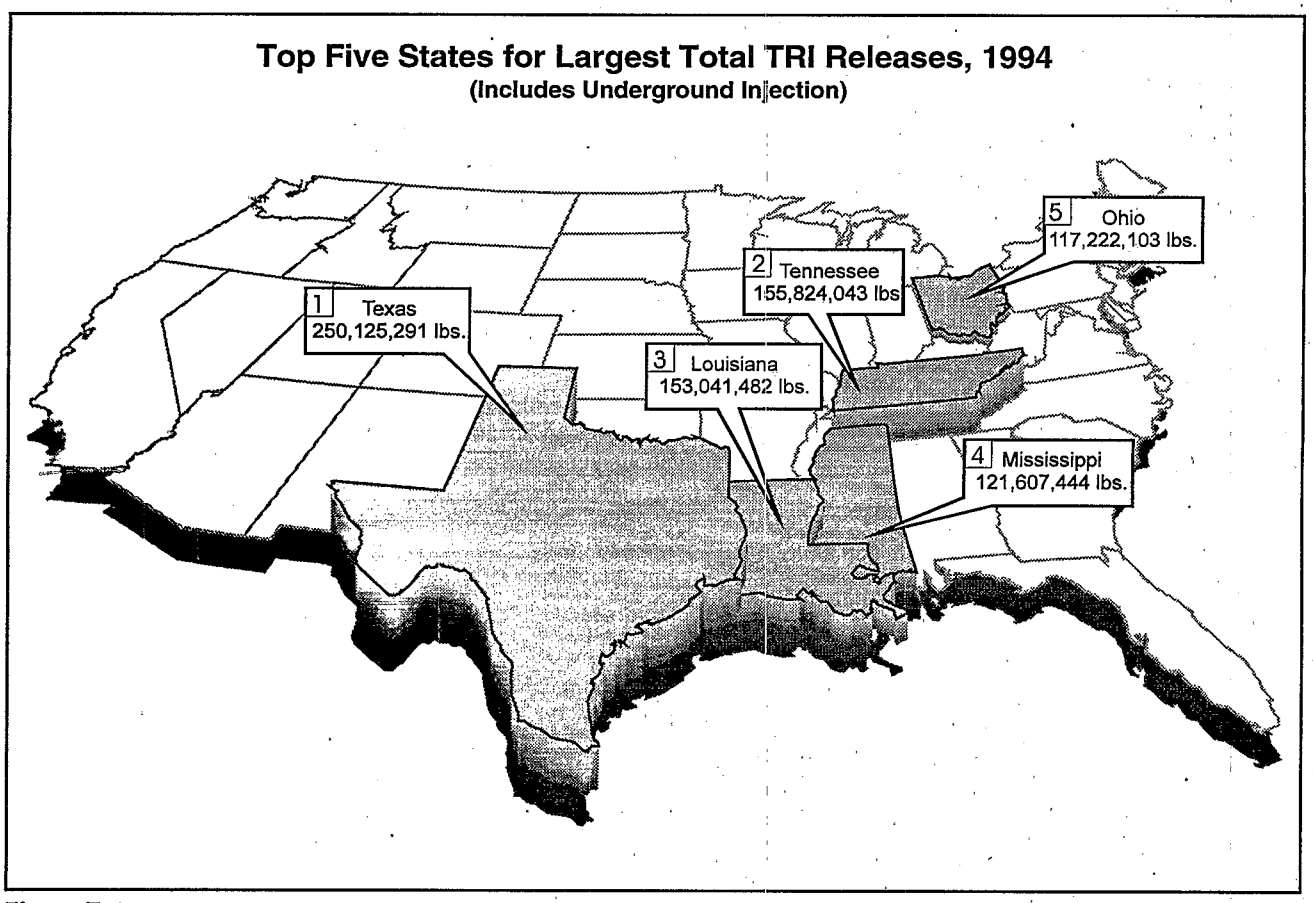


Figure E-5.

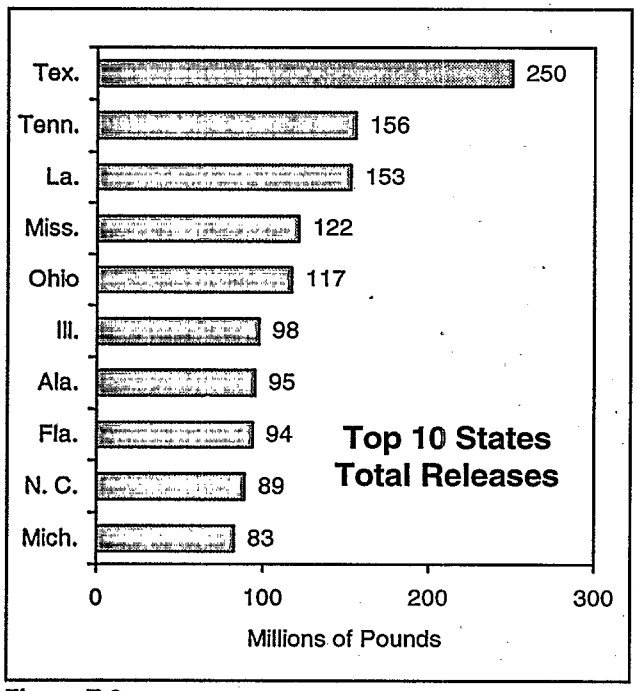


Figure E-6.

Total Releases by State, 1994
(Includes Underground Injection)

Figures E-5 and E-6 show the states with the largest quantities of reported toxic chemical releases in 1994, including releases to air, water, and land, as well as underground injection.

The total quantity of releases reported by these states does not necessarily indicate that risks from toxic chemicals are highest in these states. Release totals do not take into account the geographic size of the state or the size of the state's population. As discussed above, the risk from releases of toxic chemicals depends on a variety of factors, including the type of release, the toxicity of the chemical, and the proximity of populations to the releases.

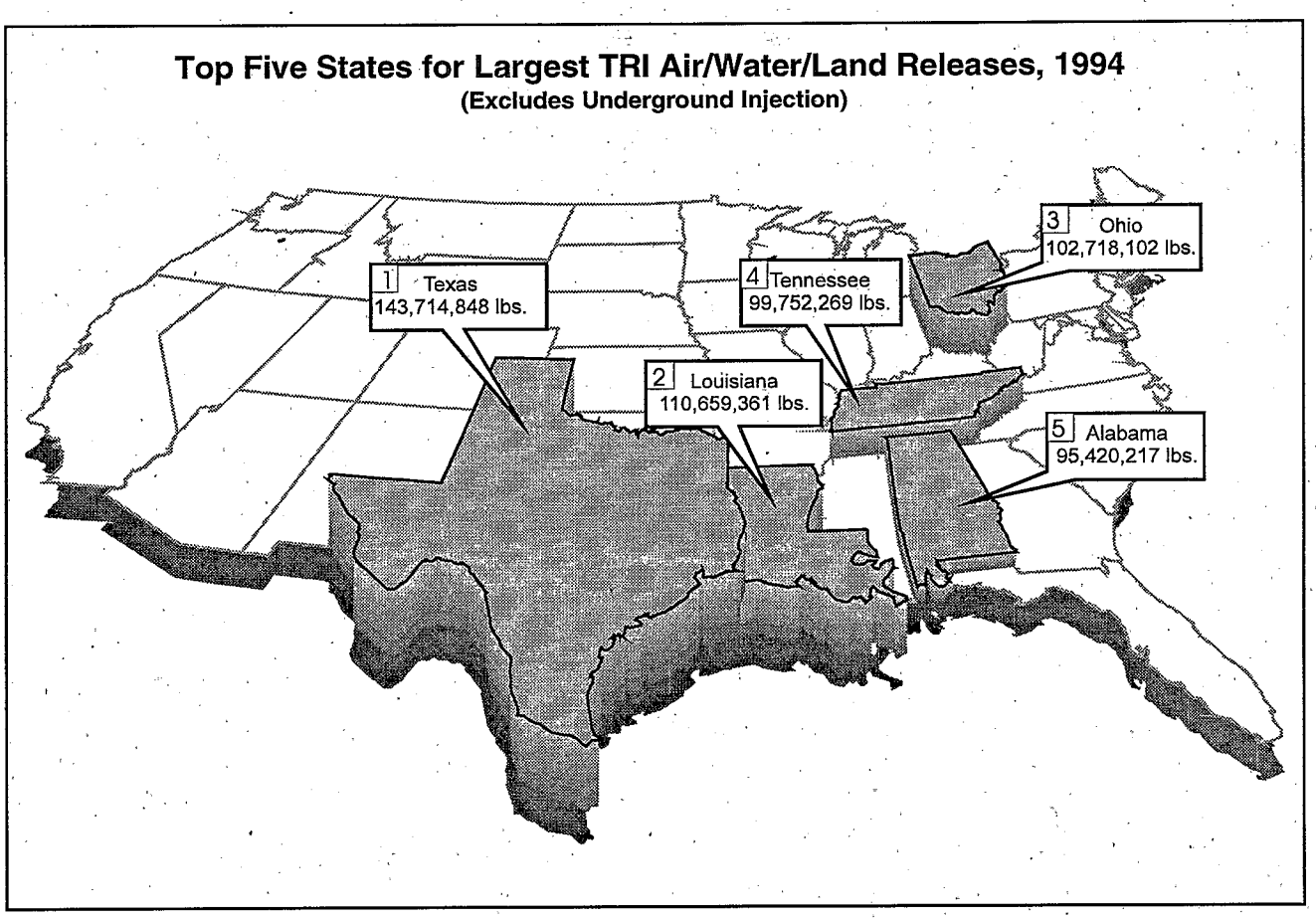


Figure E-7.

Air/Water/Land Releases by State, 1994 (Excludes Underground Injection)

Figures E-7 and E-8 show the states with the largest quantities of reported toxic chemical releases in 1994, excluding underground injection. This alternative ranking method is presented because releases to properly designed and constructed Class I injection wells have lower exposure potentials than other, more direct forms of release. Texas ranks first for both air/water/land releases and for total releases (including underground injection). Tennessee, Louisiana, and Ohio remain in the top five if underground injection is excluded, although their rankings change. Mississippi, which ranks fourth for total TRI releases (including underground injection), drops to 12th place if underground injection is excluded.

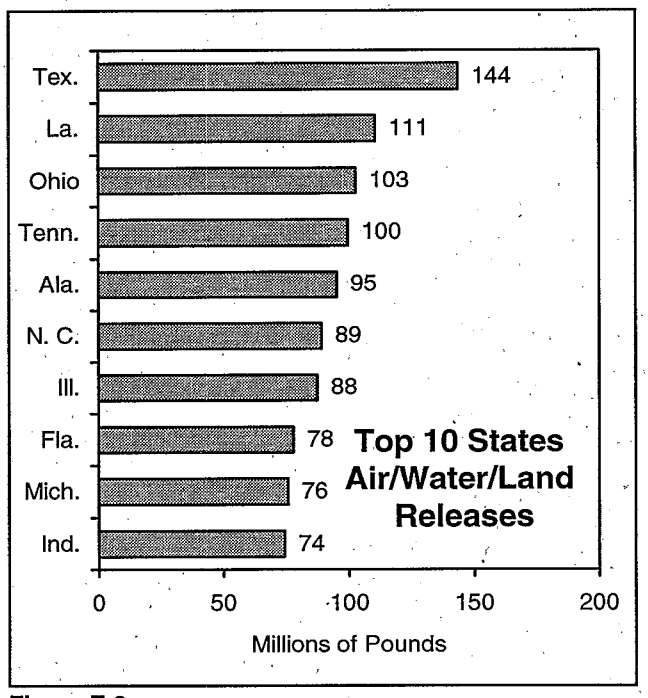


Figure E-8.

Standard Industrial Classification (SIC) Codes

20 Food and kindred products
21 Tobacco products
22 Textile mill products
23 Apparel and other finished products made from fabrics and similar materials
24 Lumber and wood products, except furniture
25 Furniture and fixtures
26 Paper and allied products
27 Printing, publishing, and allied industries
28 Chemicals and allied products
29 Petroleum refining and related industries
30 Rubber and miscellaneous plastics products
31 Leather and leather products
32 Stone, clay, glass, and concrete products
33 Primary metal industries
34 Fabricated metal products, except machinery and transportation equipment
35 Industrial and commercial machinery and computer equipment
36 Electronic and other electrical equipment and components, except computer equipment
37 Transportation equipment
38 Measuring, analyzing, and controlling instruments; photographic, medical and optical goods; watches and clocks
39 Miscellaneous manufacturing industries

Box E-5.

Releases and Transfers by Industry, 1994

In the private sector, only manufacturing facilities in SIC codes 20 through 39 were required to report to TRI for 1994. Box E-5 lists the industry groups currently subject to TRI, along with their corresponding SIC codes. Facilities owned and operated by the Federal government were required to report for the first time in 1994; releases from these facilities are discussed in a separate section of this report. Other industry groups are currently under consideration for future addition to the reporting requirements.

Figure E-9 presents the 10 industries with the largest quantities of reported toxic chemical releases, including underground injection, in 1994. Figure E-10 presents the 10 industries with the largest total transfers to off-site locations.

