

LEGEND

M Matched Chemicals/Industries**A** All Chemicals/Industries

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■ Key Findings

- Total releases and transfers reported to both Canada's NPRI and the US TRI decreased from 1995 to 1996, for the matched data set. The NPRI reduction was 5 percent; that for TRI was 2 percent. The greater reduction in NPRI occurred despite an increase in the number of facilities reporting and the number of forms submitted, while TRI's facilities and forms decreased from 1995 to 1996.
- In the matched data set, NPRI releases decreased 11 percent while TRI releases decreased 4 percent. In both countries, however, amounts of listed substances that facilities reported transferring off-site increased—by 10 percent in NPRI and 3 percent in TRI.
- In TRI, a majority of facilities reported reductions in releases and transfers from their 1995 levels, while in NPRI a slight majority actually reported increases. Facilities reporting increases, facilities newly reporting in 1996, and those reporting the same amounts in both years all contributed a larger portion of the NPRI total than in TRI.
- The three provinces and three states with the largest releases were the same for 1995 and 1996: Ontario, Quebec and Alberta in NPRI and Texas, Louisiana and Ohio in TRI. Facilities in Ontario and Texas also reported the largest reductions in releases from 1995 to 1996.
- Facilities in these provinces and states also reported the largest total releases and transfers: Ontario, Quebec and Alberta ranked in that order in NPRI in both years (for the matched 1995–1996 data set). Texas led TRI in both years, but Louisiana moved from third in 1995 to second in 1996, ahead of Ohio.
- In both NPRI and TRI, releases and transfers of substances designated as known or suspected carcinogens by the International Agency for Research on Cancer or by the US National Toxicological Program decreased by larger percentages than other chemicals: by 13 percent in NPRI and 3 percent in TRI.
- Total releases and transfers of metals and their compounds increased in both PRTRs: by 9 percent in NPRI and 18 percent in TRI.
- Industrial sectors in the matched data set with the largest releases and transfers remained the same in both PRTRs. In NPRI, the primary metal industries reported the largest amounts in both 1995 and 1996, followed by chemical manufacturing. In TRI, the chemicals industry ranked first followed by primary metals. The paper products industry ranked third in both countries, although Canadian pulp and paper producers reported a 31 percent reduction in releases and transfers since 1995, by far the largest percentage decrease among the top industries in the two countries.
- Facilities in both countries projected reductions in releases and transfers through 1998. NPRI facilities expected an 8 percent decrease from 1996 to 1998, and TRI facilities projected a 6 percent reduction. The projections are roughly comparable to the two PRTRs' recent performance.

6.1 Introduction

This chapter examines changes in the Canadian and US data from 1995 to 1996 for the matched set of comparable chemicals and industries in both PRTRs.

6.2 Overview, 1995–1996

In both Canada and the United States, releases decreased from 1995 to 1996 while transfers increased. Larger percentage changes occurred in NPRI—an 11 percent decrease in releases and a 10 percent increase in transfers—than in TRI, where releases declined 4 percent and transfers rose 3 percent (Table 6–1, p. 189 and Figure 6–1).

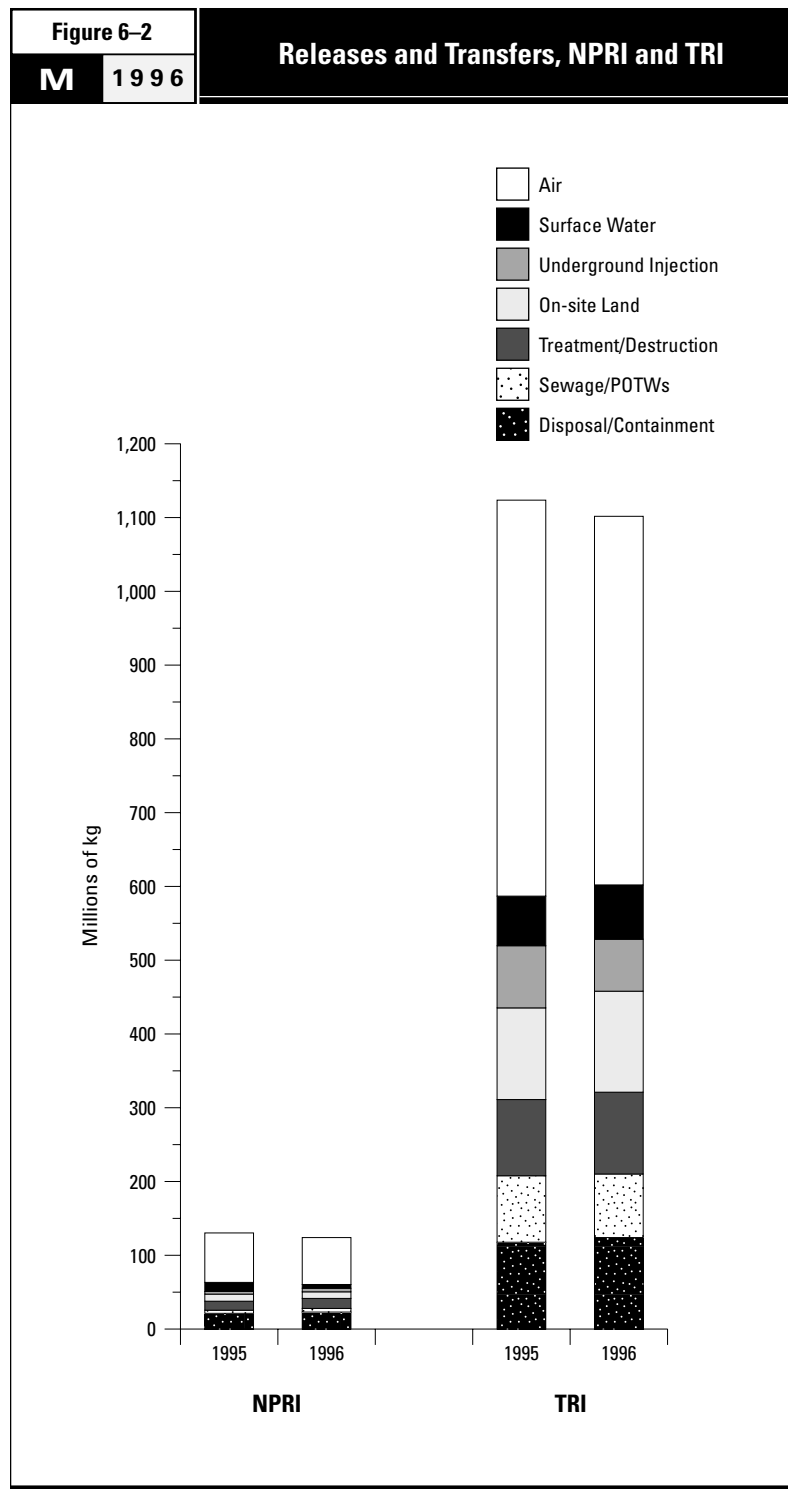
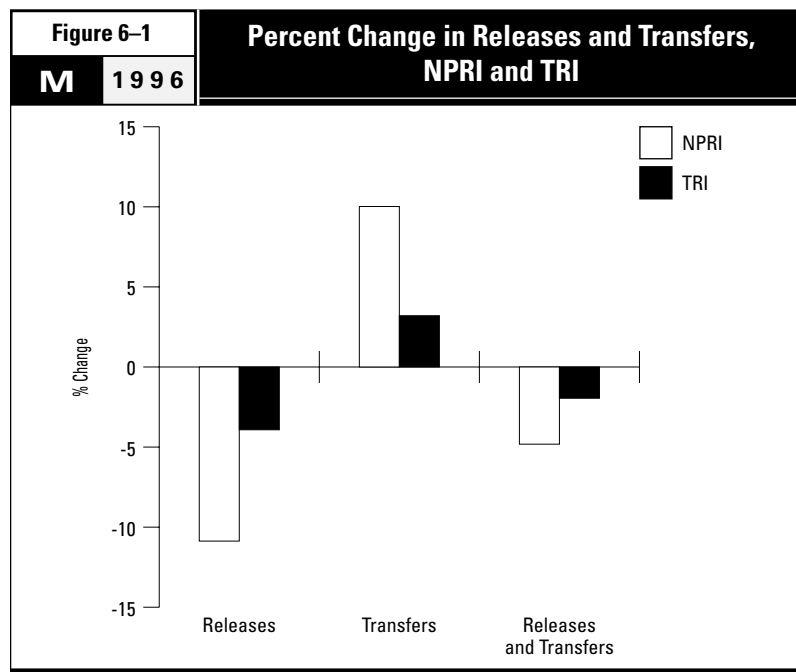
In both countries, the reduction in releases was large enough to bring about an overall decrease for releases and transfers combined. Thus, NPRI releases and transfers declined 6 million kg in NPRI and 22 million kg in TRI from 1995 to 1996. These represented reductions of 5 percent for NPRI and 2 percent for TRI.

The number of facilities reporting to NPRI and the number of forms they submitted increased 3 percent, while facilities and forms decreased approximately 3 percent in TRI. Thus, NPRI’s larger percentage reduction in releases and transfers came despite a growing universe of reporting.

6.2.1 Releases and Transfers by Type

NPRI facilities made their largest reductions, in kilograms and percent, in discharges to surface waters. These discharges dropped by over 7 million kg or 58 percent from 1995 to 1996. NPRI facilities also reported decreases in air emissions and on-site land releases (5 percent and 7 percent reductions, respectively). Underground injection increased 35 percent (Table 6–1, p. 189 and Figure 6–2).

TRI facilities reported larger amounts of surface water discharges and on-site land releases in 1996, both increasing approximately 10 percent from 1995. Reductions in air emissions (7 percent) and underground injection (16 percent) accounted for the overall TRI reduction in releases. The 37-million-kg reduction in air emissions was the largest 1995–1996 change in TRI reporting.



All types of transfers increased in both PRTRs, except for TRI reporting of transfers to sewage plants (publicly owned treatment works, or POTWs). NPRI facilities reported their largest percentage increase (17 percent) in transfers to sewage/POTWs and their largest absolute increase in transfers to disposal/containment (2 million kg). In TRI, the largest increase, in both kilograms and percent, was reported in transfers to treatment/destruction (8 million kg or 7 percent).

Although they continued to decline in both countries, emissions to air remained by far the largest release/transfer type reported to the two PRTRs (Figure 6-2).

6.2.2 Distribution of Facilities by Type of Change in Releases and Transfers

NPRI

In NPRI, 468 facilities reported smaller amounts of releases and transfers in 1996 than in 1995, and their reductions totaled 29 million kg, which amounted to a 39 percent reduction for this group. Slightly more facilities (476) reported increases from 1995 to 1996, which totaled 21 million kg. This was an increase of 41 percent for this group (Table 6-2, pp. 190-91).

Some facilities reported only in 1995 or 1996. In NPRI, 61 facilities reported only in the first year and 103 only in the second year. Taken together, they contributed a net increase from 1995 to 1996 of 2 million kg in NPRI's total releases and transfers.

Thus, as a group, the NPRI facilities reporting decreases from 1995 to 1996 reduced their releases and transfers by a large percentage. Although they were slightly

outnumbered by facilities reporting increases, their reductions outweighed the increases reported by both the facilities with increases and those reporting in only one year (Figure 6-3).

TRI

A majority of TRI facilities (7,920 facilities) reported decreases in releases and transfers from 1995 to 1996—reductions totaling 188 million kg or 28 percent of their 1995 total. Fewer facilities (6,381) reported increases, but the amounts they reported (163 million kg more in 1996) represented a 38 percent increase from 1995 (Table 6-3, pp. 192-93).

In TRI, 2,057 facilities reported only in 1995 while 1,486 reported only 1996. Taken together, their releases and transfers represented an increase of 3 million kg from 1995 to 1996, a negligible influence on overall change in TRI for the year.

Thus, the overall TRI reduction in releases and transfers represented the effect of a large number of facilities making reductions, despite the large percentage increase by the substantial group of facilities whose releases and transfers increased (Figure 6-4).

Sources of 1996 Releases and Transfers

More of TRI's 1996 releases and transfers came from facilities reporting decreases than was the case in NPRI. In both countries, facilities reporting increases accounted for the majority of releases and transfers in 1996, but these facilities contributed a larger portion of the NPRI total than in TRI. (In both countries, facilities reporting increases amounted to roughly one-third of all facilities). Facilities newly reporting in 1996 and those reporting the same amounts in 1995 and 1996 also contributed a larger proportion of NPRI releases and transfers (Figures 6-3 and 6-4).

[Text continues on p. 194.]

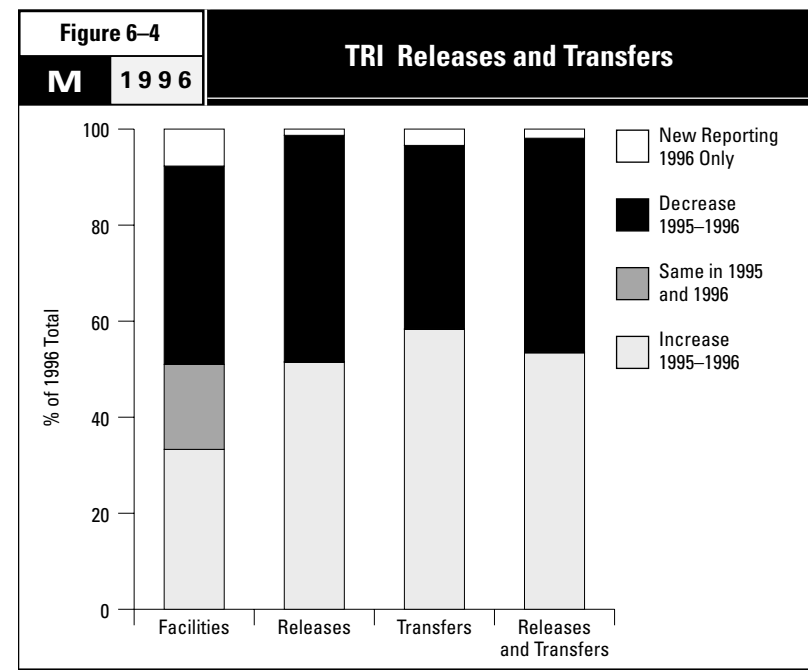
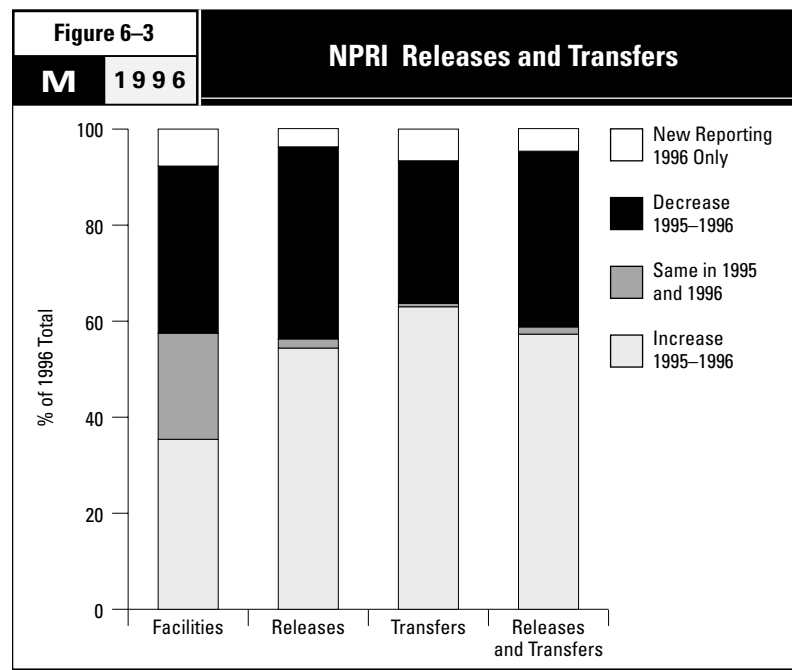


Table 6-1		NPRI and TRI Releases and Transfers							
M	1996	NPRI				TRI			
		1995	1996	Change 1995-1996		1995	1996	Change 1995-1996	
		Number	Number	Number	%	Number	Number	Number	%
Total Facilities		1,302	1,344	42	3.2	19,761	19,190	-571	-2.9
Total Forms		4,164	4,298	134	3.2	60,057	57,927	-2,130	-3.5
		kg	kg	kg	%	kg	kg	kg	%
Total Air Emissions		67,039,370	63,590,706	-3,448,664	-5.1	536,764,444	499,678,471	-37,085,973	-6.9
Surface Water Discharges		12,330,846	5,128,134	-7,202,712	-58.4	67,230,056	73,614,363	6,384,307	9.5
Underground Injection		3,556,927	4,812,379	1,255,452	35.3	84,248,543	70,427,564	-13,820,979	-16.4
On-site Land Releases		9,607,743	8,936,491	-671,252	-7.0	124,249,923	136,901,554	12,651,631	10.2
Matched Releases		92,671,766	82,596,460	-10,075,306	-10.9	812,492,966	780,621,952	-31,871,014	-3.9
Treatment/Destruction		12,204,318	13,571,799	1,367,481	11.2	103,300,657	110,901,271	7,600,614	7.4
Sewage/POTWs		4,216,987	4,943,234	726,247	17.2	90,119,207	86,130,663	-3,988,544	-4.4
Disposal/Containment		21,327,700	23,017,654	1,689,954	7.9	117,691,718	124,047,657	6,355,939	5.4
Matched Transfers		37,749,005	41,532,687	3,783,682	10.0	311,111,582	321,079,591	9,968,009	3.2
Matched Releases and Transfers		130,420,771	124,129,147	-6,291,624	-4.8	1,123,604,548	1,101,701,543	-21,903,005	-1.9

Table 6-2		NPRI Releases and Transfers									
M	1996	1995					1996				
		Reported in Both years				Total Number	Reported in Both years				Total Number
	Reported 1995 Only Number	Decrease Number	Same Number	Increase Number	Reported 1996 Only Number		Decrease Number	Same Number	Increase Number		
Facilities	61	468	297	476	1,302	103	468	297	476	1,344	
Forms	130	1,835	577	1,622	4,164	217	1,786	585	1,710	4,298	
Releases	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	
Total Air Emissions	1,461,921	37,487,831	1,494,630	26,594,988	67,039,370	3,078,566	27,068,154	1,497,630	31,946,356	63,590,706	
Surface Water Discharges	14,921	11,357,753	24,200	933,972	12,330,846	3,921	3,295,388	24,200	1,804,625	5,128,134	
Underground Injection	0	54,006	0	3,502,921	3,556,927	9	54,765	0	4,757,605	4,812,379	
On-site Land Releases	0	5,577,882	3,157	4,026,704	9,607,743	15,969	2,570,761	3,157	6,346,604	8,936,491	
Matched Releases	1,481,084	54,537,360	1,538,068	35,115,254	92,671,766	3,105,937	33,040,606	1,541,066	44,908,851	82,596,460	
Transfers											
Treatment/Destruction	239,805	7,456,049	123,468	4,384,996	12,204,318	2,469,513	3,953,435	120,559	7,028,292	13,571,799	
Sewage/POTWs	114	606,272	93,943	3,516,658	4,216,987	4,264	386,994	93,944	4,458,032	4,943,234	
Disposal/Containment	1,995,921	11,732,732	55,767	7,543,280	21,327,700	253,778	8,008,295	55,677	14,699,904	23,017,654	
Matched Transfers	2,235,840	19,795,053	273,178	15,444,934	37,749,005	2,727,555	12,348,724	270,180	26,186,228	41,532,687	
Matched Releases and Transfers	3,716,924	74,332,413	1,811,246	50,560,188	130,420,771	5,833,492	45,389,330	1,811,246	71,095,079	124,129,147	

Change 1995–1996							
Reported One Year Only		Reported in Both Years				Total	
Number	%	Decrease		Increase		Number	%
		Number	%	Number	%		
42	68.9	0	0.0	0	0.0	42	3.2
87	66.9	-49	-2.7	88	5.4	134	3.2
kg	%	kg	%	kg	%	kg	%
1,616,645	110.6	-10,419,677	-27.8	5,351,368	20.1	-3,448,664	-5.1
-11,000	-73.7	-8,062,365	-71.0	870,653	93.2	-7,202,712	-58.4
9	—	759	1.4	1,254,684	35.8	1,255,452	35.3
15,969	—	-3,007,121	-53.9	2,319,900	57.6	-671,252	-7.0
1,624,853	109.7	-21,496,754	-39.4	9,793,597	27.9	-10,075,306	-10.9
2,229,708	929.8	-3,502,614	-47.0	2,643,296	60.3	1,367,481	11.2
4,150	3,640.4	-219,278	-36.2	941,374	26.8	726,247	17.2
-1,742,143	-87.3	-3,724,437	-31.7	7,156,624	94.9	1,689,954	7.9
491,715	22.0	-7,446,329	-37.6	10,741,294	69.5	3,783,682	10.0
2,116,568	56.9	-28,943,083	-38.9	20,534,891	40.6	-6,291,624	-4.8

