FOURTEENTH ANNUAL
TOXIC CHEMICAL REPORT

A summary of information contained in the
Toxic Chemical Report Forms for calendar year 2000

JULY 2002

Illinois Environmental Protection Agency
Springfield, Illinois

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PREFACE

Facilities with persistent, bioaccumulative and toxic (PBT) chemicals and chemical categories were required for the first time to submit toxic chemical release reports covering calendar year 2000. The reports submitted by facilities in the new PBT categories totaled 163.3 thousand pounds, which is one percent of the 174.3 million pounds reported by all facilities in calendar year 2000.

The 174.3 million pound total amount is 22.6 million pounds or about eleven percent less than was reported for 1999. Once again, fugitive and stack air emissions of 63.6 million pounds exceeded all other types of releases and transfers. However, this amount was down by 21.2 million pounds (25 percent) compared to 1999.

The long-term downward trend of environmental releases in Illinois continues. Facility reports indicate a 49 percent decrease in normalized toxic chemical releases from 1988 to 2000, and a decrease of 3 percent from 1999 to 2000. The toxic chemical with the greatest quantity reduction in the period 1988-2000 was toluene (17.3 million pounds or 79 percent).

In this fourteenth report, the Agency has also included a special analysis using a ten-year time frame from 1991-2000 (TRI-10). While the raw data show that approximately 37.5 million more pounds of releases have been reported over this ten-year period, more facilities were added in select years due to changes in reporting requirements. As a result, the analysis shows that more zip codes had a net increase in releases than decreases. When looking at facilities, 210 zip codes had a net number of facilities with a decrease compared to 106 zip codes with an increase.

Toxic release information will be continually examined and analyzed by the Illinois EPA to identify industrial categories, facilities, chemicals and geographic areas which should receive focused attention with the objective of release reduction, especially through pollution prevention efforts.

Renee Cipriano, Director

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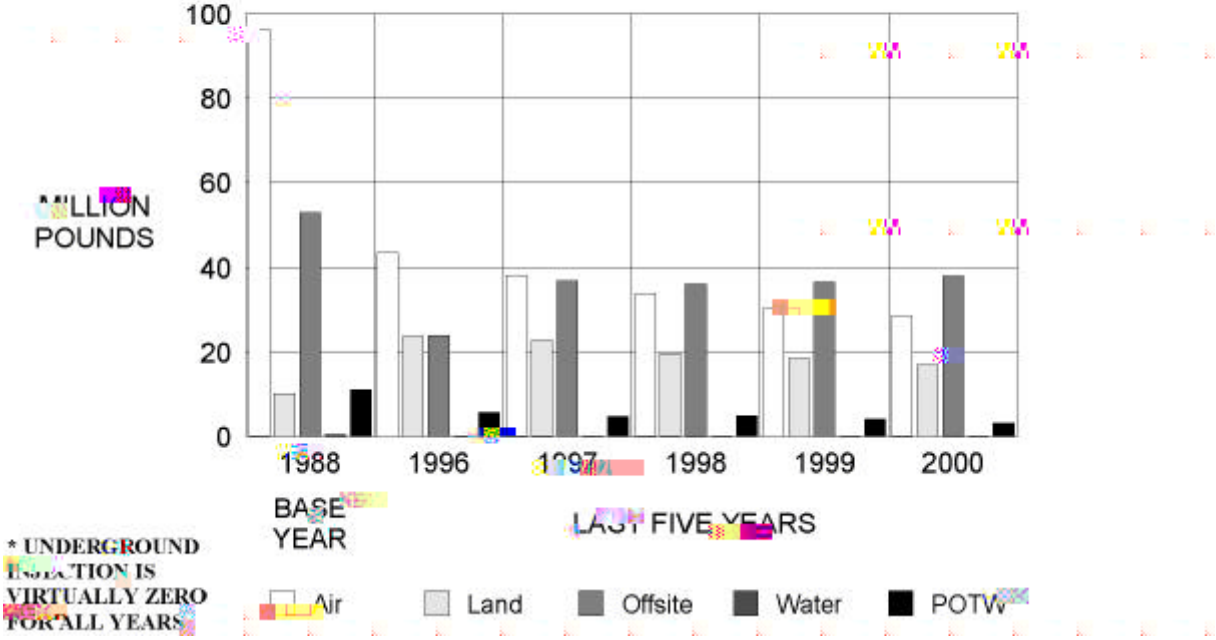
EXECUTIVE SUMMARY

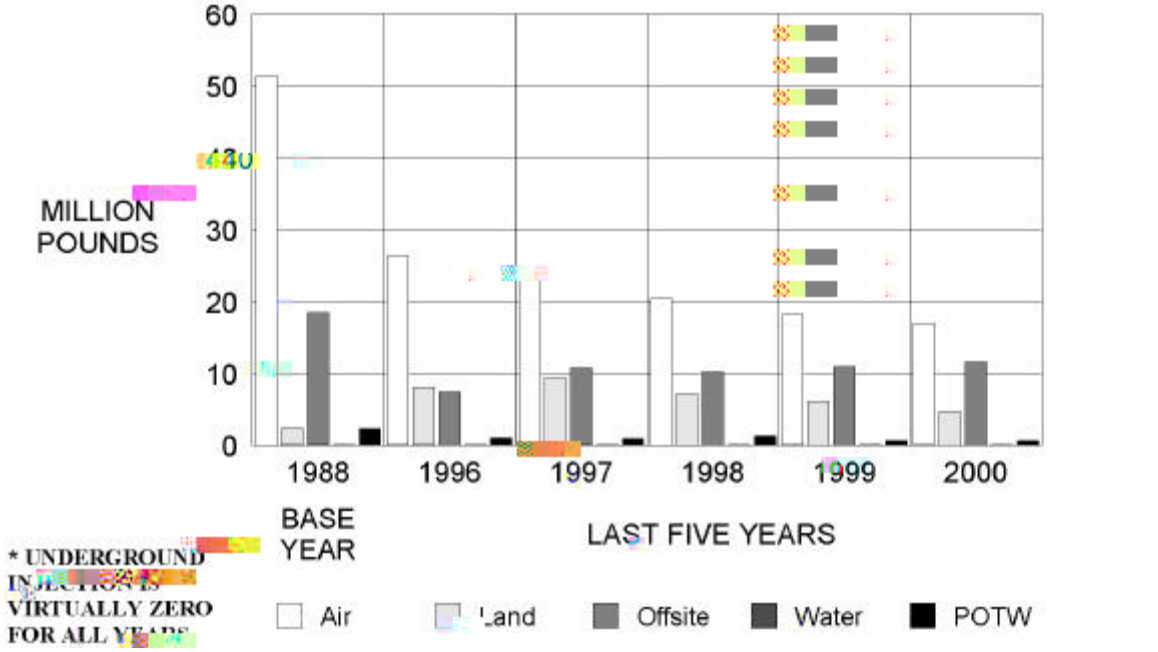
Over 2,300 unique facilities have reported toxic chemical release information to the Illinois EPA since the reporting program mandated by federal law began in 1987. Not including 1987, an average of around 1,300 facilities have reported each year, with the actual number ranging between 1,258 and 1,477.

Facilities with persistent, bioaccumulative and toxic (PBT) chemicals and chemical categories were required to

TOTAL RELEASES AND TRANSFERS - ALL CHEMICALS



TOTAL RELEASES AND TRANSFERS - CHEMICALS WITH SIGNIFICANT HUMAN HEALTH EFFECTS



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LIST OF APPENDICES

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INTRODUCTION

EMERGENCY PLANNING AND COMMUNITY RIGHT-

"281" refers to the industry group, "Industrial Inorganic Chemicals," and the four-digit code "2812" refers to the specific industry, "Alkalies and Chlorine." The four-digit code identifies a specific facility rather than company.

"Publicly Owned Treatment Works (POTW)" - A wastewater treatment facility which is owned by a unit of government or a public utility company.

"Off-Site Locations" - Locations outside the boundaries of a facility to which wastes are transported for treatment or disposal.

"Chemical Abstracts Service Registry Number (CAS #)" - A numeric designation assigned by the American Chemical Society's Chemical Abstracts Service which uniquely identifies a chemical or chemical compound.

"Fugitive or non-point air emissions" - Releases to the air that are not conveyed through stacks, vents, pipes, ducts or any other confined air stream. Examples include leakage from valves, pump seals, flanges, compressors, sampling connections open ended lines, evaporative losses from surface impoundments and production lines, and releases from building ventilation systems.

"Stack or point air emissions" - Releases to the air which are conveyed through stacks, vents, ducts, pipes or other confined air streams, and includes storage tank emissions and air releases from control equipment.

"Wastestream" - An ongoing generation of waste which results from an industrial process or originates in an industrial area and which can be consistently described by the same physical and chemical characteristics.

"Releases to land" - Refers to landfilling, land treatment/application farming, surface impoundment or any other releases of a toxic chemical to land within the boundaries of a facility.

FACILITIES COVERED

Facilities subject to reporting under Section 313 are those that have 10 or more full-time employees, that are in certain SIC major groups and industries, and that manufactured, processed or otherwise used a listed toxic chemical or chemical category in excess of specified threshold quantities.

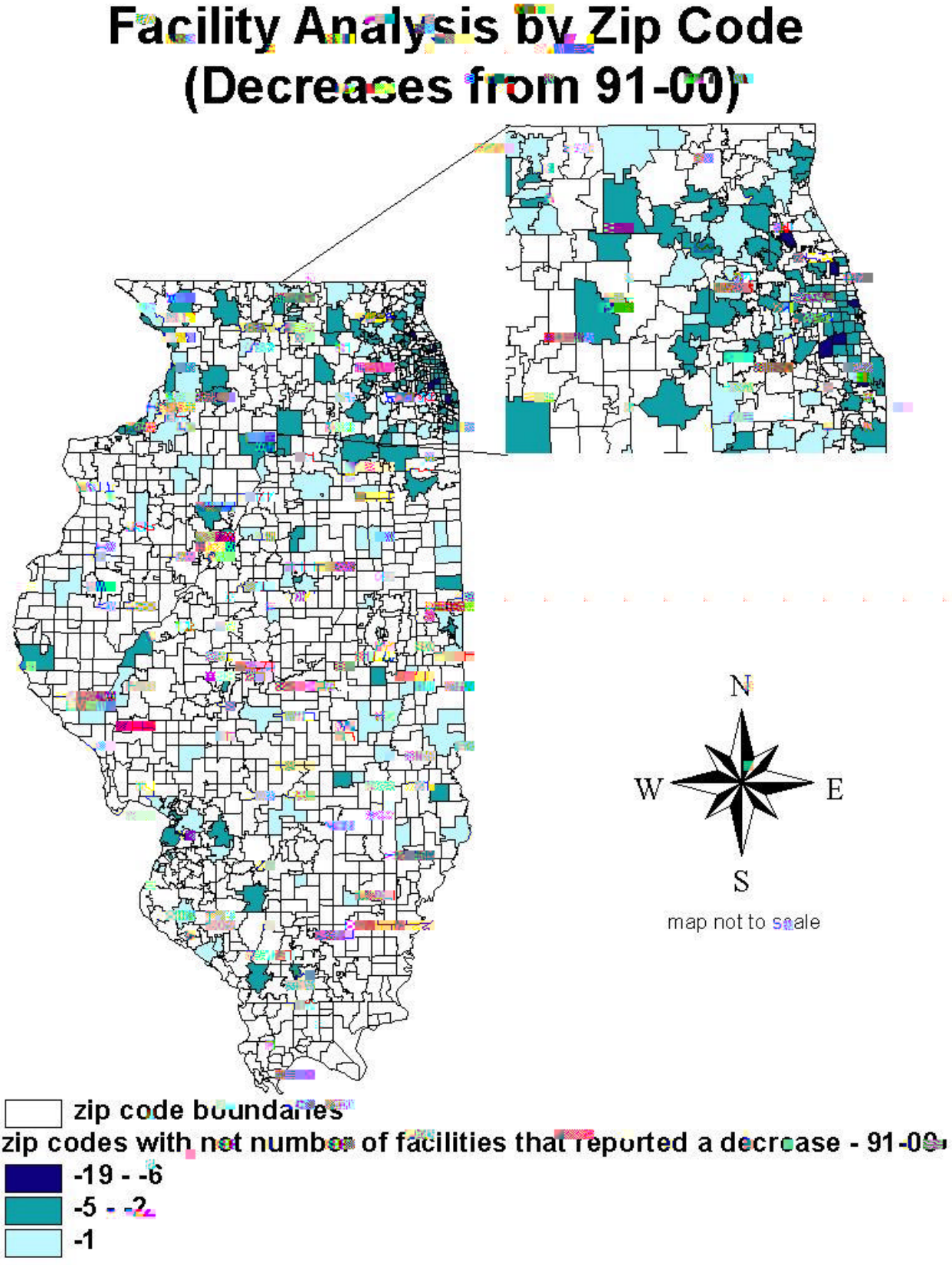
The thresholds for reporting are different for users and manufacturers or processors of chemicals. For 1989 -(.)pt 0 -12 T Tj.72 1011, 10oce -0.1094)on systems.