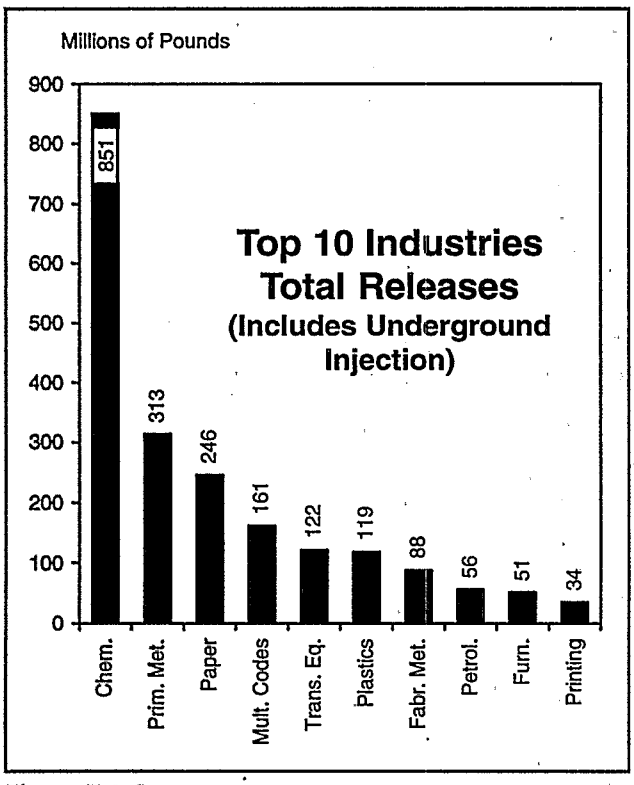


Figure E-9.❷

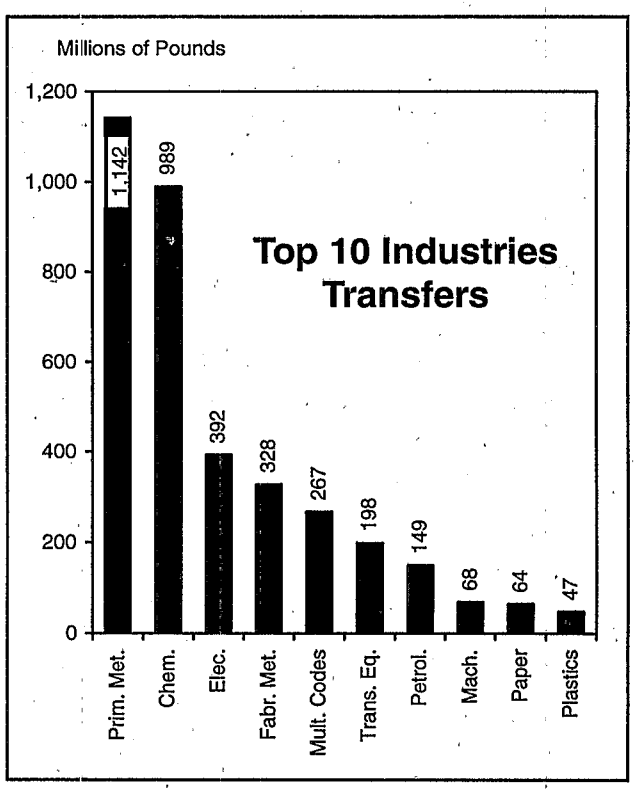


Figure E-10.❷

❷ Multiple Codes: Facilities/forms that reported more than one 2-digit SIC code within the range of 20 to 39 [e.g., paper (26) and chemicals (28)].

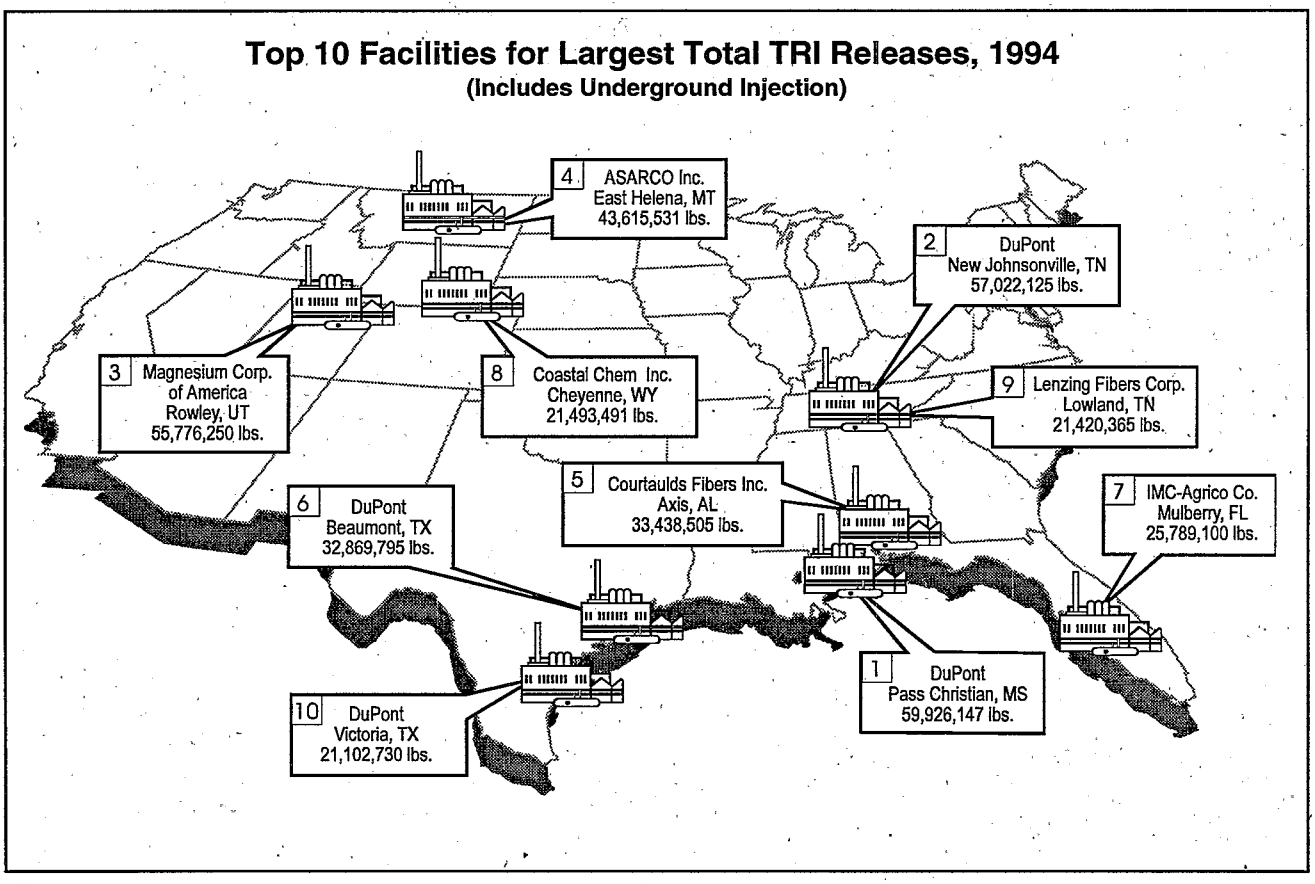


Figure E-11.

Figure E-11 shows the locations of the 10 facilities which reported the largest quantities of TRI releases, including underground injection, in 1994. The label next to each facility on the map lists the facility name, the city and state in which it is located, and the total quantity of TRI releases in 1994.

All facilities must report the name of their parent company, if applicable, on their Form Rs. The parent company is the highest-level company which owns or controls the reporting facility. Table E-1 lists the top ten parent companies for total TRI releases, including underground injection. Together, these 10 companies accounted for only 1.9% of all TRI reporting facilities and 4.0% of all forms filed, yet they accounted for 25.7% of total TRI releases in 1994.

Top 10 Parent Companies Total Releases

Company Name	Total Facilities Number	Releases Pounds
DuPont	70	203,569,404
ASARCO Inc.	11	69,355,764
Renco Group Inc.	12	66,084,321
IMC Global Inc.	13	47,746,806
International Paper Company	71	43,111,887
General Motors Corporation	112	36,841,746
Courtaulds United States Inc.	9	34,521,923
Monsanto Company	27	27,391,091
Arcadian Partners LP	8	26,395,613
Georgia-Pacific Corporation	90	26,209,076
Subtotal	423	581,227,631
Total for All TRI Facilities	22,744	2,260,210,725

Table E-1.

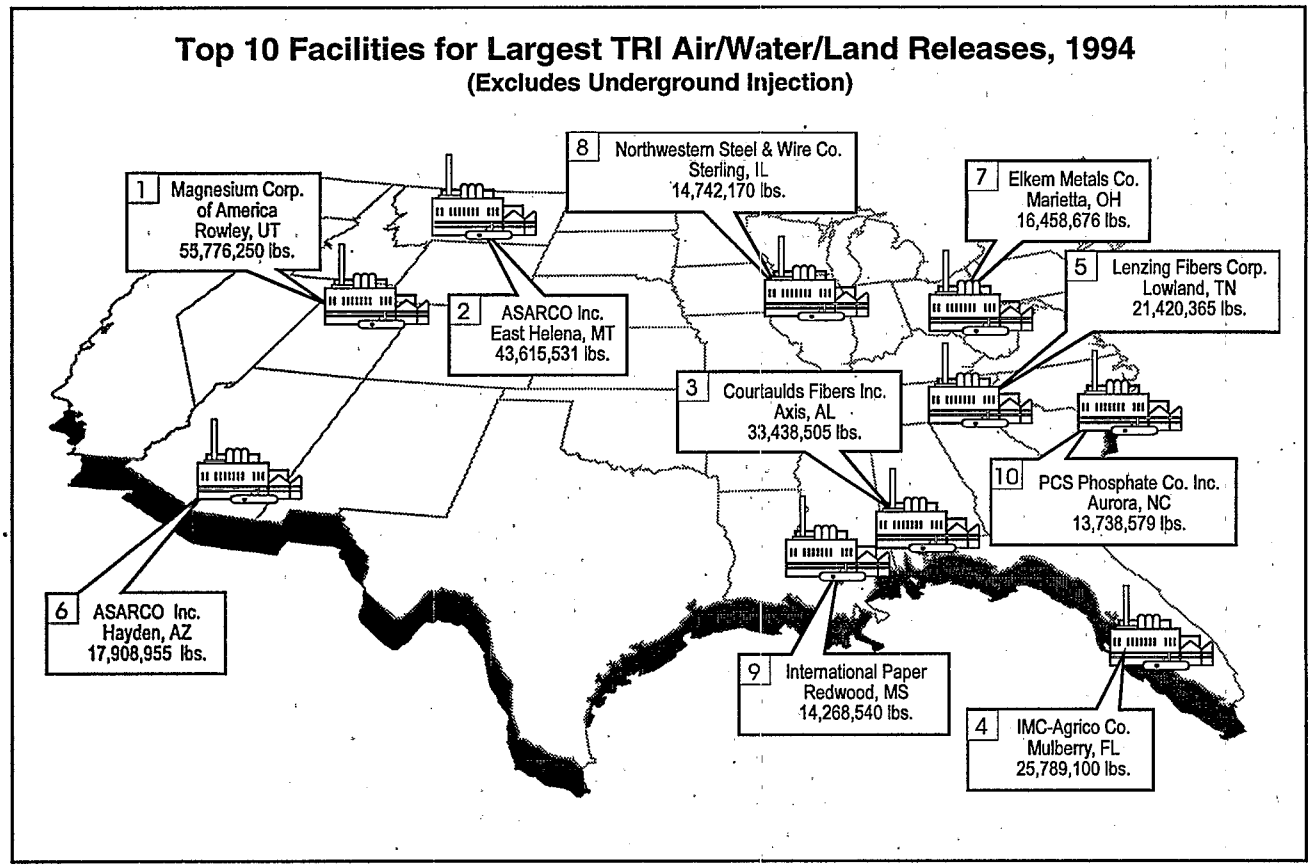


Figure E-12.

Top 10 Parent Companies Air/Water/Land Releases

Company Name	Total Air/ Water/Land Facilities Number	Releases Pounds
ASARCO Inc.	11	69,195,894
Renco Group Inc.	12	66,084,321
IMC Global Inc.	13	47,746,806
International Paper	71	43,111,887
General Motors Corporation	112	36,841,746
Courtaulds United States Inc.	9	34,521,923
DuPont	70	33,681,715
Arcadian Partners LP	8	26,395,613
Georgia-Pacific Corporation	90	26,209,076
Ford Motor Company	50	25,775,275
Subtotal	446	409,564,256
Total for All TRI Facilities	22,744	1,911,242,499

Table E-2.

Figure E-12 shows the locations of the 10 facilities which reported the largest quantities of TRI releases to air, water, and land, excluding underground injection, in 1994. As discussed above, this alternative ranking method is presented because releases to properly designed and constructed Class I injection wells have lower exposure potential than other, more direct, forms of release.

Table E-2 lists the top 10 parent companies for releases to air, water, and land, excluding underground injection, in 1994. Together, these 10 companies accounted for only 2.0% of reporting facilities and 4.3% of all forms, but 21.4% of releases to air, water, and land in 1994.

The following page shows the 10 chemicals released in the greatest quantity for each release type.

Top Chemicals by Release Media, 1994

Top 10 Chemicals Air

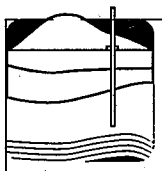
	Pounds
Methanol	217,813,008
Toluene	168,218,285
Ammonia	155,986,261
Xylene (mixed isomers)	108,333,639
Carbon disulfide	83,317,815
Methyl ethyl ketone	78,624,939
Hydrochloric acid	72,671,589
Dichloromethane	62,710,490
Chlorine	59,778,810
Glycol ethers	48,520,574
Subtotal	1,055,975,410
Total for All TRI Chemicals	1,556,008,085

Table E-3.