Table 6-3		TRI Releases and Transfers									
M	1996	1995					1996				
		Reported	Reported in Both years			Total	Reported	Reported in Both years			Total
		1995 Only	Decrease	Same	Increase	Number	1996 Only	Decrease	Same	Increase	Number
		Number	Number	Number	Number		Number	Number	Number	Number	
Facilities		2,057	7,920	3,403	6,381	19,761	1,486	7,920	3,403	6,381	19,190
Forms		3,504	28,501	5,923	22,129	60,057	2,603	26,459	5,949	22,916	57,927
Releases	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg
Total Air Emissions	11,647,415	315,900,704	1,518,219	207,698,106	536,764,444	8,873,469	236,306,239	1,518,009	252,980,754	499,678,471	
Surface Water Discharges	32,130	39,011,301	8,669	28,177,956	67,230,056	228,970	30,076,159	8,562	43,300,672	73,614,363	
Underground Injection	0	68,948,190	0	15,300,353	84,248,543	45,533	51,642,764	0	18,739,267	70,427,564	
On-site Land Releases	915,547	59,451,330	14,365	63,868,681	124,249,923	1,074,668	49,912,702	14,256	85,899,928	136,901,554	
Matched Releases	12,595,092	483,311,525	1,541,253	315,045,096	812,492,966	10,222,640	367,937,864	1,540,827	400,920,621	780,621,952	
Transfers											
Treatment/Destruction	1,808,295	65,206,492	50,772	36,235,098	103,300,657	5,461,531	37,652,274	44,781	67,742,685	110,901,271	
Sewage/POTWs	1,724,577	59,220,090	154,927	29,019,613	90,119,207	1,054,185	45,324,967	156,255	39,595,256	86,130,663	
Disposal/Containment	2,019,594	70,745,822	160,648	44,765,654	117,691,718	4,523,120	39,625,527	165,736	79,733,274	124,047,657	
Matched Transfers	5,552,466	195,172,404	366,347	110,020,365	311,111,582	11,038,836	122,602,768	366,772	187,071,215	321,079,591	
Matched Releases and Transfers	18,147,558	678,483,929	1,907,600	425,065,461	1,123,604,548	21,261,476	490,540,632	1,907,599	587,991,836	1,101,701,543	

Change 1995–1996							
Reported One Year Only		Reported in Both Years				Total	
Number	%	Decrease		Increase		Number	%
		Number	%	Number	%		
-571	-27.8	0	0.0	0	0.0	-571	-2.9
-901	-25.7	-2,042	-7.2	787	3.6	-2,130	-3.5
kg	%	kg	%	kg	%	kg	%
-2,773,946	-23.8	-79,594,465	-25.2	45,282,648	21.8	-37,085,973	-6.9
196,840	612.6	-8,935,142	-22.9	15,122,716	53.7	6,384,307	9.5
45,533	—	-17,305,426	-25.1	3,438,914	22.5	-13,820,979	-16.4
159,121	17.4	-9,538,628	-16.0	22,031,247	34.5	12,651,631	10.2
-2,372,452	-18.8	-115,373,661	-23.9	85,875,525	27.3	-31,871,014	-3.9
3,653,236	202.0	-27,554,218	-42.3	31,507,587	87.0	7,600,614	7.4
-670,392	-38.9	-13,895,123	-23.5	10,575,643	36.4	-3,988,544	-4.4
2,503,526	124.0	-31,120,295	-44.0	34,967,620	78.1	6,355,939	5.4
5,486,370	98.8	-72,569,636	-37.2	77,050,850	70.0	9,968,009	3.2
3,113,918	17.2	-187,943,297	-27.7	162,926,375	38.3	-21,903,005	-1.9

6.3 Geographic Distribution

The province (Ontario) and state (Texas) with the largest releases and the largest total releases and transfers in the PRTRs of their respective countries also reported the largest decreases from 1995 to 1996 in the matched data set.

6.3.1 Releases

NPRI facilities in Ontario reported the largest reductions in releases from 1995 to 1996, a decrease of 7 million kg. The largest percentage reduction, a 32 percent decrease, was reported in New Brunswick. In four provinces—British Columbia, Manitoba, Newfoundland and Prince Edward Island—releases increased from 1995 to 1996. However, changes in amounts reported from 1995 to 1996 did not alter the ranking of provinces with the highest releases: Ontario had the largest releases in both years, followed by Quebec and Alberta. Reductions by Quebec's facilities, however, far outpaced those by Alberta's facilities, leaving the two provinces with comparable totals in 1996 (nearly 15 million kg each, see **Table 6-4**, p. 197 and **Map 6-1**).

Texas facilities reported the largest TRI reductions in releases from 1995 to 1996, a decrease of 14 million kg. Two states had reductions of more than 30 percent—North Dakota and Vermont. Texas and Louisiana ranked first and second for total releases in both years, although the gap between them narrowed considerably. Facilities in Ohio reported the third-largest amount of releases in both years. Releases increased in 18 US states and territories, including Louisiana (**Table 6-5**, p. 197 and **Map 6-1**).

6.3.2 Releases and Transfers

Ontario's total releases and transfers decreased by 2 million kg from 1995 to 1996, as an increase in transfers offset much of the province's reduction in releases. This was the largest reduction in releases and transfers among the provinces. Reductions also exceeded 1 million kg each in Alberta, British Columbia and New Brunswick. Three provinces reported reductions of more than 10 percent: British Columbia, New Brunswick and Saskatchewan (**Table 6-6**, p. 199 and **Map 6-2**).

Texas facilities reported a 1995–1996 reduction of 21 million kg in releases and transfers, with reductions in transfers as well as releases. Other states with large reductions were Alabama, where releases and transfers decreased by 5 million kg, and in North Carolina, whose total decreased by 3 million kg. Reductions of more than 10 percent were recorded in 12 states and one territory: Connecticut, Hawaii, Iowa, Maine, Minnesota, Nebraska, North Dakota, Puerto Rico, Rhode Island, Texas, Vermont, West Virginia and Wyoming (**Table 6-7**, pp. 200–1 and **Map 6-2**).

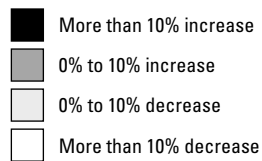
Ontario, Quebec and Alberta reported the largest total releases and transfers in NPRI in both years. In TRI, Texas remained first for total releases and transfers. In 1995, Louisiana ranked third, but passed Ohio to rank second in 1996 for total releases and transfers (**Tables 6-6**, p. 199 and **6-7**, pp. 200–1).

[Text continues on p. 202.]

Map 6-1

M 1996

Percent Change in Total Releases: States and Provinces



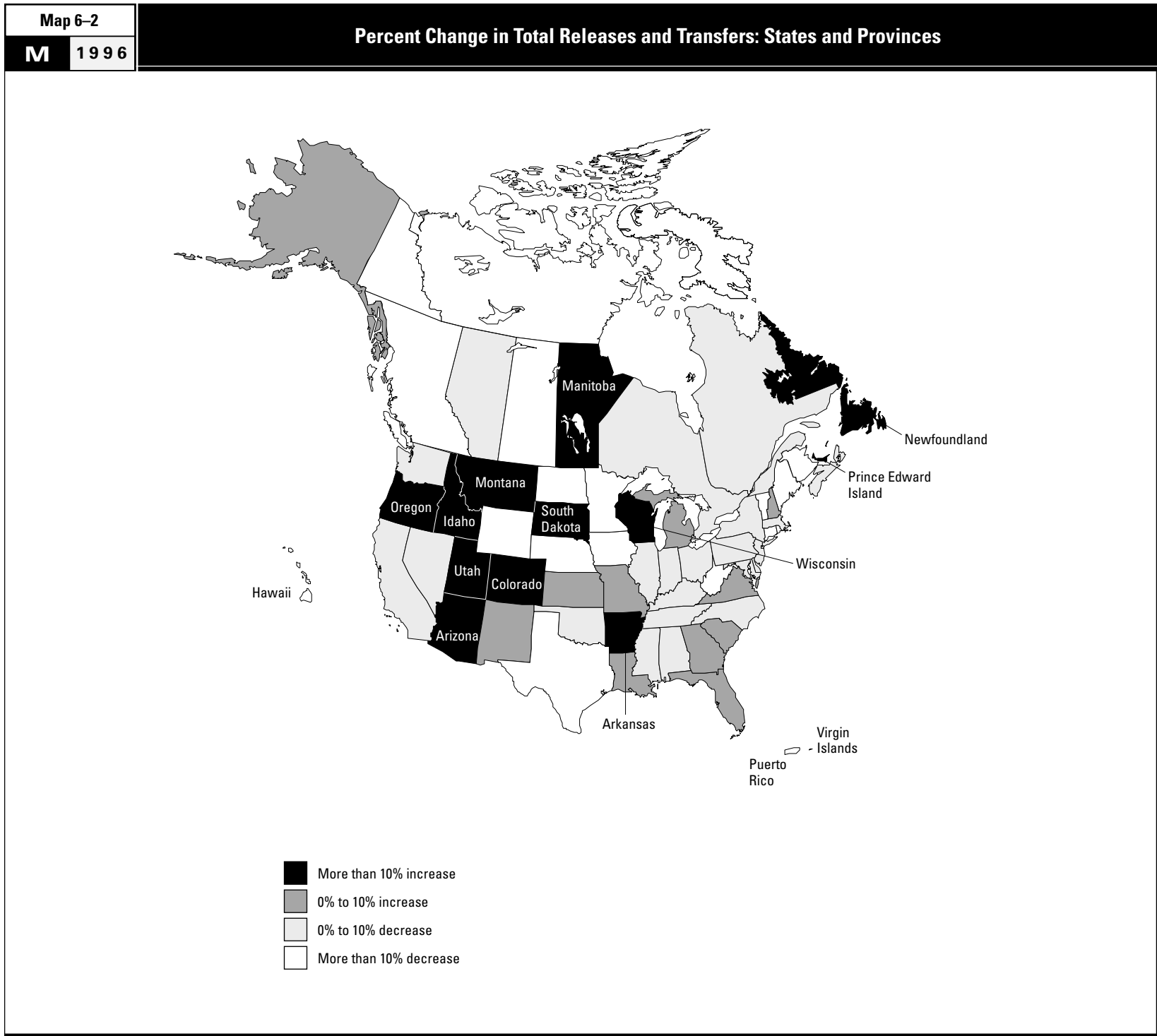


Table 6-4		NPRI Releases, by Province (Ordered by Total 1996 Releases)			
M	1996	Total Releases		Change 1995-1996	
Province	1995 (kg)	1996 (kg)	kg	%	
Ontario	45,919,429	38,711,456	-7,207,973	-15.7	
Quebec	17,096,072	14,732,567	-2,363,505	-13.8	
Alberta	15,000,884	14,621,572	-379,312	-2.5	
British Columbia	5,438,945	5,710,382	271,437	5.0	
New Brunswick	4,792,326	3,277,331	-1,514,995	-31.6	
Manitoba	1,530,130	3,062,727	1,532,597	100.2	
Nova Scotia	1,583,093	1,278,806	-304,287	-19.2	
Saskatchewan	1,013,664	783,366	-230,298	-22.7	
Newfoundland	284,203	400,700	116,497	41.0	
Prince Edward Island	13,020	17,553	4,533	34.8	
Total	92,671,766	82,596,460	-10,075,306	-10.9	

Table 6-5		TRI Releases, by State (Ordered by Total 1996 Releases)			
M	1996	Total Releases		Change 1995-1996	
State	1995 (kg)	1996 (kg)	kg	%	
Texas	105,754,372	92,003,220	-13,751,152	-13.0	
Louisiana	60,611,225	64,174,124	3,562,899	5.9	
Ohio	41,547,753	40,039,996	-1,507,757	-3.6	
Utah	34,153,122	36,400,466	2,247,344	6.6	
Alabama	41,232,960	36,057,848	-5,175,112	-12.6	
Tennessee	39,540,871	35,719,754	-3,821,117	-9.7	
Illinois	34,486,094	33,027,544	-1,458,550	-4.2	
North Carolina	32,741,901	30,841,068	-1,900,833	-5.8	
Pennsylvania	28,169,409	27,501,052	-668,357	-2.4	
Florida	28,496,366	26,649,236	-1,847,130	-6.5	
Indiana	29,846,021	26,508,110	-3,337,911	-11.2	
Michigan	25,941,573	22,389,445	-3,552,128	-13.7	
Missouri	21,934,350	21,577,853	-356,497	-1.6	
Montana	19,379,824	21,426,762	2,046,938	10.6	
Arizona	15,194,435	20,648,276	5,453,841	35.9	
Mississippi	20,822,469	20,414,695	-407,774	-2.0	
Georgia	19,547,414	20,151,598	604,184	3.1	
Virginia	19,463,566	19,742,050	278,484	1.4	
South Carolina	20,684,971	19,028,607	-1,656,364	-8.0	
Kentucky	12,208,087	12,713,763	505,676	4.1	
New York	14,491,218	12,296,245	-2,194,973	-15.1	
Oregon	9,090,374	11,873,289	2,782,915	30.6	
Wisconsin	12,992,740	11,826,236	-1,166,504	-9.0	
California	8,817,582	10,432,858	1,615,276	18.3	
Arkansas	10,406,959	9,983,507	-423,452	-4.1	
West Virginia	11,119,003	9,898,444	-1,220,559	-11.0	
Washington	10,194,125	9,108,344	-1,085,781	-10.7	
New Mexico	8,304,893	8,917,115	612,222	7.4	
Iowa	10,305,057	8,421,028	-1,884,029	-18.3	
Kansas	6,489,060	6,575,123	86,063	1.3	
Minnesota	7,230,471	6,312,325	-918,146	-12.7	
Oklahoma	6,447,215	5,913,300	-533,915	-8.3	
New Jersey	4,623,372	5,441,829	818,457	17.7	
Idaho	4,772,716	5,259,373	486,657	10.2	
Maryland	4,688,226	4,168,265	-519,961	-11.1	
Wyoming	4,005,400	3,314,989	-690,411	-17.2	
Maine	3,698,252	3,129,685	-568,567	-15.4	
Puerto Rico	3,539,838	3,027,614	-512,224	-14.5	
Connecticut	3,549,829	2,638,903	-910,926	-25.7	
Massachusetts	3,008,018	2,434,807	-573,211	-19.1	
Nebraska	3,254,195	2,320,000	-934,195	-28.7	
South Dakota	754,621	2,094,078	1,339,457	177.5	
Nevada	1,494,614	1,464,414	-30,200	-2.0	
Colorado	1,269,014	1,445,862	176,848	13.9	
Delaware	1,472,222	1,051,473	-420,749	-28.6	
Alaska	1,008,441	1,039,885	31,444	3.1	
Rhode Island	1,101,676	971,547	-130,129	-11.8	
New Hampshire	966,203	874,422	-91,781	-9.5	
Virgin Islands	549,645	561,766	12,121	2.2	
North Dakota	659,867	452,299	-207,568	-31.5	
Vermont	284,698	187,807	-96,891	-34.0	
Hawaii	146,639	169,656	23,017	15.7	
District of Columbia	0	0	0	—	
Total	812,492,966	780,621,952	-31,871,014	-3.9	

Table 6-6

M 1996

NPRI Releases and Transfers, by Province (Ordered by Total 1996 Releases and Transfers)

Province	1995						1996					
	Number of Facilities	Number of Forms	Total Releases (kg)	Total Transfers (kg)	Total Releases and Transfers (kg)	Rank	Number of Facilities	Number of Forms	Total Releases (kg)	Total Transfers (kg)	Total Releases and Transfers (kg)	Rank
Ontario	726	2,379	45,919,429	25,229,791	71,149,220	1	733	2,413	38,711,456	30,051,806	68,763,262	1
Quebec	320	909	17,096,072	6,665,219	23,761,291	2	336	958	14,732,567	8,207,642	22,940,209	2
Alberta	87	337	15,000,884	1,231,830	16,232,714	3	96	382	14,621,572	553,277	15,174,849	3
British Columbia	72	242	5,438,945	2,659,847	8,098,792	4	70	232	5,710,382	561,021	6,271,403	4
New Brunswick	20	61	4,792,326	1,558,561	6,350,887	5	21	68	3,277,331	1,575,434	4,852,765	5
Manitoba	37	90	1,530,130	289,145	1,819,275	6	39	90	3,062,727	245,373	3,308,100	6
Nova Scotia	21	76	1,583,093	107,917	1,691,010	7	25	80	1,278,806	322,158	1,600,964	7
Saskatchewan	14	47	1,013,664	6,257	1,019,921	8	15	47	783,366	15,955	799,321	8
Newfoundland	3	20	284,203	28	284,231	9	7	25	400,700	8	400,708	9
Prince Edward Island	2	3	13,020	400	13,420	10	2	3	17,553	0	17,553	10
Total	1,302	4,164	92,671,766	37,749,005	130,420,771		1,344	4,298	82,596,460	41,532,687	124,129,147	
Province	Change 1995-1996						Percent Change 1995-1996					
	Number	Number	kg	kg	kg	Rank	%	%	%	%	%	Rank
Ontario	7	34	-7,207,973	4,822,015	-2,385,958	1	1.0	1.4	-15.7	19.1	-3.4	7
Quebec	16	49	-2,363,505	1,542,423	-821,082	5	5.0	5.4	-13.8	23.1	-3.5	6
Alberta	9	45	-379,312	-678,553	-1,057,865	4	10.3	13.4	-2.5	-55.1	-6.5	4
British Columbia	-2	-10	271,437	-2,098,826	-1,827,389	2	-2.8	-4.1	5.0	-78.9	-22.6	2
New Brunswick	1	7	-1,514,995	16,873	-1,498,122	3	5.0	11.5	-31.6	1.1	-23.6	1
Manitoba	2	0	1,532,597	-43,772	1,488,825	10	5.4	0.0	100.2	-15.1	81.8	10
Nova Scotia	4	4	-304,287	214,241	-90,046	7	19.0	5.3	-19.2	198.5	-5.3	5
Saskatchewan	1	0	-230,298	9,698	-220,600	6	7.1	0.0	-22.7	155.0	-21.6	3
Newfoundland	4	5	116,497	-20	116,477	9	133.3	25.0	41.0	-71.4	41.0	9
Prince Edward Island	0	0	4,533	-400	4,133	8	0.0	0.0	34.8	-100.0	30.8	8
Total	42	134	-10,075,306	3,783,682	-6,291,624		3.2	3.2	-10.9	10.0	-4.8	