"Technical" errors are handled much the same way; however, the Agency is able to initially enter the data in the computer for later edits once the facility provides the correct information. It has been noted that numerous "technical" errors are made by facilities in the areas of CAS numbers and chemical name spellings.

SPECIAL TREND ANALYSIS, 1991-2000 (TRI-10)

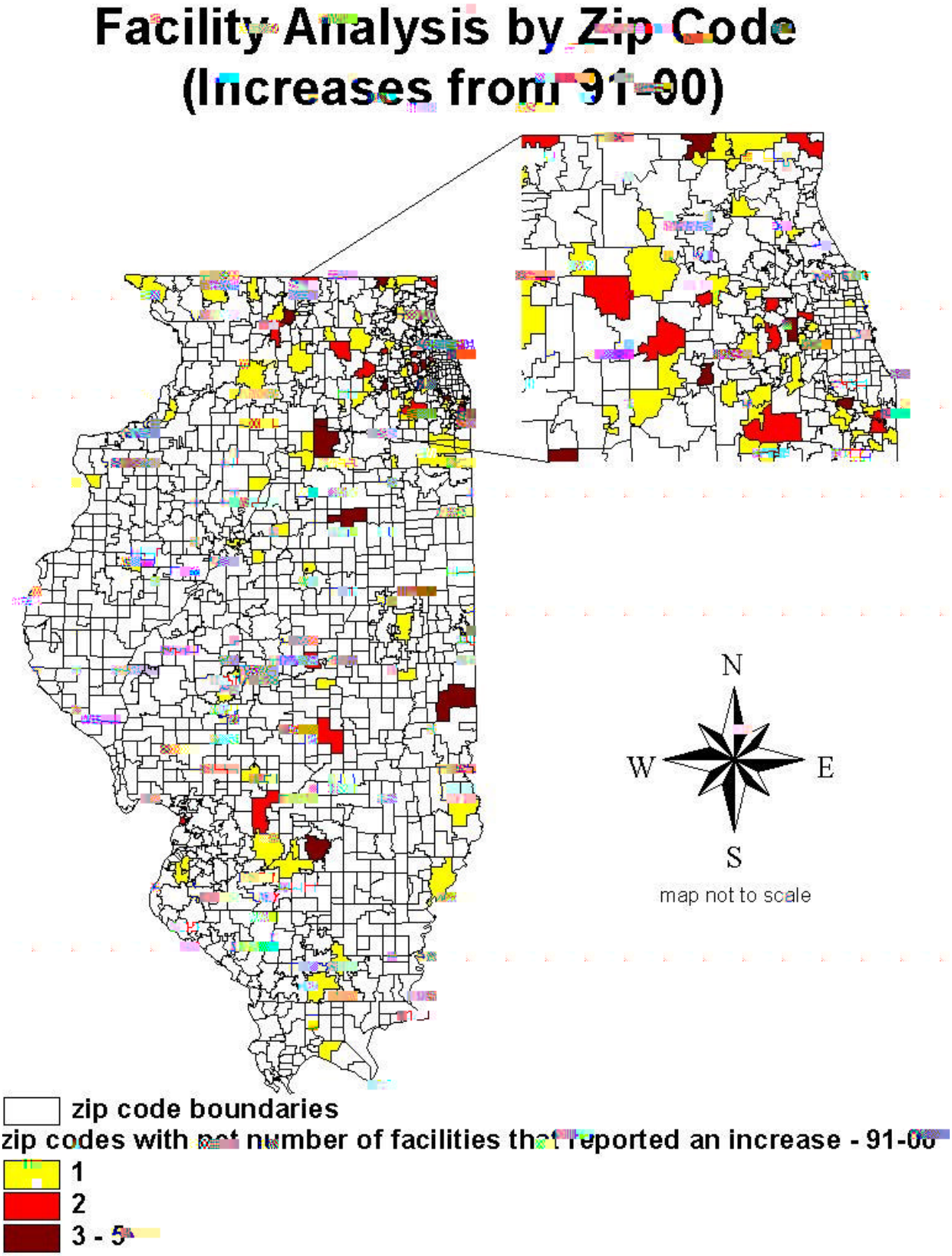
The Agency has selected this fourteenth annual report, to present a special analysis using a ten-year time frame

MAP 1


Facility Analysis by Zip Code
(Decreases from 91-00)
N
W
E
S
map not to scale
zip code boundaries
zip codes with net number of facilities that reported a decrease - 91-00
-19 - -6
-5 - -2
-1

Map 2 shows the total number of facilities by zip code that had a net TRI-10 increase. Zip code 61764 in Pontiac (Livingston County) had 5 facilities that reported a TRI-10 increase while zip code 60505 in Aurora (Kane County) had 4 facilities that reported a TRI-10 increase. An additional 7 counties had 3 facilities each that reported a TRI-10 increase. For this ten-year period, there were 106 zip codes in Illinois that had a net number of facilities with an increase.

MAP 2


Facility Analysis by Zip Code
(Increases from 91-00)
N
W
E
S
map not to scale
zip code boundaries
zip codes with net number of facilities that reported an increase - 91-00
1
2
3 - 5

Map 3 shows the total releases for all the zip codes in Illinois. Keystone Steel & Wire Company in Peoria and Peoria County (zip code not available on map) saw the greatest TRI-10 decrease in releases (5,503,085 pounds, 2 facilities in zip code). Zip code 60914 in Bourbonnais (Kankakee County) had the next greatest TRI-10 decrease in releases (3,354,753 pounds, 4 facilities in zip code). Zip code 61081 in Sterling (Whiteside County) saw the greatest TRI-

MAP 3

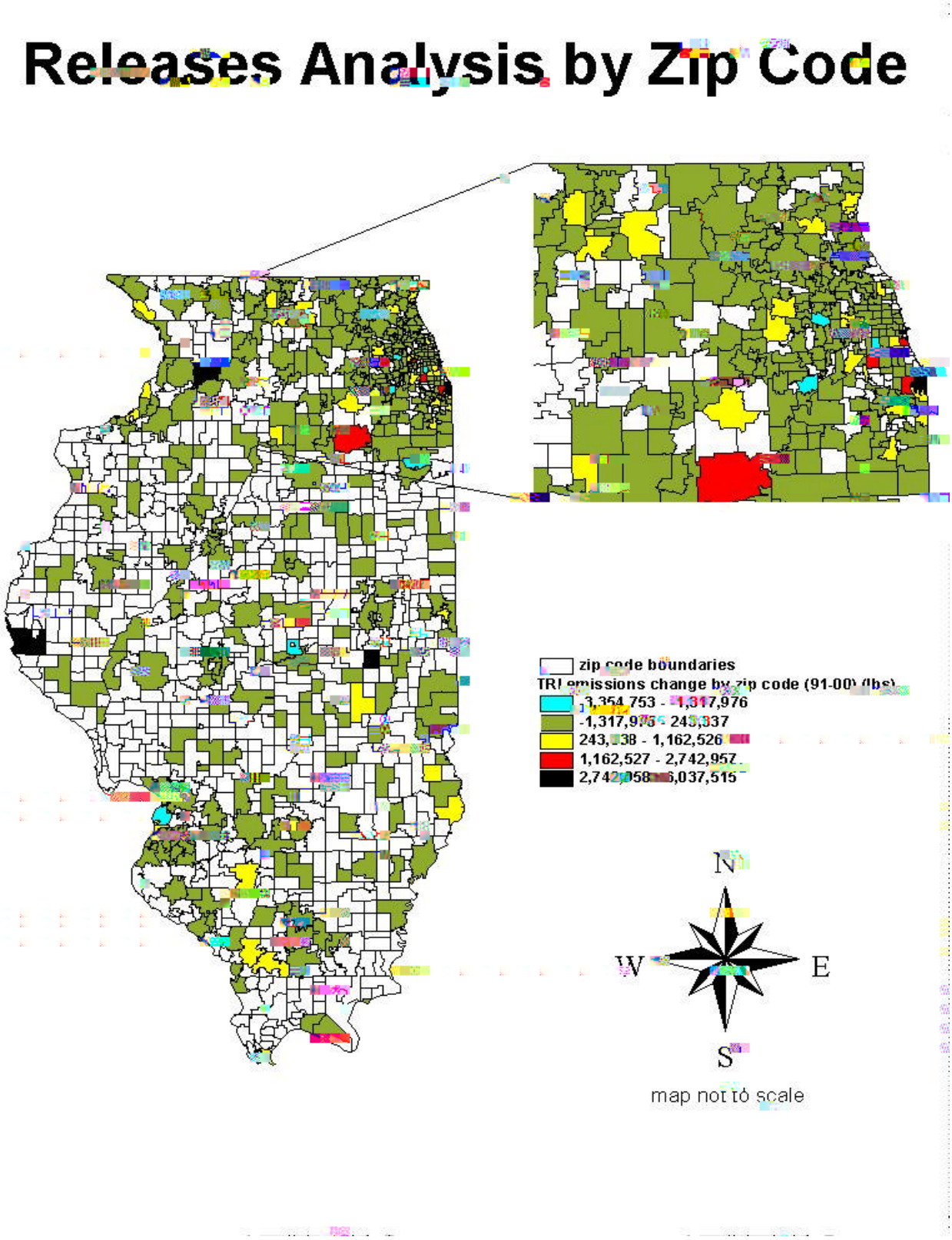

Releases Analysis by Zip Code
zip code boundaries
TRI emissions change by zip code (91-00) (lbs)
-3,354,753 - -1,317,976
-1,317,975 - 243,337
243,338 - 1,162,526
1,162,527 - 2,742,957
2,742,958 - 6,037,515
N
W
E
S
map not to scale

Table 2: TRI-

FACILITIES

Total Releases and Transfers

For calendar year 2000, 1,321 facilities submitted 4,268 toxic chemical release reports totaling 174.3 million pounds.

Table 3 lists the facilities reporting the top 20 total release and transfer amounts, not including offsite transfers for recycle or energy recovery.

Table 3
Total Releases and Transfers

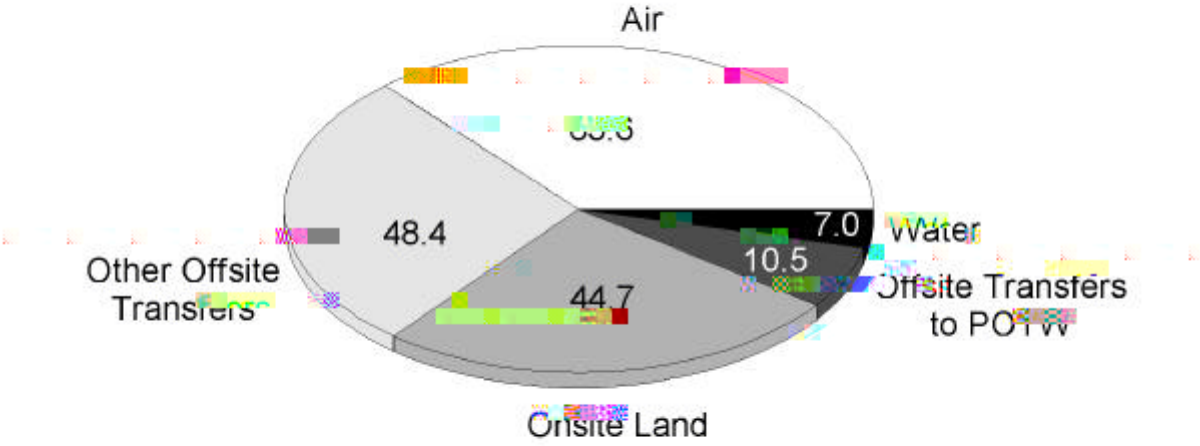
(Million Pounds)
Top 20 Facilities

Figure 1 shows the distribution of total releases and transfers for 2000.