Top 10 Chemicals Surface Water

	Pounds
Phosphoric acid	20,900,384
Ammonia	14,613,475
Methanol	11,007,879
Ammonium nitrate (solution)	6,978,376
Ammonium sulfate (solution)	4,196,377
Zinc compounds	1,438,199
Ethylene glycol	784,402
Manganese compounds	733,537
Chlorine	516,005
Formaldehyde	388,750
Subtotal	61,557,384
Total for All TRI Chemicals	66,083,288

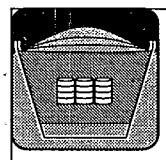
Table E-4.



Top 10 Chemicals Underground Injection

	Pounds
Hydrochloric acid	141,990,565
Ammonium nitrate (solution)	51,190,858
Ammonia	29,059,299
Methanol	24,343,351
Nitric acid	18,269,660
Acetonitrile	17,105,679
Formic acid	10,671,734
Formaldehyde	7,739,510
Acrylic acid	6,436,000
Acrylamide	5,198,814
Subtotal	312,005,470
Total for All TRI Chemicals	348,968,226

Table E-5.



Top 10 Chemicals Land

	Pounds
Zinc compounds	75,174,770
Phosphoric acid	56,785,731
Copper compounds	41,449,920
Manganese compounds	37,796,986
Chromium compounds	20,636,107
Lead compounds	14,656,876
Manganese	8,484,764
Zinc (fume or dust)	8,462,944
Ammonia	6,142,040
Methanol	2,602,696
Subtotal	272,192,834
Total for All TRI Chemicals	289,151,126

Table E-6.

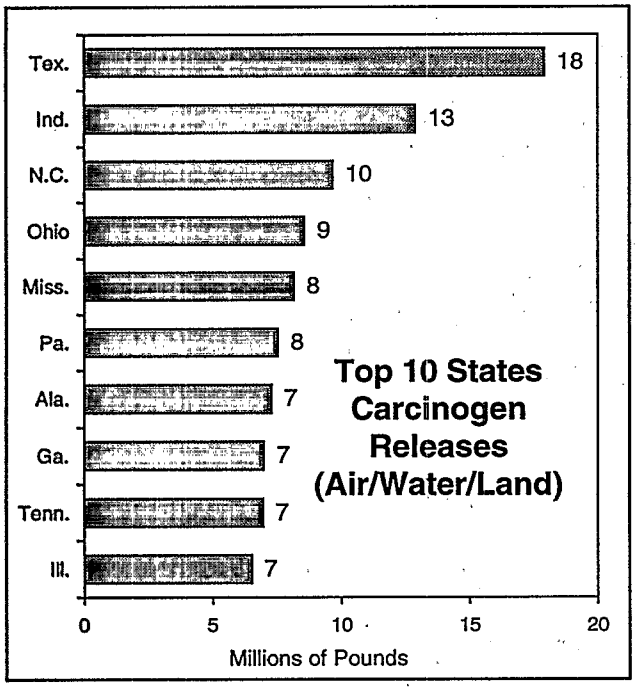


Figure E-13.

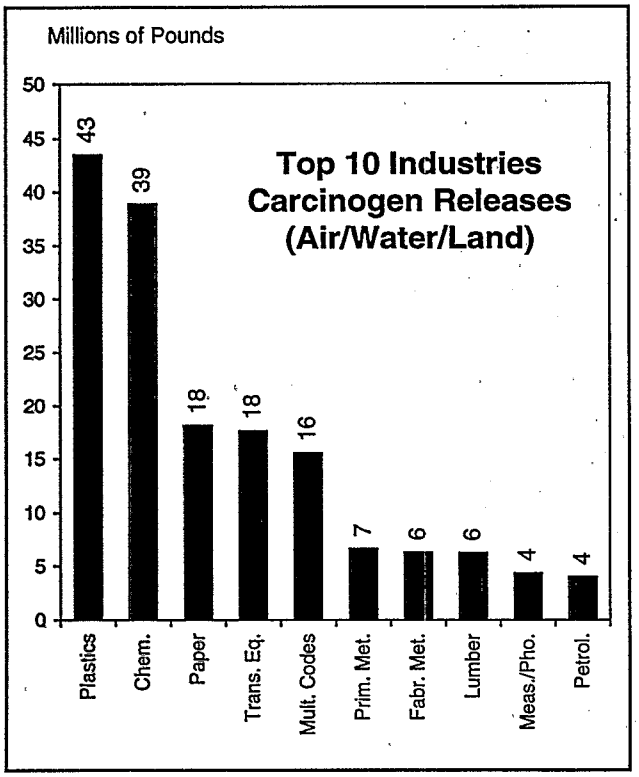


Figure E-14.❸

Carcinogen Releases to Air/Water/Land, 1994

(Excludes Underground Injection)

For reporting purposes, TRI designates 118 chemicals as carcinogens based on criteria set forth in the Occupational Safety and Health Administration's Hazard Communication Standards. Some of these chemicals, such as benzene or asbestos, are known to cause cancer in humans. Others are suspected to cause cancer in humans because they have been shown to cause cancer in laboratory animals.

More than 177 million pounds of TRI-listed carcinogens were released to the air, water, and land (excluding underground injection) in 1994. Figures E-13 and E-14 show the 10 states and 10 industries with the largest quantities of carcinogen releases to air, water, and land in 1994. Table E-7 lists the 10 TRI carcinogens released in the largest quantities to air, water, and land in 1994.

Carcinogens with Largest Air/Water/Land Releases

	Pounds
Dichloromethane	62,813,624
Styrene	39,905,987
Acetaldehyde	12,450,001
Formaldehyde	12,016,389
Chloroform	11,297,515
Tetrachloroethylene	10,210,350
Benzene	9,540,002
1,3-Butadiene	2,711,287
1,2-Dichloroethane	1,878,367
Chromium	1,804,579
Subtotal	164,628,101
Total for All Carcinogens	177,191,192

Table E-7.

❸ Multiple Codes: Facilities/forms that reported more than one 2-digit SIC code within the range of 20 to 39 [e.g., paper (26) and chemicals (28)].

CHAPTER 2: PREVENTION AND MANAGEMENT OF TRI CHEMICALS IN WASTE

The Pollution Prevention Act of 1990 (PPA) expanded TRI to require reporting about quantities of TRI chemicals managed in waste and about source reduction activities undertaken to eliminate or reduce those quantities. Under the PPA, source reduction is considered the preferred approach to managing waste. Figure E-15 illustrates a hierarchy for waste management decision-making, with disposal of waste the last resort.

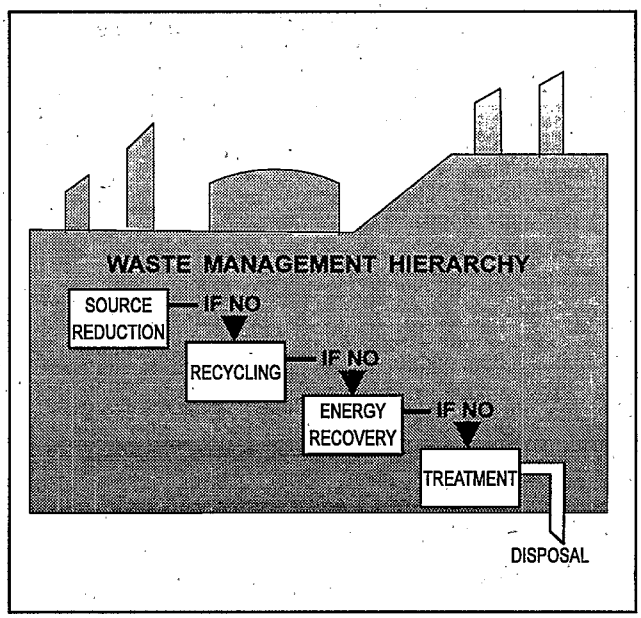


Figure E-15.

Figure E-16 illustrates the quantities of TRI chemicals undergoing each on-site and off-site waste management activity (recycling, energy recovery, treatment, and release/disposal). Facilities managed more than 26.5 billion pounds of TRI chemicals in waste in 1994.

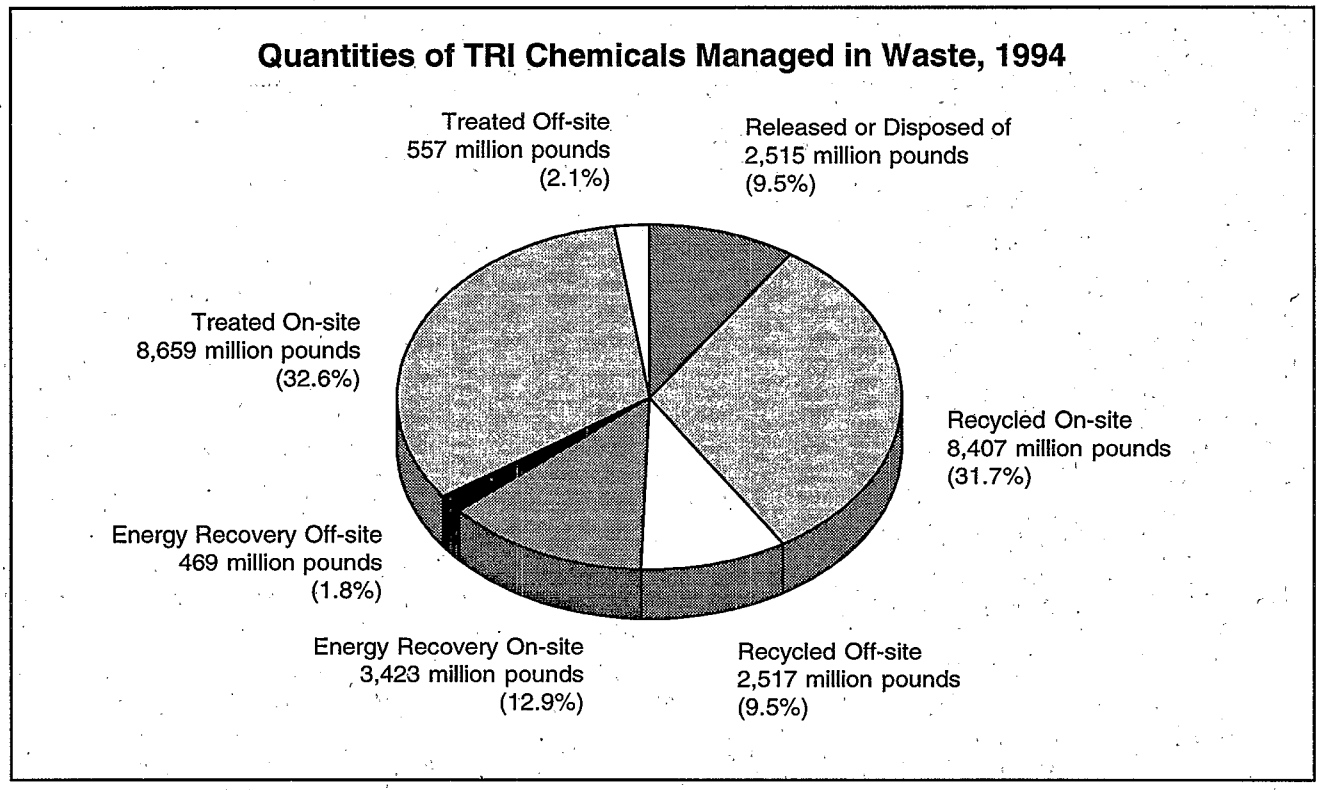


Figure E-16.

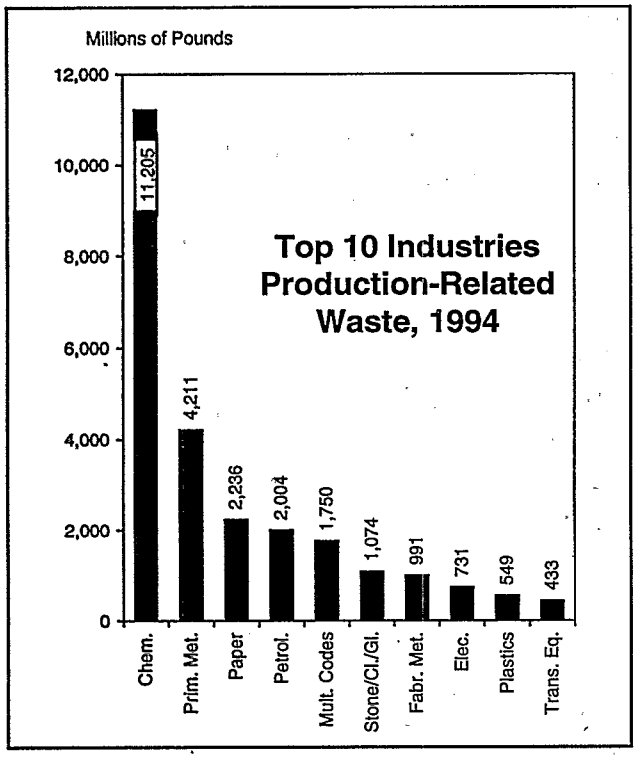


Figure E-17.❹

Figure E-17 shows the top 10 industries for total production-related waste in 1994. The chemicals, primary metals, and paper industries generated the most toxic chemicals in production-related waste in 1994. These same three industries also ranked highest for total releases of TRI chemicals.

Figure E-18 shows the quantities of TRI chemicals managed in waste for 1991 through 1996. Quantities for 1995 and 1996 are facility projections, not reports of amounts actually generated. The quantity of toxic chemicals in waste increased 5.4% between 1993 and 1994 and was projected to continue to increase.

The following page shows the 10 chemicals undergoing each waste management activity in the largest quantities.