Table 6-7		TRI Releases and Transfers, by State (Ordered by Total 1996 Releases and Transfers)										
M 1996		1995					1996					
State	Number of Facilities	Number of Forms	Total Releases (kg)	Total Transfers (kg)	Total Releases and Transfers (kg)	Rank	Number of Facilities	Number of Forms	Total Releases (kg)	Total Transfers (kg)	Total Releases and Transfers (kg)	Rank
Texas	1,070	4,653	105,754,372	37,492,293	143,246,665	1	1,074	4,678	92,003,220	30,289,104	122,292,324	1
Louisiana	276	1,688	60,611,225	3,253,710	63,864,935	3	269	1,680	64,174,124	3,747,033	67,921,157	2
Ohio	1,510	4,556	41,547,753	25,253,115	66,800,868	2	1,462	4,453	40,039,996	25,898,379	65,938,375	3
Pennsylvania	1,148	3,397	28,169,409	35,410,133	63,579,542	4	1,083	3,239	27,501,052	33,950,780	61,451,832	4
Michigan	825	2,724	25,941,573	24,057,961	49,999,534	5	795	2,592	22,389,445	27,695,419	50,084,864	5
Tennessee	591	1,720	39,540,871	7,528,321	47,069,192	8	574	1,677	35,719,754	10,782,442	46,502,196	6
Illinois	1,222	3,781	34,486,094	13,857,714	48,343,808	7	1,165	3,585	33,027,544	12,824,866	45,852,410	7
Indiana	946	2,875	29,846,021	15,664,714	45,510,735	9	936	2,782	26,508,110	18,940,582	45,448,692	8
Alabama	464	1,570	41,232,960	8,206,286	49,439,246	6	443	1,522	36,057,848	8,640,484	44,698,332	9
Utah	133	415	34,153,122	611,941	34,765,063	11	128	413	36,400,466	2,726,657	39,127,123	10
North Carolina	779	2,154	32,741,901	7,322,933	40,064,834	10	769	2,099	30,841,068	5,953,322	36,794,390	11
Florida	455	1,071	28,496,366	4,999,173	33,495,539	12	447	1,024	26,649,236	7,974,381	34,623,617	12
Missouri	518	1,512	21,934,350	6,206,386	28,140,736	13	499	1,469	21,577,853	6,605,867	28,183,720	13
Virginia	403	1,199	19,463,566	6,989,947	26,453,513	14	395	1,138	19,742,050	7,384,084	27,126,134	14
Wisconsin	799	2,204	12,992,740	10,164,254	23,156,994	18	801	2,130	11,826,236	14,466,495	26,292,731	15
South Carolina	455	1,524	20,684,971	5,132,253	25,817,224	15	439	1,465	19,028,607	7,077,918	26,106,525	16
Arizona	160	369	15,194,435	3,171,136	18,365,571	22	172	394	20,648,276	4,141,182	24,789,458	17
Georgia	629	1,727	19,547,414	3,665,471	23,212,885	16	623	1,677	20,151,598	4,391,484	24,543,082	18
Mississippi	278	893	20,822,469	2,345,221	23,167,690	17	274	835	20,414,695	1,541,436	21,956,131	19
Montana	21	120	19,379,824	24,647	19,404,471	21	21	121	21,426,762	24,788	21,451,550	20
California	1,195	3,120	8,817,582	13,121,864	21,939,446	19	1,137	2,919	10,432,858	9,831,046	20,263,904	21
New York	646	1,771	14,491,218	6,833,592	21,324,810	20	614	1,657	12,296,245	7,581,903	19,878,148	22
Oregon	227	604	9,090,374	6,690,060	15,780,434	25	222	574	11,873,289	6,527,813	18,401,102	23
Kentucky	378	1,279	12,208,087	5,248,343	17,456,430	24	380	1,288	12,713,763	4,533,978	17,247,741	24
New Jersey	540	1,756	4,623,372	13,175,645	17,799,017	23	514	1,675	5,441,829	11,541,705	16,983,534	25
Arkansas	337	1,017	10,406,959	1,364,553	11,771,512	28	334	990	9,983,507	3,277,183	13,260,690	26
Iowa	363	953	10,305,057	4,831,547	15,136,604	27	353	927	8,421,028	4,658,833	13,079,861	27
West Virginia	131	579	11,119,003	4,269,081	15,388,084	26	121	550	9,898,444	3,094,407	12,992,851	28
Washington	261	741	10,194,125	1,535,633	11,729,758	29	249	714	9,108,344	1,670,102	10,778,446	29
Kansas	255	775	6,489,060	3,828,605	10,317,665	31	253	763	6,575,123	4,109,899	10,685,022	30
Minnesota	458	1,136	7,230,471	3,982,357	11,212,828	30	434	1,009	6,312,325	3,751,120	10,063,445	31
New Mexico	32	121	8,304,893	167,440	8,472,333	33	31	114	8,917,115	209,399	9,126,514	32
Massachusetts	449	1,140	3,008,018	5,516,837	8,524,855	32	428	1,074	2,434,807	5,703,905	8,138,712	33
Oklahoma	252	733	6,447,215	1,813,649	8,260,864	34	261	749	5,913,300	2,093,362	8,006,662	34
Maryland	171	489	4,688,226	2,926,019	7,614,245	35	162	459	4,168,265	3,279,374	7,447,639	35
Puerto Rico	142	396	3,539,838	3,740,500	7,280,338	37	140	373	3,027,614	3,448,516	6,476,130	36
Connecticut	295	795	3,549,829	3,823,716	7,373,545	36	285	735	2,638,903	3,407,867	6,046,770	37
Idaho	50	141	4,772,716	127,685	4,900,401	39	49	123	5,259,373	133,666	5,393,039	38
Nebraska	149	398	3,254,195	1,902,026	5,156,221	38	137	366	2,320,000	1,884,339	4,204,339	39
Maine	78	261	3,698,252	958,969	4,657,221	40	73	241	3,129,685	691,665	3,821,350	40
Wyoming	24	121	4,005,400	4,238	4,009,638	41	25	131	3,314,989	15,193	3,330,182	41
South Dakota	69	133	754,621	264,320	1,018,941	47	60	114	2,094,078	627,189	2,721,267	42
Delaware	61	190	1,472,222	1,472,526	2,944,748	42	62	184	1,051,473	1,606,538	2,658,011	43
Colorado	158	387	1,269,014	738,205	2,007,219	43	151	365	1,445,862	1,148,379	2,594,241	44
Nevada	40	85	1,494,614	36,884	1,531,498	45	42	87	1,464,414	46,679	1,511,093	45
Rhode Island	138	319	1,101,676	570,011	1,671,687	44	125	297	971,547	379,877	1,351,424	46
New Hampshire	92	229	966,203	232,113	1,198,316	46	98	247	874,422	412,532	1,286,954	47
Alaska	8	29	1,008,441	2,749	1,011,190	48	8	33	1,039,885	60	1,039,945	48
Virgin Islands	2	23	549,645	86,684	636,329	50	2	22	561,766	171,183	732,949	49
North Dakota	31	69	659,867	270,238	930,105	49	29	65	452,299	58,958	511,257	50
Vermont	35	71	284,698	140,510	425,208	51	32	69	187,807	122,568	310,375	51
Hawaii	11	43	146,639	77,259	223,898	52	9	39	169,656	3,535	173,191	52
District of Columbia	1	1	0	115	115	53	1	1	0	115	115	53
Total	19,761	60,057	812,492,966	311,111,582	1,123,604,548		19,190	57,927	780,621,952	321,079,591	1,101,701,543	

Table 6-7 (cont.)

M 1996

TRI Releases and Transfers, by State (Ordered by Total 1996 Releases and Transfers)

	Change 1995-1996						Percent Change 1995-1996					
	Number of Facilities	Number of Forms	Total Releases (kg)	Total Transfers (kg)	Total Releases and Transfers (kg)	Rank	Facilities (%)	Forms (%)	Total Releases (%)	Total Transfers (%)	Total Releases and Transfers (%)	Rank
Texas	4	25	-13,751,152	-7,203,189	-20,954,341	1	0.4	0.5	-13.0	-19.2	-14.6	10
Louisiana	-7	-8	3,562,899	493,323	4,056,222	51	-2.5	-0.5	5.9	15.2	6.4	41
Ohio	-48	-103	-1,507,757	645,264	-862,493	15	-3.2	-2.3	-3.6	2.6	-1.3	28
Pennsylvania	-65	-158	-668,357	-1,459,353	-2,127,710	6	-5.7	-4.7	-2.4	-4.1	-3.3	24
Michigan	-30	-132	-3,552,128	3,637,458	85,330	35	-3.6	-4.8	-13.7	15.1	0.2	34
Tennessee	-17	-43	-3,821,117	3,254,121	-566,996	20	-2.9	-2.5	-9.7	43.2	-1.2	29
Illinois	-57	-196	-1,458,550	-1,032,848	-2,491,398	4	-4.7	-5.2	-4.2	-7.5	-5.2	21
Indiana	-10	-93	-3,337,911	3,275,868	-62,043	29	-1.1	-3.2	-11.2	20.9	-0.1	31
Alabama	-21	-48	-5,175,112	434,198	-4,740,914	2	-4.5	-3.1	-12.6	5.3	-9.6	15
Utah	-5	-2	2,247,344	2,114,716	4,362,060	52	-3.8	-0.5	6.6	345.6	12.5	46
North Carolina	-10	-55	-1,900,833	-1,369,611	-3,270,444	3	-1.3	-2.6	-5.8	-18.7	-8.2	16
Florida	-8	-47	-1,847,130	2,975,208	1,128,078	44	-1.8	-4.4	-6.5	59.5	3.4	38
Missouri	-19	-43	-356,497	399,481	42,984	34	-3.7	-2.8	-1.6	6.4	0.2	33
Virginia	-8	-61	278,484	394,137	672,621	43	-2.0	-5.1	1.4	5.6	2.5	36
Wisconsin	2	-74	-1,166,504	4,302,241	3,135,737	50	0.3	-3.4	-9.0	42.3	13.5	48
South Carolina	-16	-59	-1,656,364	1,945,665	289,301	38	-3.5	-3.9	-8.0	37.9	1.1	35
Arizona	12	25	5,453,841	970,046	6,423,887	53	7.5	6.8	35.9	30.6	35.0	52
Georgia	-6	-50	604,184	726,013	1,330,197	45	-1.0	-2.9	3.1	19.8	5.7	40
Mississippi	-4	-58	-407,774	-803,785	-1,211,559	11	-1.4	-6.5	-2.0	-34.3	-5.2	20
Montana	0	1	2,046,938	141	2,047,079	48	0.0	0.8	10.6	0.6	10.5	45
California	-58	-201	1,615,276	-3,290,818	-1,675,542	8	-4.9	-6.4	18.3	-25.1	-7.6	18
New York	-32	-114	-2,194,973	748,311	-1,446,662	9	-5.0	-6.4	-15.1	11.0	-6.8	19
Oregon	-5	-30	2,782,915	-162,247	2,620,668	49	-2.2	-5.0	30.6	-2.4	16.6	50
Kentucky	2	9	505,676	-714,365	-208,689	26	0.5	0.7	4.1	-13.6	-1.2	30
New Jersey	-26	-81	818,457	-1,633,940	-815,483	17	-4.8	-4.6	17.7	-12.4	-4.6	22
Arkansas	-3	-27	-423,452	1,912,630	1,489,178	46	-0.9	-2.7	-4.1	140.2	12.7	47
Iowa	-10	-26	-1,884,029	-172,714	-2,056,743	7	-2.8	-2.7	-18.3	-3.6	-13.6	11
West Virginia	-10	-29	-1,220,559	-1,174,674	-2,395,233	5	-7.6	-5.0	-11.0	-27.5	-15.6	9
Washington	-12	-27	-1,085,781	134,469	-951,312	14	-4.6	-3.6	-10.7	8.8	-8.1	17
Kansas	-2	-12	86,063	281,294	367,357	39	-0.8	-1.5	1.3	7.3	3.6	39
Minnesota	-24	-127	-918,146	-231,237	-1,149,383	12	-5.2	-11.2	-12.7	-5.8	-10.3	13
New Mexico	-1	-7	612,222	41,959	654,181	42	-3.1	-5.8	7.4	25.1	7.7	43
Massachusetts	-21	-66	-573,211	187,068	-386,143	22	-4.7	-5.8	-19.1	3.4	-4.5	23
Oklahoma	9	16	-533,915	279,713	-254,202	25	3.6	2.2	-8.3	15.4	-3.1	25
Maryland	-9	-30	-519,961	353,355	-166,606	27	-5.3	-6.1	-11.1	12.1	-2.2	26
Puerto Rico	-2	-23	-512,224	-291,984	-804,208	18	-1.4	-5.8	-14.5	-7.8	-11.0	12
Connecticut	-10	-60	-910,926	-415,849	-1,326,775	10	-3.4	-7.5	-25.7	-10.9	-18.0	6
Idaho	-1	-18	486,657	5,981	492,638	40	-2.0	-12.8	10.2	4.7	10.1	44
Nebraska	-12	-32	-934,195	-17,687	-951,882	13	-8.1	-8.0	-28.7	-0.9	-18.5	5
Maine	-5	-20	-568,567	-267,304	-835,871	16	-6.4	-7.7	-15.4	-27.9	-17.9	7
Wyoming	1	10	-690,411	10,955	-679,456	19	4.2	8.3	-17.2	258.5	-16.9	8
South Dakota	-9	-19	1,339,457	362,869	1,702,326	47	-13.0	-14.3	177.5	137.3	167.1	53
Delaware	1	-6	-420,749	134,012	-286,737	24	1.6	-3.2	-28.6	9.1	-9.7	14
Colorado	-7	-22	176,848	410,174	587,022	41	-4.4	-5.7	13.9	55.6	29.2	51
Nevada	2	2	-30,200	9,795	-20,405	31	5.0	2.4	-2.0	26.6	-1.3	27
Rhode Island	-13	-22	-130,129	-190,134	-320,263	23	-9.4	-6.9	-11.8	-33.4	-19.2	4
New Hampshire	6	18	-91,781	180,419	88,638	36	6.5	7.9	-9.5	77.7	7.4	42
Alaska	0	4	31,444	-2,689	28,755	33	0.0	13.8	3.1	-97.8	2.8	37
Virgin Islands	0	-1	12,121	84,499	96,620	37	0.0	-4.3	2.2	97.5	15.2	49
North Dakota	-2	-4	-207,568	-211,280	-418,848	21	-6.5	-5.8	-31.5	-78.2	-45.0	1
Vermont	-3	-2	-96,891	-17,942	-114,833	28	-8.6	-2.8	-34.0	-12.8	-27.0	2
Hawaii	-2	-4	23,017	-73,724	-50,707	30	-18.2	-9.3	15.7	-95.4	-22.6	3
District of Columbia	0	0	0	0	0	32	0.0	0.0	—	0.0	0.0	32
Total	-571	-2,130	-31,871,014	9,968,009	-21,903,005		-2.9	-3.5	-3.9	3.2	-1.9	

6.4 Chemical Distribution

6.4.1 Chemicals with Largest 1995–1996 Changes

NPRI

NPRI releases of methanol decreased by 9 million kg from 1995 to 1996. Only one other chemical, xylene, was reduced by more than 1 million kg. Increases of more than 1 million kg each were reported for zinc and its compounds and sulfuric acid (Tables 6–8 and 6–9). (Tables presenting NPRI increases and decreases are from the matched data set and so do not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid or any other chemical not reported to TRI. Only aerosol forms of hydrochloric acid and sulfuric acid are reportable to both NPRI and TRI; these are released to air).

The chemical with the largest NPRI reduction in transfers was asbestos, which saw a decrease of 2 million kg from 1995 to 1996. The largest increase in transfers, 3 million kg, was reported for manganese and its compounds. Transfers of no other chemical increased or decreased as much as 1 million kg (Tables 6–10 and 6–11).

From 1995 to 1996, NPRI reporting of total transfers and releases decreased 9 million kg for methanol, 2 million kg for asbestos, and 1 million kg for xylene. Increases amounted to 2 million kg for manganese and its compounds, nearly 2 million kg for nitric acid and nitrate compounds, and 1 million kg each for zinc and its compounds and sulfuric acid (Tables 6–12 and 6–13).

TRI

The leading chemicals for decreases in releases reported to TRI were toluene, xylene, and methanol. TRI facilities reported reductions of 9 million kg in toluene and 6 million kg each in xylene and methanol from 1995 to 1996. The largest TRI increases for 1995 to 1996 were reported for copper, zinc, and manganese and their respective compounds. The increase for copper and its compounds was 6 million kg; for zinc and its compounds, 5 million kg; and for manganese and its compounds, 3 million kg (Tables 6–14, p. 204 and 6–15, p. 204). (Tables presenting TRI increases and decreases are from the matched data set and so do not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid or any chemical not reported to NPRI. Only aerosol forms of hydrochloric acid and sulfuric acid are reportable to NPRI and TRI; these are released to air).

From 1995 to 1996, TRI facilities reported the largest reduction in transfers—5 million kg—for ethylene glycol. For three chemicals, reductions totaled 3 million kg each: xylene, vinyl acetate, and chromium and its compounds. The chemical with the largest increase was zinc and its compounds, an increase of 15 million kg. Transfers of lead and its compounds increased by 5 million kg, and transfers of manganese and its compounds by 4 million kg (Tables 6–16, p. 204 and 6–17, p. 204).

TRI reporting of total releases and transfers decreased 10 million kg for xylene from 1995 to 1996. Reductions of more than 7 million kg were also recorded for toluene, ethylene glycol, and methanol. The largest increase occurred in reporting of zinc and its compounds, an increase of 19 million kg. Releases and transfers increased 7 million kg for manganese and its compounds, and 6 million kg for copper and its compounds (Tables 6–18, p. 205 and 6–19, p. 205).

[Text continues on p. 206.]

Table 6–8		The 10 Chemicals with the Largest Decrease in NPRI Releases	
M	1996		
CAS Number	Chemical	Change 1995–1996	
		kg	%
67-56-1	Methanol	-9,307,659	-31.0
1330-20-7	Xylene (mixed isomers)	-1,795,469	-22.5
—	Copper (and its compounds)	-998,706	-59.3
—	Manganese (and its compounds)	-756,760	-28.7
108-88-3	Toluene	-755,659	-11.8
—	Nickel (and its compounds)	-355,959	-47.3
7782-50-5	Chlorine	-332,970	-26.9
74-87-3	Chloromethane	-322,341	-33.2
115-07-1	Propylene	-253,779	-20.3
71-36-3	n-Butyl alcohol	-169,617	-13.3

Table 6–9		The 10 Chemicals with the Largest Increase in NPRI Releases	
M	1996		
CAS Number	Chemical	Change 1995–1996	
		kg	%
—	Zinc (and its compounds)	1,525,819	37.0
7664-93-9	Sulfuric acid	1,265,294	34.6
—	Nitric acid and nitrate compounds	889,507	45.2
78-93-3	Methyl ethyl ketone	568,658	11.5
50-00-0	Formaldehyde	246,179	21.3
110-82-7	Cyclohexane	154,601	5.5
75-07-0	Acetaldehyde	124,869	41.3
7664-39-3	Hydrogen fluoride	124,265	7.3
100-42-5	Styrene	120,601	16.2
106-42-3	p-Xylene	108,197	240.1

Table 6-10		The 10 Chemicals with the Largest Decrease in NPRI Transfers		
M	1996			
CAS Number	Chemical	Change 1995-1996		
		kg	%	
1332-21-4	Asbestos (friable)	-2,335,032	-71.8	
108-05-4	Vinyl acetate	-586,832	-98.9	
—	Chromium (and its compounds)	-328,645	-12.7	
—	Zinc (and its compounds)	-112,859	-0.9	
95-63-6	1,2,4-Trimethylbenzene	-88,250	-74.9	
7664-38-2	Phosphoric acid	-68,180	-14.6	
106-99-0	1,3-Butadiene	-54,973	-91.5	
71-43-2	Benzene	-54,500	-42.2	
109-86-4	2-Methoxyethanol	-33,900	-100.0	
75-35-4	Vinylidene chloride	-21,000	-100.0	

Table 6-12		The 10 Chemicals with the Largest Decrease in NPRI Total Releases and Transfers		
M	1996			
CAS Number	Chemical	Change 1995-1996		
		kg	%	
67-56-1	Methanol	-9,105,768	-28.3	
1332-21-4	Asbestos (friable)	-2,403,146	-69.1	
1330-20-7	Xylene (mixed isomers)	-1,056,644	-11.4	
—	Copper (and its compounds)	-960,309	-40.1	
108-05-4	Vinyl acetate	-508,601	-60.7	
—	Chromium (and its compounds)	-338,655	-11.0	
7782-50-5	Chlorine	-332,970	-26.9	
108-88-3	Toluene	-329,412	-4.3	
74-87-3	Chloromethane	-322,341	-33.2	
115-07-1	Propylene	-253,779	-20.3	

Table 6-11		The 10 Chemicals with the Largest Increase in NPRI Transfers		
M	1996			
CAS Number	Chemical	Change 1995-1996		
		kg	%	
—	Manganese (and its compounds)	3,253,222	97.5	
1330-20-7	Xylene (mixed isomers)	738,825	57.2	
—	Nitric acid and nitrate compounds	663,633	16.2	
108-95-2	Phenol	429,738	184.4	
108-88-3	Toluene	426,247	32.1	
78-93-3	Methyl ethyl ketone	407,907	96.9	
—	Lead (and its compounds)	236,897	11.7	
67-56-1	Methanol	201,891	9.6	
107-21-1	Ethylene glycol	190,538	57.5	
71-36-3	n-Butyl alcohol	156,941	67.8	

Table 6-13		The 10 Chemicals with the Largest Increase in NPRI Total Releases and Transfers		
M	1996			
CAS Number	Chemical	Change 1995-1996		
		kg	%	
—	Manganese (and its compounds)	2,496,462	41.8	
—	Nitric acid and nitrate compounds	1,553,140	25.6	
—	Zinc (and its compounds)	1,412,960	8.4	
7664-93-9	Sulfuric acid	1,265,294	34.6	
78-93-3	Methyl ethyl ketone	976,565	18.2	
108-95-2	Phenol	467,047	90.4	
50-00-0	Formaldehyde	314,874	22.7	
—	Lead (and its compounds)	284,176	8.4	
110-82-7	Cyclohexane	235,715	8.0	
107-21-1	Ethylene glycol	153,056	17.3	

Table 6-14		The 10 Chemicals with the Largest Decrease in TRI Releases		
M	1996			
CAS Number	Chemical	Change 1995-1996		
		kg	%	
108-88-3	Toluene	-9,148,386	-13.8	
1330-20-7	Xylene (mixed isomers)	-6,447,366	-14.7	
67-56-1	Methanol	-6,051,668	-5.3	
75-15-0	Carbon disulfide	-5,130,072	-13.4	
78-93-3	Methyl ethyl ketone	-4,797,343	-15.2	
107-21-1	Ethylene glycol	-2,340,391	-24.6	
7647-01-0	Hydrochloric acid	-2,292,427	-7.4	
75-05-8	Acetonitrile	-2,271,006	-17.4	
79-01-6	Trichloroethylene	-2,072,768	-17.7	
75-09-2	Dichloromethane	-1,962,225	-7.5	