FIGURE 1

TOTAL RELEASES & TRANSFERS INFORMATION

(MILLION POUNDS)



* UNDERGROUND INJECTION IS VIRTUALLY ZERO FOR ALL YEARS

CHEMICALS

Releases and transfers of 254 different toxic chemicals and categories during 2000 were reported by Illinois facilities. Table 4 lists release and transfer information for the 20 chemicals with the highest reported total amounts.

Table 4
Total Releases and Transfers
(Million Pounds)
Top 20 Chemicals

		Releases					Offsite Transfers		
CAS Number or Category	Chemical Name	Fugitive Air	Stack Air	Water	Under-ground Injection	Land	POTW	Other	Total Releases & Transfers

Persistent, Bioaccumulative, Toxic (PBT) Chemicals

Table 5 lists Illinois' 2000 PBT totals for each media. For PBT chemicals reported in 2000, the USEPA reported rankings for all States. A closer look at three of the categories shows that Illinois is ranked #4 nationally for mercury and mercury compounds, #21 for polychlorinated biphenyls (PCBs), and #27 for dioxin and dioxin-like compounds.

Table 5
Total Releases and Transfers
Table 5

STANDARD INDUSTRIAL CLASSIFICATION (SIC) CATEGORIES

Facilities in 251 individual four-digit SIC codes have reported toxic chemical releases and transfers for calendar year 2000. Table 6 summarizes the information for the 20 SIC codes reporting the highest release and transfer totals.

Table 6
Total Releases and Transfers
(Million Pounds)
Top 20 SIC Codes

	Releases	Off-site Transfers site

ZIP CODES - AIR EMISSIONS

Air emissions for calendar year 2000 in the 20 ZIP codes with the highest reported totals are summarized in Table 7.

Table 7

Total Air Emissions
(Million Pounds)
Top 20 ZIP Codes

	ZIP Code	County	City	Total Air Emissions		
				Fugitive	Stack	Total
1.	61832	Vermilion	Danville	0.8	4.9	5.7
2.	62526	Macon	Decatur	0.7	3.4	4.1
3.	62002	Madison	Alton	0.0	3.4	3.4
4.	61607	Peoria	Bartonville	0.0	2.9	2.9
5.	61858	Vermilion	Oakwood	0.0	2.4	2.4
6.	62707	Sangamon	Springfield	0.0	2.2	2.2
7.	62084	Madison	Roxana	0.8	1.1	1.9
8.	60501	Cook	Summit	0.6	1.1	1.7
9.	61025	JoDaviess	East Dubuque	0.0	1.4	1.4
10.	62655	Morgan	Meredosia	0.0	1.2	1.2
11.	60450	Grundy TD -0102T22.4 434t30.48 0 TD 0 21.1Sl806j 72 0 TD -0.0886 Tc 0 Tw (Summit) Tj 27.84 0 TDri0.32572306				

COUNTY SUMMARY

Table 8 presents a five-year summary of the total releases and facilities reporting for each county.

Table 8
Total Releases/Number of Reporting Facilities For Each County
(Release Amounts in Million Pounds)

County	Base Year	Last Five Years					Total
	1988	1996	1997	1998	1999	2000	96-00
1. Cook	56.2/613	23.8/461	24.9/440	21.7/486	28.8/509	26.3/492	125.5
2. Peoria	6.6/22	8.0/15	6.6/15	6.2/14	31.1/18	32.3/17	84.2
3. Whiteside	7.8/13	14.8/13	15.1/13	13.1/15	10.1/13	6.2/12	59.3
4. Madison	12.6/34	9.0/25	9.7/20	10.2/23	14.6/26	15.5/29	59.0
5. St. Clair	13.2/19	5.0/21	4.6/21	4.6/22	8.8/25	6.5/23	29.5
6. Vermilion	3.6/13	4.4/17	4.3/15	4.0/16	7.6/17	8.7/17	29.0
7. Will	7.9/44	4.3/47	5.6/47	3.0/52	7.3/52	7.7/49	27.9
8. Macon	1.4/13	0.9/20	2.0/19	2.4/19	11.2/18	7.8/18	24.3
9. Kankakee	0.8/19	1.0/17	6.2/16	5.9/16	6.3/15	4.2/14	23.6
10. LaSalle	5.0/28	2.7/24	2.7/18	2.7/23	3.0/23	3.6/23	14.7
11. Randolph	0.1/5	0.0/3	0.0/2	0.0/3	13.0/4	1.5/4	14.5
12. Rock Island	1.7/18	1.4/15	1.3/17	1.4/16	4.2/17	4.3/18	12.6
13. Lake	4.9/44	1.6/42	1.9/37	1.9/43	3.5/45	2.9/43	11.8
14. Montgomery	0.1/3	0.1/2	0.5/2	0.3/2	6.8/4	3.9/5	11.6
15. Ogle	6.5/14	3.9/11	1.8/11	1.5/14	1.7/13	1.6/13	10.5
16. Grundy	7.7/10	1.9/7	2.0/7	2.2/8	1.5/10	1.2/11	8.8
17. Tazewell							

1.2/11 0706 Tw ( ) Tj 17.5 0 6D 0.0586 Tc 0 Tw (1.2/11) Tj 22.8 0 TD 0

County	Base Year 1988	Last Five Years 1996	1997	1998	1999	2000	Total 96-00
41. Knox	0.3/7	0.5/6	0.2/6	0.2/7	0.5/6	0.4/6	1.8
42. Putnam	0.2/1	0.0/1	0.0/1	0.0/1	1.5/2	0.2/2	1.7
43. Fulton	0.0/0	0.0/0	0.0/0	0.0/0	0.8/1	0.9/1	1.7
44. Jackson	0.8/5	0.5/3	0.4/2	0.1/3	0.3/4	0.3/4	1.6
45. Massac	0.0/3	0.0/3	0.0/3	0.0/3	1.0/4	0.6/4	1.6
46. Stephenson	0.7/11	0.1/8	0.2/9	0.1/11	0.4/10	0.5/9	1.3
47. Kendall	1.6/3	0.3/4	0.4/4	0.3/4	0.1/3	0.0/3	1.1
48. Boone	2.5/7	0.3/9	0.2/8	0.1/11	0.2/8	0.3/8	1.1
49. DeKalb	0.8/15	0.2/10	0.2/11	0.2/11	0.2/9	0.2/8	1.0
50. Mason	0.0/1	0.0/1	0.0/1	0.0/1	0.5/2	0.5/2	1.0
51. Logan	0.1/4	0.0/1	0.1/0	0.0/2	0.4/3	0.5/3	1.0
52. Ford	0.0/1	0.0/1	0.0/1	0.0/1	0.9/1	0.0/1	0.9
53. Moultrie	0.6/1	0.1/1	0.1/1	0.1/1	0.2/1	0.2/1	0.7
54. Livingston	0.3/5	0.2/7	0.1/7	0.1/8	0.1/8	0.1/7	0.6
55. Effingham	0.8/5	0.2/5	0.1/4	0.0/5	0.1/6	0.2/6	0.6
56. Cass	0.0/1	0.0/1	0.0/1	0.0/2	0.3/1	0.3/1	0.6
57. Champaign	0.4/9	0.1/6	0.0/7	0.1/8	0.1/9	0.2/9	0.5
58. Pike	0.0/3	0.0/1	0.0/1	0.0/2	0.3/3	0.2/3	0.5
59. Wayne	0.1/2	0.1/2	0.2/2	0.1/2	0.0/2	0.0/1	0.4
60. Iroquois	0.1/2	0.0/1	0.0/1	0.0/2	0.3/2	0.1/1	0.4
61. Jefferson	0.1/5	0.0/5	0.1/4	0.1/4	0.1/4	0.1/4	0.4
62. Bureau	0.5/9	0.1/3	0.1/4	0.1/8	0.0/6	0.1/6	0.4
63. Lee	0.1/4	0.1/6	0.1/6	0.1/9	0.0/9	0.0/8	0.3
64. Clay	0.1/3	0.0/2	0.1/2	0.0/2	0.1/3	0.1/3	0.3
65. Woodford	0.0/3	0.0/2	0.0/2	0.0/3	0.2/3	0.0/3	0.2
66. Richland	0.2/2	0.1/1	0.0/1	0.0/1	0.0/1	0.0/1	0.1
67. Warren	0.0/1	0.0/2	0.0/2	0.0/3	0.1/2	0.0/1	0.1
68. Henry	0.0/3	0.0/3	0.0/3	0.1/4	0.0/5	0.0/4	0.1
69. Clark	0.5/3	0.0/1	0.0/2	0.0/2	0.0/2	0.0/2	0.0
70. White	0.1/1	0.0/2	0.0/2	0.0/2	0.0/2	0.0/2	0.0
71. DeWitt	0.1/1	0.0/1	0.0/1	0.0/1	0.0/2	0.0/1	0.0
72. Bond	0.0/2	0.0/2	0.0/2	0.0/2	0.0/2	0.0/2	0.0
73. Perry	0.0/1	0.0/1	0.0/1	0.0/1	0.0/2	0.0/2	0.0
74. Wabash	0.0/2	0.0/1	0.0/1	0.0/1	0.0/1	0.0/1	0.0
75. Hancock	0.0/2	0.0/0	0.0/0	0.0/1	0.0/3	0.0/3	0.0
76. Macoupin	0.0/0	0.0/1	0.0/0	0.0/0	0.0/2	0.0/2	0.0
77. Stark	0.0/1	0.0/1	0.0/1	0.0/1	0.0/1	0.0/1	0.0
78. Clinton	0.0/1	0.0/1	0.0/1	0.0/2	0.0/1	0.0/1	0.0
79. Shelby	0.0/0	0.0/0	0.0/1	0.0/1	0.0/2	0.0/2	0.0
80. Union	0.0/0	0.0/1	0.0/1	0.0/1	0.0/1	0.0/1	0.0
81. Piatt	0.1/2	0.0/2	0.0/2	0.0/2	0.0/2	0.0/2	0.0
82. Mercer	0.0/1	0.0/1	0.0/1	0.0/1	0.0/1	0.0/1	0.0
83. Fayette	0.0/1	0.0/1	0.0/1	0.0/2	0.0/3	0.0/3	0.0
84. Carroll	0.0/2	0.0/3	0.0/3	0.0/3	0.0/3	0.0/3	0.0
85. Saline	0.0/0	0.0/0	0.0/0	0.0/0	0.0/1	0.0/1	0.0

* Large increases or decreases in yearly emissions may be due to a change in facilities required to report

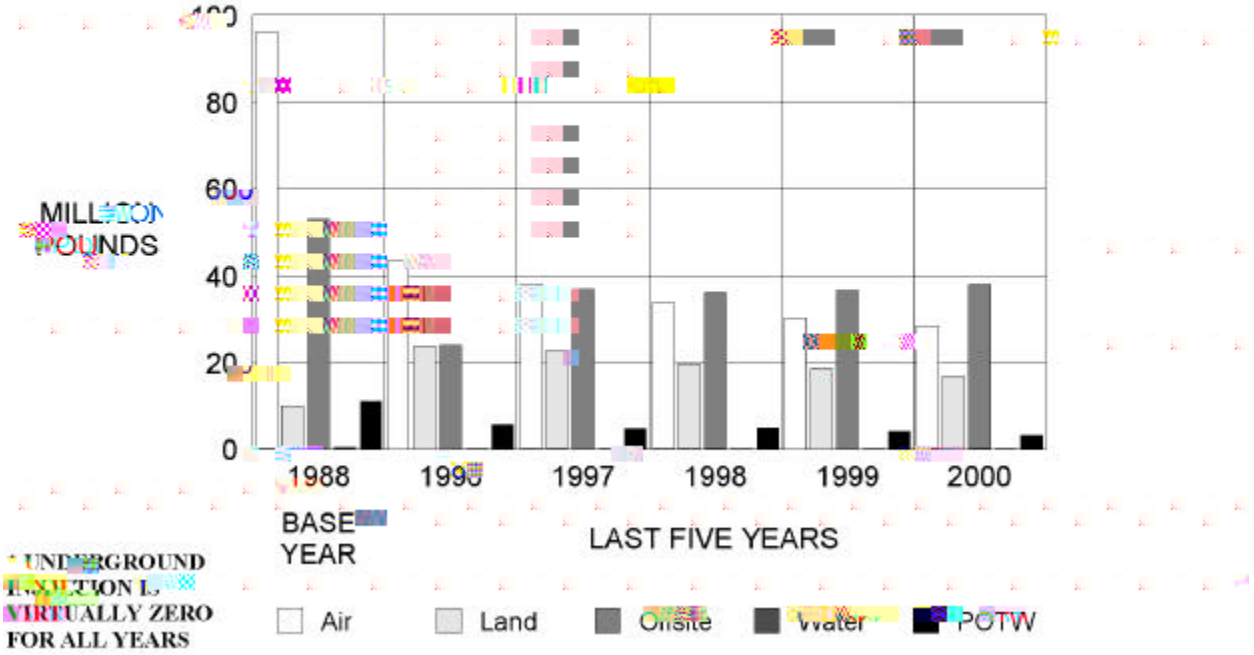
Note: Some number differences may be due to rounding

SUMMARY

Figures 2 and 3 summarize the overall totals for releases and transfers from 1988 through 2000.