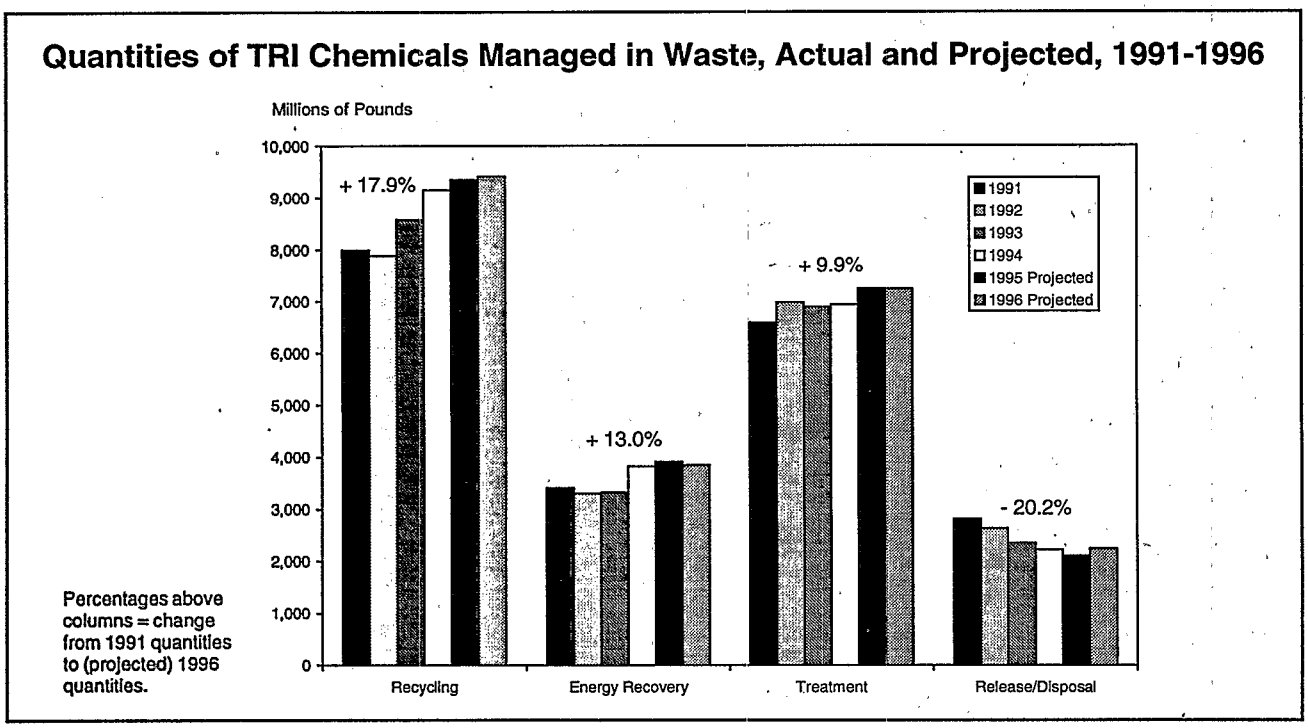


Figure E-18.❺

❹ Multiple Codes: Facilities/forms that reported more than one 2-digit SIC code within the range of 20 to 39 [e.g., paper (26) and chemicals (28)].

❺ Data for 1991 as reported on 1991 forms; data for 1992 as reported on 1992 forms; data for 1993 as reported on 1993 forms; all other years from 1994 forms. Does not include delisted chemicals, chemicals added in 1994, and ammonia, ammonium sulfate (solution), and sulfuric acid.

Top Chemicals by Waste Management Activity, 1994

Top 10 Chemicals Recycling

	Pounds
Sulfuric acid (acid aerosols)	1,506,656,584
Copper	1,140,520,833
Toluene	1,045,374,097
Lead compounds	819,488,246
Methanol	554,601,922
Copper compounds	418,015,019
Zinc compounds	408,434,079
Ethylene glycol	341,285,345
Ethylene	336,088,862
Hydrochloric acid	320,008,055
Subtotal	6,890,473,042
Total for All TRI Chemicals	10,923,823,077

Table E-8.

Top 10 Chemicals Energy Recovery

	Pounds
Ethylene	736,501,188
Propylene	689,185,436
Methanol	414,518,724
Mixtures and other trade names	342,857,076
Toluene	321,324,131
Xylene (mixed isomers)	246,840,748
Methyl ethyl ketone	141,838,678
tert-Butyl alcohol	64,437,894
Methyl isobutyl ketone	54,298,695
Ammonia	47,931,235
Subtotal	3,059,733,805
Total for All TRI Chemicals	3,891,763,781

Table E-9.

Top 10 Chemicals Treatment

	Pounds
Hydrochloric acid	2,008,282,357
Sulfuric acid (acid aerosols)	1,746,498,481
Methanol	1,043,675,020
Ammonia	396,717,577
Phosphoric acid	392,605,150
Ethylene	377,232,742
Freon 113	281,153,961
Nitric acid	277,732,809
Propylene	243,603,980
Chlorine	217,784,441
Subtotal	6,985,286,518
Total for All TRI Chemicals	9,216,384,501

Table E-10.

Top 10 Chemicals Release/Disposal

	Pounds
Methanol	264,154,976
Hydrochloric acid	226,303,479
Ammonia	206,153,499
Toluene	164,627,303
Zinc compounds	150,283,170
Xylene (mixed isomers)	109,582,235
Carbon disulfide	84,510,491
Methyl ethyl ketone	80,107,774
Dichloromethane	69,053,033
Copper compounds	66,540,264
Subtotal	1,421,316,224
Total for All TRI Chemicals	2,514,582,556

Table E-11.

Source Reduction Activities, 1994

Facilities also must provide information about source reduction activities they implemented during the reporting year. Source reduction activities reduce the amount of a toxic chemical entering a waste stream and therefore prevent pollution before it is generated.

Waste management activities such as recycling are not considered source reduction because they manage toxic chemicals after they enter waste streams.

Thirty-two percent of all TRI facilities reported at least one source reduction activity in 1994. Table E-12 lists the categories of source reduction activities and their reporting frequency. Table E-13 lists the top 10 industries based on the percentage of forms reporting source reduction. Table E-14 lists the 10 chemicals for which source reduction was reported the most often.

Source Reduction Activity Reporting

Category of Activity	Number of TRI Forms Reporting
Good operating practices	9,100
Inventory control	2,332
Spill and leak prevention	4,921
Raw material modifications	3,173
Process modifications	6,167
Cleaning and degreasing	1,676
Surface preparation/finishing	2,135
Product modifications	1,543

Table E-12.

Source Reduction Activity Reporting

Top Industries By Percentage of Forms	TRI Forms Number	Forms Reporting Source Reduction Activities	
		Number	Percent
Furniture	1,595	587	36.8
Printing	570	198	34.7
Measure./Photo.	812	276	34.0
No codes 20-39 ❻	904	260	28.8
Miscellaneous	801	216	27.0
Multiple codes 20-39 ❼	5,429	1,450	26.7
Electrical	3,641	948	26.0
Lumber	1,953	502	25.7
Petroleum	3,087	779	25.2
Transportation Equip.	4,498	1,134	25.2
Subtotal	23,290	6,350	27.3
Total for All Industries	75,332	17,557	23.3

Table E-13.

Source Reduction Activity Reporting

Top Chemicals By Number of Forms	TRI Forms Number	Forms Reporting Source Reduction Activities	
		Number	Percent
Toluene	3,566	1,343	37.7
Xylene (mixed isomers)	3,346	1,211	36.2
Methyl ethyl ketone	2,389	911	38.1
Sulfuric acid (acid aerosols)	3,895	641	16.5
Glycol ethers	2,157	632	29.3
Methanol	2,439	615	25.2
1,1,1-Trichloroethane	1,207	592	49.0
Hydrochloric acid	3,300	587	17.8
Ammonia	2,978	575	19.3
Zinc compounds	2,458	481	19.6
Subtotal	27,735	7,588	27.4
Total for All TRI Chemicals	75,332	17,557	23.3

Table E-14.

❻ Facilities/forms that did not report an SIC code or reported SIC codes outside the 20-to-39 range.
❼ Facilities/forms that reported more than one 2-digit SIC code within the range of 20 to 39 [e.g., paper (26) and chemicals (28)].

CHAPTER 3: YEAR-TO-YEAR COMPARISON OF RELEASES AND TRANSFERS

Reported toxic chemical releases decreased by nearly 8.6% between 1993 and 1994. Decreased surface water discharges from just two facilities in Louisiana accounted for most of the decline. Excluding these two facilities, total releases declined 1.6% since 1993. Transfers increased by nearly 7.4% since 1993, primarily due to increased transfers for recycling. Table E-15 compares the 1993 and 1994 release and transfer quantities. Since 1988, EPA's baseline year for TRI comparisons, releases have declined by 44.1%. Figure E-19 illustrates the change in each release type since 1988.

Releases and Transfers 1993-1994	1993-1994 Change	
	Pounds	Percent
Total Releases	**-186,307,673**	**-8.57**
Air	-50,201,287	-3.58
Surface Water	-156,019,506	-76.83
Underground Injection	11,690,153	3.96
Land	8,222,967	3.00
Total Transfers	**237,884,675**	**7.38**
Recycling	174,124,705	8.45
Energy Recovery	15,304,152	3.42
Treatment	35,209,011	13.70
POTWs	-5,693,678	-3.05
Disposal	17,128,278	6.34
Other[8]	1,812,207	105.66

Table E-15.[9]

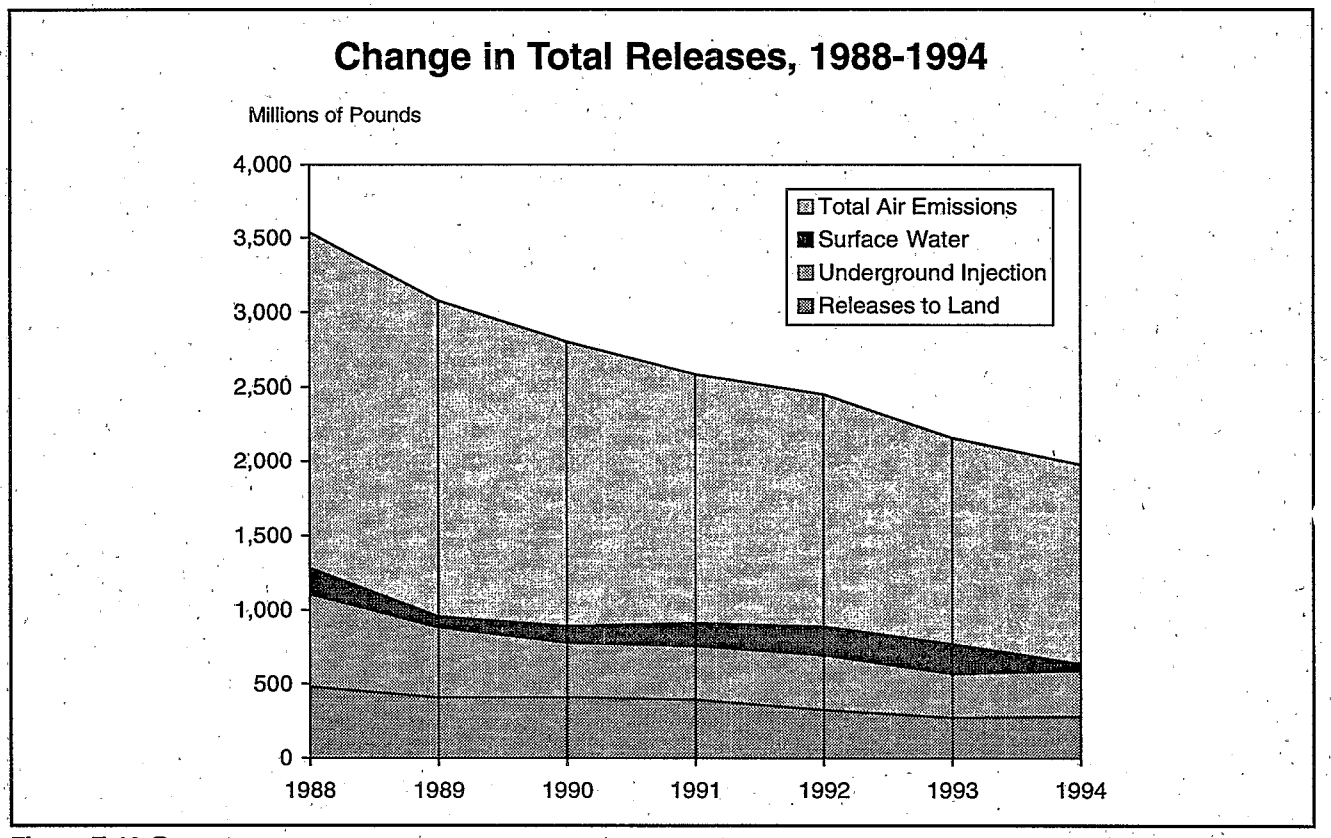


Figure E-19.[10]

[8] Transfers reported with no waste management codes or invalid codes.

[9] Does not include delisted chemicals, chemicals added in 1994, and ammonia, ammonium sulfate (solution), and sulfuric acid.

[10] Does not include delisted chemicals, chemicals added in 1990, 1991, and 1994, and aluminum oxide, ammonia, ammonium sulfate (solution), and sulfuric acid.