Table 6-16		The 10 Chemicals with the Largest Decrease in TRI Transfers		
M	1996			
CAS Number	Chemical	Change 1995-1996		
		kg	%	
107-21-1	Ethylene glycol	-5,201,372	-31.4	
1330-20-7	Xylene (mixed isomers)	-3,225,206	-44.3	
108-05-4	Vinyl acetate	-3,201,936	-76.9	
—	Chromium (and its compounds)	-2,934,891	-23.6	
67-56-1	Methanol	-1,355,589	-2.4	
100-42-5	Styrene	-934,091	-24.8	
117-81-7	Di(2-ethylhexyl) phthalate	-577,211	-38.8	
75-07-0	Acetaldehyde	-486,224	-61.9	
127-18-4	Tetrachloroethylene	-476,697	-46.2	
74-85-1	Ethylene	-454,786	-47.3	

Table 6-15		The 10 Chemicals with the Largest Increase in TRI Releases		
M	1996			
CAS Number	Chemical	Change 1995-1996		
		kg	%	
—	Copper (and its compounds)	6,015,852	29.2	
—	Zinc (and its compounds)	4,748,552	10.5	
—	Manganese (and its compounds)	3,268,360	13.4	
—	Chromium (and its compounds)	2,075,539	19.1	
7664-38-2	Phosphoric acid	1,507,556	5.8	
50-00-0	Formaldehyde	833,412	9.5	
7429-90-5	Aluminum (fume or dust)	778,173	44.1	
74-85-1	Ethylene	758,669	4.9	
7664-39-3	Hydrogen fluoride	642,184	12.8	
—	Nickel (and its compounds)	604,102	38.0	

Table 6-17		The 10 Chemicals with the Largest Increase in TRI Transfers		
M	1996			
CAS Number	Chemical	Change 1995-1996		
		kg	%	
—	Zinc (and its compounds)	14,560,061	27.0	
—	Lead (and its compounds)	4,615,718	36.5	
—	Manganese (and its compounds)	4,034,877	22.4	
1344-28-1	Aluminum oxide (fibrous forms)	2,954,629	226.5	
75-09-2	Dichloromethane	1,217,475	23.0	
7429-90-5	Aluminum (fume or dust)	659,265	22.5	
108-88-3	Toluene	607,164	6.0	
—	Antimony (and its compounds)	575,192	30.4	
108-90-7	Chlorobenzene	507,142	61.4	
56-23-5	Carbon tetrachloride	391,546	115.5	

Table 6-18		The 10 Chemicals with the Largest Decrease in TRI Total Releases and Transfers	
M	1996		
CAS Number	Chemical	Change 1995-1996	
		kg	%
1330-20-7	Xylene (mixed isomers)	-9,672,572	-18.9
108-88-3	Toluene	-8,541,222	-11.2
107-21-1	Ethylene glycol	-7,541,763	-28.9
67-56-1	Methanol	-7,407,257	-4.3
75-15-0	Carbon disulfide	-5,187,506	-13.5
78-93-3	Methyl ethyl ketone	-5,138,404	-14.9
108-05-4	Vinyl acetate	-3,543,206	-55.6
7647-01-0	Hydrochloric acid	-2,292,427	-7.4
75-05-8	Acetonitrile	-2,239,379	-14.5
79-01-6	Trichloroethylene	-1,785,179	-14.6

Table 6-19		The 10 Chemicals with the Largest Increase in TRI Total Releases and Transfers	
M	1996		
CAS Number	Chemical	Change 1995-1996	
		kg	%
—	Zinc (and its compounds)	19,308,613	19.5
—	Manganese (and its compounds)	7,303,237	17.2
—	Copper (and its compounds)	6,309,159	19.9
—	Lead (and its compounds)	4,682,427	23.2
1344-28-1	Aluminum oxide (fibrous forms)	2,834,592	173.3
7429-90-5	Aluminum (fume or dust)	1,437,439	30.6
7664-38-2	Phosphoric acid	1,333,672	4.5
—	Antimony (and its compounds)	927,638	36.9
—	Nickel (and its compounds)	856,561	13.2
7782-50-5	Chlorine	798,339	2.6

6.4.2 Carcinogens, 1995–1996

In both NPRI and TRI, releases and transfers of chemicals designated as known or suspected carcinogens by the International Agency for Research on Cancer <<http://www.iarc.fr>> or by the US National Toxicological Program <<http://ntp-server.niehs.nih.gov>> decreased by larger percentages than other chemicals. There were 45 such substances in the matched data set.

In NPRI, releases and transfers of the carcinogens decreased 13 percent, while all releases and transfers declined by 5 percent. In TRI, the reduction for carcinogens was 3 percent, compared to 2 percent for all matched chemicals. Despite the overall reduction, NPRI releases of the designated carcinogens increased somewhat (by 108,569 kg) from 1995 to 1996 (Tables 6–20, p. 208 and 6–21, p. 209).

NPRI facilities reported on 40 of the 45 designated carcinogens in 1995 and/or 1996. Releases and transfers decreased for 21 carcinogens reported to NPRI, including a reduction of 2 million kg in asbestos. The carcinogen with the largest NPRI increase was formaldehyde (314,874 kg). TRI facilities submitted reports for all 45 carcinogens in the matched data set, with reductions in releases and transfers for 29 of them. The largest TRI reduction was 4 million kg for vinyl acetate, and the largest increase was 5 million kg for lead and its compounds.

Facilities with large increases in designated carcinogenic substances may include those newly reporting the substance(s) in 1996 as well as entities that previously reported separately but combined their reporting as one facility in 1996. Facilities with large decreases may include facilities whose use of the substance(s) declined below the reporting threshold for 1996, plant closures, or a company's sale of part of a facility now reporting as two facilities instead of one.

Top NPRI Facilities for Changes in Releases of Carcinogens

The NPRI database contains comments submitted by reporting facilities, which can provide the user of the database with some insight into what underlies the data and the trends exhibited. These comments are the sources of the explanations supplied in this and the following sections of this chapter. It should be noted, however, that some facilities did not submit comments, and some comments do not address changes reported here.

The total reductions from the 50 NPRI facilities with the largest individual reductions in carcinogen releases amounted to nearly 2 million kg from 1995 to 1996. Five of these facilities reported reductions of more than 100,000 kg each (Table 6–22, pp. 210–11).

Abitibi Consolidated, Division Belgo, a paper products facility in Shawinigan, Quebec, that ranked third for decreases of carcinogen releases, attributed its reductions to operation of a secondary treatment system. As noted in *Taking Stock 1995*, many Canadian pulp and paper mills installed such equipment during 1995

The 50 facilities with the largest increases in releases of designated carcinogens reported increases totaling 2 million kg from 1995 to 1996. Four reported increases of more than 100,000 kg each (Table 6–23, pp. 212–13).

Reporting the second-largest increase, Gerdau MRM Steel in Selkirk, Manitoba, attributed its increase to more accurate estimation methods, applying all available information in calculating its on-site releases to land. This facility also combined reporting in 1996 with a neighboring unit, owned by the same parent company, which had previously reported separately. The Metallurgical Complex of Hudson

Bay Mining and Smelting in Flin Flon, Manitoba, ranked third for increased releases of designated carcinogens. The facility upgraded its filtration system in 1994, but the state-of-the-art membrane filter bags in this system decline in efficiency over their three-year life span. Fourth-ranked Domtar Papers' Cornwall Business Unit, in Cornwall, Ontario, tested for volatile organic compounds for the first time in 1996. Benzene is a combustion product of a recovery furnace at the facility.

Top NPRI Facilities for Changes in Releases and Transfers of Carcinogens

The 50 NPRI facilities with the largest decreases in total releases and transfers of carcinogens reported reductions totaling 6 million kg from 1995 to 1996. This included one facility that reported 2 million kg of asbestos in 1995 and filed no report for that substance in 1996. Two other facilities reported reductions of more than 500,000 kg each: AT Plastics in Edmonton, Alberta, previously reported transfers of vinyl acetate to treatment, but in 1996 reported this chemical, used in a fuel blend, under energy recovery. The matched data set for *Taking Stock* analyses does not include energy recovery because such reporting is voluntary in NPRI and mandatory in TRI. Dominion Castings in Hamilton, Ontario, attributed its reduction in transfers to disposal of chromium to increased recycling of scrap metal and sand. Although reductions for the top five facilities involved transfers, for half of the top 50, all or most of the reductions of designated carcinogens were in releases (Table 6–24, pp. 214–15).

The 50 facilities with the largest increases in releases and transfers reported a total increase of 3 million kilograms. The largest single increase, more than 200,000 kg, consisted of lead and its compounds. The facility reporting this increase—Metalex Products in Richmond, British Columbia—had previously stockpiled its solid waste on site, but began transfers of this material in 1996. The amount sent off-site in 1996 included waste generated in previous years. The facility plans to transfer all of its solid waste in the future, eliminating releases associated with its on-site waste storage. Another nine facilities reported increases ranging from 100,000 kg to 200,000 kg. The facility with the second-largest increase, Stelco's Hilton Works in Hamilton, Ontario, attributed its increase in transfers of asbestos to stripping asbestos insulation from obsolete facilities. Stelco noted that transfers of asbestos would remain high while demolition and replacement of old facilities continues. As noted above, Gerdau MRM Steel in Selkirk, Manitoba, which ranked fifth, attributed its increase in transfers of lead to disposal to revised estimation methods. Although increases by these facilities involved transfers, releases accounted for most of the increases by 28 of the top 50 facilities with the largest increases (Table 6–25, pp. 216–17).

The overall reduction in NPRI releases and transfers of carcinogens from 1995 to 1996 can largely be attributed to the 50 facilities that reported the largest such reductions. Their decreases outweighed the effect of their 50 counterparts with the largest increases, while reporting by all other facilities (roughly 1,200) showed essentially no change (Figure 6–5).

As noted in Chapter 5, a group of 50 facilities represents a much larger proportion of the NPRI universe (3.7 percent) than does a group of 50 facilities in TRI (0.3 percent). In both PRTRs, however, the top 50 facilities contribute a greatly disproportionate share of the reporting in any category.

Top TRI Facilities for Changes in Releases of Carcinogens

The 50 TRI facilities with the largest reductions in releases of carcinogens reported total reductions of 7 million kg, including eight facilities with reductions exceeding 200,000 kg each. The 50 facilities with the largest increases had a combined increase of more than 9 million kg. Four TRI facilities had increases of more than 500,000 kg each. Thus, although overall TRI releases of carcinogens declined from 1995 to 1996, the influence of the 50 facilities with the largest reductions was outweighed by the 50 facilities with the largest increases (Tables 6-26, pp. 218-19 and 6-27, pp. 220-21)

Top TRI Facilities for Changes in Releases and Transfers of Carcinogens

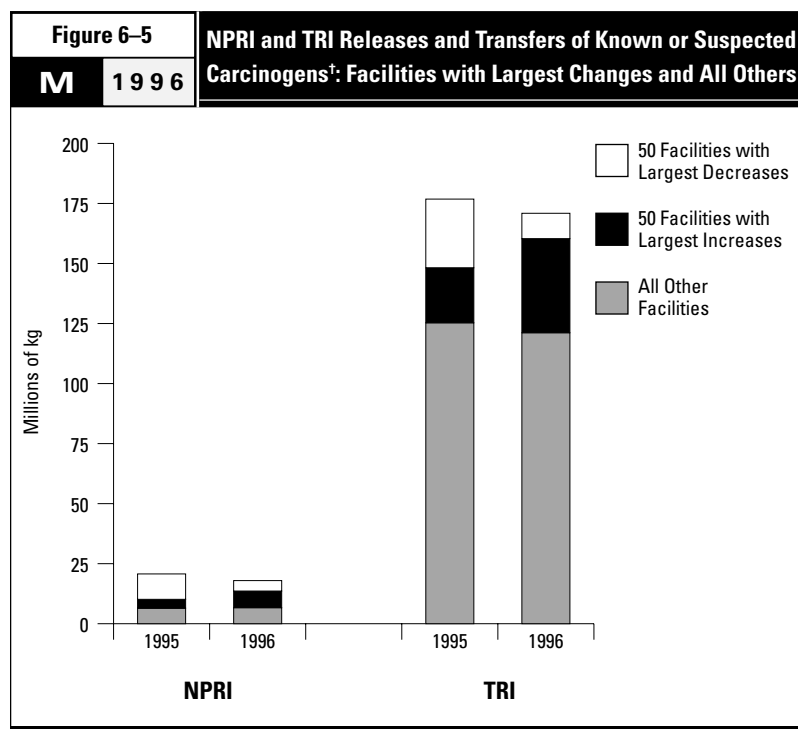
Reductions in releases and transfers of carcinogens by the 50 TRI facilities with the largest such reductions from 1995 to 1996 totaled 18 million kg. One TRI facility reported a reduction of 3 million kg, primarily in vinyl acetate. Thirty-one of the top

50 facilities made the majority of their reductions in transfers, including 11 of the 12 facilities with the largest reductions (more than 300,000 kg each, see Table 6-28, pp. 222-23).

The 50 facilities with the largest increases reported a total increase of 16 million kg. Seven reported increases of more than 500,000 kg each, including one facility's increase of nearly 1 million kg, principally in lead and its compounds. For 30 of the top facilities, the majority of the increase occurred in transfers (Table 6-29, pp. 224-25).

In TRI, as in NPRI, the 50 facilities with the largest reductions had the greatest influence on the overall change in releases and transfers of carcinogens from 1995 to 1996, despite the substantial increases of the facilities with the largest increases. As a group, the remaining TRI facilities (some 19,700) also contributed a small reduction in releases and transfers of these substances (Figure 6-5).

[Text continues on p. 226.]



† Carcinogenic substances are those chemicals or chemical compounds listed in either the International Agency for Research on Cancer (IARC) Monographs or the US National Toxicological Program (NTP) Annual Report on Carcinogens.

➤ A chemical (and its compounds) is included if the chemical or any of its compounds is designated carcinogenic.

Table 6-20		NPRI Releases and Transfers of Known or Suspected Carcinogens [†] (Ordered by Change in Total Releases and Transfers, 1995-1996)									
M	1996	CAS Number	Chemical	Number of Forms		Total Releases and Transfers		Change 1995-1996			
				1995	1996	1995 (kg)	1996 (kg)	Total Releases (kg)	Total Transfers (kg)	Total Releases and Transfers (kg)	%
		1332-21-4	Asbestos (friable)	31	32	3,475,355	1,072,209	-68,114	-2,335,032	-2,403,146	-69.1
		108-05-4	Vinyl acetate	12	10	837,914	329,313	78,231	-586,832	-508,601	-60.7
		—	Chromium (and its compounds)	202	213	3,085,937	2,747,282	-10,010	-328,645	-338,655	-11.0
		—	Nickel (and its compounds)	131	137	1,121,477	897,311	-355,959	131,793	-224,166	-20.0
		106-99-0	1,3-Butadiene	13	10	283,028	129,531	-98,524	-54,973	-153,497	-54.2
		71-43-2	Benzene	45	43	1,938,524	1,871,519	-12,505	-54,500	-67,005	-3.5
		—	Cadmium (and its compounds)	15	11	54,950	21,735	-19,877	-13,338	-33,215	-60.4
		67-66-3	Chloroform	9	11	242,001	212,417	-30,422	838	-29,584	-12.2
		117-81-7	Di(2-ethylhexyl) phthalate	30	30	96,564	70,556	-25,430	-578	-26,008	-26.9
		107-13-1	Acrylonitrile	8	9	50,921	28,251	-5,547	-17,123	-22,670	-44.5
		127-18-4	Tetrachloroethylene	23	25	218,627	198,711	-16,636	-3,280	-19,916	-9.1
		56-23-5	Carbon tetrachloride	5	4	20,859	7,873	-7,280	-5,706	-12,986	-62.3
		79-06-1	Acrylamide	7	6	6,362	1,223	-5,128	-11	-5,139	-80.8
		75-21-8	Ethylene oxide	11	10	26,204	23,094	-3,110	0	-3,110	-11.9
		—	Cobalt (and its compounds)	22	23	38,005	36,503	-3,483	1,981	-1,502	-4.0
		123-91-1	1,4-Dioxane	3	2	7,059	6,054	-1,005	0	-1,005	-14.2
		106-46-7	1,4-Dichlorobenzene	4	4	10,264	9,600	-664	0	-664	-6.5
		140-88-5	Ethyl acrylate	7	7	1,090	440	-810	160	-650	-59.6
		139-13-9	Nitrilotriacetic acid	14	15	2,660	2,205	20	-475	-455	-17.1
		101-77-9	4,4'-Methylenedianiline	1	1	100	0	-100	0	-100	-100.0
		106-89-8	Epichlorohydrin	3	2	133	127	-6	0	-6	-4.5
		62-56-6	Thiourea	1	1	0	0	0	0	0	—
		79-46-9	2-Nitropropane	1	1	125	125	0	0	0	0.0
		302-01-2	Hydrazine	1	2	0	0	0	0	0	—
		91-08-7	Toluene-2,6-diisocyanate	0	1	0	1	0	1	1	—
		101-14-4	4,4'-Methylenebis(2-chloroaniline)	1	1	4	5	1	0	1	25.0
		77-78-1	Dimethyl sulfate	1	1	8	11	3	0	3	37.5
		584-84-9	Toluene-2,4-diisocyanate	2	3	400	502	-298	400	102	25.5
		96-09-3	Styrene oxide	1	4	100	537	437	0	437	437.0
		26471-62-5	Toluenediisocyanate (mixed isomers)	31	29	8,203	8,961	-182	940	758	9.2
		75-56-9	Propylene oxide	5	4	10,469	11,448	979	0	979	9.4
		75-01-4	Vinyl chloride	8	8	18,195	20,409	2,272	-58	2,214	12.2
		107-06-2	1,2-Dichloroethane	4	4	6,219	17,476	11,148	109	11,257	181.0
		75-09-2	Dichloromethane	52	50	2,246,081	2,288,724	19,662	22,981	42,643	1.9
		79-01-6	Trichloroethylene	35	36	811,328	862,685	54,620	-3,263	51,357	6.3
		—	Arsenic (and its compounds)	34	33	74,078	172,813	67,358	31,377	98,735	133.3
		75-07-0	Acetaldehyde	8	15	309,188	434,034	124,869	-23	124,846	40.4
		100-42-5	Styrene	69	73	976,254	1,121,513	120,601	24,658	145,259	14.9
		—	Lead (and its compounds)	132	130	3,364,494	3,648,670	47,279	236,897	284,176	8.4
		50-00-0	Formaldehyde	82	84	1,387,307	1,702,181	246,179	68,695	314,874	22.7
		Subtotal		1,064	1,085	20,730,487	17,956,049	108,569	-2,883,007	-2,774,438	-13.4
		% of Total		25.6	25.2	15.9	14.5				
		Total for All Matched NPRI Chemicals		4,164	4,298	130,420,771	124,129,147	-10,075,306	3,783,682	-6,291,624	-4.8

† Carcinogenic substances are those chemicals or chemical compounds listed in either the International Agency for Research on Cancer (IARC) Monographs or the US National Toxicological Program (NTP) Annual Report on Carcinogens.

➤ A chemical (and its compounds) is included if the chemical or any of its compounds is designated carcinogenic.