FIGURE 2

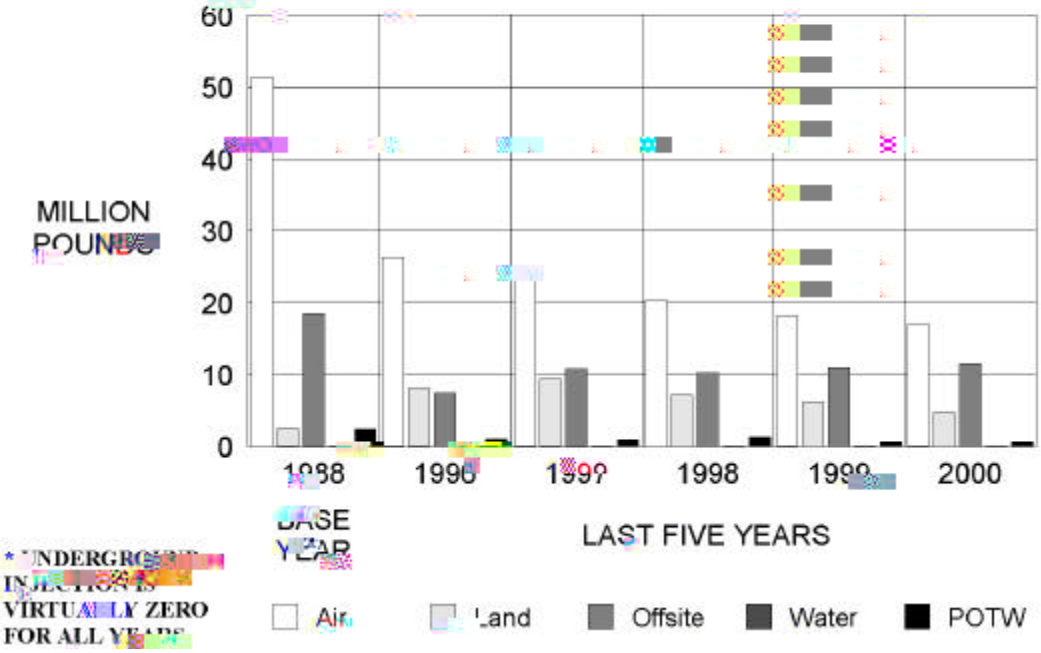
TOTAL RELEASES AND TRANSFERS - ALL CHEMICALS



* UNDERGROUND INJECTION IS VIRTUALLY ZERO FOR ALL YEARS

FIGURE 3

TOTAL RELEASES AND TRANSFERS - CHEMICALS WITH SIGNIFICANT HUMAN HEALTH EFFECTS



FACILITIES

Tables 9 through 14 list information about facilities which have filed one or more Form Rs for toxic chemicals reportable each year in the same form. The "Totals For All Reporting Facilities" are for all facilities which reported toxic chemicals which were reportable in the same form each year.

Total Releases and Transfers

Facilities reported releases totaling 470.7 million pounds from 1996 through 2000. During this period, the top 20 facilities accounted for approximately 54 percent of those releases and transfers, as shown in Table 9.

Table 9

Total Release and Transfer Amounts
Top 20 Facilities

			Total Releases and Transfers (Million Pounds)						
			Base Yr	Last Five Years					Total
	Facility	City	1988	1996	1997	1998	1999	2000	96-00
1.	Northwestern Steel & Wire Co.	Sterling	7.0	14.6	15.0	13.0	10.0	6.0	58.6
2.	Keystone Steel & Wire Co.	Peoria	4.5	6.9	5.6	5.3	6.6	7.9	32.3
3.	Granite City Steel	Granite City	4.8	6.0	6.1	5.9	5.6	5.7	29.3
4.									

Considering only toxic chemicals known to have significant human health effects, facilities reported total releases and transfers of 197.1 million pounds during those same years. The top 20 facilities accounted for 55 percent of that total, as show in Table 10.

Table 10

Total Release and Transfer Amounts
Chemicals With Significant Human Health Effects
Top 20 Facilities

			Total Releases and Transfers (Million Pounds)						
				Last Five Years					
Facility	City	Base Year 1988	1996	1997	1998	1999	2000	Total 96-00
1. Northwestern Steel & Wire Co.	Sterling	2.7	6.2	7.3	5.7	4.0	2.5	25.7
2. Devro-Teepak	Danville	2.0	3.9	3.9	3.6	3.5	3.3	18.2
3. Carus Chemical Co.	LaSalle	1.3	0.9	1.1	1.2	1.4	1.4	6.1
4. Keystone Steel & Wire Co.	Peoria	0.4	1.2	1.0	0.9	1.2	1.5	5.7
5. GE Company	Ottawa	2.3	1.0	1.0	1.0	0.8	1.5	5.3
6. Birmingham Steel Corp. Kankakee, IL Steel Division	Bourbonnais	0.0	0.0	1.1	1.4	1.5	0.8	4.8
7. Quebecor World Mt. Morris, Inc.	Mt. Morris	1.7	1.2	0.8	0.6	0.9	0.9	4.5
8. Viskase Corp.	Bedford Park	1.2	1.7	1.6	0.9	0.0	0.0	4.3
9. Granite City Steel	Granite City	1.2	0.8	0.8	0.8	0.8	0.8	4.1
10. R.R. Donnelley & Sons Co.	Mattoon	2.3	0.3	0.7	0.8	0.9	0.9	3.7
11. American Steel Foundry	Granite City	0.0	0.7	0.7	0.7	1.0	0.5	3.7
12. Quebecor World - Salem Div. (Salem Gravure)	Salem	0.7	1.1	1.3	0.6	0.0	0.5	3.6
13. Abbott Laboratories North Chicago Plant	North Chicago	0.6	0.4	0.6	0.4	1.0	0.5	3.1
14. Shell Epoxy Resins, LLC	Bedford Park							

Decreases in Releases and Transfers

The top twenty facilities with decreases in releases and transfers of toxic chemicals from 1996 through 2000 are shown in Table 11.

Table 11

Total Release and Transfer Decreases
Top 20 Facilities

			Total Releases and Transfers (Million Pounds)						
				Last Five Years					
	Facility	City	Base Year 1988	1996	1997	1998	1999	2000	Total Decrease 96-00
1.	Northwestern Steel and Wire Co.	Sterling	7.0	0 Facilities					

The top twenty facilities with decreases in releases and transfers of chemicals with significant human health effects are shown in Table 12.

Table 12

Total Release and Transfer Decreases
Chemicals With Significant Human Health Effects
Top 20 Facilities

			Total Releases and Transfers (Million Pounds)					
			Last Five Years					
Facility	City	Base Year 1988	1996	1997	1998	1999	2000	Total Decrease 96-00
1. Northwestern Steel and Wire Co.	Sterling	2.7	6.2	7.3	5.7	4.0	2.5	3.6
2. Viskase Corp.	Bedford Park	1.2	1.7	1.6	0.9	0.0	0.0	1.7
3. GFC-Bridgeview, Inc.	Bridgeview	0.2	0.7	0.5	0.5	0.3	0.0	0.7
4. Quebecor World - Salem Div. (Salem Gravure)	Salem	0.7	1.1	1.3	0.6	0.0	0.5	0.6
5. Devro-Teepak	Danville	2.0	3.9	3.9	3.6	3.5	3.3	0.6
6. Senior Flexonics, Inc.	Bartlett	0.1	0.5	0.3	0.1	0.1	0.0	0.5
7. Caterpillar Inc. Performance Engine Products Div.	Mossville	0.1	0.5	0.0	0.0	0.0	0.0	0.5
8. Acme Steel Co. - Riverdale Plant								

Increases in Releases and Transfers

Table 14 shows the top twenty facilities reporting increases in releases and transfers of toxic chemicals with significant human health effects.

Table 14

Total Release and Transfer Increases
Chemicals With Significant Human Health Effects
Top 20 Facilities

			Total Releases and Transfers (Million Pounds)						
				Last Five Years					
	Facility	City	Base Year 1988	1996	1997	1998	1999	2000	Total Increase 96-00
1.	Shell Epoxy Resins, LLC	Bedford Park	0.0	0.0	0.0	0.8	0.8	1.3	1.3
2.	Birmingham Steel Corp., Kankakee, IL Steel Div.	Bourbonnais	0.0	0.0	1.1	1.4	1.5	0.8	0.8
3.	R. R. Donnelley & Sons Co.	Mattoon	2.3	0.3	0.7	0.8	0.9	0.9	0.6
4.	Tosco Wood River Refinery	Roxana	0.0	0.0	0.0	0.0	0.4	0.6	0.6
5.	General Electric Co.	Ottawa	2.3	1.0	1.0	1.0	0.8	1.5	0.5
6.	Carus Chemical Co.	LaSalle	1.3	0.9	1.1	1.2	1.4	1.4	0.5
7.	Mitsubishi Motor MFG. of America, Inc.	LaSalle	0.0	0.0	0.0	0.0	0.0	0.5	0.5

Pollution Prevention Efforts

Reporting of information about source reduction (pollution prevention) efforts has been required beginning with reporting year 1991. A total of 779 facilities have indicated undertaking such activities for one or more years from 1996 through 2000. The top twenty facilities in this category are shown in Table 15.

The fact that a facility claimed source reduction activities for a chemical does not necessarily mean that the reduction in releases and transfers of the chemical are attributable to those activities.

Table 15
Source Reduction-Based Release and Transfer Decreases
Top 20 Facilities
(Chemicals for Which Source Reduction Activities
Were Claimed Any Year, 96-00)

		Total Releases and Transfers (Million Pounds)						
			Last Five Years					
Facility	City	Base Year 1991	1996	1997	1998	1999	2000	Total Reduction 96-00
1. Cabot Corporation, Cab-O-Sil Div.	Tuscola	0.0	2.0	0.2	0.2	0.0	0.0	2.0
2. GFC - Bridgeview, Inc.	Bridgeview	0.0	0.7	0.5	0.0	0.0	0.0	0.7
3. Quebecor World - Salem Div. (Salem Gravure)	Salem	0.4	1.1	1.3	0.6	0.0	0.4	0.7
4. Stepan Co. - Millsdale Rd.	Elwood	0.0	0.7	0.5	0.3	0.3	0.2	0.5
5. Chicago Specialties, LLC	Chicago	2.0	0.5	0.0	0.1	0.0	0.0	0.5
6. Equilon Woodriver Lubricants Plant	Roxana	1.1	0.4	0.4	0.5	0.0	0.0	0.4
7. Brunswick Laboratories	Murphysboro	0.3	0.4	0.3	0.1	0.0	0.0	0.4
8. R.R. Donnelley & Sons Co.	Mattoon	1.9	0.3	0.8	0.8	0.0	0.0	0.3
9. Tru Vue	Chicago	0.0	0.2	0.3	0.0	0.0	0.0	0.2
10. Clark Refining & Marketing, Inc.	Blue Island	0.0	0.2	0.0	0.0	0.0	0.0	0.2
11. Case Corp.	East Moline	0.0	0.2	0.1	0.0	0.0	0.0	0.2
12. Akzo Nobel Chemicals, Inc.	McCook	0.0	0.2	0.1	0.1	0.0	0.0	0.2
13. Nascote Industries, Inc.	Nashville	0.7	0.2	0.6	0.6	0.0	0.0	0.2
14. Quality Metal Finishing Co.	Byron	0.0	0.2	0.1	0.1	0.0	0.0	0.2
15. MSC Laminates & Composites	Elk Grove Village	0.1	0.2	0.1	0.0	0.2	0.0	0.1
16. John Deere Harvester Works - East Moline	East Moline	0.1	0.1	0.0	0.1	0.0	0.0	0.1
17. Schrock Cabinet Co	Arthur	0.0	0.1	0.1	0.0	0.0	0.0	0.1
18. Dana Corp. Victor Products Div.	Robinson	0.0	0.1	0.0	0.0	0.0	0.0	0.1
19. 3M Tape Manufacturing Div.	Bedford Park	0.5	0.1	0.1	0.1	0.1	0.0	0.1
20. Mitsubishi Motor Manfacturing of America, Inc.	Normal	0.0	0.1	0.4	0.1	0.0	0.0	0.1
Totals for Top 20 Facilities:		7.1	8.1	6.1	3.7	0.7	0.7	7.3
Totals for 223 Facilities Reporting Decreases:		13.2	12.8	9.8	6.8	2.8	2.5	10.2

Note: Some number differences may be due to rounding

Table 16 shows the twenty facilities reporting the greatest reductions based on source reduction efforts for chemicals with significant human health effects.