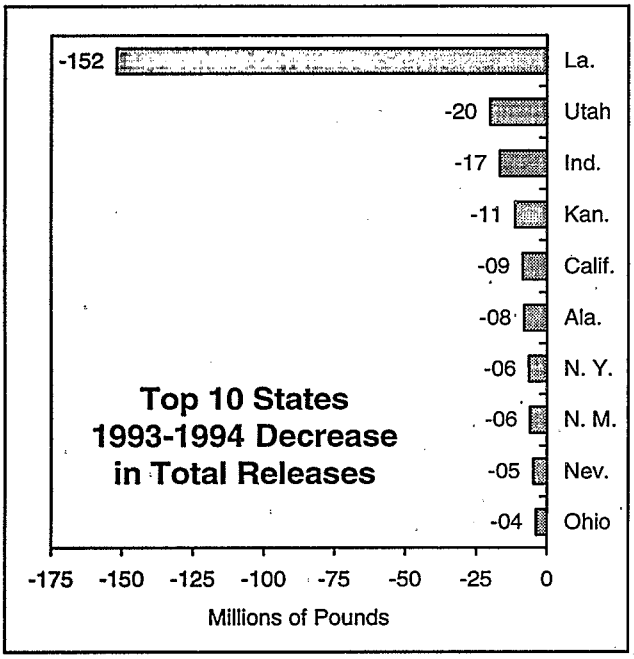


Figure E-20.[11]

1993-1994 Change in Total Releases by State

(Includes Underground Injection)

Figure E-20 presents the 10 states with the largest poundage decrease in total releases (including underground injection) between 1993 and 1994. Figure E-21 illustrates the percentage change in total releases between 1993 and 1994 for each state.

Twenty-two states and territories reported decreases in total releases of more than 10% since 1993. In contrast, seven states reported increases in total releases of more than 10% since 1993.

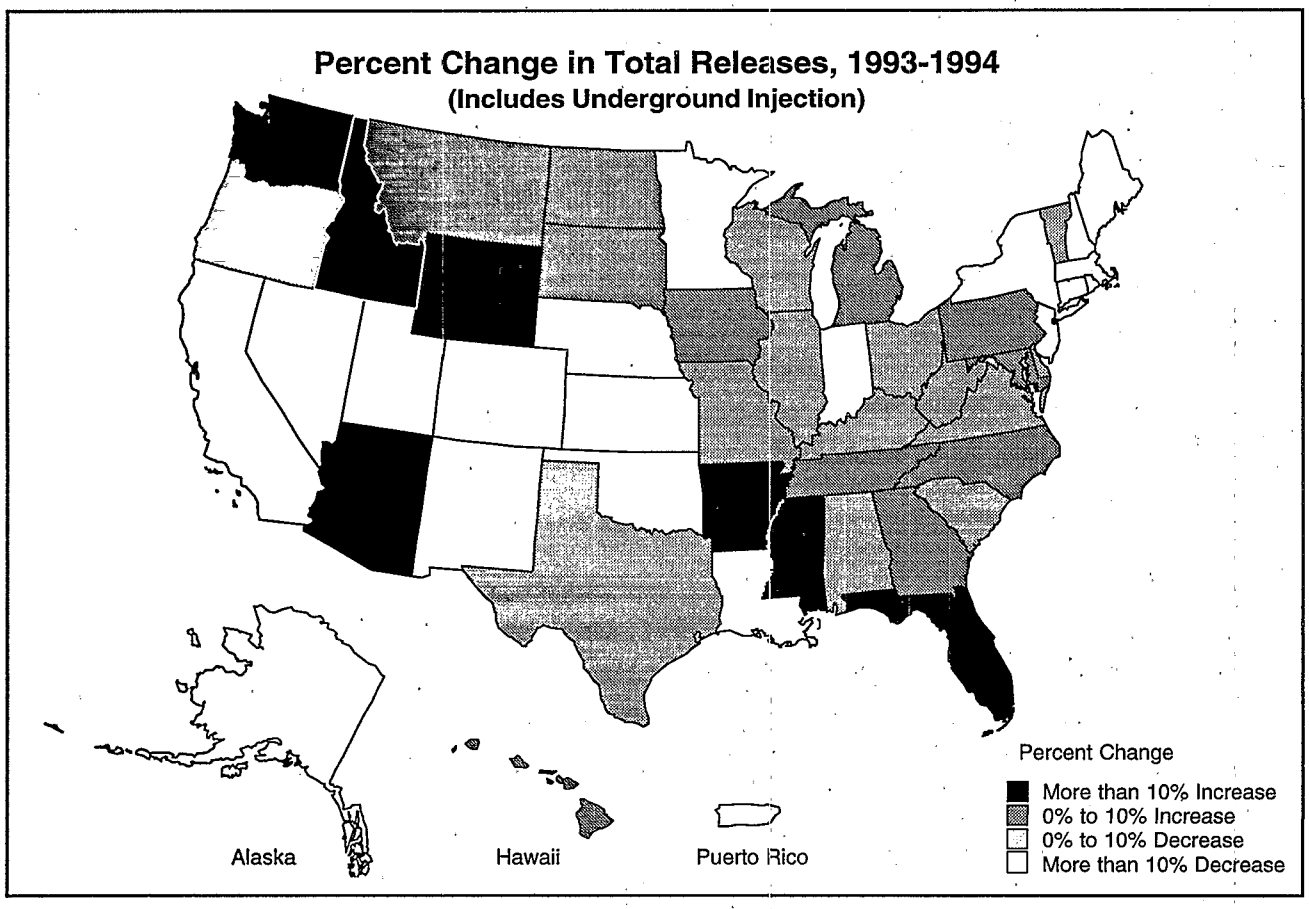


Figure E-21.[11]

[11] Does not include delisted chemicals, chemicals added in 1994, and ammonia, ammonium sulfate (solution), and sulfuric acid.

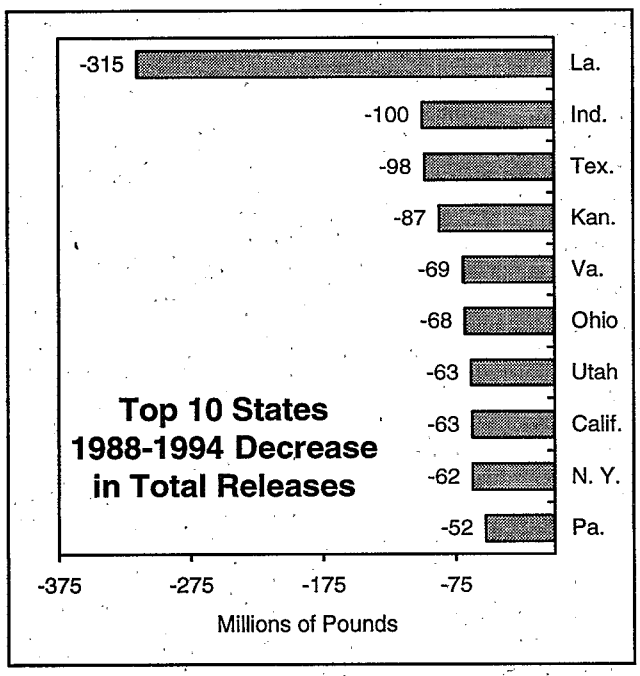


Figure E-22.⑫

1988-1994 Change in Total Releases by State

(Includes Underground Injection)

Figure E-22 presents the 10 states with the largest quantity decrease in total releases (including underground injection) between 1988 and 1994. Figure E-23 displays the states by percentage change in total releases between 1988 and 1994.

Twenty-two states have reduced their total releases by more than 50% since 1988. Five of these states have reduced their releases by more than 70% since 1988. Only three states and the District of Columbia have reported an increase in total releases since 1988.

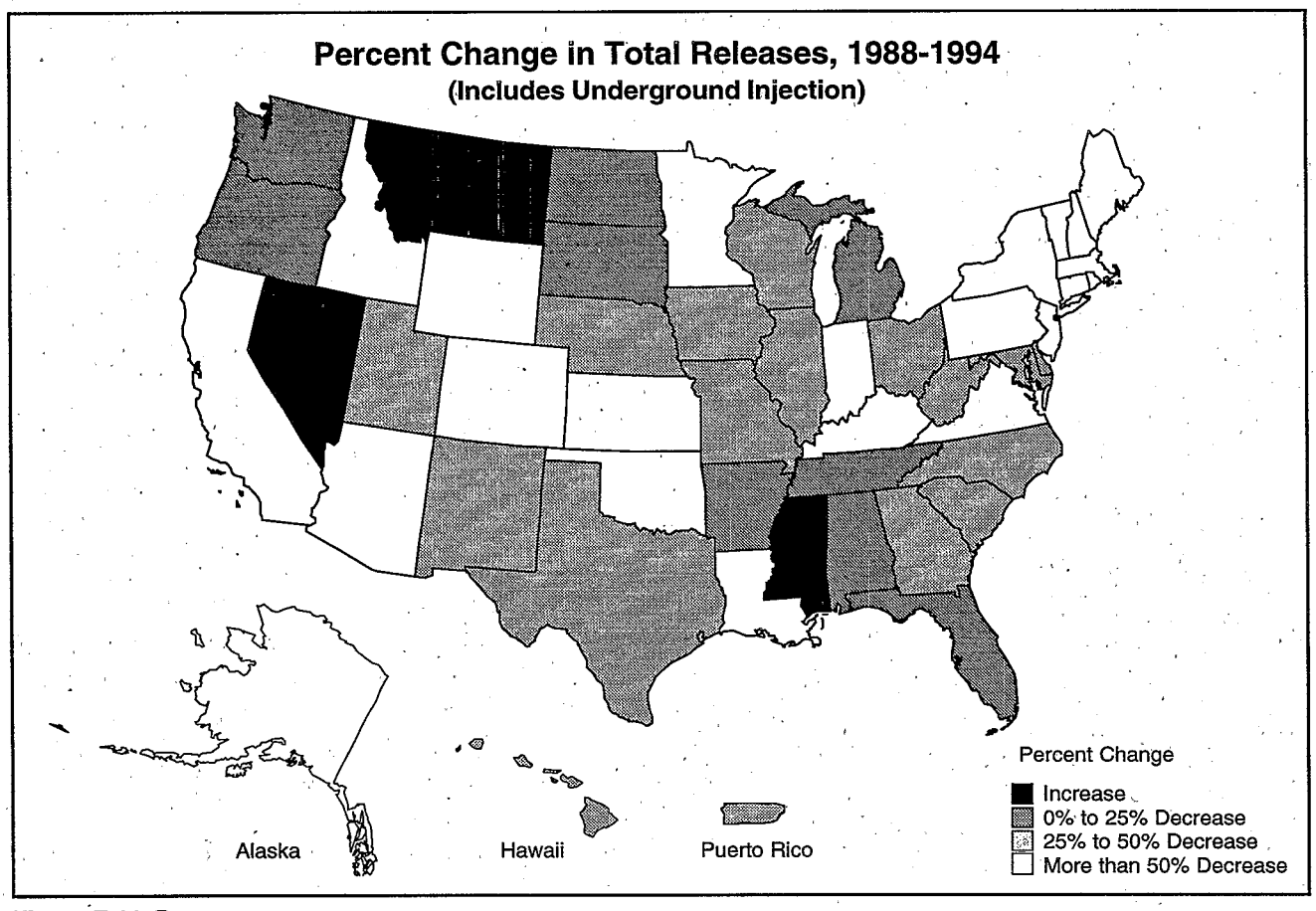


Figure E-23.⑫

⑫ Does not include delisted chemicals, chemicals added in 1990, 1991, and 1994, and aluminum oxide, ammonia, ammonium sulfate (solution), and sulfuric acid.

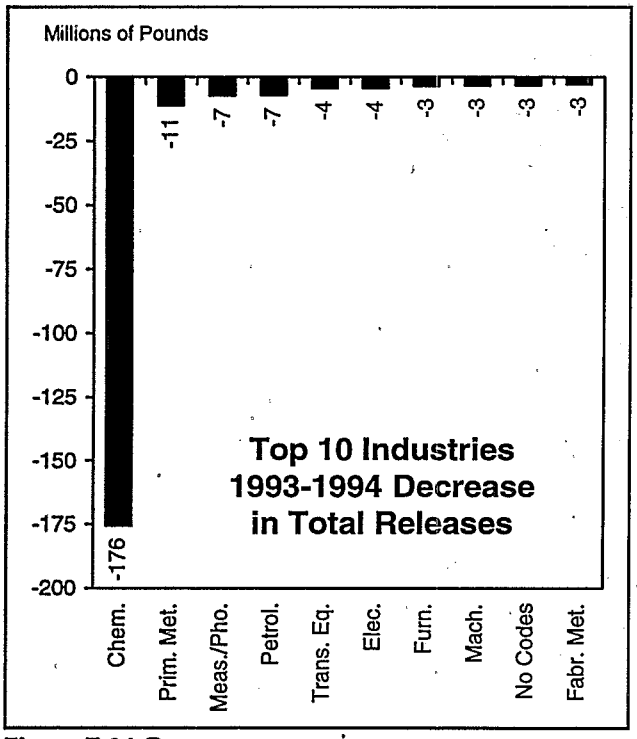


Figure E-24.⑬

Change in Total Releases by Industry

Figure E-24 displays the 10 industries with the largest quantity decrease in total releases (including underground injection) between 1993 and 1994. Figure E-25 displays the 10 industries with the largest quantity decrease in total releases between 1988 and 1994.

Although the chemical industry has experienced the largest decrease in terms of pounds since 1988, several industries have experienced larger percentage reductions in total releases. For example, the electrical equipment industry has reduced its releases by 75.0% since 1988, compared to 47.0% for the chemical industry. Table E-16 lists the top 10 industries for percentage decrease in total releases since 1988.