Table 6-21

TRI Releases and Transfers of Known or Suspected Carcinogens[†]
(Ordered by Change in Total Releases and Transfers, 1995–1996)

CAS Number	Chemical	Number of Forms		Total Releases and Transfers		Change 1995–1996		Total Releases and Transfers	
		1995	1996	1995 (kg)	1996 (kg)	Total Releases (kg)	Total Transfers (kg)	kg	%
108-05-4	Vinyl acetate	152	178	6,369,275	2,826,069	-341,270	-3,201,936	-3,543,206	-55.6
79-01-6	Trichloroethylene	728	657	12,212,467	10,427,288	-2,072,768	287,587	-1,785,179	-14.6
127-18-4	Tetrachloroethylene	425	381	5,269,758	4,061,914	-731,147	-476,697	-1,207,844	-22.9
75-07-0	Acetaldehyde	232	247	7,215,464	6,313,310	-415,929	-486,225	-902,154	-12.5
—	Chromium (and its compounds)	3,273	3,154	23,290,791	22,431,439	2,075,539	-2,934,891	-859,352	-3.7
107-13-1	Acrylonitrile	104	108	3,543,593	2,721,185	-832,041	9,633	-822,408	-23.2
75-09-2	Dichloromethane	974	888	31,447,498	30,702,748	-1,962,225	1,217,475	-744,750	-2.4
71-43-2	Benzene	450	453	5,261,825	4,650,562	-475,521	-135,742	-611,263	-11.6
117-81-7	Di(2-ethylhexyl) phthalate	307	307	1,738,988	1,153,953	-7,824	-577,211	-585,035	-33.6
100-42-5	Styrene	1,511	1,465	22,578,137	22,000,093	356,047	-934,091	-578,044	-2.6
107-06-2	1,2-Dichloroethane	81	79	1,475,764	952,679	-84,984	-438,101	-523,085	-35.4
67-66-3	Chloroform	160	156	5,765,584	5,427,982	-409,945	72,343	-337,602	-5.9
—	Cadmium (and its compounds)	156	143	1,077,341	803,686	81,263	-354,918	-273,655	-25.4
1332-21-4	Asbestos (friable)	72	72	1,921,711	1,723,020	157,493	-356,182	-198,691	-10.3
75-56-9	Propylene oxide	129	118	587,805	402,066	-118,329	-67,409	-185,739	-31.6
106-99-0	1,3-Butadiene	185	185	1,431,756	1,286,185	-143,695	-1,876	-145,571	-10.2
106-46-7	1,4-Dichlorobenzene	24	25	397,565	340,157	-3,667	-53,741	-57,408	-14.4
75-21-8	Ethylene oxide	153	151	436,598	384,605	-75,901	23,907	-51,993	-11.9
123-91-1	1,4-Dioxane	53	46	507,194	460,008	-42,270	-4,916	-47,186	-9.3
79-06-1	Acrylamide	79	72	2,884,220	2,860,256	-103,666	79,702	-23,964	-0.8
95-80-7	2,4-Diaminotoluene	5	1	13,730	841	487	-13,376	-12,889	-93.9
75-01-4	Vinyl chloride	48	47	508,005	498,066	-11,213	1,275	-9,939	-2.0
96-45-7	Ethylene thiourea	10	10	10,420	3,245	-116	-7,058	-7,175	-68.9
101-77-9	4,4'-Methylenedianiline	25	22	62,366	57,918	7,889	-12,337	-4,448	-7.1
302-01-2	Hydrazine	41	43	19,040	15,625	-1,455	-1,959	-3,415	-17.9
62-56-6	Thiourea	25	24	11,476	9,396	-706	-1,374	-2,080	-18.1
64-67-5	Diethyl sulfate	30	32	5,607	4,106	-1,710	209	-1,501	-26.8
90-94-8	Michler's ketone	1	0	715	0	-715	0	-715	-100.0
77-78-1	Dimethyl sulfate	39	34	2,919	2,631	-288	1	-288	-9.9
96-09-3	Styrene oxide	5	5	6	14	8	0	8	133.3
94-59-7	Safrole	1	2	118	290	113	59	172	145.8
101-14-4	4,4'-Methylenebis(2-chloroaniline)	23	23	4,968	5,698	452	279	730	14.7
584-84-9	Toluene-2,4-diisocyanate	63	60	9,084	10,763	-158	1,836	1,679	18.5
139-13-9	Nitritotriacetic acid	7	8	2,180	8,883	-611	7,314	6,703	307.5
79-46-9	2-Nitropropane	5	4	15,540	22,469	1,275	5,654	6,929	44.6
91-08-7	Toluene-2,6-diisocyanate	39	33	2,095	11,683	4,840	4,749	9,588	457.7
140-88-5	Ethyl acrylate	105	94	141,973	259,851	-9,528	127,406	117,878	83.0
—	Cobalt (and its compounds)	461	480	447,595	582,899	-1,749	137,054	135,304	30.2
26471-62-5	Toluenediisocyanate (mixed isomers)	196	182	130,823	285,425	-1,619	156,221	154,602	118.2
106-89-8	Epichlorohydrin	67	69	623,131	822,329	-6,007	205,206	199,198	32.0
56-23-5	Carbon tetrachloride	69	64	542,422	909,805	-24,163	391,546	367,383	67.7
7440-38-2	Arsenic (and its compounds)	389	392	1,934,985	2,326,067	243,126	147,955	391,082	20.2
50-00-0	Formaldehyde	789	765	10,242,942	10,931,433	833,412	-144,921	688,491	6.7
—	Nickel (and its compounds)	2,717	2,760	6,469,973	7,326,534	604,102	252,457	856,561	13.2
—	Lead (and its compounds)	1,660	1,640	20,201,499	24,883,926	66,708	4,615,718	4,682,427	23.2
	Subtotal	16,068	15,679	176,816,946	170,909,098	-3,448,466	-2,459,375	-5,907,844	-3.3
	% of Total	26.8	27.1	15.7	15.5				
	Total for All Matched TRI Chemicals	60,057	57,927	1,123,604,548	1,101,701,543	-31,871,014	9,968,009	-21,903,005	-1.9

[†] Carcinogenic substances are those chemicals or chemical compounds listed in either the International Agency for Research on Cancer (IARC) Monographs or the US National Toxicological Program (NTP) Annual Report on Carcinogens.

➤ A chemical (and its compounds) is included if the chemical or any of its compounds is designated carcinogenic.

Table 6-22		NPRI Facilities with Largest Decrease in Total Releases of Known or Suspected Carcinogens [†]								
M	1996	Rank	Facility	City, Province	SIC Code		Number of Forms		Total Releases	
					Canada	US	1995	1996	1995 (kg)	1996 (kg)
1	Inco Limited, Copper Cliff Smelter Complex	Copper Cliff, ON	29	33	4	4	498,950	215,858		
2	Bayer Rubber Inc.	Sarnia, ON	37	28	5	5	361,475	162,400		
3	Abitibi-Consolidated Inc., Division Belgo	Shawinigan, QC	27	26	1	1	147,397	3,135		
4	Inco Nickel Refinery, Copper Cliff Nickel Refinery	Copper Cliff, ON	29	33	5	*	126,800	*		
5	Co-Steel Lasco	Whitby, ON	29	33	3	3	334,898	233,261		
6	Maax, Division fibre de verre moderne-usine 4	Tring-Jonction, QC	16	30	1	1	91,820	19,373		
7	Sydney Steel Corporation	Sydney, NS	29	33	3	3	105,200	33,180		
8	Ford Motor Company, Essex Aluminum Plant	Windsor, ON	29	33	5	4	53,000	0		
9	Novopharm Limited	Scarborough, ON	37	28	1	1	418,410	366,565		
10	Lake Erie Steel Company Ltd.	Nanticoke, ON	29	33	3	4	102,969	59,558		
11	Malette Québec Inc., Panneaux Malette OSB	St-Georges-de-Champlain, QC	25	24	1	1	96,380	55,108		
12	St. Anne-Nackawic Pulp Company Ltd.	Nackawic, NB	27	26	3	1	54,270	14,000		
13	DuPont Canada Inc.	Maitland, ON	37	28	5	5	49,240	10,600		
14	Fonderies canadiennes d'acier Ltée	Montréal, QC	31	35	2	2	290,100	251,600		
15	Dow Chemical Canada Inc.	Sarnia, ON	37	28	8	8	248,425	214,262		
16	Bombardier Inc., Division Sea-Doo/Ski-Doo	Valcourt, QC	39	39	1	*	26,033	*		
17	Sammi Atlas Inc., Aciers inoxydables Atlas	Tracy, QC	29	33	3	3	46,270	23,190		
18	Advanced Monobloc Manufacturing	Penetanguishene, ON	30	34	1	1	109,380	87,240		
19	Inco Limited, Manitoba Division	Thompson, MB	29	33	3	3	114,525	92,844		
20	Wyeth-Ayerst, Canada Inc.	St-Laurent, QC	37	28	1	1	43,419	23,017		
21	E.B. Eddy Forest Products Ltd.	Espanola, ON	27	26	2	2	63,345	44,149		
22	Crown Packaging Ltd., Paper Mill Division	Burnaby, BC	27	26	1	*	19,170	*		
23	Delhi Industries Inc.	Delhi, ON	30	34	2	2	17,711	93		
24	Pétromont, société en commandite	Varenes, QC	37	28	3	3	55,080	37,466		
25	Weyerhaeuser Canada Ltd., Edson OSB Mill	Edson, AB	25	24	2	2	131,060	114,740		
26	K G Packaging	Concord, ON	37	28	3	3	32,100	16,334		
27	Cametoid Limited	Whitby, ON	30	34	1	*	14,700	*		
28	Alpha/Owens-Corning (Canada) Inc.	Guelph, ON	37	28	1	1	14,257	0		
29	Owens-Corning Canada Inc.	Candiac, QC	35	32	2	2	37,153	22,993		
30	Techno Caoutchouc Inc.	Rock Forest, QC	15	30	2	*	14,000	*		
31	Long Manufacturing Ltd.	Mississauga, ON	30	34	2	1	13,800	0		
32	Nova Chemicals Ltd., Joffre Petrochemical Plantsite	Red Deer, AB	37	28	3	3	36,384	22,686		
33	Produits American Biltrite Ltée	Sherbrooke, QC	15	30	1	1	17,900	4,300		
34	Valle Foam Industries Inc., Valle 1	Brampton, ON	16	30	2	2	231,506	218,707		
35	Norbord Industries Inc.	La Sarre, QC	25	24	1	1	26,800	14,300		
36	Styrochem International, Ltd.	Baie d'Urfé, QC	37	28	1	1	19,700	8,108		
37	Accufflex Industrial Hose Ltd.	Guelph, ON	16	30	1	1	11,338	0		
38	Mirolin Industries	Toronto, ON	16	30	2	2	116,250	104,980		
39	Novopharm Limited	Markham, ON	37	28	1	1	72,981	61,955		
40	Camoplast Inc., Div. Roski I	Roxton Falls, QC	32	37	1	1	80,000	69,000		
41	Industrial Tires Limited	Mississauga, ON	15	30	1	1	24,400	13,700		
42	Algoma Steel Inc., Main Works	Sault Ste. Marie, ON	29	33	5	4	175,534	165,277		
43	Imperial Oil, Sarnia Chemical Plant	Sarnia, ON	37	28	5	5	76,822	66,737		
44	Norkraft Quévillon Inc.	Lebel-sur-Quévillon, QC	27	26	1	1	28,900	19,360		
45	Canac Kitchens Limited	Thornhill, ON	25	24	4	1	21,522	12,148		
46	Casco Impregnated Papers, Inc.	Cobourg, ON	27	26	1	1	13,483	4,419		
47	Asea Brown Boveri Inc., ABB Coiltech	Smiths Falls, ON	30	34	1	2	17,000	8,000		
48	Mitsubishi Electronics Industries Canada Inc.	Midland, ON	33	36	2	2	21,149	12,423		
49	Bombardier Inc., Division Jet Boat	St-Antoine-de-Tilly, QC	16	30	1	1	90,000	82,000		
50	Ranger Board Ltd.	Blue Ridge, AB	25	24	1	1	24,455	16,508		
Total					115	99	4,837,461	3,005,574		

† Carcinogenic substances are those chemicals or chemical compounds listed in either the International Agency for Research on Cancer (IARC) Monographs or the US National Toxicological Program (NTP) Annual Report on Carcinogens.

* Indicates facility did not report any matched carcinogens that year.

** Chemical accounting for more than 70% of increase in total releases of carcinogens from the facility.

► Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to TRI.

Rank	Change 1995–1996 in Total Releases (kg)	Major Chemicals Reported with Decreases (Primary Media with Decreases)**
1	-283,092	Nickel and compounds (air)
2	-199,075	1,3-Butadiene, Benzene (air)
3	-144,262	Formaldehyde (water)
4	-126,800	Nickel and compounds (air)
5	-101,637	Lead and compounds (land)
6	-72,447	Styrene (air)
7	-72,020	Lead/Cadmium and compounds (land)
8	-53,000	Styrene (air)
9	-51,845	Dichloromethane (air)
10	-43,411	Benzene (air)
11	-41,272	Formaldehyde (air)
12	-40,270	Chloroform (air)
13	-38,640	Asbestos (land)
14	-38,500	Chromium and compounds (land)
15	-34,163	Asbestos (land)
16	-26,033	Dichloromethane (air)
17	-23,080	Chromium/Nickel and compounds (water)
18	-22,140	Tetrachloroethylene (air)
19	-21,681	Nickel and compounds (air)
20	-20,402	Dichloromethane (air)
21	-19,196	Chloroform (air)
22	-19,170	Formaldehyde (water)
23	-17,618	Trichloroethylene (air)
24	-17,614	Benzene (air, water)
25	-16,320	Formaldehyde (air)
26	-15,766	Dichloromethane (air)
27	-14,700	Trichloroethylene (air)
28	-14,257	Styrene (air)
29	-14,160	Formaldehyde (air)
30	-14,000	Di(2-ethylhexyl) phthalate (air)
31	-13,800	Trichloroethylene (air)
32	-13,698	Benzene (air)
33	-13,600	Di(2-ethylhexyl) phthalate (land)
34	-12,799	Dichloromethane (air)
35	-12,500	Formaldehyde (air)
36	-11,592	Styrene (air)
37	-11,338	Di(2-ethylhexyl) phthalate (land)
38	-11,270	Dichloromethane (air)
39	-11,026	Dichloromethane (air)
40	-11,000	Styrene (air)
41	-10,700	Trichloroethylene (air)
42	-10,257	Chromium and compounds (land)
43	-10,085	Benzene (air)
44	-9,540	Chloroform (air)
45	-9,374	Styrene (air)
46	-9,064	Formaldehyde (air)
47	-9,000	Trichloroethylene (air)
48	-8,726	Trichloroethylene (air)
49	-8,000	Styrene (air)
50	-7,947	Formaldehyde (air)
	-1,831,887	

Table 6-23		NPRI Facilities with Largest Increase in Total Releases of Known or Suspected Carcinogens [†]								
M	1996	Rank	Facility	City, Province	SIC Code		Number of Forms		Total Releases	
					Canada	US	1995	1996	1995 (kg)	1996 (kg)
1	René Matériaux Composites Ltée	St-Éphrem-de-Beauce, QC	32	37	*	2	*	144,000		
2	Gerdau MRM Steel Inc.	Selkirk, MB	29	33	1	1	80,000	217,440		
3	Hudson Bay Mining and Smelting Co. Ltd., Metallurgical Complex	Flin Flon, MB	29	33	3	3	41,177	166,644		
4	Domtar Papers, Cornwall Business Unit	Cornwall, ON	27	26	*	1	*	104,411		
5	Abitibi-Consolidated Inc., Division Port-Alfred	La Baie, QC	27	26	1	1	129,500	229,000		
6	Grant Forest Products Corp.	Englehart, ON	25	24	*	1	*	81,800		
7	Uniboard Canada Inc.	Val-d'Or, QC	25	24	*	1	*	64,800		
8	Celanese Canada Inc.	Edmonton, AB	37	28	5	5	507,498	570,772		
9	Stelco Inc., Hilton Works	Hamilton, ON	29	33	6	6	174,590	234,615		
10	Maax, Division fibre de verre moderne-usine 5	Tring-Jonction, QC	16	30	*	1	*	58,119		
11	Sammi Atlas Inc., Atlas Specialty Steels	Welland, ON	29	33	2	2	60,019	114,557		
12	AT Plastics Inc.	Edmonton, AB	37	28	1	1	36,083	85,914		
13	Beauce composites Inc.	Ste-Clotilde-de-Beauce, QC	32	37	*	2	*	43,536		
14	Carpenter Canada Limited	Woodbridge, ON	16	30	2	2	196,585	238,953		
15	Camoplast Inc., Groupe composite récréatif, Roski 3V	Grand-Mère, QC	32	37	1	1	4,500	46,000		
16	Ainsworth Lumber Co. Ltd.	Grande Prairie, AB	25	24	*	1	*	40,688		
17	TM Composites Inc.	Thetford Mines, QC	32	37	*	2	*	40,140		
18	Weyerhaeuser Canada Ltd., Drayton Valley OSB Mill	Drayton Valley, AB	25	24	2	2	101,600	138,930		
19	Shell Canada Products Ltd., Scotford Refinery	Fort Saskatchewan, AB	36	29	1	1	11,688	48,596		
20	Louisiana-Pacific Canada Ltd., Dawson Creek OSB	Dawson Creek, BC	25	24	*	1	*	36,598		
21	Macmillan Bloedel, North Superior Forest Products	Wawa, ON	25	24	*	1	*	35,400		
22	Domfoam International Inc.	St-Léonard, QC	16	30	2	2	195,472	230,802		
23	Blount Canada Ltd.	Guelph, ON	30	34	3	3	40,943	74,616		
24	Fleet Industries Ltd.	Fort Erie, ON	32	37	*	1	*	30,970		
25	Cartons St-Laurent Inc.	Latuque, QC	27	26	*	2	*	30,034		
26	Bonar Inc., Burlington Plastic	Burlington, ON	16	26	*	1	*	29,300		
27	Sidbec-Dosco (Ispat) Inc., aciérie	Contrecoeur, QC	29	33	2	2	202,179	230,540		
28	Avenor Inc.	Thunder Bay, ON	27	26	*	2	*	28,140		
29	Nova Chemicals (Canada) Ltd.	Corunna, ON	36	29	5	3	57,288	84,798		
30	Sidbec-Dosco (Ispat) Inc., Sidbec-Feruni (Ispat)	Contrecoeur, QC	29	33	3	3	115,800	142,420		
31	Weyerhaeuser Canada Ltd., Slave Lake OSB Mill	Slave Lake, AB	25	24	2	2	59,420	85,930		
32	Sandvik Steel Canada	Arnprior, ON	29	33	1	1	223,200	246,420		
33	Avenor Inc.	Gold River, BC	27	26	*	1	*	18,400		
34	Carpenter Canada Ltd.	Calgary, AB	16	30	2	2	76,086	92,783		
35	Inco Limited Central Mills	Copper Cliff, ON	29	33	1	1	14,453	29,851		
36	Camoplast Inc., Groupe composite récréatif, Roski III	Princeville, QC	32	37	1	1	39,000	54,000		
37	Avenor Inc., Dryden Mill	Dryden, ON	27	26	*	1	*	14,800		
38	Chrysler Canada, Ltd., Windsor Assembly Plant	Windsor, ON	32	37	1	3	0	14,200		
39	Domtar Packaging, Red Rock Mill	Red Rock, ON	27	26	*	1	*	14,117		
40	Burns Philp Food Ltd., Fleischmann's Yeast	Calgary, AB	10	20	*	1	*	12,300		
41	Lallemand Inc.	Montréal, QC	10	20	*	1	*	12,000		
42	Circo Craft	Granby, QC	33	36	1	2	77	11,970		
43	Smith & Nephew Inc.	Lachine, QC	37	28	1	1	12,120	23,500		
44	Norbord Industries Inc.	Val-d'Or, QC	25	24	1	1	31,700	43,020		
45	Bristol Aerospace Limited	Winnipeg, MB	39	39	*	1	*	11,100		
46	Woodbridge Foam Corporation, Kipling Plant	Woodbridge, ON	16	30	2	2	48,008	58,809		
47	3M Canada Company (Perth)	Perth, ON	35	32	1	1	29,214	39,268		
48	Lilly Industries, Inc., Guardsman Products Ltd.	Cornwall, ON	37	28	3	2	1,769	11,700		
49	Nova Corporation of Alberta	Montréal, QC	37	28	1	1	5,887	15,736		
50	Imperial Oil, IOL Sarnia Refinery	Sarnia, ON	36	29	5	5	34,130	43,715		
Total							63	88	2,529,986	4,476,152

† Carcinogenic substances are those chemicals or chemical compounds listed in either the International Agency for Research on Cancer (IARC) Monographs or the US National Toxicological Program (NTP) Annual Report on Carcinogens.

* Indicates facility did not report any matched carcinogens that year. ** Chemical accounting for more than 70% of increase in total releases of carcinogens from the facility.

► Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to TRI.