Table 16

Source Reduction-Based Release and Transfer Decreases
Top 20 Facilities
(Chemicals for Which Source Reduction Activities
Were Claimed Any Year, 96-00)
Chemicals With Significant Human Health Effects

			Total Releases and Transfers (Million Pounds)						
				Last Five Years					
	Facility	City	Base Year 1991	1996	1997	1998	1999	2000	Total Increase 96-00
1.	GFC-Bridgeview, Inc.	Bridgeview	0.0	0.7	0.5	0.0	0.0	0.0	0.7
2.	Quebecor World - Salem Div. (Salem Gravure)	Salem	0.4	1.1	1.3	0.6	0.0	0.4	0.7
3.	Equilon Wood River Lubricants Plant	Roxana	0.9	0.3	0.3	0.4	0.0	0.0	0.3
4.	R. R. Donnelley & Sons Co.	Mattoon	1.8	0.3	0.7	0.8	0.0	0.0	0.3
5.	Nascote Industries, Inc.	Salem		0.3					a

CHEMICALS

A total of 309 toxic chemicals and chemical categories have been reportable on Form R in the same form from 1988 through 2000.

Tables 17 through 28 summarize toxic chemical release and transfer amounts for each environmental media. The top twenty chemicals are listed for each media unless a smaller number of chemicals had non-zero release and transfer amounts.

Table 17

Total Air Emissions
Top 20 Chemicals

CAS Number or Category	Chemical Name	Combined Stack and Fugitive Emissions (Million Pounds) Base Year 1988	1996	1997	1998	1999	2000	Total Emissions 96-00
1. 000108883	Toluene	18.4	4.9	5.2	4.3	3.7	4.0	22.2
2. 000075150	Carbon Disulfide	3.3	5.3	5.4	4.4	3.5	3.3	21.9
3. 001330207	Xylene (Mixed Isomers)	7.0	3.5	2.9	2.6	2.4	2.4	13.9
4. 000010230	Glycol Ethers	2.8	2.5	2.5	2.5	2.3	2.3	12.0
5. 000100425	Styrene	1.9	2.0	1.9	2.1	2.4	2.2	10.6
6. 000067561	Methanol	3.7	2.3	2.2	1.8	1.7	1.8	9.9
7. 000079016	Trichloroethylene	4.6	3.0	2.6	1.6	1.2	0.9	9.4
8. 000075092	Dichloromethane	4.3	2.5	2.0	1.8	1.6	1.0	8.9
9. 000078933	Methyl Ethyl Ketone	5.1	2.2	1.9	1.7	1.6	1.2	8.7
10. 000074851	Ethylene	5.2	1.6	1.6	1.4	1.4	1.2	7.3
11. 000010982	Zinc Compounds	2.2	1.7	0.7	0.7	0.7	0.6	4.4
12. 000071363	n-Butyl Alcohol	1.4	0.8	0.9	0.9	0.8	0.9	4.3
13. 007782505	Chlorine	4.4	2.0	0.3	0.3	0.3	0.3	3.2
14. 000108101	Methyl Isobutyl Ketone	1.7	0.7	0.8	0.6	0.5	0.4	3.0
15. 000115071	Propylene	0.8	0.5	0.5	0.9	0.3	0.3	2.6
16. 000108952	Phenol	0.5	0.7	0.5	0.4	0.5	0.4	2.5
17. 000071432	Benzene	1.6	0.4	0.4	0.4	0.4	0.5	2.1
18. 000095636	1,2,4-Trimethylbenzene	0.4	0.3	0.4	0.4	0.4	0.4	1.8
19. 000100414	Ethylbenzene	0.5	0.3	0.3	0.4	0.3	0.4	1.7
20. 000107131	Acrylonitrile	1.1	0.4	0.4	0.4	0.3	0.2	1.7
Totals for Top 20 Chemicals:		71.0	37.9	33.5	29.7	26.3	24.7	152.2
Totals for All Chemicals:		96.2	43.6	38.2	33.8	30.5	28.3	174.3

Note: Some number differences may be due to rounding

Table 18

Total Air Emissions
Chemicals With Significant Human Health Effects
Top 20 Chemicals

	CAS Number or Category	Chemical Name	Combined Stack and Fugitive Emissions (Million Pounds)						
			Base Year	Last Five Years					Total Emissions
			1988	1996	1997	1998	1999	2000	96-00
1.	000108883	Toluene	18.4	4.9	5.2	4.3	3.7	4.0	22.2
2.	000075150	Carbon Disulfide	3.3	5.3	5.4	4.4	3.5	3.3	21.9
3.	001330207	Xylene (Mixed Isomers)	7.0	3.5	2.9	2.6	2.4	2.4	13.9
4.	000100425	Styrene	1.9	2.0	1.9	2.1	2.4	2.2	10.6
5.	000079016	Trichloroethylene	4.6	3.0	2.6	1.6	1.2	0.9	9.4
6.	000075092	Dichloromethane	4.3	2.5	2.0	1.8	1.6	1.0	8.9
7.	000078933	DichlH 57.6 E5000K8933 TD -73. Tc 0 Tw (000078933) Tj ET 9746.32 0 TD -0.0w ( ) Tj 24.24 TD -0.02 Tc 0							

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Table 19

Total Water Releases
Top 20 Chemicals

	CAS Number or Category	Chemical Name	Water Releases (Thousand Pounds) Base Year 1988	Last Five Years 1996	1997	1998	1999	2000	Total Releases 96-00
1.	000067561	Methanol	16.5	32.4	60.2	28.7	23.7	35.8	180.8
2.	000010230	Glycol Ethers	2.1	16.9	16.7	16.5	17.5	27.5	95.1
3.	000010982	Zinc Compounds	16.3	19.1	16.9	14.7	14.4	14.8	79.9
4.	000111422	Diethanolamine	60.1	0.6	0.5	0.5	43.3	4.6	49.6
5.	000107211	Ethylene Glycol	172.8	1.6	11.3	0.1	14.1	21.0	48.0
6.	007439965	Manganese	26.3	9.4	9.2	10.0	7.3	7.2	43.2
7.	007440508	Copper	10.8	6.4	5.7	5.1	4.8	6.0	28.1
8.	000010450	Manganese Compounds	4.1	5.5	3.3	4.5	5.8	5.1	24.2
9.	007440020	Nickel	2.7	3.7	3.9	5.0	2.6	2.8	17.9
10.	007782505	Chlorine	41.7	1.6	2.5	2.4	1.7	9.5	17.8
11.	007723140	Phosphorus (Yellow or White	2.0	3.5	3.1	3.5	3.5	3.3	16.9
12.	000050000	Formaldehyde	2.2	2.1	2.6	2.9	2.9	2.6	13.0
13.	000108952	Phenol	4.4	2.9	2.4	2.3	2.0	2.1	11.6
14.	000010090	Chromium Compounds	8.7	2.6	1.8	1.6	1.3	2.2	9.4
15.	000010420	Lead Compounds	7.1	2.9	1.8	1.8	1.8	0.8	9.1
16.	000075058	Acetonitrile	0.9	0.3	0.3	2.9	2.9	2.6	8.9
17.	007440360	Antimony	0.0	1.3	1.2	1.3	1.3	1.3	6.3
18.	000075150	Carbon Disulfide	0.0	0.0	1.4	1.6	1.6	1.4	6.1
19.	000010100	Copper Compounds	3.6	2.1	1.2	1.2	1.3	0.2	6.0
20.	007440473	Chromium	2.4	1.1	1.5	1.0	0.9	0.8	5.3
Totals for Top 20 Chemicals:			384.8	116.1	147.5	107.7	154.5	151.8	677.6
Totals for All Chemicals:			449.5	129.3	157.7	117.2	163.6	158.6	726.4

Note: Some number differences may be due to rounding

Table 20

Total Water Releases
Chemicals With Significant Human Health Effects
Top 20 Chemicals

			Water Releases (Thousand Pounds)						
				Last Five Years					
	CAS Number or Category	Chemical Name	Base Year 1988	1996	1997	1998	1999	2000	Total Releases 96-00
1.	007439965	Manganese	26.3	9.4	9.2	10.0	7.3	7.2	43.2
2.	000010450	Mangenese Compounds	4.1	5.5	3.3	4.5	5.8	5.1	24.2
3.	007440020	Nickel	2.7	3.7	3.9	5.0	2.6	2.f96 0.48 re f BT 72 551.52 TD 0.15	

Table 21

Total On-Site Land Releases
Top 14 Chemicals

	CAS Number or Category	Chemical Name	On-Site Land Releases (Million Pounds)						
				Last Five Years					
			Base Year 1988	1996	1997	1998	1999	2000	Total Releases 96-00
1.	000010982	Zinc Compounds	3.8	14.6	13.1	12.3	12.1	10.2	62.3
2.	000010450	Manganese Compounds	0.8	5.1	5.9	4.6	3.3	2.7	21.6
3.	000010090	Chromium Compounds	0.1	1.4	1.7	1.2	1.4	0.5	6.3
4.	007439965	Manganese	0.5	0.7	0.7	0.7	0.8	0.9	3.9
5.	000010420	Lead Compounds	0.3	0.8	0.8	0.5	0.4	0.3	2.8
6.	007440508	Copper	0.0	0.1	0.0	0.0	0.0	1.6	1.7
7.	007429905	Aluminum (Fume or Dust)	0.1	0.9	0.3	0.0	0.0	0.0	1.3
8.	007440473	Chromium	0.2	0.1	0.0	0.1	0.0	0.1	0.3
9.	007440020	Nickel	0.0	0.0	0.0	0.0	0.1	0.1	0.2
10.	007440439	Cadmium	0.0	0.0	0.0	0.1	0.0	0.0	0.2
11.	007440666	Zinc (Fume or Dust)	3.1	0.0	0.0	0.0	0.0	0.0	0.1
12.	007440382	Arsenic	0.0	0.0	0.0	0.0	0.1	0.0	0.1
13.	007439921	Lead	0.2	0.0	0.0	0.0	0.1	0.0	0.1
14.	000010040	Barium Compounds	0.0	0.0	0.0	0.0	0.0	0.0	0.1
15.	000074851	Etd2.06 Tw.0							

Table 22

Total On-Site Land Releases
Chemicals With Significant Human Health Effects
Top 20 Chemicals

	CAS Number or Category	Chemical Name	On-Site Land Releases (Thousand Pounds)						
				Last Five Years					
			Base Year 1988	1996	1997	1998	1999	2000	Total Releases 96-00
1.	000010450	Manganese Compounds	833.5	5,083.5	5,927.5	4,568.4	3,301.7	2,745.9	21,627.2
2.	000010090	Chromium Compounds	72.7	1,390.5	1,745.3	1,230.5	1,414.9	495.1	6,276.3
3.	007439965	Manganese	520.7	727.0	741.9	732.5	783.6	953.1	3,938.2
4.	000010420	Lead Compounds	261.9	823.6	840.7	503.2	364.0	255.2	2,786.9
5.	007440473	Chromium	184.0	69.9	49.4	59.9	48.8	125.5	353.8
6.	007440020	Nickel	41.9	8.6	8.3	21.3	70.6	94.7	203.6
7.	000440439	Cadmium	0.0	0.0	0.0	141.7	28.4	0.0	170.2
8.	007440382	Arsenic	0.0	0.0	0.0	0.0	68.8	42.1	111.0
9.	007439921	Lead	177.7	1.6	0.0	0.0	61.2	31.3	94.2
10.	000010078	Cadmium Compounds	0.0	0.0	2.0	1.0	0.0	21.4	24.4
11.	000108883	Toluene	42.8	0.6	10.2	1.5	0.3	3.2	15.8
12.	000010495	Nickel Compounds 30.2 24.4076432j 11.28 0 TD 034Tj 20.06 Tw ( ) Tj 29.04 0 TD35.02 Tc 0 Tw (0.3) Tj 11.28 0 TD 0 Tc							