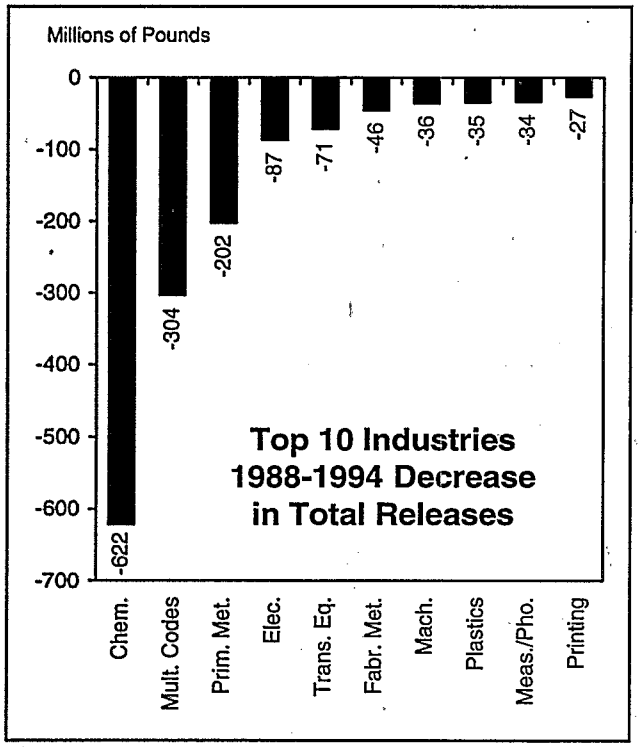


Figure E-25.⑭

Top 10 Industries for 1988-1994 Percentage Decrease in Total Releases	1988-1994 Change	
	Pounds	Percent
Electrical	-86,886,010	-75.0
Leather	-8,333,279	-69.9
Measure./Photo.	-34,176,573	-68.5
Multiple codes 20-39	-303,676,979	-68.0
Machinery	-36,120,232	-60.6
Stone/Clay	-14,711,314	-54.3
Textiles	-18,379,692	-53.6
Miscellaneous	-14,851,767	-52.0
Chemicals	-622,181,129	-47.0
Printing	-26,516,429	-43.7
Total for Top 10 Industries	-1,165,833,404	-54.0

Table E-16.⑭

⑬ Does not include delisted chemicals, chemicals added in 1994, and ammonia, ammonium sulfate (solution), and sulfuric acid. No Codes: Forms that did not report an SIC code or reported SIC codes outside the 20-to-39 range.

⑭ Does not include delisted chemicals, chemicals added in 1990, 1991, and 1994, and aluminum oxide, ammonia, ammonium sulfate (solution), and sulfuric acid. Multiple Codes: Forms that reported more than one 2-digit SIC code within the range of 20 to 39 [e.g., paper (26) and chemicals (28)].

Change in Total Releases by Chemical

Table E-17 lists the 10 chemicals with the largest quantity decrease in total releases (including underground injection) between 1993 and 1994. Phosphoric acid releases declined by nearly 134 million pounds, or 63.0%, due to decreased releases from two fertilizer facilities in Louisiana. Releases of 1,1,1-trichloroethane declined by nearly 27 million pounds, or 41.3%. Releases of Freon 113 declined by nearly 5 million pounds, or 48.6%, since 1993. Both 1,1,1-trichloroethane and Freon 113 are ozone-depleting chemicals whose production was banned as of January 1, 1996.

Table E-18 lists the 10 chemicals with the largest quantity decrease in total releases (including underground injection) between 1988 and 1994.

Table E-19 lists the 10 chemicals with the largest increases in total releases (including underground injection) between 1988 and 1994.

1993-1994 Decrease in Total Releases

Chemical	1993-1994 Change	
	Pounds	Percent
Phosphoric acid	-133,888,491	-63.0
1,1,1-Trichloroethane	-26,767,620	-41.3
Chlorine	-15,722,561	-20.6
Hydrochloric acid	-12,891,897	-5.7
Toluene	-12,309,750	-6.8
Carbon disulfide	-10,511,243	-11.2
Manganese compounds	-8,942,517	-17.7
Methyl ethyl ketone	-7,435,249	-8.6
Freon 113	-4,793,599	-48.6
Xylene (mixed isomers)	-4,251,976	-3.8
Total for Top 10 Chemicals	-237,514,903	-21.3

Table E-17.[15]

1988-1994 Decrease in Total Releases

Chemical	1988-1994 Change	
	Pounds	Percent
Hydrochloric acid	-266,692,993	-55.4
1,1,1-Trichloroethane	-142,894,818	-79.0
Toluene	-132,090,116	-43.9
Phosphoric acid	-98,513,311	-55.6
Chlorine	-80,994,653	-57.3
Dichloromethane	-67,316,352	-51.4
Freon 113	-65,566,188	-92.8
Methyl ethyl ketone	-61,903,672	-43.8
Methanol	-56,253,556	-18.0
Manganese compounds	-52,017,228	-55.6
Total for Top 10 Chemicals	-1,024,242,887	-50.4

Table E-18.[16]

1988-1994 Increase in Total Releases

Chemical	1988-1994 Change	
	Pounds	Percent
Copper compounds	13,924,090	42.0
Styrene	5,880,675	17.2
Ethylbenzene	4,811,729	60.2
Acetaldehyde	3,710,027	39.7
1,2,4-Trimethylbenzene	3,344,085	75.6
Acrylamide	2,989,726	134.2
Bis(2-ethylhexyl) adipate	740,377	710.4
m-Cresol	648,972	3,385.4
Methyl tert-butyl ether	599,369	22.8
o-Cresol	585,526	637.1
Total for Top 10 Chemicals	37,234,576	39.5

Table E-19.[16]

[15] Calculation of top chemicals does not include delisted chemicals, chemicals added in 1994, and ammonia, ammonium sulfate (solution), and sulfuric acid.

[16] Calculation of top chemicals does not include data for delisted chemicals, chemicals added in 1990, 1991, and 1994, and aluminum oxide, ammonia, ammonium sulfate (solution), and sulfuric acid.

CHAPTER 4: TRI REPORTING PROFILES FOR 33/50 PROGRAM CHEMICALS

The 33/50 Program is an EPA voluntary pollution reduction initiative that targets 17 high-priority TRI chemicals (see Box E-6) for reductions in releases and transfers. The Program derives its name from its national goals—an interim reduction of 33% in 1992 and an ultimate reduction of 50% in 1995, using 1988 TRI reporting as a baseline. These goals translate to a reduction of nearly 750 million pounds of pollution from the nearly 1.5 billion pounds reported to TRI for 1988 (the program excludes transfers to recycling and energy recovery, which were not reported to TRI until 1991). The 33/50 Program is one of a broad group of EPA activities designed to encourage source reduction, or prevention, as the best means of reducing pollution.

33/50 Hits the Mark

The 33/50 Program has proven to be remarkably successful. Spearheaded by the efforts of its 1,300 corporate participants (which own more than 6,000 TRI facilities), 33/50 surpassed its ultimate 50% reduction goal in 1994, a year ahead of schedule (see Figure E-26). Releases and transfers of 33/50's 17 target chemicals were reduced by an additional 62 million pounds (7.8%) in 1994, bringing total reductions since 1988 to 757 million pounds and exceeding the Program's 50% national pollution reduction goal by more than 10 million pounds. 33/50's interim 1992 33% reduction goal was also achieved a year early and ultimately exceeded by more than 100 million pounds.

17 Priority Chemicals Targeted by the 33/50 Program

Benzene
Cadmium and compounds
Carbon tetrachloride
Chloroform
Chromium and compounds
Cyanide compounds
Dichloromethane
Lead and compounds
Mercury and compounds
Methyl ethyl ketone
Methyl isobutyl ketone
Nickel and compounds
Tetrachloroethylene
Toluene
1,1,1-Trichloroethane
Trichloroethylene
Xylenes

Box E-6.

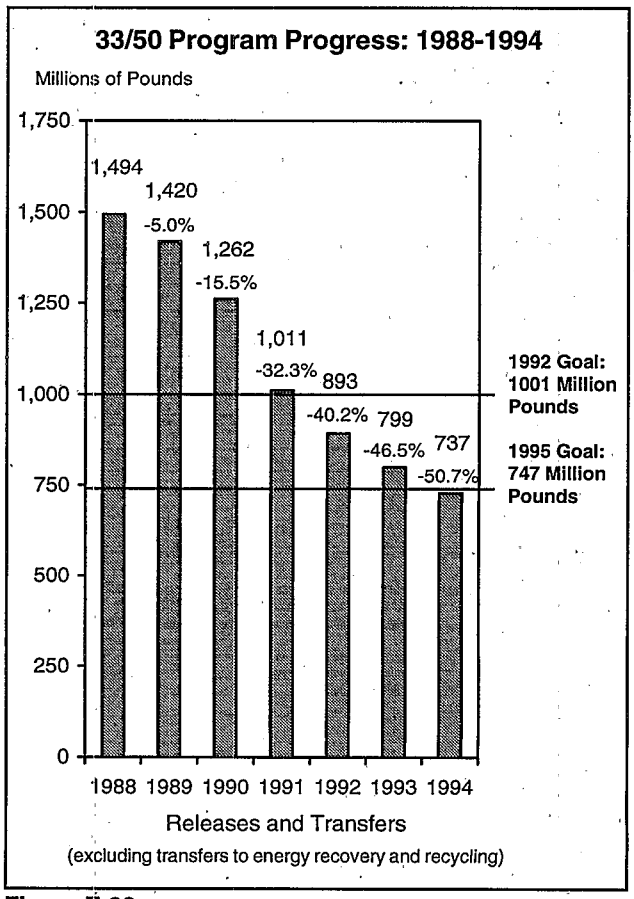


Figure E-26.

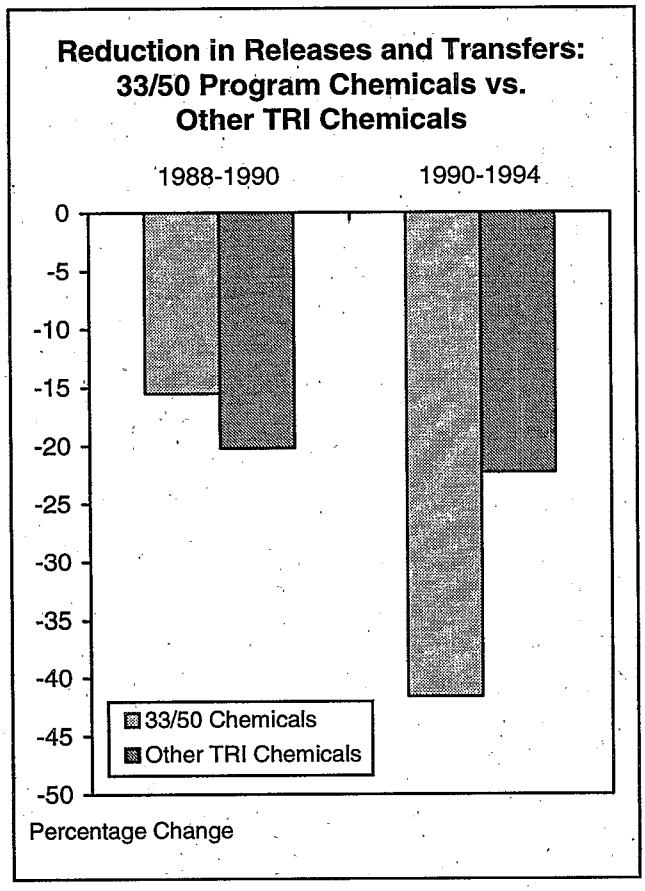


Figure E-27.⑰

33/50 Chemicals Outpace Other TRI Reductions

Reduction of 33/50 chemicals is even more striking when compared to the reduction pace for other TRI chemicals. Since the Program's announcement in 1991, 33/50 chemicals have been reduced at nearly twice the rate observed for all other TRI chemicals (41.6% vs. 22.3%; 7.8% vs. 3.5% in 1994). This accelerating trend represents a complete reversal of the pattern prior to 33/50's initiation. Between 1988 and 1990, emissions of other TRI chemicals were reduced substantially more than 33/50 Program chemicals: 20.2% vs. 15.5% (see Figure E-27).

33/50 Participants Account for Most Reductions

33/50 participants accounted for nearly half (46%) of the total reduction in Program chemical releases and transfers in 1994. Since the Program began in 1991, participants have accounted for 70% of the reductions and 561 million pounds (74%) of the 757 million pounds reduced since 1988.

Since 1988, facilities owned by participants have reduced their releases and transfers of 33/50 Program chemicals by 60%, compared with a 35% reduction by non-participants.

33/50 Chemicals in Production Waste Projected to Decline

33/50 Program chemicals in production-related waste increased slightly (1.6%) in 1994, but at a significantly lower rate than observed for other TRI chemicals in waste (5.8%, see Figure E-28). Since 1991, 33/50 chemicals in product waste have decreased slightly (0.9%), while other TRI chemicals in waste have increased significantly (9.2%). 33/50 chemicals in waste are projected to decline by 4.5% in 1995 and more than 7% by 1996, while facilities expect other TRI chemical wastes to continue increasing (4.3% in 1995 and 6% by 1996).

33/50 Participants Project Big Decrease in Waste

Facilities owned by 33/50 Program participating companies reported a slight increase in production-related waste (0.2%) while facilities owned by non-participating parent companies reported a 3.4% increase. Participating companies' facilities project a 13.4% decrease in

⑰ Does not include amounts for transfers to recycling and energy recovery reported for 1991-1994. Also excludes delisted chemicals, chemicals added in 1990, 1991, and 1994, and aluminum oxide, ammonia, ammonium sulfate (solution), and sulfuric acid.