Rank	Change 1995–1996 in Total Releases (kg)	Major Chemicals Reported with Increases (Primary Media with Increases)**
1	144,000	Styrene, Dichloromethane (air)
2	137,440	Lead and compounds (land)
3	125,467	Lead and compounds (air)
4	104,411	Benzene (air)
5	99,500	Formaldehyde (water)
6	81,800	Formaldehyde (air)
7	64,800	Formaldehyde (air)
8	63,274	Vinyl acetate, Acetaldehyde (UIJ)
9	60,025	Benzene (air)
10	58,119	Styrene (air)
11	54,538	Chromium and compounds (land)
12	49,831	Vinyl acetate (air)
13	43,536	Styrene (air)
14	42,368	Dichloromethane (air)
15	41,500	Styrene (air)
16	40,688	Formaldehyde (air)
17	40,140	Styrene (air)
18	37,330	Formaldehyde (air)
19	36,908	Benzene (land)
20	36,598	Formaldehyde (air)
21	35,400	Formaldehyde (air)
22	35,330	Dichloromethane (air)
23	33,673	Trichloroethylene (air)
24	30,970	Trichloroethylene (air)
25	30,034	Chloroform, Acetaldehyde (air)
26	29,300	Trichloroethylene (air)
27	28,361	Lead and compounds (land)
28	28,140	Acetaldehyde, Chloroform (air)
29	27,510	Benzene (air)
30	26,620	Lead and compounds (land)
31	26,510	Formaldehyde (air)
32	23,220	Trichloroethylene (air)
33	18,400	Acetaldehyde (air)
34	16,697	Dichloromethane (air)
35	15,398	Nickel and compounds (water)
36	15,000	Styrene (air)
37	14,800	Acetaldehyde (air)
38	14,200	Formaldehyde (air)
39	14,117	Acetaldehyde (air)
40	12,300	Acetaldehyde (air)
41	12,000	Acetaldehyde (air)
42	11,893	Formaldehyde (air)
43	11,380	Dichloromethane (air)
44	11,320	Formaldehyde (air)
45	11,100	Trichloroethylene (air)
46	10,801	Dichloromethane (air)
47	10,054	Formaldehyde (air)
48	9,931	Styrene (air)
49	9,849	Styrene (air)
50	9,585	Nickel and compounds (air)
	1,946,166	

Table 6-24		NPRI Facilities with Largest Decrease in Total Releases and Transfers of Known or Suspected Carcinogens†							
Rank	Facility	City, Province	SIC Code		Number of Forms		Total Releases and Transfers		
			Canada	US	1995	1996	1995	1996	
							(kg)	(kg)	
1	CXY Chemicals-Nanaimo Plant	Nanaimo, BC	37	28	1	*	1,988,000	*	
2	AT Plastics Inc.	Edmonton, AB	37	28	1	1	624,473	85,914	
3	Dominion Castings Ltd.	Hamilton, ON	29	33	1	2	1,401,905	894,533	
4	Bayer Rubber Inc.	Sarnia, ON	37	28	5	5	639,975	266,900	
5	Co-Steel Lasco	Whitby, ON	29	33	3	3	998,809	630,469	
6	Inco Limited, Copper Cliff Smelter Complex	Copper Cliff, ON	29	33	4	4	498,950	215,858	
7	Abitibi-Consolidated Inc., Division Belgo	Shawinigan, QC	27	26	1	1	147,397	3,135	
8	Western Co-Operative Fertilizers Limited	Calgary, AB	37	28	1	1	154,000	26,800	
9	Inco Nickel Refinery, Copper Cliff Nickel Refinery	Copper Cliff, ON	29	33	5	*	126,800	*	
10	BASF Canada Inc. - Sarnia Site	Sarnia, ON	37	28	2	*	104,740	*	
11	Imperial Oil, IOL Sarnia Refinery	Sarnia, ON	36	29	5	5	157,163	60,788	
12	Magotteaux Inc.	Magog, QC	30	34	2	2	94,980	210	
13	Slater Steels, Hamilton Specialty Bar Division	Hamilton, ON	29	33	3	5	358,037	271,150	
14	M.B. Paper, Alberni Specialties Division	Port Alberni, BC	27	26	1	1	97,200	11,540	
15	Maax, Division fibre de verre moderne-usine 4	Tring-Jonction, QC	16	30	1	1	105,420	21,623	
16	Titan Steel & Wire Co. Ltd.	Surrey, BC	30	33	1	1	88,105	7,810	
17	Sydney Steel Corporation	Sydney, NS	29	33	3	3	105,200	33,180	
18	Consumers Packaging Inc., Consumers Glass (Bramalea)	Brampton, ON	35	32	1	1	72,300	4,000	
19	Cooper Automotive Products, Wagner Div.	Stratford, ON	32	37	1	1	106,287	44,472	
20	A.P. Green Refractories (Canada) Ltd.	Smithville, ON	35	32	2	1	87,732	30,601	
21	Ford Motor Company, Essex Aluminum Plant	Windsor, ON	29	33	5	4	53,265	200	
22	Novopharm Limited	Scarborough, ON	37	28	1	1	418,410	366,565	
23	Cornwall Chemicals Limited	Cornwall, ON	37	28	3	1	51,595	112	
24	QIT-Fer et Titane Inc.	Tracy, QC	29	33	2	*	50,081	*	
25	Monsanto Canada Inc., Produits chimiques	LaSalle, QC	16	30	4	4	128,352	82,056	
26	Lake Erie Steel Company Ltd.	Nanticoke, ON	29	33	3	4	102,969	59,558	
27	Malette Québec Inc., Panneaux Mallette OSB	St-Georges-de-Champlain, QC	25	24	1	1	96,380	55,108	
28	St. Anne-Nackawic Pulp Company Ltd.	Nackawic, NB	27	26	3	1	54,270	14,000	
29	DuPont Canada Inc.	Maitland, ON	37	28	5	5	49,240	10,600	
30	Fonderies canadiennes d'acier Ltée	Montréal, QC	31	35	2	2	290,270	252,000	
31	Nova Chemicals Ltd.	Sarnia, ON	37	28	3	3	106,890	72,300	
32	Imperial Oil, IOL Strathcona Refinery	Edmonton, AB	36	29	4	3	44,940	15,172	
33	Vitafoam Products Canada Ltd., Toronto Facility	Downsview, ON	16	30	2	3	238,355	209,711	
34	Petro-Canada, Mississauga Lubricant Center	Mississauga, ON	36	29	3	2	53,440	27,140	
35	Bombardier Inc., Division Sea-Doo/Ski-Doo	Valcourt, QC	39	39	1	*	26,033	*	
36	Advanced Monobloc Manufacturing	Penetanguishene, ON	30	34	1	1	109,380	87,240	
37	Inco Limited, Manitoba Division	Thompson, MB	29	33	3	3	114,525	92,844	
38	Wyeth-Ayerst, Canada Inc.	St-Laurent, QC	37	28	1	1	44,514	23,217	
39	Accuflex Industrial Hose Ltd.	Guelph, ON	16	30	1	1	22,676	1,541	
40	Delhi Industries Inc.	Delhi, ON	30	34	2	2	20,331	93	
41	AltaSteel Ltd.	Edmonton, AB	29	33	3	3	107,370	87,559	
42	E.B. Eddy Forest Products Ltd.	Espanola, ON	27	26	2	2	63,345	44,149	
43	Crown Packaging Ltd., Paper Mill Division	Burnaby, BC	27	26	1	*	19,170	*	
44	Nova Chemicals Ltd., St. Clair Site	Corunna, ON	37	28	3	2	25,900	7,600	
45	Pétromont, société en commandite	Varennes, QC	37	28	3	3	55,080	37,466	
46	Weyerhaeuser Canada Ltd., Edson OSB Mill	Edson, AB	25	24	2	2	131,060	114,740	
47	GE Lighting Canada, Oakville Lamp Plant	Oakville, ON	33	36	2	2	34,690	18,570	
48	K G Packaging	Concord, ON	37	28	3	3	32,100	16,334	
49	Nova Chemicals Ltd., Joffre Petrochemical Plantsite	Red Deer, AB	37	28	3	3	50,182	34,461	
50	Sherritt International Corporation	Fort Saskatchewan, AB	37	28	3	3	23,313	7,930	
Total					119	103	10,575,599	4,347,249	

† Carcinogenic substances are those chemicals or chemical compounds listed in either the International Agency for Research on Cancer (IARC) Monographs or the US National Toxicological Program (NTP) Annual Report on Carcinogens.

* Indicates facility did not report any matched carcinogens that year. ** Chemical accounting for more than 70% of decrease in total releases and transfers of carcinogens from the facility.

➤ Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to TRI.

Rank	Change 1995–1996			Major Chemicals Reported with Decreases (Primary Media/Transfers with Decreases)**
	Total Releases (kg)	Total Transfers (kg)	Total Releases and Transfers (kg)	
1	0	-1,988,000	-1,988,000	Asbestos (transfers to disposal)
2	49,831	-588,390	-538,559	Vinyl acetate (transfers to treatment)
3	5,364	-512,736	-507,372	Chromium and compounds (transfers to disposal)
4	-199,075	-174,000	-373,075	Benzene (transfers to treatment, air), Asbestos (transfers to disposal)
5	-101,637	-266,703	-368,340	Lead and compounds (transfers to disposal, land)
6	-283,092	0	-283,092	Nickel and compounds (air)
7	-144,262	0	-144,262	Formaldehyde (water)
8	0	-127,200	-127,200	Asbestos (transfers to disposal)
9	-126,800	0	-126,800	Nickel and compounds (air)
10	-140	-104,600	-104,740	1,3-Butadiene, Styrene (transfers to treatment)
11	9,585	-105,960	-96,375	Asbestos (transfers to disposal)
12	0	-94,770	-94,770	Chromium and compounds (transfers to disposal)
13	610	-87,497	-86,887	Lead and compounds (transfers to treatment)
14	0	-85,660	-85,660	Asbestos (transfers to disposal)
15	-72,447	-11,350	-83,797	Styrene (air)
16	0	-80,295	-80,295	Lead and compounds (transfers to disposal)
17	-72,020	0	-72,020	Lead/Cadmium and compounds (land)
18	0	-68,300	-68,300	Chromium and compounds (transfers to treatment)
19	-261	-61,554	-61,815	Asbestos (transfers to disposal)
20	0	-57,131	-57,131	Chromium and compounds (transfers to disposal)
21	-53,000	-65	-53,065	Styrene (air)
22	-51,845	0	-51,845	Dichloromethane (air)
23	-7,791	-43,692	-51,483	Asbestos (transfers to disposal)
24	-1,831	-48,250	-50,081	Lead/Chromium and compounds (transfers to disposal)
25	-1,241	-45,055	-46,296	Acrylonitrile, Styrene (transfers to treatment)
26	-43,411	0	-43,411	Benzene (air)
27	-41,272	0	-41,272	Formaldehyde (air)
28	-40,270	0	-40,270	Chloroform (air)
29	-38,640	0	-38,640	Asbestos (land)
30	-38,500	230	-38,270	Chromium and compounds (land)
31	5,710	-40,300	-34,590	Asbestos (transfers to disposal)
32	-432	-29,336	-29,768	Asbestos (transfers to disposal)
33	-3,044	-25,600	-28,644	Dichloromethane (transfers to treatment)
34	-300	-26,000	-26,300	Asbestos (transfers to disposal)
35	-26,033	0	-26,033	Dichloromethane (air)
36	-22,140	0	-22,140	Tetrachloroethylene (air)
37	-21,681	0	-21,681	Nickel and compounds (air)
38	-20,402	-895	-21,297	Dichloromethane (air)
39	-11,338	-9,797	-21,135	Di(2-ethylhexyl) phthalate (land, transfers to disposal)
40	-17,618	-2,620	-20,238	Trichloroethylene (air)
41	-3,046	-16,765	-19,811	Lead/Chromium and compounds (transfers to disposal)
42	-19,196	0	-19,196	Chloroform (air)
43	-19,170	0	-19,170	Formaldehyde (water)
44	-800	-17,500	-18,300	Asbestos (transfers to disposal)
45	-17,614	0	-17,614	Benzene (air, water)
46	-16,320	0	-16,320	Formaldehyde (air)
47	0	-16,120	-16,120	Lead and compounds (transfers to disposal)
48	-15,766	0	-15,766	Dichloromethane (air)
49	-13,698	-2,023	-15,721	Benzene (air)
50	-5,353	-10,030	-15,383	Nickel and compounds (transfers to disposal, land)
	-1,480,386	-4,747,964	-6,228,350	

Table 6-25		NPRI Facilities with Largest Increase in Total Releases and Transfers of Known or Suspected Carcinogens [†]						
Rank	Facility	City, Province	SIC Code		Number of Forms		Total Releases and Transfers	
			Canada	US	1995	1996	1995 (kg)	1996 (kg)
1	Metalex Products Ltd.	Richmond, BC	29	33	2	2	6,310	224,158
2	Stelco Inc., Hilton Works	Hamilton, ON	29	33	6	6	319,970	472,955
3	Tonolli Canada Limited	Mississauga, ON	29	33	1	1	229,337	378,807
4	René Matériaux Composites Ltée	St-Éphrem-de-Beauce, QC	32	37	*	2	*	144,000
5	Gerdau MRM Steel Inc.	Selkirk, MB	29	33	1	1	80,000	217,440
6	Sammi Atlas Inc., Atlas Specialty Steels	Welland, ON	29	33	2	2	179,319	307,057
7	Hudson Bay Mining and Smelting Co. Ltd., Metallurgical Complex	Flin Flon, MB	29	33	3	3	41,177	166,644
8	National-Standard Co. of Canada Ltd., Guelph Plant (70)	Guelph, ON	30	33	1	1	405	110,000
9	PPG Canada Inc., Works 84	Owen Sound, ON	35	32	*	1	*	105,000
10	Domtar Papers, Cornwall Business Unit	Cornwall, ON	27	26	*	1	*	104,411
11	Abitibi-Consolidated Inc., Division Port-Alfred	La Baie, QC	27	26	1	1	129,500	229,000
12	Sammi Atlas Inc., Aciers inoxydables Atlas	Tracy, QC	29	33	3	3	279,360	378,460
13	Petro-Canada, Burrard Products Terminal	Port Moody, BC	36	29	1	2	1,200	91,166
14	Les Forges de Sorel Inc.	St-Joseph-de-Sorel, QC	30	34	2	2	49,963	135,264
15	Grant Forest Products Corp.	Englehart, ON	25	24	*	1	*	81,800
16	Celanese Canada Inc.	Edmonton, AB	37	28	5	5	542,539	618,833
17	Stelco McMaster Ltée	Contrecoeur, QC	29	33	2	2	123,350	195,470
18	Gerdau Courtice Steel Inc., Courtice Steel Inc.	Cambridge, ON	29	33	2	2	58,081	127,599
19	Uniboard Canada Inc., Unires	Val-d'Or, QC	37	28	1	1	38,832	105,632
20	Maax, Division fibre de verre moderne-usine 5	Tring-Jonction, QC	16	30	*	1	*	64,869
21	Uniboard Canada Inc.	Val-d'Or, QC	25	24	*	1	*	64,800
22	Beauce composites Inc.	Ste-Clotilde-de-Beauce, QC	32	37	*	2	*	43,536
23	Agrium Products Inc.	Redwater, AB	37	28	1	3	1,140	44,390
24	Dominion Colour Corporation	Ajax, ON	37	28	2	2	185,000	228,000
25	Carpenter Canada Limited	Woodbridge, ON	16	30	2	2	196,585	238,953
26	Camoplast Inc., Groupe composite récréatif, Roski IV	Grand-Mère, QC	32	37	1	1	4,500	46,000
27	Ainsworth Lumber Co. Ltd.	Grande Prairie, AB	25	24	*	1	*	40,688
28	TM Composites Inc.	Thetford Mines, QC	32	37	*	2	*	40,140
29	Cobalt Refinery Company	Fort Saskatchewan, AB	29	33	*	2	*	38,400
30	Weyerhaeuser Canada Ltd., Drayton Valley OSB Mill	Drayton Valley, AB	25	24	2	2	101,600	138,930
31	Shell Canada Products Ltd., Scotford Refinery	Fort Saskatchewan, AB	36	29	1	1	11,688	48,599
32	Budd Plastics, Limited	Cobourg, ON	16	30	1	1	7,354	44,162
33	Louisiana-Pacific Canada Ltd., Dawson Creek OSB	Dawson Creek, BC	25	24	*	1	*	36,598
34	Mitsubishi Electronics Industries Canada Inc.	Midland, ON	33	36	2	2	82,783	119,080
35	Macmillan Bloedel, North Superior Forest Products	Wawa, ON	25	24	*	1	*	35,400
36	Domfoam International Inc.	St-Léonard, QC	16	30	2	2	195,472	230,802
37	Blount Canada Ltd.	Guelph, ON	30	34	3	3	44,003	78,498
38	Fleet Industries Ltd.	Fort Erie, ON	32	37	*	1	*	30,970
39	Cartons St-Laurent Inc.	Latuque, QC	27	26	*	2	*	30,041
40	Bonar Inc., Burlington Plastic	Burlington, ON	16	26	*	1	*	29,300
41	Armchem Inc.	Drummondville, QC	37	28	1	1	300	29,300
42	Dow Chemical Canada Inc.	Sarnia, ON	37	28	8	8	258,292	286,678
43	Sidbec-Dosco (Ispat) Inc., aciérie	Contrecoeur, QC	29	33	2	2	202,179	230,540
44	Fraser Papers Inc. (Canada)	Edmundston, NB	27	26	4	4	80,020	108,350
45	Avenor Inc.	Thunder Bay, ON	27	26	*	2	*	28,140
46	Nova Chemicals (Canada) Ltd.	Corunna, ON	36	29	5	3	57,708	84,799
47	Sidbec-Dosco (Ispat) Inc., Sidbec-Feruni (Ispat)	Contrecoeur, QC	29	33	3	3	115,800	142,420
48	Weyerhaeuser Canada Ltd., Slave Lake OSB Mill	Slave Lake, AB	25	24	2	2	59,420	85,930
49	Petro-Canada, Edmonton Refinery	Edmonton, AB	36	29	1	2	25,900	52,350
50	EKA Chimie Canada Inc.	Magog, QC	37	28	*	1	*	26,110
Total					76	101	3,709,087	6,940,469

† Carcinogenic substances are those chemicals or chemical compounds listed in either the International Agency for Research on Cancer (IARC) Monographs or the US National Toxicological Program (NTP) Annual Report on Carcinogens.

* Indicates facility did not report any matched carcinogens that year. ** Chemical accounting for more than 70% of increase in total releases and transfers of carcinogens from the facility.

➤ Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to TRI.

Rank	Change 1995–1996			Major Chemicals Reported with Increases (Primary Media/Transfers with increases)**
	Total Releases (kg)	Total Transfers (kg)	Total Releases and Transfers (kg)	
1	4,178	213,670	217,848	Lead and compounds (transfers to disposal)
2	60,025	92,960	152,985	Asbestos (transfers to disposal), Benzene (air)
3	0	149,470	149,470	Lead and compounds (transfers to disposal)
4	144,000	0	144,000	Styrene, Dichloromethane (air)
5	137,440	0	137,440	Lead and compounds (land)
6	54,538	73,200	127,738	Chromium and compounds (transfers to disposal, land)
7	125,467	0	125,467	Lead and compounds (air)
8	0	109,595	109,595	Lead and compounds (transfers to disposal)
9	0	105,000	105,000	Chromium and compounds (transfers to disposal)
10	104,411	0	104,411	Benzene (air)
11	99,500	0	99,500	Formaldehyde (water)
12	-23,080	122,180	99,100	Chromium and compounds (transfers to treatment)
13	-34	90,000	89,966	Asbestos (transfers to disposal)
14	41	85,260	85,301	Chromium and compounds (transfers to treatment)
15	81,800	0	81,800	Formaldehyde (air)
16	63,274	13,020	76,294	Vinyl acetate, Acetaldehyde, Formaldehyde (U,I)
17	320	71,800	72,120	Lead and compounds (transfers to treatment)
18	-22	69,540	69,518	Lead and compounds (transfers to disposal)
19	40	66,760	66,800	Formaldehyde (transfers to treatment)
20	58,119	6,750	64,869	Styrene (air)
21	64,800	0	64,800	Formaldehyde (air)
22	43,536	0	43,536	Styrene (air)
23	8,440	34,810	43,250	Asbestos (transfers to disposal)
24	0	43,000	43,000	Lead and compounds (transfers to disposal)
25	42,368	0	42,368	Dichloromethane (air)
26	41,500	0	41,500	Styrene (air)
27	40,688	0	40,688	Formaldehyde (air)
28	40,140	0	40,140	Styrene (air)
29	7,390	31,010	38,400	Nickel and compounds (transfers to disposal)
30	37,330	0	37,330	Formaldehyde (air)
31	36,908	3	36,911	Benzene (land)
32	3,747	33,061	36,808	Styrene (transfers to disposal)
33	36,598	0	36,598	Formaldehyde (air)
34	-8,726	45,023	36,297	Lead and compounds (transfers to disposal)
35	35,400	0	35,400	Formaldehyde (air)
36	35,330	0	35,330	Dichloromethane (air)
37	33,673	822	34,495	Trichloroethylene (air)
38	30,970	0	30,970	Trichloroethylene (air)
39	30,034	7	30,041	Chloroform, Acetaldehyde (air)
40	29,300	0	29,300	Trichloroethylene (air)
41	0	29,000	29,000	Styrene (transfers to treatment)
42	-34,163	62,549	28,386	Benzene (transfers to treatment)
43	28,361	0	28,361	Lead and compounds (land)
44	600	27,730	28,330	Asbestos (transfers to disposal)
45	28,140	0	28,140	Acetaldehyde, Chloroform (air)
46	27,510	-419	27,091	Benzene (air)
47	26,620	0	26,620	Lead and compounds (land)
48	26,510	0	26,510	Formaldehyde (air)
49	-7,250	33,700	26,450	Asbestos (transfers to disposal)
50	0	26,110	26,110	Chromium and compounds (transfers to disposal)
	1,595,771	1,635,611	3,231,382	