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Table 23

Total Off-Site Transfers to POTW
Top 18 Chemicals

	CAS Number or Category	Chemical Name	Off-Site Transfers to POTW (Million Pounds) Base Year 1988	Last Five Years 1996	1997	1998	1999	2000	Total Transfers 96-00
1.	000067561	Methanol	3.0	1.8	1.6	1.2	1.7	1.2	7.5
2.	000108952	Phenol	1.2	1.4	0.9	0.6	0.5	0.4	3.9
3.	000078933	Methyl Ethyl Ketone	0.0	0.3	0.3	0.3	0.4	0.3	1.6
4.	000010230	Glycol Ethers	0.5	0.2	0.2	0.3	0.2	0.3	1.3
5.	000100027	4-Nitrophenol	0.4	0.0	0.0	0.6	0.5	0.1	1.2
6.	007664393	Hydrogen Fluoride	0.0	0.2	0.3	0.3	0.0	0.2	1.1
7.	007439965	Manganese	0.0	0.0	0.2	0.6	0.0	0.0	0.8
8.	000075150	Carbon Disulfide	0.0	0.3	0.2	0.2	0.0	0.0	0.8
9.	000095476	O-Xylene	0.0	0.2	0.1	0.1	0.1	0.0	0.6
10.	000106445	P-Cresol	0.7	0.4	0.0	0.0	0.0	0.0	0.5
11.	000107211	Ethylene Glycol	0.5	0.1	0.2	0.0	0.0	0.1	0.4
12.	000062533	Aniline	0.7	0.0	0.0	0.1	0.1	0.1	0.3
13.	000010982	Zinc Compounds	0.2	0.0	0.1	0.1	0.0	0.0	0.3
14.	007697372	Nitric Acid	0.3	0.0	0.1	0.0	0.0	0.1	0.2
15.	000108101	Methyl Isobutyl Ketone	0.0	0.0	0.0	0.0	0.0	0.0	0.2
16.	000078922	Sec-Butyl Alcohol	0.0	0.0	0.0	0.0	0.1	0.0	0.2
17.	000010100	Copper Compounds	0.1	0.0	0.0	0.0	0.0	0.0	0.2
18.	000079016	Trichloroethylene	0.0	0.1	0.0	0.0	0.0	0.0	0.1
19.	000010450	Manganese Compounds	0.0	0.0	0.0	0.0	0.0	0.0	0.1
20.	000108883	Toluene	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Totals for Top 20 Chemicals:			7.8	5.3	4.6	4.6	3.8	3.1	21.4
Totals for All Chemicals:			11.0	5.8	4.9	4.9	4.1	3.2	22.8

Table 24

Total Off-Site Transfers to POTW
Chemicals With Significant Human Health Effects
Top 20 Chemicals

	CAS Number or Category	Chemical Name	Off-Site Transfers to POTW (Thousand Pounds) Base Year 1988	Last Five Years 1996	1997	1998	1999	2000	Total Transfers 96-00
1.	000078933	Methyl Ethyl Ketone	14.2	341.5	321.0	306.9	355.4	325.5	1,650.4
2.	007439965	Manganese	26.0	3.1	243.0	575.5	3.7	6.8	832.3
3.	000075150	Carbon Disulfide	37.0	336.7	174.7	158.9	51.6	48.2	770.3
4.	000062533	Aniline	688.4	36.0	41.0	74.6	70.3	86.7	308.7
5.	000079016	Trichloroethylene	4.5	69.1	24.2	38.4	0.5	0.0	132.3
6.	000010450	Manganese Compounds	1.0	21.0	23.4	26.5	26.2	28.9	126.1
7.	000108883	Toluene	14.0	39.8	19.9	17.8	15.5	8.8	102.2
8.	000079107	Acrylic Acid	0.5	0.3	0.0	34.2	20.9	29.0	84.6
9.	000050000	Formaldehyde	47.5	24.4	9.9	16.3	13.5	10.8	74.9
10.	000075218	Ethylene Oxide	5.7	21.0	21.0	21.0	4.6	6.0	73.6
11.	000010495	Nickel Compounds	57.6	17.2	15.4	12.2	14.4	12.4	71.9
12.	000010090	Chromium Compounds	35.7	14.6	13.0	14.0	12.6	13.2	67.7
13.	007440020	Nickel	11.9	12.4	12.1	11.1	11.1	9.1	55.9
14.	001330207	Xylene (Mixed Isomers)	769.0	21.5	14.2	5.4	5.2	0.8	47.2
15.	000071432	Benzene	494.5	18.6	6.4	7.4	2.8	6.1	41.5
16.	000075092	Dichloromethane	9.3	17.0	15.8	1.5	2.5	1.1	38.0
17.	000109864	2-Methoxyethanol	0.0	2.5	2.1	5.0	17.0	0.0	26.6
18.	007440473	Chromium	28.5	4.7	3.6	4.1	3.2	3.2	19.0
19.	000067663	Chloroform	0.0	8.3	8.3	0.5	0.5	0.4	18.1
20.	000075070	Acetaldehyde	0.5	2.6	5.1	5.2	0.0	0.2	13.3
Totals for Top 20 Chemicals:			2,246.5	1,013.0	974.8	1,337.2	632.2	597.9	4,555.3
Totals for All Chemicals:			2,378.9	1,023.6	986.1	1,349.8	639.3	603.7	4,602.6

Note: Some number differences may be due to rounding

Table 25

Total Other Off-Site Transfers
Top 20 Chemicals
(Does Not Include Amount Recycled)

	CAS Number or Category	Chemical Name	Other Off-Site Transfers (Million Pounds) Base Year 1988	Last Five Years 1996	1997	1998	1999	2000	Total Transfers 96-00
1.	000010982	Zinc Compounds	11.0	8.2	16.5	16.0	13.4	14.7	68.7
2.	000010450	Manganese Compounds	2.4	2.0	3.2	3.2	3.6	2.8	14.8
3.	000085449	Phthalic Anhydride	3.3	2.4	2.9	3.8	2.8	2.6	14.5
4.	000067561	Methanol	3.7	0.6	0.7	1.5	1.8	1.6	6.3
5.	000010420	Lead Compounds	1.3	0.6	1.5	1.3	1.4	1.1	5.9
6.	000078933								

Table 26

Total Other Off-Site Transfers
Top 20 Chemicals
Chemicals With Significant Human Health Effects
(Does Not Include Amount Recycled)

			Other Off-Site Transfers (Million Pounds)									
				Last Five Years								
	CAS Number or Category	Chemical Name	Base Year 1988	1996	1997	1998	1999	2000	Total Transfers 96-00			
1.	000010450	Manganese Compounds	2.4	2.0	3.2	3.2	3.6	2.8	14.8			
2.	000078933	Methyl Ethyl Ketone	2.2	0.3	0.6	1.7	1.7	1.9	6.2			
3.	000010420	Lead Compounds	1.3	0.6	1.5	1.3	1.4	1.1	5.9			
4.	000010090	Chromium Compounds	0.9	1.2	1.4	0.7	0.8	1.0	5.0			
5.	000108883	Toluene	3.4	0.5	0.6	0.5	0.5	0.6	2.8			
6.	000100425	Styrene	0.7	0.3	0.4	0.3	0.2	1.3	2.4			
7.	001330207	Xylene (Mixed Isomers)	1.6	0.4	0.5	0.7	0.3	i	1.6	0.4	0.5	7

Table 27

Total Releases and Transfers
Top 20 Chemicals
(Does Not Include Amount Recycled)

	CAS Number or Category	Chemical Name	Total Releases and Transfers (Million Pounds)						
				Last Five Years					
			Base Year						Total Transfers
			1988	1996	1997	1998	1999	2000	96-00
1.	000010982	Zinc Compounds	17.2	24.7	30.4	29.0	26.2	25.5	135.9
2.	000010450	Manganese Compounds	3.3	7.4	9.3	7.8	7.0	5.7	37.1
3.	00010883	Toluene	21.9	5.5	5.9	4.9	4.2	4.6	25.1
5.	000067561	Methanol	10.3	4.8	4.6	4.6	5.2	4.7	23.8
4.	000075150	Carbon Disulfide	3.3	5.7	5.5	4.6	3.6	3.3	22.7
7.	000078933	Methyl Ethyl Ketone	7.3	2.9	2.8	3.8	3.7	3.4	16.6
6.	001330207	Xylene (Mixed Isomers)	9.4	4.0	3.5	3.4	2.7	2.7	16.3
9.	000085449	Phthalic Anhydride	3.4	2.7	3.1	3.9	3.0	2.7	15.4
8.	000010230	Glycol Ethers	3.8	2.9	2.9	3.1	2.8	2.9	14.6
12.	000100425	Styrene	2.6	2.3	2.3	2.4	2.6	3.5	13.1
13.	000010090	Chromium Compounds	1.0	2.6	3.1	2.0	2.2	1.5	11.5
10.	000075092	Dichloromethane	4.8	2.8	2.4	2.1	2.4	1.5	11.2
11.	000079016	Trichloromethane	5.2	3.1	2.8	1.7	1.3	1.0	10.0
14.	000010420	Lead Compounds	1.7	1.6	2.4	1.8	1.8	1.4	9.0
16.	000074851	Ethylene	5.2	1.6	1.6	1.4	1.5	1.2	7.3
17.	007439965	Manganese	1.8	1.5	1.4	1.6	1.3	1.5	7.3
19.	007440508	Copper	1.3	1.0	1.6	0.9	0.9	2.6	7.0
15.	000108952	Phenol	2.3	2.3	1.5	1.1	1.1	0.9	7.0
18.	007429905	Aluminum (Fume or Dust)	0.4	1.6	1.3	0.9	1.1	0.6	5.6
20.	007440666	Zinc (Fume or Dust)	5.4	0.3	0.3	0.3	2.2	2.1	5.2
Totals for Top 20 Chemicals:			111.7	81.4	88.8	81.5	76.9	73.3	401.8
Totals for All Chemicals:			170.8	97.2	102.8	94.5	89.7	86.5	470.7

Note: Some number differences may be due to rounding

Table 28

Total Releases and Transfers
Top 20 Chemicals
Chemicals With Significant Human Health Effects
(Does Not Include Amount Recycled)

	CAS Number or Category	Chemical Name	Total Releases and Transfers (Million Pounds)						
				Last Five Years					
			Base Year 1988	1996	1997	1998	1999	2000	Total Transfers 96-00
1.	000010450	Manganese Compounds	3.3	7.4	9.3	7.8	7.0	5.7	37.1
2.	000108883	Toluene	21.9	5.5	5.9	4.9	4.2	4.6	25.1
3.	000075150	Carbon Disulfide	3.3	5.7	5.5	4.6	3.6	3.3	22.7
4.	000078933	Methyl Ethyl Ketone	7.3	2.9	2.8	3.8	3.7	3.4	16.6
5.	001330207	Xylene (Mixed Isomers)	9.4	4.0	3.5	3.4	2.7	2.7	16.3
6.	000100425	Styrene	2.6	2.3	2.3	2.4	2.6	3.5	13.1
7.	000010090	Chromium Compounds	1.0	2.6	3.1	2.0	2.2	1.5	11.5
8.	000075092	Dichloromethane	4.8	2.8					

STANDARD INDUSTRIAL CLASSIFICATION (SIC) CATEGORIES

Facilities in 315 individual four-digit SIC codes have reported toxic chemical releases from 1988 through 2000. Tables 29 and 30 summarize the release and transfer information for these SIC codes.