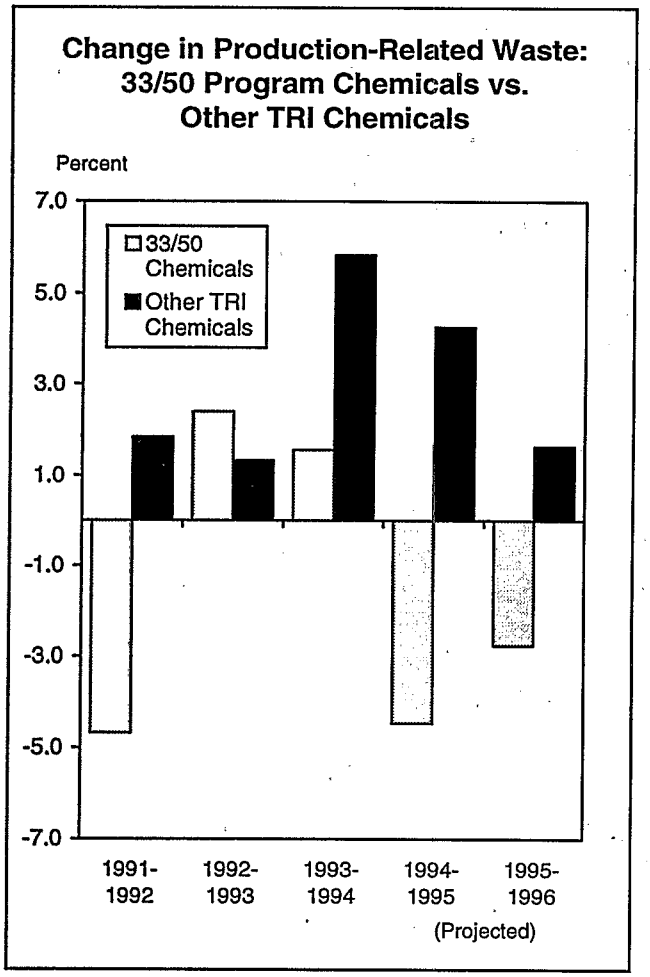


Figure E-28.⑱

production-related waste of 33/50 chemicals by 1996, compared to a 1.2% increase projected by non-participants.

33/50 Chemicals Targeted for More Source Reduction Activities

33/50 chemicals, as a group and individually, are being targeted for more source reduction activities than are other TRI chemicals. 43% of the Form Rs reporting a source reduction activity during 1994 were for the Program's 17 target chemicals. Thirty percent of 33/50 chemical Form Rs reported the occurrence of source reduction, compared to 20% of the forms submitted for other TRI chemicals. Individual 33/50 Program chemicals had some of the highest levels of reporting on source reduction. Three of the top five TRI chemicals with the greatest number of Form Rs reporting source reduction activities in 1994 are 33/50 chemicals [toluene, xylene (mixed isomers), and methyl ethyl ketone].

33/50 Program Wrapping Up

1995 has come and gone the 33/50 Program's ultimate 50% pollution reduction goal has been achieved—a year ahead of schedule. Industries' efforts to meet 33/50's challenges have concluded in many cases, though many companies set environmental goals that extend years into the future and others are drawing on momentum established through their Program participation to continue their voluntary reduction efforts on their own. At EPA, the 33/50 Program staff are putting the finishing touches on the Agency's flagship partnership experiment.

EPA intends to co-sponsor a national conference in September 1996 to celebrate the success of 33/50 and to explore ways of building even more successful partnerships in the future. In connection with this conference, 33/50 will be thanking all 1,300 participants for their contributions to the early achievement of the Program's pollution reduction goals.

EPA is also compiling 33/50 Program Success Stories, written by participants and featuring reduction projects they implemented to achieve 33/50 reductions. Success Stories will be distributed in hard copy and electronic format via the Internet as an entire compendium and in custom groups based on readers' interests in chemicals, processes, sectors, and pollution reduction techniques.

⑱ Data for 1991 as reported on 1991 forms; data for 1992 as reported on 1992 forms; all other years from 1994 forms. Does not include data for delisted chemicals, chemicals added in 1994, ammonia, ammonium sulfate (solution), and sulfuric acid.

CHAPTER 5: TRI REPORTING BY FEDERAL FACILITIES

On-site Releases

As a result of Presidential Executive Order 12856, Federal facilities were required to report to TRI for the first time in 1994. A total of 191 Federal facilities filed 686 TRI reports.

Releases reported by Federal facilities totaled 9.8 million pounds in 1994. Figure E-29 shows the distribution of Federal facility releases by release medium. Air emissions constituted nearly 84% of all releases from Federal facilities in 1994, compared to nearly 69% for all TRI facilities.

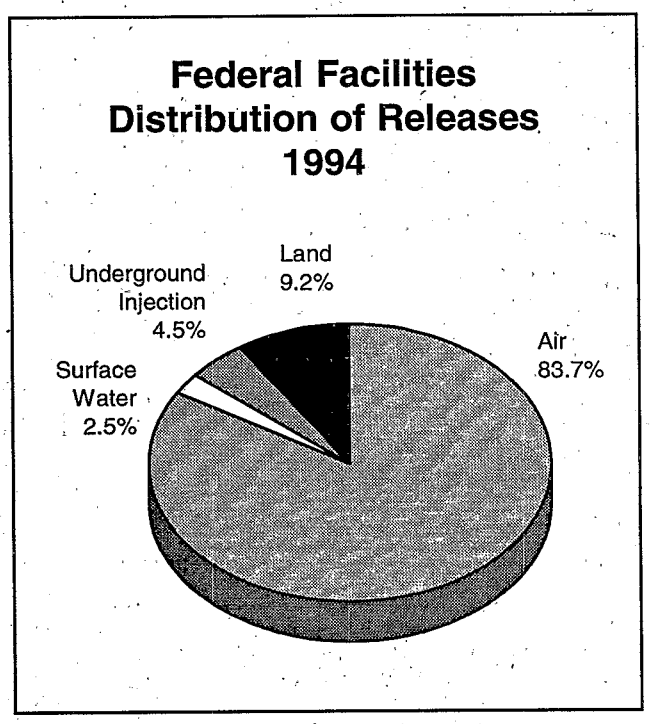


Figure E-29.

The Department of Defense reported 7.1 million pounds of releases from 127 facilities. This represents nearly 73% of all releases from Federal facilities. Table E-20 shows the number of reporting facilities and the total reported releases for each agency in 1994. Figure E-30 shows the distribution of TRI releases by agency.

Federal Facilities Total Releases, 1994

Agency	Facilities Number	Total Releases Pounds
Dept. of Defense	127	7,145,197
Dept. of Energy	23	973,793
U.S. Enrichment Corporation	2	750,706
Dept. of Agriculture	11	567,993
Natl. Aeronautics and Space Admin.	6	223,663
Dept. of Justice	3	102,691
Tennessee Valley Authority	6	35,825
Dept. of Transportation	2	23,816
Dept. of Treasury	6	2,281
Dept. of Interior	2	1,411
Dept. of Health and Human Services	2	500
Environmental Protection Agency	1	20
Total	191	9,827,896

Table E-20.

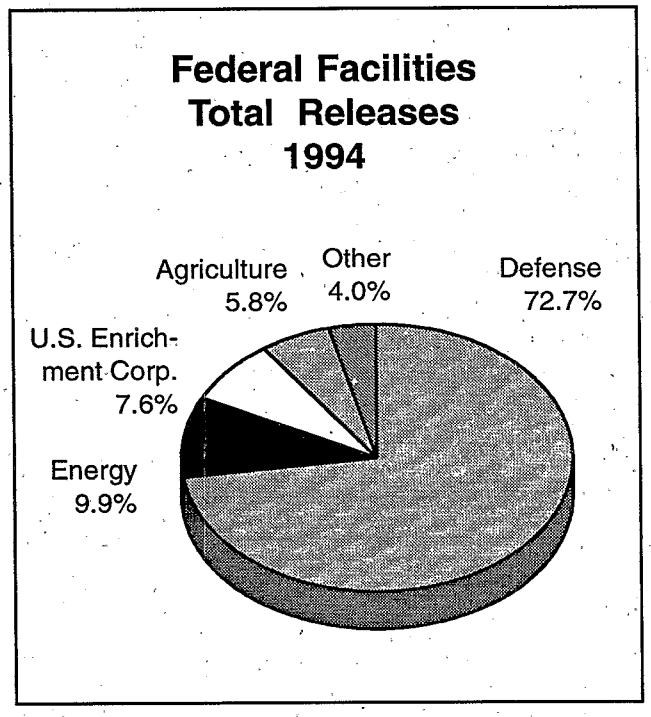


Figure E-30.

Off-site Transfers

Federal facilities reported transferring off-site 10.4 million pounds of toxic chemicals in waste in 1994. Figure E-31 shows the distribution of TRI transfers, by type of transfer.

About 5.2 million pounds (50%) of toxic chemicals in waste were transferred off-site by Federal facilities to be recycled. Transfers off-site for disposal totalled nearly 2.7 million pounds (nearly 26%). Transfers off-site for treatment totalled 1.6 million pounds, or nearly 16%. Transfers for energy recovery totaled 0.6 million pounds, or nearly 6%.

Table E-21 shows the total transfers reported by each Federal agency for 1994. Figure E-32 shows the distribution of TRI transfers by agency.

Department of Defense facilities reported 9.9 million pounds of transfers in 1994, nearly 95% of all TRI transfers from Federal facilities. More than 71% of the transfers from Department of Defense facilities were reported by Army facilities.

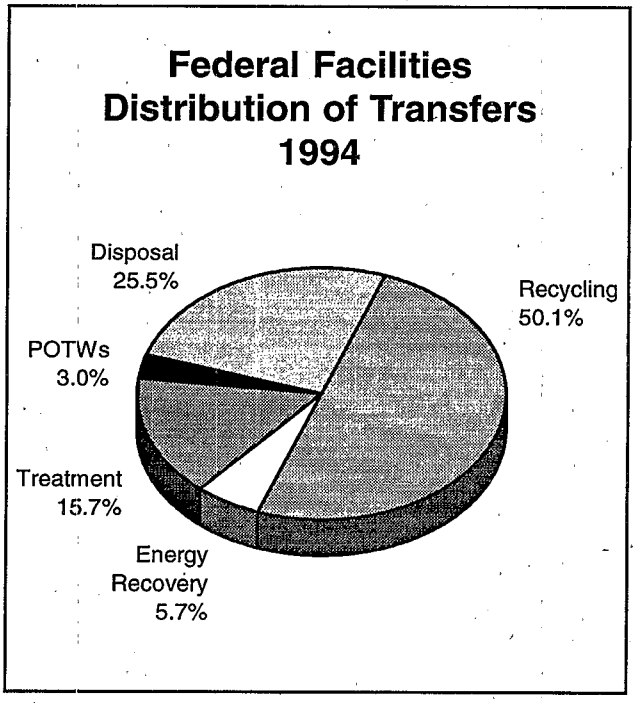


Figure E-31.

Federal Facilities Total Transfers, 1994

Agency	Total Transfers Pounds
Dept. of Defense	9,866,496
Dept. of Energy	125,998
U.S. Enrichment Corporation	0
Dept. of Agriculture	0
Natl. Aeronautics and Space Admin.	24,468
Dept. of Justice	10,331
Tennessee Valley Authority	27,066
Dept. of Transportation	6,343
Dept. of Treasury	237,803
Dept. of Interior	4,500
Dept. of Health and Human Services	139,898
Environmental Protection Agency	0
Total	10,442,903

Table E-21.

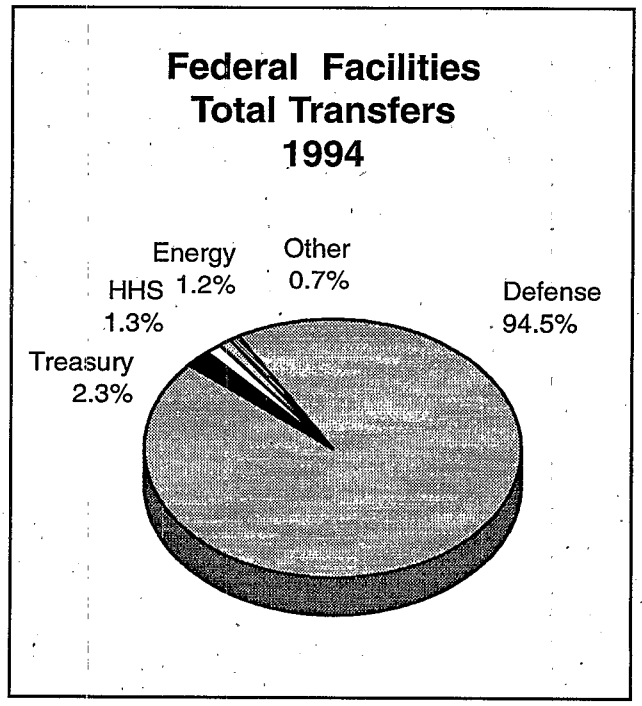


Figure E-32.