Table 6-26		TRI Facilities with Largest Decrease in Total Releases of Known or Suspected Carcinogens [†]							
M	1996	Rank	Facility	City, State	US SIC Code	Number of Forms		Total Releases	
						1995	1996	1995 (kg)	1996 (kg)
		1	BP Chemicals Inc.,	Lima, OH	28	10	10	1,821,316	1,195,459
		2	Pharmacia & Upjohn Co.	Portage, MI	28	5	4	430,090	114,818
		3	ASARCO Inc., Ray Complex/Hayden Smelter	Hayden, AZ	33	4	4	1,311,318	1,024,558
		4	Heatcraft Inc., Lennox International Inc.	Grenada, MS	Mult.	1	1	447,951	164,902
		5	Hoechst-Celanese Chemical, Hoechst Corp., Clear Lake Plant	Pasadena, TX	28	6	6	404,830	128,816
		6	Piper Impact Inc.	New Albany, MS	34	2	2	358,617	127,778
		7	Gaska Tape Inc.	Elkhart, IN	30	2	2	252,550	33,149
		8	Eastman Kodak Co., Kodak Park	Rochester, NY	38	10	9	1,352,547	1,142,343
		9	DuPont	Beaumont, TX	28	8	3	240,399	67,989
		10	Hoechst-Celanese Chemical Group Ltd., Hoechst Corp.	Bay City, TX	28	5	3	191,242	35,597
		11	BP Chemicals Inc. Green Lake, BP America Inc.	Port Lavaca, TX	28	5	5	1,398,051	1,243,882
		12	Alcoa	Riverdale, IA	33	2	*	152,572	*
		13	Foamex L.P., Foamex Intl., Inc.	La Porte, IN	30	2	2	196,516	45,972
		14	Willamette Ind. Inc.	Bennettsville, SC	24	1	*	148,190	*
		15	Texas Fibers, Leggett & Platt Inc.	Brenham, TX	30	2	2	208,390	61,429
		16	Monsanto Co., Chocolate Bayou	Alvin, TX	28	4	3	801,396	657,431
		17	Pemco Aeroplex Inc., Precision Standard Inc.	Birmingham, AL	37	3	3	261,660	121,714
		18	Hoechst-Celanese Corp., Hoechst Corp.	Spartanburg, SC	Mult.	5	5	177,338	38,575
		19	Vitafoam Inc., Vita Inc.	High Point, NC	30	3	3	338,776	201,394
		20	Upjohn Mfg. Co., Pharmacia & Upjohn Inc.	Arecibo, PR	28	2	2	590,522	455,124
		21	Weyerhaeuser Co.	Longview, WA	Mult.	6	6	537,294	402,498
		22	Ford Motor Co., Sheldon Rd. Plant	Plymouth, MI	37	1	1	137,596	3,583
		23	Louisiana Pigment Co. L.P., Kronos Louisiana Inc.	Westlake, LA	28	1	*	131,805	*
		24	GE Plastics Co., General Electric Co.	Mount Vernon, IN	28	4	6	698,119	569,405
		25	Trinity American Corp.	High Point, NC	30	2	1	276,214	160,100
		26	Uniroyal Chemical Co. Inc., Crompton & Knowles Corp.	Painesville, OH	28	4	3	130,381	21,032
		27	James River Corp.	Camas, WA	Mult.	4	4	260,552	152,519
		28	DuPont Cape Fear	Leland, NC	28	4	4	255,215	148,634
		29	Pro-Line Boats Inc., American Marine Holdings	Homosassa, FL	37	2	1	176,616	73,197
		30	Augusta Fiberglass Coatings Inc.	Blackville, SC	30	3	*	101,226	*
		31	Hexcel Corp.	Salt Lake City, UT	28	2	1	134,516	35,311
		32	Ranger Boats/Wood Mfg. Co., Genmar Holdings Inc.	Flippin, AR	37	1	1	135,792	36,914
		33	Doe Run Co., Herculaneum Smelter, Renco Group Inc.	Herculaneum, MO	33	6	6	785,764	689,213
		34	Tippecanoe Labs., Eli Lilly & Co.	Shadeland, IN	28	3	3	180,159	85,490
		35	Crest Foam, Leggett & Platt Inc.	Newburyport, MA	30	2	2	138,165	45,125
		36	Great Lakes Chemical Corp., Central Plant	El Dorado, AR	28	2	2	391,977	299,060
		37	Zenith Electronics Corp., Rauland Div.	Melrose Park, IL	36	2	3	94,153	1,967
		38	Tokico USA Inc.	Berea, KY	37	2	2	167,659	75,799
		39	Monsanto Co.	Decatur, AL	28	7	7	137,224	46,109
		40	Mastercraft Boat Co., Meridian Sports Inc.	Vonore, TN	37	1	1	138,533	49,962
		41	Huntsman Petrochemical Corp., Huntsman Corp.	Port Arthur, TX	28	5	4	295,193	214,753
		42	Wheeling-Pittsburgh Steel Corp, Steubenville East Plant	Follansbee, WV	33	1	1	98,005	17,964
		43	G. W. Composites Inc.	O'fallon, MO	30	2	2	122,449	42,514
		44	Georgia-Pacific Resins Inc., Georgia-Pacific Corp.	White City, OR	28	1	*	78,902	*
		45	James River Corp., James River Corp. of VA	Pennington, AL	26	3	2	114,944	37,999
		46	Arvin N.A. Automotive, Arvin Industries Inc.	Dexter, MO	37	2	1	85,205	8,300
		47	Foamex L.P.	Elkhart, IN	30	2	2	294,336	220,531
		48	Harrison Steel Castings Co.	Attica, IN	33	2	2	73,247	569
		49	Wheatland Tube Co., John Maneely Co.	Chicago, IL	33	2	1	104,583	32,508
		50	Sunbird Boat Co., Outboard Marine Corp.	Columbia, SC	37	1	*	70,612	*
		Total				162	138	17,430,707	10,331,986

† Carcinogenic substances are those chemicals or chemical compounds listed in either the International Agency for Research on Cancer (IARC) Monographs or the US National Toxicological Program (NTP) Annual Report on Carcinogens.

* Indicates facility did not report any matched carcinogens that year.

** Chemical accounting for more than 70% of decrease in total releases of carcinogens from the facility.

➤ Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to NPRI.

➤ U/IJ=underground injection

Rank	Change 1995–1996 in Total Releases (kg)	Major Chemicals Reported with Decreases (Primary Media with Decreases)**
1	-625,857	Acrylonitrile (UIJ)
2	-315,272	Dichloromethane (air)
3	-286,760	Lead and compounds (land)
4	-283,049	Trichloroethylene (air)
5	-276,014	Vinyl acetate (UIJ)
6	-230,839	Tetrachloroethylene (air)
7	-219,401	Dichloromethane, Tetrachloroethylene (air)
8	-210,204	Acetaldehyde, Dichloromethane (air)
9	-172,410	Acrylonitrile (UIJ), Carbon tetrachloride (air)
10	-155,645	Vinyl acetate, Acetaldehyde (air, UIJ)
11	-154,169	Acrylamide (UIJ)
12	-152,572	Tetrachloroethylene (air)
13	-150,544	Dichloromethane (air)
14	-148,190	Formaldehyde (air)
15	-146,961	Dichloromethane (air)
16	-143,965	Dichloromethane (UIJ)
17	-139,946	Dichloromethane (air)
18	-138,763	Acetaldehyde (air)
19	-137,382	Dichloromethane (air)
20	-135,398	Dichloromethane (air)
21	-134,796	Acetaldehyde (air)
22	-134,013	Trichloroethylene (air)
23	-131,805	Chromium and compounds (land)
24	-128,714	Dichloromethane (air)
25	-116,114	Dichloromethane (air)
26	-109,349	1,3-Butadiene, Acrylonitrile (air)
27	-108,033	Chloroform (air)
28	-106,581	Acetaldehyde, Cobalt and compounds (land)
29	-103,419	Styrene (air)
30	-101,226	Styrene (air)
31	-99,205	Dichloromethane (air)
32	-98,878	Styrene (air)
33	-96,551	Lead and compounds (land)
34	-94,669	Dichloromethane (air)
35	-93,040	Dichloromethane (air)
36	-92,917	Dichloromethane (UIJ)
37	-92,186	Trichloroethylene (air)
38	-91,860	Trichloroethylene (air)
39	-91,115	Acrylonitrile, Vinyl acetate (air)
40	-88,571	Styrene (air)
41	-80,440	Benzene (air)
42	-80,041	Benzene (air)
43	-79,935	Styrene, Dichloromethane (air)
44	-78,902	Formaldehyde (air)
45	-76,945	Chloroform, Acetaldehyde (air)
46	-76,905	Chromium and compounds (air)
47	-73,805	Dichloromethane (air)
48	-72,678	Chromium/Nickel and compounds (land)
49	-72,075	Dichloromethane (air)
50	-70,612	Styrene (air)
	-7,098,721	

Table 6-27		TRI Facilities with Largest Increase in Total Releases of Known or Suspected Carcinogens [†]						
Rank	Facility	City, State	US SIC Code	Number of Forms		Total Releases		
				1995	1996	1995 (kg)	1996 (kg)	
1	American Chrome & Chemicals, Harrisons & Crossfield	Corpus Christi, TX	28	1	1	4,265,578	5,126,900	
2	Occidental Chemical Corp., Occidental Petroleum Corp.	Castle Hayne, NC	28	1	1	3,313,375	4,084,756	
3	Monsanto Co.	Luling, LA	28	2	2	1,823,991	2,549,116	
4	Cyprus Miami Mining, Cyprus Amax Minerals Co.	Claypool, AZ	33	3	7	617,863	1,307,440	
5	ASARCO Inc., Glover Plant	Annapolis, MO	33	4	4	960,950	1,445,775	
6	Aquaglass Corp., Masco Corp.	Adamsville, TN	30	1	1	665,652	1,046,796	
7	Glenbrook Nickel Co., Cominco American Inc.	Riddle, OR	33	1	1	547,714	922,592	
8	Foamex L.P., Div. of Kihi	Corry, PA	30	2	2	448,334	756,419	
9	Burkart Foam Inc., Ohio Decorative Prods. Inc.	Cairo, IL	30	2	2	684	278,642	
10	Metal Impact Corp.	Rosemont, IL	34	1	1	21,202	288,203	
11	Caparo Steel, Caparo Inc.	Farrell, PA	33	2	2	757	255,151	
12	Angus Chemical Co.	Sterlington, LA	28	4	4	1,148,752	1,377,170	
13	Universal- Rundle Corp., Nortek Inc.	Union Point, GA	30	1	1	2	226,604	
14	Eastman Chocolate Bayou, Eastman Chemical Co.	Alvin, TX	28	*	1	*	194,105	
15	General Electric Co.	Burkville, AL	28	2	2	197,084	358,730	
16	Pioga LLC, Pioneer International Inc.	Nashville, GA	37	*	1	*	156,546	
17	Olympic Products Co., Cone Mills Corp.	Tupelo, MS	30	2	3	205,427	352,260	
18	American Steel Foundries, Amsted Industries Inc.	Granite City, IL	33	2	2	151,141	296,726	
19	Albemarle Corp.	Orangeburg, SC	28	2	2	103,143	246,980	
20	Future Foam Inc.	Middleton, WI	30	1	2	227	130,358	
21	Boeing Co.	Wichita, KS	Mult.	9	6	230,411	350,371	
22	Senior Flexonics Inc., Senior Eng.	Bartlett, IL	34	3	3	131,612	251,247	
23	Tomkins Ind. Inc., Lasco Bathware Div.	Cordele, GA	30	1	1	192,302	309,375	
24	Universal-Rundle Corp., Bathing Systems Div., Nortek Inc.	Ottumwa, IA	30	*	1	*	114,131	
25	Dow Chemical Co., Louisiana Div.	Plaquemine, LA	Mult.	18	20	138,668	248,456	
26	Aqua Glass West Inc., Masco Corp.	Klamath Falls, OR	30	1	1	286,351	395,696	
27	Nu-Foam Products, Ohio Decorative Products Inc.	Chattanooga, TN	30	2	2	311,641	420,896	
28	Carpenter Co., Tupelo Div.	Verona, MS	30	2	2	580,417	689,398	
29	Rinker Boat Co. Inc.	Syracuse, IN	37	1	2	18,832	123,615	
30	Elkem Metals Co.	Marietta, OH	33	4	4	363,332	462,141	
31	Cleveland Laminating Corp.	Cleveland, OH	26	1	1	208,617	292,063	
32	Cambridge Ind. Inc.	Marion, IN	30	*	2	*	83,358	
33	Tomkins Ind. Inc., Lasco Bathware Div.	Three Rivers, MI	30	1	1	280,017	362,997	
34	Ford Motor Co., Cleveland Casting	Brook Park, OH	33	3	5	6,753	87,560	
35	Brush Wellman Inc.	Elmore, OH	33	2	2	87,845	165,520	
36	DuPont Circleville Plant	Circleville, OH	28	*	3	*	77,419	
37	Tomkins Ind. Inc., Lasco Bathware Div.	Moapa, NV	30	1	1	105,075	182,280	
38	Trinity Marine Baton Rouge, Trinity Ind. Inc.	Baton Rouge, LA	37	5	6	3,957	79,844	
39	Prestige Fabricators Inc.	Asheboro, NC	30	2	2	136,366	204,770	
40	Austeel Lemont Co. Inc.	Lemont, IL	33	2	3	2,797	68,793	
41	Abbott Chemicals Inc.	Barceloneta, PR	Mult.	1	1	520,117	585,261	
42	Weyerhaeuser Co.	Valliant, OK	26	*	2	*	64,185	
43	Aqua Glass Performance Plant, Masco Corp.	Mc Ewen, TN	30	1	1	206,396	269,465	
44	Crain Ind. Inc.	Easton, PA	30	2	2	186,731	249,156	
45	Tomkins Ind. Inc., Lasco Bathware Div.	South Boston, VA	30	1	1	102,656	164,340	
46	Foamex International Inc.	Milan, TN	30	2	1	396,587	457,282	
47	Dana Corp., Sealed Power Div., SPX Corp.	Saint Johns, MI	35	1	2	64,543	122,780	
48	Bayer-Muscatine IA, Bayer Corp.	Muscatine, IA	28	*	3	*	57,652	
49	DuPont Dow Elastomers, DuPont Dow Elastomers LLC	Beaumont, TX	28	*	3	*	57,398	
50	Keystone Steel & Wire Co., Keystone Consolidated Industries	Peoria, IL	33	1	1	20,680	77,289	
Total				101	127	19,054,579	28,476,007	

† Carcinogenic substances are those chemicals or chemical compounds listed in either the International Agency for Research on Cancer (IARC) Monographs or the US National Toxicological Program (NTP) Annual Report on Carcinogens.

* Indicates facility did not report any matched carcinogens that year.

** Chemical accounting for more than 70% of increase in total releases of carcinogens from the facility.

➤ Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to NPRI.

➤ U/IJ=underground injection

Rank	Change 1995–1996 in Total Releases (kg)	Major Chemicals Reported with Increases (Primary Media with Increases)**
1	861,322	Chromium and compounds (land)
2	771,381	Chromium and compounds (land)
3	725,125	Formaldehyde (U,I)
4	689,577	Chromium/Nickel/Lead and compounds (land)
5	484,825	Lead and compounds (land)
6	381,144	Styrene (air)
7	374,878	Nickel and compounds (land)
8	308,085	Dichloromethane (air)
9	277,958	Dichloromethane (air)
10	267,001	Tetrachloroethylene (air)
11	254,394	Chromium and compounds (water)
12	228,418	Formaldehyde (U,I)
13	226,602	Styrene (air)
14	194,105	Dichloromethane (air)
15	161,646	Dichloromethane (air)
16	156,546	Styrene (air)
17	146,833	Dichloromethane (air)
18	145,585	Chromium and compounds (land)
19	143,837	Dichloromethane (air)
20	130,131	Dichloromethane (air)
21	119,960	Tetrachloroethylene (air)
22	119,635	Trichloroethylene (air)
23	117,073	Styrene (air)
24	114,131	Styrene (air)
25	109,788	Asbestos (land)
26	109,345	Styrene (air)
27	109,255	Dichloromethane (air)
28	108,981	Dichloromethane (air)
29	104,783	Dichloromethane (air)
30	98,809	Chromium and compounds (land)
31	83,446	Dichloromethane (air)
32	83,358	Styrene (land)
33	82,980	Styrene (air)
34	80,807	Formaldehyde, Benzene (air)
35	77,675	Tetrachloroethylene (air)
36	77,419	Acetaldehyde (air)
37	77,205	Styrene (air)
38	75,887	Chloroform, Benzene (air)
39	68,404	Dichloromethane (air)
40	65,996	Lead and compounds (land)
41	65,144	Dichloromethane (air)
42	64,185	Acetaldehyde, Formaldehyde (air)
43	63,069	Styrene (air)
44	62,425	Dichloromethane (air)
45	61,684	Styrene (air)
46	60,695	Dichloromethane (air)
47	58,237	Trichloroethylene (air)
48	57,652	Acrylonitrile, Styrene (air)
49	57,398	Carbon tetrachloride (air)
50	56,609	Lead and compounds (air)
	9,421,428	

Table 6-28		TRI Facilities with Largest Decrease in Total Releases and Transfers of Known or Suspected Carcinogens†							
M	1996	Rank	Facility	City, State	US SIC Code	Number of Forms		Total Releases and Transfers	
						1995	1996	1995 (kg)	1996 (kg)
1	Millennium Petrochemical Inc., Millennium Chemicals Inc.	La Porte, TX	28	6	5	3,716,490	248,445		
2	Zinc Corp. of America, Horsehead Industries Inc.	Monaca, PA	33	4	4	2,525,363	1,271,580		
3	Electralloy Corp., G.O. Carlson Inc.	Oil City, PA	33	2	2	1,315,953	107,049		
4	Avesta Sheffield Plate Inc., Avesta Sheffield N.A.	New Castle, IN	33	2	2	801,049	227		
5	American Steel Foundries, Amsted Ind. Inc.	Alliance, OH	33	3	4	1,161,873	384,647		
6	Allegheny Ludlum Corp.	Brackenridge, PA	33	3	3	1,030,839	265,397		
7	BP Chemicals Inc.	Lima, OH	28	10	10	1,823,771	1,200,766		
8	Birmingham Southeast L.L.C., Birmingham Steel Corp.	Flowood, MS	33	3	2	604,671	291		
9	Slater Steels, Fort Wayne Spec. Alloys Div.	Fort Wayne, IN	33	2	2	573,016	23,175		
10	Armstrong World Ind. Inc.	Lancaster, PA	39	2	1	579,687	159,243		
11	PD Glycol, Occidental Petroleum Corp.	Beaumont, TX	28	2	2	360,020	15,719		
12	Shieldalloy Metallurgical, Metallurg Inc.	Newfield, NJ	33	2	1	330,141	135		
13	Hoechst-Celanese Chemical, Hoechst Corp., Clear Lake Plant	Pasadena, TX	28	6	6	446,509	148,138		
14	Heatcraft Inc., Lennox International Inc.	Grenada, MS	Mult.	1	1	447,982	165,062		
15	Electrosorce Inc.	San Marcos, TX	36	1	1	274,960	3		
16	DuPont	Beaumont, TX	28	8	3	342,743	68,938		
17	Chemical Solvents Inc., Denison Facility	Cleveland, OH	28	4	4	281,476	19,627		
18	Arco Chemical Co., Atlantic Richfield Co.	South Charleston, WV	Mult.	5	5	302,370	56,245		
19	Piper Impact Inc.	New Albany, MS	34	2	2	366,871	129,138		
20	Gates Rubber Co., Gates Corp.	Iola, KS	30	2	2	237,877	15,065		
21	Eastman Kodak Co., Kodak Park	Rochester, NY	38	10	9	1,368,180	1,146,940		
22	Gaska Tape Inc.	Elkhart, IN	30	2	2	259,637	40,511		
23	Chevron Chemical Co., Polyethylene Plant, Chevron Corp.	Orange, TX	28	1	1	239,184	22,336		
24	Alcoa	Riverdale, IA	33	2	*	211,675	*		
25	Hoechst-Celanese Chemical Group Ltd., Hoechst Corp.	Bay City, TX	28	5	3	242,066	35,605		
26	Albright & Wilson Americas, Albright & Wilson PLC	Charleston, SC	28	4	5	372,351	173,268		
27	Pfizer Pharmaceuticals Inc., Pfizer Inc.	Barceloneta, PR	28	1	1	492,381	302,268		
28	Corhart Refractories Corp.	Buckhannon, WV	32	1	1	264,157	74,410		
29	Gencorp Automotive Inc., Reinforced Plastics Div., Gencorp Inc.	Marion, IN	30	2	*	171,647	*		
30	Philips Display Components Co., Philips Electronics N.A.	Ottawa, OH	36	3	3	237,079	75,605		
31	Corning Inc., Fall Brook Plant	Corning, NY	32	1	1	324,554	165,690		
32	Quality Automotive Co.	Tappahannock, VA	37	1	1	226,973	70,253		
33	BP Chemicals Inc. Green Lake, BP America Inc.	Port Lavaca, TX	28	5	5	1,398,340	1,244,211		
34	Monsanto Co., Indian Orchard	Springfield, MA	Mult.	5	4	538,806	388,711		
35	Willamette Ind. Inc.	Bennettsville, SC	24	1	*	148,190	*		
36	Texas Fibers, Leggett & Platt Inc.	Brenham, TX	30	2	2	208,526	61,769		
37	Zinc Corp. of America, Horsehead Industries Inc.	Bartlesville, OK	33	2	2	472,590	327,503		
38	Monsanto Co., Chocolate Bayou	Alvin, TX	28	4	3	801,396	657,431		
39	Schering-Plough Prods. Inc., Schering-Plough Corp.	Manati, PR	28	3	3	308,422	164,776		
40	ISP Chemicals Inc., International Specialty Prods.	Calvert City, KY	28	6	6	293,884	151,123		
41	Hoechst-Celanese Corp., Hoechst Corp.	Spartanburg, SC	Mult.	5	5	177,340	38,575		
42	Hoffmann-La Roche	Freeport, TX	28	1	1	259,516	125,086		
43	Ford Motor Co., Sheldon Rd. Plant	Plymouth, MI	37	1	1	137,599	3,583		
44	Pemco Aeroplex Inc., Precision Standard Inc.	Birmingham, AL	37	3	3	262,107	128,385		
45	Louisiana Pigment Co. L.P., Kronos Louisiana Inc.	Westlake, LA	28	1	*	133,429	*		
46	IBM	Endicott, NY	36	2	2	267,844	137,100		
47	Weyerhaeuser Co.	Longview, WA	Mult.	6	6	542,069	411,339		
48	Foamex L.P., Foamex Intl. Inc.	La Porte, IN	30	2	2	198,443	69,810		
49	Abbott Labs.	North Chicago, IL	28	3	2	318,784	194,099		
50	Cosmar Co., Fina Oil & Chemical Co.	Carville, LA	28	4	4	198,198	74,922		
Total						159	140	28,599,028	10,564,199

† Carcinogenic substances are those chemicals or chemical compounds listed in either the International Agency for Research on Cancer (IARC) Monographs or the US National Toxicological Program (NTP) Annual Report on Carcinogens.