Table 29

Total Release and Transfer Amounts
Top 20 SIC Codes

SIC	Total Releases and Transfers (Million Pounds) Last Five Years

Table 30

Total Release and Transfer Amounts
Chemicals With Significant Human Health Effects
Top 20 SIC Codes

	SIC Code	Description	Total Releases and Transfers (Million Pounds)							
				Last Five Years						
	SIC Code	Description	Base Year 1988	1996	1997	1998	1999	2000	Total 96-00	% Increases (+) or Decreases (-) 96-00
1.	3312	Steel Works, Blast Furnaces (Including Coke Ovens) and Rolling Mills	6.5	9.1	11.6	9.4	7.9	5.9	44.0	-35
2.	3089	Plastic Products, NEC*	2.0	6.1	5.8	5.1	4.1	3.7	24.8	-39
3.	2821	Plastic Materials, Synthetic Resins and Nonvulcanizable Elastomers	5.5	2.5	2.4	3.4	2.6	3.6	14.5	46
4.	2752	Commercial Printing, Lithographic	5.7	1.8	2.9	2.1	1.9	2.3	10.9	33
5.	3086	Plastics Foam Products	0.7	1.9	1.6	1.5	1.3	0.7	7.1	-64
6.	2819	Industrial Inorganic Chemicals, NEC*	1.3	0.9	1.1	1.3	1.5	1.4	6.2	46
7.	3471	Electroplating, Plating, Polishing, Anodizing and Coloring	1.1	1.3	1.4	0.9	1.1	1.0	5.8	-22
8.	3325	Steel Foundries, NEC*	0.1	1.1	0.9	0.9	1.2	0.7	4.7	-37
9.	2851	Paints, Varnishes, Lacquers, Enamels and Allied Products	3.1	0.8	0.8	1.0	1.0	0.8	4.4	-5
10.	2869									

2869
2869 10 2869 ( ) Tj -453.6 -10.56 TD 0.15 TD -6.02 Tc 0 T77.p1c8021(0.8-0 TDD0 Tc -0.06) Tj 4.5650 -0.09

ZIP CODES - AIR EMISSIONS

In an attempt to localize the reported information in an understandable format, the following summaries of toxic chemical release information presented in Tables 31 and 32 are based on five-digit zip codes. Also, the analysis presented here is restricted to air emissions to give some indication of the possibility of human exposure. Of course, ZIP code areas vary in size and population. Also, as the case has always been, toxic chemical release and transfer amounts are annual totals, so no inferences can be made from the following rankings relative to exposure dose and resultant human health effects of these air emissions in any of the ZIP codes listed.

Table 31

Total Air Emissions
Top 20 ZIP Codes

	ZIP Code	County	City	Total Air Emissions (Million Pounds) Base Year 1988	Last Five Years 1996	1997	1998	1999	2000	Total 96-00
1.	61832	Vermilion	Danville	2.5	4.0	3.9	3.6	3.5	3.3	18.9
2.	60450	Grundy	Morris	5.4	1.9	1.9	2.2	1.2	0.8	8.5
3.	60638	Cook	Bedford Park	1.8	1.5	1.5	0.9	0.0	0.0	5.6
4.	619596f 206901 Tc -0.06 LaSa Tc -0.0256 Tw 902 re 96									

Table 32

Total Air Emissions
Chemicals With Significant Human Health Effects
Top 20 ZIP Codes

				Total Air Emissions (Million Pounds)						
					Last Five Years					
	ZIP Code	County	City	Base Year 1988	1996	1997	1998	1999	2000	Total 96-00
1.	61832	Vermilion	Danville	2.2	3.9	3.9	3.6	3.5	3.3	18.3
2.	61350	LaSalle	Ottawa (Rural)	2.1	1.1	1.1	1.1	0.9	0.6	4.8
3.	61054	Ogle	Mount Morris	1.6	1.2	0.8	0.6	0.9	0.9	4.5
4.	60638	Cook	Bedford Park	1.5	1.5	1.5	0.9	0.0	0.0	3.9
5.	62881	Marion	Salem	0.6	1.1	1.4	0.7	0.1	0.5	3.7
6.	61938	Coles	Mattoon	2.4	0.3	0.7	0.8	0.9	0.9	3.6
7.	60185	DuPage	Mattoon	[illegible]						

GENERAL TRENDS

The following charts depict the general trends of toxic chemical release information from 1988 through 2000.

FIGURE 7

TOTAL WATER DISCHARGES

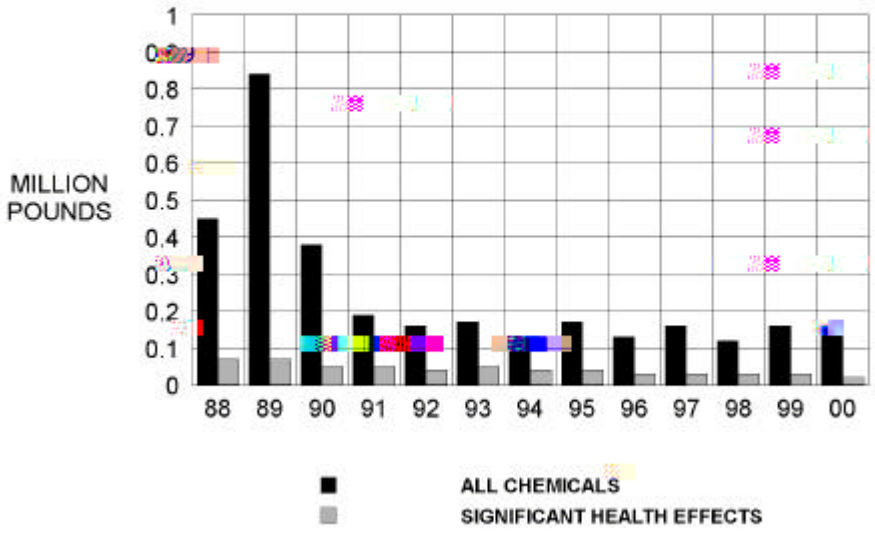


FIGURE 8

TOTAL RELEASES TO LAND ONSITE

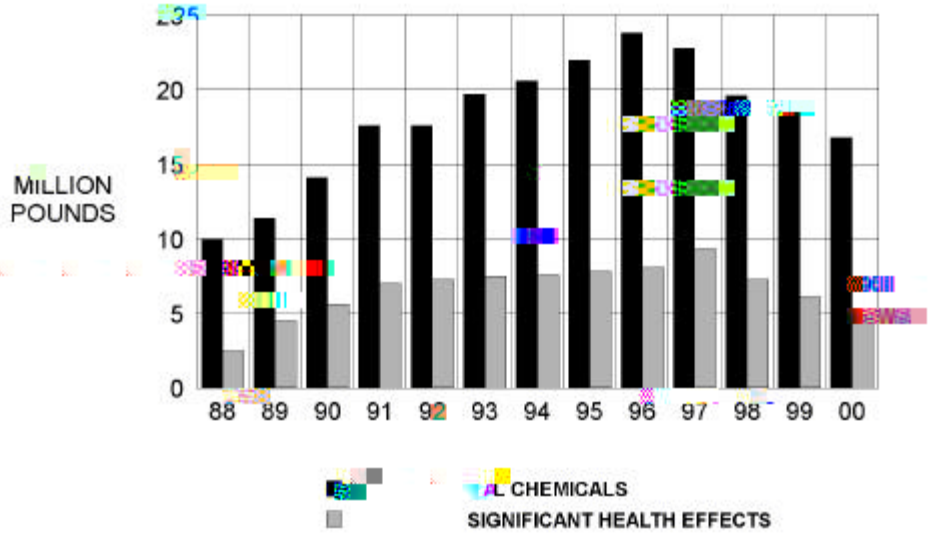


FIGURE 9

TOTAL OFFSITE TRANSFERS TO POTW

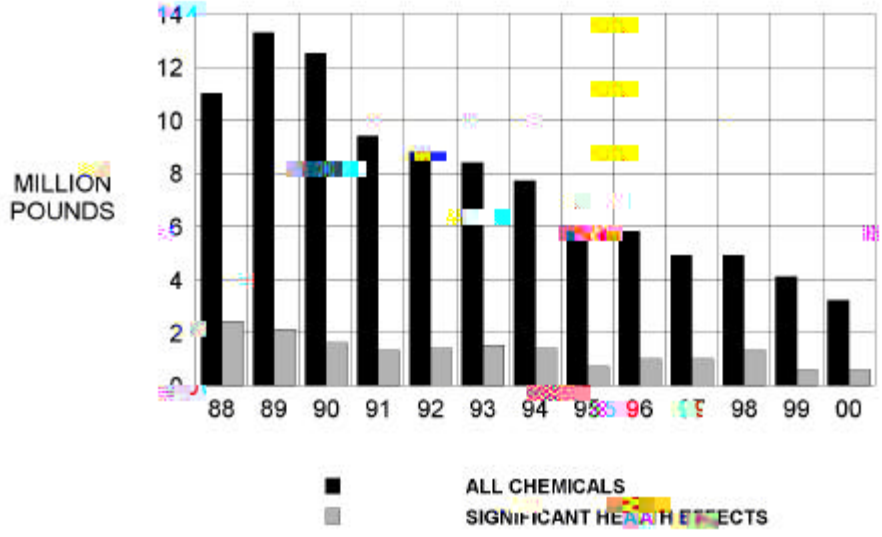
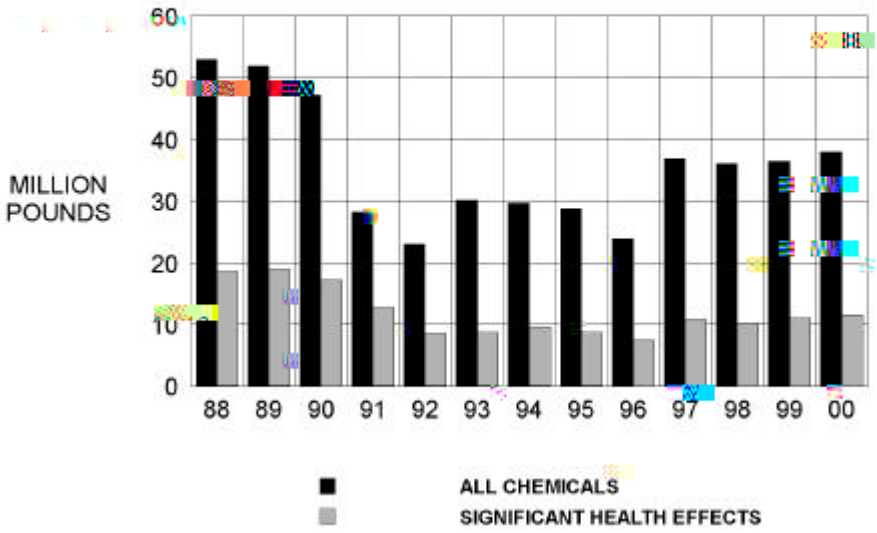


FIGURE 10

TOTAL OTHER OFFSITE TRANSFERS



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ILLINOIS EPA REGULATORY PROGRAMS

The Illinois EPA operates a number of programs which identify, limit, monitor or otherwise control releases of

are done to verify compliance with regulations and permit conditions. Through non-compliance letters, meeting with the facilities and appropriate referral of enforcement actions comp

supply treatment wastes.

The Agency administers the minimum and maximum setback zone procedures, which provide for a buffer area between public water supply wells and sources of possible chemical contamination of those wells, and is responsible for the hazard certification program, which registers all sites posing minimum hazard and provides an exemption from setback requirements.

Compliance/Enforcement - Agency field personnel regularly inspect public water supply systems and also respond to complaints and requests for assistance. Technical assistance provided by the Agency has proven to be extremely cost effective in helping supplies maintain adequate operations. In addition, other aspects of the groundwater protection program are conducted by the Agency. In cases of violations of water supply standards, permit requirements or certification requirements, the Agency will initiate enforcement action through the Office of the Attorney General.

Office of Emergency Response

Emergency Response - Regulations require immediate reporting of emergency releases of many chemicals to the State. The Illinois EPA works within the State response system to provide technical advice to spillers and responding governmental units during response, mitigation and cleanup of incidents involving chemical emergencies. Over 2,400 such incidents were handled by the Agency in 2000.

Emergency Preparedness - The Agency also administers certain provisions of the Illinois Chemical Safety Act (ICSA). The ICSA requires facility contingency planning for dealing with releases of chemical substances, and provides for review and recommendations for improvement of contingency plans by the Illinois EPA following significant releases of chemical substances. Approximately 2,300 facilities are regulated under the provisions of the ICSA.