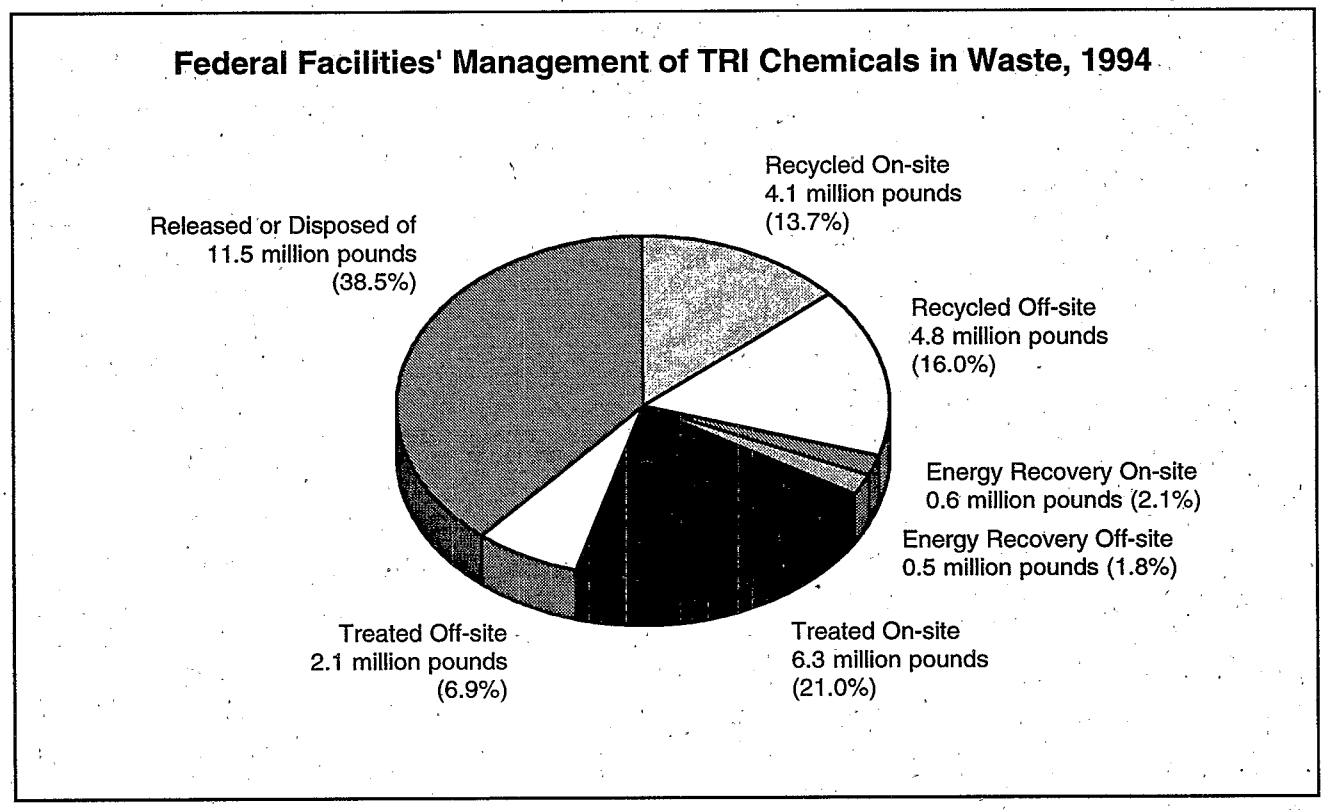


Figure E-33.

Waste Management and Pollution Prevention Data

Federal facilities reported managing nearly 30.0 million pounds of toxic chemicals in waste in 1994. Nearly 39% of that amount was released to the environment (including disposal). Nearly 30% was recycled, either on-site or off-site. Figure E-33 shows the amount and percentage of TRI chemicals in waste undergoing each waste management activity.

Federal facilities projected that the quantity of TRI chemicals they manage in waste will decline to about 24.4 million pounds by 1996.

Forty-eight percent of all Federal facilities reported undertaking at least one source reduction activity in 1994. Source reduction activities were reported on nearly 38% of all forms from Federal facilities. Table E-22 shows source reduction activity reporting by each agency.

Federal Agencies Source Reduction Activity Reporting

Agency	TRI Forms	Forms Reporting Source Reduction Activities	
	Number	Number	Percent
Dept. of Defense	520	212	40.8
Dept. of Energy	85	17	20.0
Dept. of Agriculture	11	9	81.8
Tennessee Valley Authority	12	2	16.7
Natl. Aeronautics/Space Admin.	16	10	62.5
Dept. of Treasury	11	1	9.1
Dept. of Justice	7	0	0.0
Dept. of Health/Human Svcs.	6	1	16.7
Dept. of Transportation	3	3	100.0
Dept. of Interior	3	2	66.7
U.S. Enrichment Corporation	10	2	20.0
Envtl. Protection Agency	2	0	0.0
Total	686	259	37.8

Table E-22.

EPA REGIONAL SECTION 313 COORDINATORS

USEPA Region I (Boston, MA)
Connecticut, Maine, Massachusetts,
New Hampshire, Rhode Island, Vermont

Dwight Peavey
(617) 565-3230
Fax (617) 565-1141

USEPA Region II (Edison, NJ)
New Jersey, New York, Puerto Rico,
Virgin Islands

Nora Lopez
(908) 906-6890
Fax (908) 321-6788

USEPA Region III (Philadelphia, PA)
Delaware, District of Columbia, Maryland,
Pennsylvania, Virginia, West Virginia

Bill Reilly
(215) 566-2072
Fax (215) 566-2101

USEPA Region IV (Atlanta, GA)
Alabama, Florida, Georgia, Kentucky,
Mississippi, North Carolina,
South Carolina, Tennessee

Ezequiel Velez
(404) 347-3555, Ext. 6984
Fax (404) 347-1681

USEPA Region V (Chicago, IL)
Illinois, Indiana, Michigan, Minnesota,
Ohio, Wisconsin

Thelma Codina
(312) 886-6219
Fax (312) 353-4342

USEPA Region VI (Dallas, TX)
Arkansas, Louisiana, New Mexico,
Oklahoma, Texas

Warren Layne
(214) 665-8013
Fax (214) 665-7263

USEPA Region VII (Kansas City, KS)
Iowa, Kansas, Missouri, Nebraska

Jim Hirtz
(913) 551-7020
Fax (913) 551-7065

USEPA Region VIII (Denver, CO)
Colorado, Montana, North Dakota,
South Dakota, Utah, Wyoming

Bruce Cooper
(303) 312-6028
Fax (303) 312-6044

USEPA Region IX (San Francisco, CA)
Arizona, California, Hawaii, Nevada,
American Samoa, Guam, Northern Marianas

Charles Berrey
(415) 744-1117
Fax (415) 744-1073

USEPA Region X (Seattle, WA)
Alaska, Idaho, Oregon, Washington

Christina Colt
(206) 553-4016
Fax (206) 553-8509

STATE TRI PUBLIC CONTACTS

Alabama	Ed Poolos (334) 260-2717
Alaska	Camille Stephens (907) 465-5220
American Samoa	Togipa Tausaga (415) 744-1601
Arizona	Daniel Roe (602) 231-6346
Arkansas	John Ward (501) 682-0913
California	Steve Hanna (916) 324-9924
Colorado	Tamara Van Horn (303) 692-3017
Connecticut	Joseph Pulaski (203) 424-3373
Delaware	David Fees (302) 739-4791
District of Columbia	Jacqueline Love (202) 673-2101 Ext. 3151
Florida	Sam Brackett (904) 413-9970 (800) 635-7179 (in Florida)
Georgia	Kirby S. Olson (404) 656-6905
Guam	Joseph Cruz Intl. (671) 472-8863
Hawaii	Marsha Mealey (808) 586-4249
Idaho	Lezlie Aller (208) 334-3263
Illinois	Joe Goodner (217) 785-0830
Indiana	Paula Smith (317) 232-8172
Iowa	Pete Hamlin (515) 281-8852
Kansas	Jon Flint (913) 296-1690
Kentucky	Alex Barber (502) 564-2150
Louisiana	Linda Brown (504) 765-0737
Maine	Rayna Leibowitz (207) 287-4080
Maryland	Patricia Williams (410) 631-3800
Massachusetts	William Panos (617) 574-6820
Michigan	Robert Jackson (517) 373-8481
Minnesota	John Chikkala (612) 282-5396
Mississippi	John David Burns (601) 960-9000
Missouri	Eugene Nickel (573) 526-6627
Montana	Tom Ellerhoff (406) 444-2544
Navajo Nation	Harrilene Begay (520) 871-7692
Nebraska	Dale Busch (402) 471-4230
Nevada	Alene Coulson (702) 687-4670 Ext. 3006
New Hampshire	Leland Kimball (603) 271-2231
New Jersey	Andrew Opperman (609) 984-3219
New Mexico	Max Johnson (505) 827-9223
New York	William Miner (518) 457-4107
North Carolina	Emily Kilpatrick (919) 733-3865
North Dakota	Robert W. Johnson (701) 328-2111
Northern Marianas	John Castro (415) 744-1601
Ohio	Cindy DeWulf (614) 644-3606
Oklahoma	Monty Elder (405) 271-8062
Oregon	Bob Albers (503) 378-3473 Ext. 231
Pennsylvania	James Tinney (717) 783-2071
Puerto Rico	Genaro Torres (809) 766-8056
Rhode Island	Martha Delaney Mulcahey (401) 277-2808 Ext. 7032
South Carolina	Michael Juras (803) 896-4117
South Dakota	Lee Ann Smith (605) 773-3296
Tennessee	Betty Eaves (615) 741-2986
Texas	Becky Kurka (512) 239-3100
Utah	John Jones (801) 536-4100
Vermont	Gary Gulka (802) 241-3626
Virgin Islands	Austin Moorehead (809) 773-0565 (St. Croix) (809) 774-4577 (St. Thomas)
Virginia	Cathy Harris (804) 698-4489
Washington	Idell Hansen (206) 407-6727
West Virginia	Carl L. Bradford (304) 558-5380
Wisconsin	Russ Dunst (608) 266-9255
Wyoming	Mike Davis (307) 777-7197

PUBLIC ACCESS TO THE TOXICS RELEASE INVENTORY

TRI Reports and Data Products

Product		Supplier	Contact Information	Order Information
1994 TRI Executive Summary		U.S. EPA EPCRA Hotline	(800) 535-0202 Fax Document Requests Only: (703) 412-3333	EPA 745/S-96-001 (**Free**)
1994 TRI Public Data Release (annual report)				EPA 745/R-96-002 (**Free**)
1994 State Fact Sheets				EPA 745/F-96-001 (**Free**)
1987-1993 TRI CD-ROM		U.S. GPO	(202) 512-1800	S/N 055-000-00508-7 ($38)
		NTIS	(703) 487-4650	PB 95503793 ($45)
1994 State Data Files	dBASE Lotus	U.S. GPO	(202) 512-1530	$15-$17 / state Up to 67 disks for all states
1994 Federal Facilities Disk	dBASE Lotus	U.S. GPO	(202) 512-1530	$15-17. Call for quote.
TRI Information Kit		NCEPI	(513) 489-8180 Fax: (513) 489-8190	EPA 749-F-94-002 (**Free**)

Note: The 1987-1994 CD-ROM, containing the latest available data, will be published in August 1996.

Accessing TRI Data Online

Data from Online Providers	Internet Address	Special Notes
Right to Know Network (RTKNET) – Provides public access to TRI and related environmental data bases to community groups concerned about toxics. For more information, call (202) 797-7200.	ftp://ftp.rtknet.org gopher://gopher.rtknet.org http://www.rtk.net	Set computer parameters to 8,N,1 and log in as "public." No charge for Internet access. Direct access by modem at (202) 234-8570; phone charge may apply.
National Library of Medicine (NLM) – Offers state of the art, user friendly searching of complete TRI data base. For more information, call (301) 496-6531.	toxnet.nlm.nih.gov	$18-$20 per hour charge. Password required.
U.S. EPA Internet Server – Access a variety of reports, data files, and TRI information from EPA. For more information, call TRI-US at (202) 260-1531.	ftp://ftp.epa.gov gopher://gopher.epa.gov http://www.epa.gov	\pub\gopher\TRI_Chem EPA/OPPTS/TS/TRI

☆U.S. GOVERNMENT PRINTING OFFICE: 1996 - 715-003/50513

1994 Toxics Release Inventory

Public Data Release

Order Form

In addition to this Executive Summary, EPA has prepared two reports summarizing the 1994 TRI data. To order one or both of these documents, please return this order form to:

U.S. EPA / NCEPI
Attn: Publication Orders
P.O. Box 42419
Cincinnati, OH 45242-2419
Fax: (513) 489-8695
http://www.epa.gov/epahome/publication.html

Please type or print clearly, and be sure to indicate which document(s) you would like to receive by checking the appropriate box(es) below. Allow 2-4 weeks for delivery.

☐ *1994 Toxics Release Inventory Public Data Release* (EPA 745-R-96-002)

Summarizes the national TRI data for 1994 and provides limited comparison data for previous years. Included is information on releases and transfers of TRI chemicals, management of TRI chemicals in waste, achievements of the 33/50 Program of voluntary toxics reduction, and toxic chemical data reported by federal facilities. Includes national summaries, plus complete data tables by state, by industry group, and by chemical. (438 pp.)

☐ *1994 Toxics Release Inventory Public Data Release State Fact Sheets* (EPA 745-F-96-001)

Provides a two-page summary of 1994 basic TRI data for each state, including release, transfer, and waste management totals, state rankings, top five chemicals released in the state, and top 10 facilities for TRI releases in the state. Includes information about state TRI programs. (115 pp.)

Ship to _____
Organization _____
Address _____
_____
City/State/ZIP _____
Daytime Phone _____
(Please include area code)

EPA

United States
Environmental Protection Agency
(7408)
Washington, DC 20460

Official Business
Penalty for Private Use
$300