Federal PCB Compliance - The use of certain toxic substances such as Polychlorinated Biphenyls are regulated by the federal government under the authority of the Toxic Substances Control Act. Pursuant to a cooperative agreement, Illinois EPA staff conductFs involvinrl PCB Compgulationc

The Aicant rlansrasative r cons1.76Genminata st pr,chemical recosidue TD 0 3c -0.06 Tw ( ) Tj -4

4 *2* *e* *d* *e*

UTILIZATION OF FORM R DATA

Data reported on Form R has been utilized in many ways. Some examples are as follows:

AIR PROGRAM

Form R data is being used in conjunction with seasonal emissions reports to help evaluate performance by participants in the Emissions Reduction Market System. The Bureau of Air also utilizes Form R data to identify facilities for regulation under delegated provisions of the federal Clean Air Act Amendments.

ILLINOIS CHEMICAL SAFETY ACT (ICSA)

Section 313 (Form R) data is utilized in the process of adding facilities for coverage under the ICSA. Form R data is also being reviewed to determine compliance with the ICSA by facilities reporting under Section 313.

STORM WATER PERMITS

Form R data is used to identify facilities for storm water permitting activities under the federal Clean Water Act Amendments.

HAZARDOUS WASTE SITE OPERATIONS

Form R information is used by the Illinois EPA's Bureau of Land to identify toxic chemicals present at hazardous waste sites for a number of programmatic reasons.

POLLUTION PREVENTION

Beginning with reporting year 1991, Form R data has been utilized as a tool for analyzing pollution prevention efforts.

NON-ROUTINE RELEASES

Beginning with reporting year 1991, Form R information is being utilized to verify that appropriate emergency notification has been given by facilities which have experienced non-routine releases of toxic chemicals.

FREEDOM OF INFORMATION ACT

Various individuals and citizen groups have requested Form R data for a variety of purposes, including generation of a report to a citizen group's constituency. Many such requests are made to support site investigations related to property transfer.

ENVIRONMENTAL TOXICOLOGY ACT

The Illinois Department of Public Health may use Form R data as input to the health assessments mandated by this Act for Superfund and Clean Illinois sites.

HEALTH AND HAZARDOUS SUBSTANCES REGISTRY ACT

The Illinois Department of Public Health has requested and received Form R data to use as inputs to this Registry.

INFORMATION SUPPORT DURING CHEMICAL EMERGENCIES

The Illinois EPA has used Form R data to determine what chemicals might have been released during facility chemical emergencies involving fire or explosion.

LOCAL SAFETY ACTIVITIES

In addition to handling planning and response activities under the Illinois Chemical Safety Act, local governments have been actively developing and pursuing emergency response and preparedness capabilities under Title III. Local officials used Form R data as input to their emergency response plans.

CHEMICAL EXPOSURE SCREENING

Local public health departments and the U. S. Occupational Safety and Health Administration (OSHA) have requested identification of facilities in certain areas which release specific chemicals for the purpose of targeting exposure screening for facility employees.

ENVIRONMENTAL PERFORMANCE

The Illinois EPA uses Form R data as indicators of environmental performance in its Annual Environmental Conditions Report.

OTHER USES

An industrial trade association has requested pollution prevention information from Form Rs for some of its member facilities.

Form R data from the Illinois Toxic Chemical Inventory has been provided to be used, along with other data, to analyze critical environmental trends in Illinois.

Utility companies in Illinois have requested Form R information for their customers to support them in release reduction.

The Illinois EPA used Form R information, along with EPCRA Section 312 information, to assess the Year 2000 preparedness of chemical facilities in Illinois.

- Starting with reporting year 2000, the vanadium compounds chemical category was added to the EPCRA section 313 chemical list.
- The *de minimis* level for atrazine has been changed from 0.1% to 1
- The Alternate Threshold provides eligible facilities with the option of submitting a simplified Form A instead of the full Form R report for non-PBT chemicals and chemical categories.

APPENDIX A - FORM R

(Note: Due to the length of the instructions for completing Form R, only the form for RY2000 is included in Appendix A.)

Form Approved OMB Number: 2070-0093
Approval Expires: 01/31/2003

(IMPORTANT: Type or print; read instructions before completing form)

EPA **FORM R** TOXIC CHEMICAL RELEASE

EPA FORM R	TRI Facility ID Number

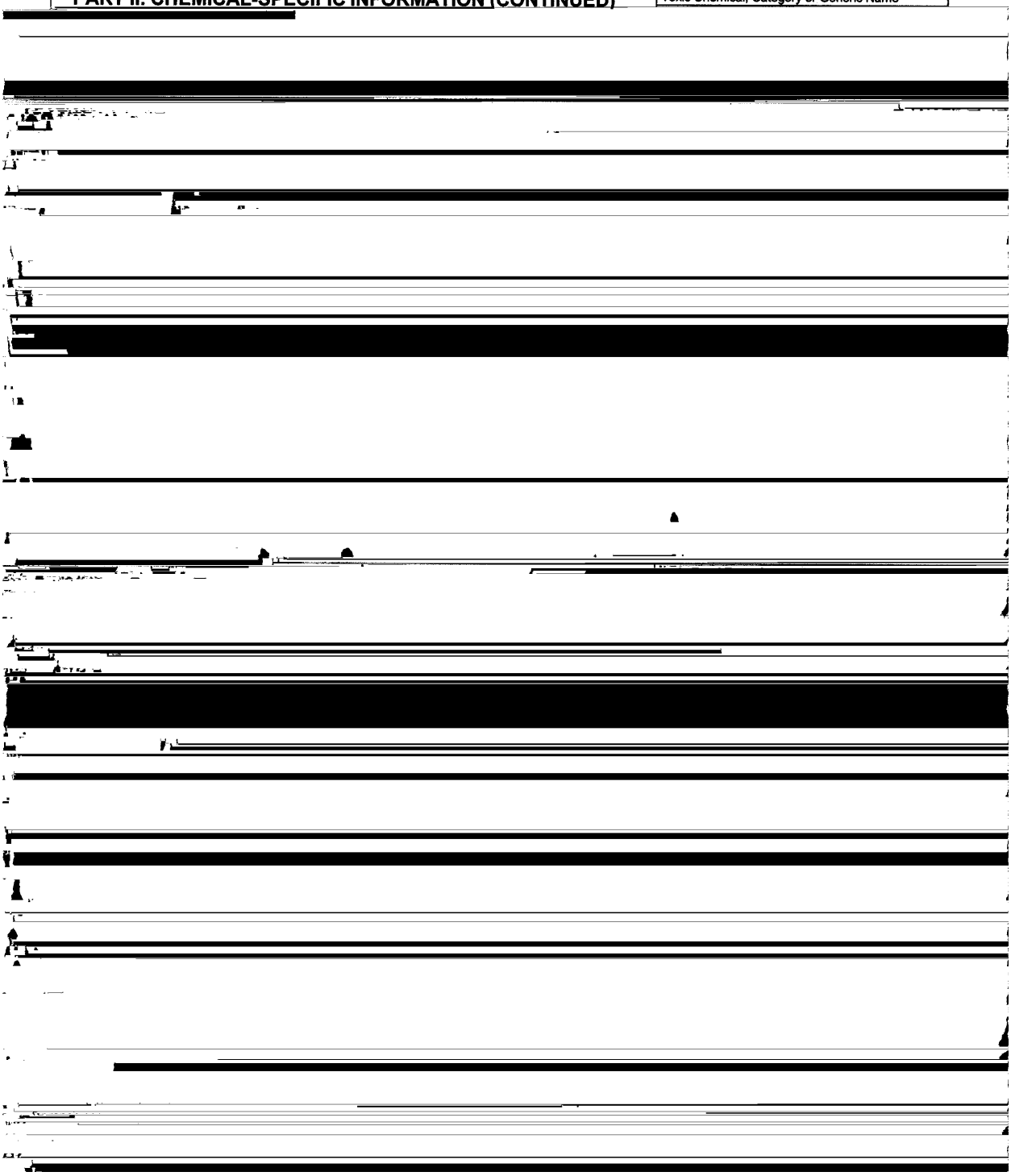
EPA FORM R

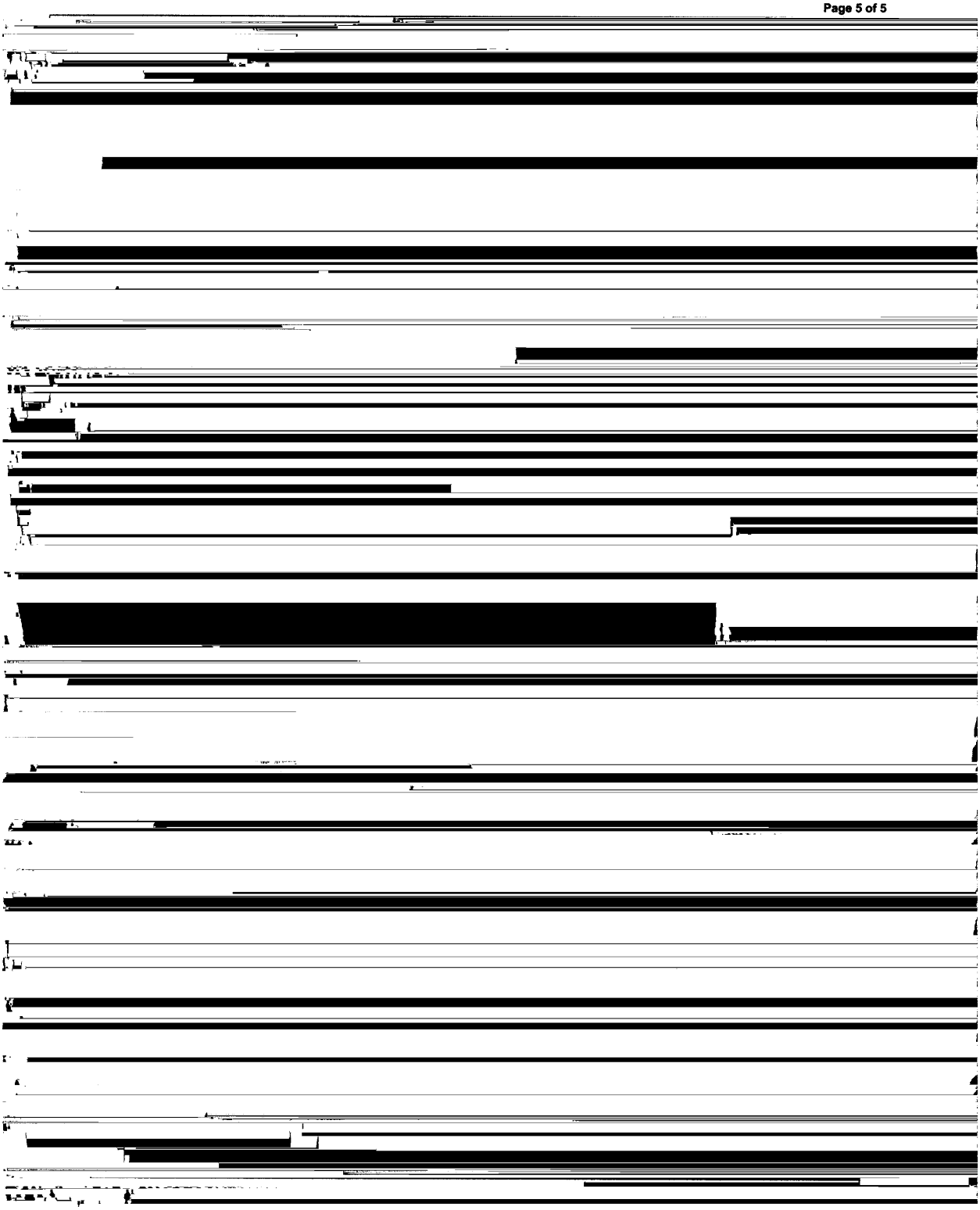
TRI Facility ID Number

[redacted]

SECTION 5 QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

EPA FORM R PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)	TRI Facility ID Number Toxic Chemical, Category or Generic Name





APPENDIX B - TOXICOLOGY REFERENCES

General Public

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Public Health Practitioners

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APPENDIX C - CHEMICAL REFERENCES

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U.S. EPA Chemical Profiles

World Wide Web site http://ww.epa.gov