* Indicates facility did not report any matched carcinogens that year.

** Chemical accounting for more than 70% of decrease in total releases and transfers of carcinogens from the facility.

➤ Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to NPRI.

➤ UIJ=underground injection

Rank	Change 1995–1996			Major Chemicals Reported with Decreases (Primary Media/Transfers with Decreases)**
	Total Releases (kg)	Total Transfers (kg)	Total Releases and Transfers (kg)	
1	6,176	-3,474,221	-3,468,045	Vinyl acetate (transfers to treatment)
2	183	-1,253,966	-1,253,783	Lead and compounds (transfers to disposal)
3	-63,765	-1,145,139	-1,208,904	Chromium and compounds (transfers to disposal)
4	0	-800,823	-800,823	Chromium and compounds (transfers to treatment)
5	-35,020	-742,206	-777,226	Chromium and compounds (transfers to disposal)
6	-16,621	-748,821	-765,442	Nickel/Lead and compounds (transfers to disposal)
7	-625,857	2,852	-623,005	Acrylonitrile (UIJ)
8	-11	-604,370	-604,380	Lead and compounds (transfers to disposal)
9	-317	-549,524	-549,841	Chromium and compounds (transfers to treatment)
10	-19,838	-400,606	-420,444	Di(2-ethylhexyl) phthalate (transfers to disposal)
11	6,761	-351,063	-344,302	Acetaldehyde (transfers to treatment)
12	-29	-329,977	-330,006	Chromium and compounds (transfers to disposal)
13	-276,015	-22,356	-298,371	Vinyl acetate, Ethylene oxide (UIJ)
14	-283,049	129	-282,921	Trichloroethylene (air)
15	-2	-274,955	-274,957	Lead and compounds (transfers to disposal)
16	-172,410	-101,396	-273,805	Carbon tetrachloride (transfers to treatment, air), Acrylonitrile (UIJ)
17	17,328	-279,176	-261,849	Dichloromethane, Styrene (transfers to treatment)
18	2,433	-248,558	-246,125	Styrene (transfers to treatment)
19	-230,839	-6,893	-237,732	Tetrachloroethylene (air)
20	-70	-222,741	-222,811	Di(2-ethylhexyl) phthalate (transfers to disposal)
21	-210,203	-11,037	-221,240	Acetaldehyde, Dichloromethane (air)
22	-219,401	275	-219,126	Dichloromethane, Tetrachloroethylene (air)
23	2,925	-219,773	-216,848	Vinyl acetate (transfers to treatment)
24	-152,571	-59,104	-211,675	Tetrachloroethylene (air)
25	-155,644	-50,816	-206,460	Vinyl acetate, Acetaldehyde (land, air)
26	-2,993	-196,090	-199,083	1,2-Dichloroethane (transfers to treatment)
27	15,193	-205,306	-190,113	Dichloromethane (transfers to treatment)
28	-1,480	-188,266	-189,746	Chromium and compounds (transfers to disposal)
29	-29,018	-142,629	-171,647	Styrene (transfers to disposal)
30	6,893	-168,367	-161,474	Lead and compounds (transfers to disposal)
31	1,508	-160,372	-158,864	Lead and compounds (transfers to disposal)
32	-273	-156,448	-156,721	Asbestos (transfers to disposal)
33	-154,169	0	-154,129	Acrylamide (UIJ)
34	-1,712	-148,383	-150,095	Formaldehyde (transfers to sewage)
35	-148,190	0	-148,190	Formaldehyde (air)
36	-146,961	204	-146,757	Dichloromethane (air)
37	-288	-144,799	-145,088	Cadmium and compounds (transfers to disposal)
38	-143,965	0	-143,965	Dichloromethane (UIJ)
39	18,975	-162,621	-143,646	Dichloromethane, Chloroform (transfers to treatment)
40	-849	-141,912	-142,761	Benzene (transfers to treatment)
41	-138,763	-2	-138,765	Acetaldehyde (air)
42	-18	-134,412	-134,430	Dichloromethane (transfers to treatment)
43	-134,014	-2	-134,015	Trichloroethylene (air)
44	-139,946	6,223	-133,722	Dichloromethane (air)
45	-131,805	-1,624	-133,429	Chromium and compounds (land)
46	-2,444	-128,299	-130,744	Tetrachloroethylene (transfers to treatment)
47	-134,797	4,067	-130,730	Acetaldehyde (air)
48	-150,544	21,912	-128,633	Dichloromethane (air)
49	-26,180	-98,505	-124,685	Dichloromethane (transfers to treatment)
50	-13,637	-109,640	-123,277	Asbestos, Styrene (transfers to disposal)
	-3,885,333	-14,149,536	-18,034,830	

Table 6-29		TRI Facilities with Largest Increase in Total Releases and Transfers of Known or Suspected Carcinogens [†]							
M	1996	Rank	Facility	City, State	US SIC Code	Number of Forms		Total Releases and Transfers	
						1995	1996	1995 (kg)	1996 (kg)
1	ASARCO Inc., Ray Complex/Hayden Smelter	Hayden, AZ	33	4	4	2,709,233	3,618,368		
2	American Chrome & Chemicals, Harrisons & Crossfield	Corpus Christi, TX	28	1	1	4,306,440	5,154,059		
3	Xerox Corp.	Webster, NY	35	3	3	34,369	846,153		
4	Occidental Chemical Corp., Occidental Petroleum Corp.	Castle Hayne, NC	28	1	1	3,315,098	4,089,286		
5	Monsanto Co.	Luling, LA	28	2	2	1,830,340	2,554,558		
6	Cyprus Miami Mining, Cyprus Amax Minerals Co.	Claypool, AZ	33	3	7	617,863	1,307,438		
7	Noltex L.L.C., Mitsubishi Chemical America Inc.	La Porte, TX	28	*	1	*	552,188		
8	Quality Chemicals Inc., Chemfirst Corp.	Tyrone, PA	28	*	1	*	499,245		
9	ASARCO Inc., Glover Plant	Annapolis, MO	33	4	4	960,950	1,445,775		
10	Hydrite Chemical Co.	Cottage Grove, WI	28	4	4	3,433	478,621		
11	American Bumper & Mfg. Co.	Ionia, MI	34	2	3	86,418	549,256		
12	Thomson Consumer Electronics Inc.	Circleville, OH	32	2	2	153,035	608,768		
13	C&D Powercom Inc., C&D Charter Power Sys. Inc.	Conyers, GA	36	1	1	574	432,313		
14	DuPont Sabine River Works	Orange, TX	28	8	9	361,325	747,497		
15	Aquaglass Corp., Masco Corp.	Adamsville, TN	30	1	1	665,652	1,046,797		
16	Glenbrook Nickel Co., Cominco American Inc.	Riddle, OR	33	1	1	547,714	922,590		
17	General Battery Corp., Exide Corp.	Reading, PA	33	3	3	691,815	1,033,191		
18	Foamex L.P., Div. of Kihl	Corry, PA	30	2	2	453,579	758,233		
19	Pharmacia & Upjohn Co.	Portage, MI	28	5	4	1,685,227	1,976,322		
20	Southwire Co.	Carrollton, GA	Mult.	8	14	213,695	501,469		
21	Burkart Foam Inc., Ohio Decorative Prods. Inc.	Cairo, IL	30	2	2	685	278,642		
22	Able Electro Polishing	Chicago, IL	34	2	2	26,125	304,063		
23	Metal Impact Corp.	Rosemont, IL	34	1	1	21,202	288,203		
24	Caparo Steel, Caparo Inc.	Farrell, PA	33	2	2	961	261,218		
25	Angus Chemical Co.	Sterlington, LA	28	4	4	1,150,207	1,410,216		
26	Shell Oil Co.	Deer Park, TX	Mult.	10	17	467,571	720,362		
27	Edo Corp., Acoustic Div.	Salt Lake City, UT	36	1	1	132	244,126		
28	Grede Foundries Inc., Milwaukee Steel Div.	Milwaukee, WI	33	2	2	4,437	238,753		
29	Nucor-Yamato Steel Co., Nucor Corp.	Blytheville, AR	33	4	3	19,454	249,031		
30	Universal- Rundle Corp., Nortek Inc.	Union Point, GA	30	1	1	2	226,604		
31	Boeing Co.	Wichita, KS	Mult.	9	6	309,526	523,172		
32	Murray Inc., Tompkins - PLC	Lawrenceburg, TN	Mult.	2	2	9,169	208,711		
33	AK Steel Corp., AK Steel Holding	Middletown, OH	33	4	7	145,351	343,287		
34	Eastman Chocolate Bayou, Eastman Chemical Co.	Alvin, TX	28	*	1	*	194,104		
35	General Electric Co.	Burkville, AL	28	2	2	216,993	389,117		
36	Ameristeel Corp., Jacksonville Mill Div.	Baldwin, FL	33	*	3	*	168,821		
37	Organic Techs., Wiley Organics Inc.	Newark, OH	28	*	1	*	167,211		
38	DuPont Chambers Works, DuPont Dow Elastomers LLC	Deepwater, NJ	28	11	8	200,157	367,119		
39	Bayer Corp. Baytown	Baytown, TX	28	11	11	157,494	324,429		
40	Ameristeel Corp.	Jackson, TN	33	4	4	2,940	169,205		
41	Pioga LLC, Pioneer International Inc.	Nashville, GA	37	*	1	*	156,546		
42	Nucor Steel, Nucor Corp.	Plymouth, UT	33	3	4	21,043	171,664		
43	Nucor Steel, Nucor Corp.	Darlington, SC	33	4	4	11,157	159,959		
44	Olympic Products Co., Cone Mills Corp.	Tupelo, MS	30	2	3	205,427	352,259		
45	Quemetco Inc., RSR Corp.	City of Industry, CA	33	3	3	702,390	848,084		
46	American Steel Foundries, Amsted Industries Inc.	Granite City, IL	33	2	2	163,979	306,511		
47	Steel Dynamics Inc.	Butler, IN	33	*	2	*	141,224		
48	Albemarle Corp.	Orangeburg, SC	28	2	2	275,478	414,780		
49	Olin Corp., Lake Charles Plant	Westlake, LA	28	3	3	15,035	150,196		
50	Owens-Corning	Newark, OH	32	4	5	148,391	281,691		
Total						150	177	22,912,066	39,181,435

† Carcinogenic substances are those chemicals or chemical compounds listed in either the International Agency for Research on Cancer (IARC) Monographs or the US National Toxicological Program (NTP) Annual Report on Carcinogens.

* Indicates facility did not report any matched carcinogens that year. ** Chemical accounting for more than 70% of increase in total releases and transfers of carcinogens from the facility.

➤ One TRI facilities reported in error: Thomson Consumer Electronics, Dunmore, PA reported 3.1 kg transfers to disposal of lead compounds. This facility has been omitted from this table.

➤ Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to NPRI.

➤ U/IJ=underground injection

Rank	Change 1995–1996			Major Chemicals Reported with Increases (Primary Media/Transfers with Increases)**
	Total Releases (kg)	Total Transfers (kg)	Total Releases and Transfers (kg)	
1	-286,761	1,195,896	909,135	Lead and compounds (transfers to treatment)
2	861,315	-13,696	847,619	Chromium and compounds (land)
3	-9,860	821,644	811,784	Dichloromethane (transfers to disposal)
4	771,376	2,812	774,188	Chromium and compounds (land)
5	725,125	-907	724,218	Formaldehyde (UIJ)
6	689,575	0	689,575	Chromium/Nickel/Lead and compounds (land)
7	4,036	548,152	552,188	Vinyl acetate (transfers to treatment)
8	1,503	497,742	499,245	Carbon tetrachloride (transfers to treatment)
9	484,825	0	484,825	Lead and compounds (land)
10	196	474,992	475,188	Trichloroethylene, Dichloromethane (transfers to treatment)
11	483	462,354	462,838	Nickel and compounds (transfers to treatment)
12	-51	455,784	455,733	Lead and compounds (transfers to disposal), Chromium and compounds (transfers to treatment)
13	77	431,663	431,740	Lead and compounds (transfers to treatment)
14	-6,427	392,600	386,172	Nickel and compounds (transfers to disposal)
15	381,145	0	381,145	Styrene (air)
16	374,876	0	374,876	Nickel and compounds (land)
17	-238	341,614	341,376	Lead and compounds (transfers to disposal, treatment)
18	308,086	-3,432	304,654	Dichloromethane (air)
19	-315,274	606,370	291,095	Dichloromethane (transfers to treatment)
20	-10,323	298,097	287,774	Lead and compounds (transfers to treatment)
21	277,957	0	277,957	Dichloromethane (air)
22	2,649	275,290	277,939	Chromium and compounds (transfers to treatment)
23	267,001	0	267,001	Tetrachloroethylene (air)
24	254,391	5,866	260,257	Chromium and compounds (water)
25	228,418	31,591	260,009	Formaldehyde (UIJ)
26	-14,270	267,061	252,791	Epichlorohydrin (transfers to treatment)
27	0	243,994	243,994	Lead and compounds (transfers to disposal)
28	227	234,089	234,316	Chromium and compounds (transfers to disposal)
29	-15,709	245,287	229,577	Lead and compounds (transfers to treatment)
30	226,602	0	226,602	Styrene (air)
31	119,959	93,687	213,646	Trichloroethylene (transfers to treatment), Tetrachloroethylene (air)
32	-31	199,572	199,541	Chromium and compounds (transfers to disposal)
33	21,085	176,850	197,935	Nickel and compounds (transfers to disposal)
34	194,104	0	194,104	Dichloromethane (air)
35	161,648	10,476	172,124	Dichloromethane (air)
36	793	168,028	168,821	Lead and compounds (transfers to treatment, disposal)
37	1,224	165,986	167,211	Chloroform (transfers to treatment)
38	50,532	116,430	166,961	Acrylamide (transfers to disposal, land)
39	3,397	163,537	166,934	Dichloromethane (transfers to treatment)
40	-1,595	167,860	166,265	Lead and compounds (transfers to treatment)
41	156,546	0	156,546	Styrene (air)
42	-1,842	152,464	150,622	Lead and compounds (transfers to treatment)
43	1,238	147,564	148,802	Lead and compounds (transfers to disposal)
44	146,832	0	146,832	Dichloromethane (air)
45	100	145,595	145,695	Lead and compounds (transfers to disposal)
46	145,585	-3,053	142,532	Chromium and compounds (land)
47	166	141,059	141,224	Lead and compounds (transfers to disposal)
48	143,837	-4,535	139,302	Dichloromethane (air)
49	-167	135,328	135,161	Toluenediisocyanate (transfers to treatment)
50	-11,850	145,150	133,299	Chromium and compounds (transfers to treatment)
	6,332,511	9,936,861	16,269,368	

6.4.3 Metals, 1995–1996

Total releases and transfers of metals and their compounds increased in both NPRI (9 percent) and TRI (18 percent) from 1995 to 1996. NPRI facilities reported a reduction in releases of metals of less than 500,000 kg, more than offset by a 3-million-kg increase in transfers. These amounts included increases of 2 million kg for manganese and its compounds and 1 million kg for zinc and its compounds (**Table 6–30**, p. 228).

TRI facilities reported increases in both releases (by 18 million kg) and transfers (by 25 million kg) from 1995 to 1996. By far the largest increase—19 million kg—occurred in reporting of zinc and its compounds. Other large increases involved manganese and its compounds (7 million kg), copper and its compounds (6 million kg) and lead and its compounds (5 million kg, see **Table 6–31**, p. 229).

Because some metals are also designated as known or suspected carcinogens (see **Section 6.4.2** on Carcinogens, above), some facilities reporting the largest amounts of carcinogenic substances also ranked high for reporting of metals.

Facilities with large increases in metals and their compounds may include those newly reporting the substance(s) in 1996 as well as entities that previously reported separately but combined their reporting as one facility in 1996. Facilities with large decreases may include those whose use of the substance(s) declined below the reporting threshold for 1996, plants that closed, or a company that sold part of a facility and the resulting operations now report as two facilities instead of one.

Top NPRI Facilities for Changes in Releases of Metals

Two NPRI facilities reported reductions of more than 1 million kg each in releases of metals and their compounds from 1995 to 1996. They accounted for most of the 3-million-kg reduction reported by the top 50 facilities for reductions in releases of these substances. Algoma Steel's Main Works in Sault Ste. Marie, Ontario, with the largest reduction, attributed its change to improved measurement of manganese and other metals in the slurry for steel- and iron-making, which is stored on-site for later recovery of its metal content (**Table 6–32**, pp. 230–31).

The top 50 facilities for increases in metal releases reported a total increase of 3 million kg. This included two facilities whose releases increased by approximately 1 million kg each. Gerdau MRM Steel, in Selkirk, Manitoba, ranked first in this category. As noted in the discussion of designated carcinogens (**Section 6.4.2**, above), this facility attributed its increases to use of more accurate estimation methods. This facility's submissions also represented combined reporting with a neighboring facility,

owned by the same parent company, which had previously reported separately. Ranking second, Sidbec-Dosco (Ispat) Acierie in Contrecoeur, Quebec, reported a change in its raw materials during 1996. The facility with the third-largest increase in metal releases was the Metallurgical Complex of Hudson Bay Mining and Smelting in Flin Flon, Manitoba. Also discussed in the section above on carcinogenic substances, this facility attributed its increases to decreased efficiency of its membrane filter bags in the last year of their three-year plant life. With the fifth-largest increase, Sammi Atlas, Atlas Specialty Steels, in Welland, Ontario, noted that it landfilled a greater proportion of the dust from its electric arc furnaces in 1996 than in 1995 (**Table 6–33**, pp. 232–33).

Top NPRI Facilities for Changes in Releases and Transfers of Metals

Altogether, the 50 facilities with the largest reductions in releases and transfers of metals and their compounds from 1995 to 1996 reported a total decrease of 8 million kg. One NPRI facility reported a decrease of 4 million kg and another reported a decrease of 1 million kg. The third-ranked facility, Dominion Castings in Hamilton, Ontario, attributed its reduction in transfers to disposal of chromium and its compounds to increased recycling of scrap metal and sand, as noted in discussion of carcinogenic substances (**Section 6.4.2**, above). In 1996, the fourth-ranked facility, Titan Steel and Wire Co. in Surrey, British Columbia, completed its removal of solids from an unlined lagoon on-site. This removal project had begun in 1995, resulting in large quantities of transfers for that year. The 1996 amounts were lower as the project ended. Transfers were the largest factor in the amount of total reductions from the top 50 facilities, which accounted for the majority of the decrease reported by 39 of the facilities (**Table 6–34**, pp. 234–35).

At the same time, the 50 facilities with the largest increases of metals reported a total increase of 11 million kg. This group included one facility with an increase of 4 million kg and two others with increases of more than 1 million kg each. Citing improved estimation techniques (as mentioned earlier in this chapter), Gerdau MRM Steel in Selkirk, Manitoba, ranked second for increases in total releases and transfers. As noted, Sidbec-Dosco (Ispat) Acierie in Contrecoeur, Quebec, ranking fourth for increases, reported a change in its raw materials during 1996. As with decreases, transfers accounted for half or more of the increases for 39 of the 50 facilities (**Table 6–35**, pp. 236–37).

These 100 NPRI facilities accounted for the great majority of NPRI releases and transfers of metals and their compounds in both 1995 and 1996, and the 50 with the largest increases outweighed the effects of the 50 with the largest decreases (**Figure 6–6**).

Top TRI Facilities for Changes in Releases of Metals

One TRI facility reported a reduction of more than 3 million kg in releases of metals and their compounds from 1995 to 1996. This amounted to more than one-third of the total 9-million-kg reduction reported by the 50 facilities with the largest such reductions. Two other TRI facilities reported decreases exceeding 500,000 kg each. The top 50 facilities for increases in metal releases reported a total increase of 23 million kg. The largest such increase amounted to 6 million kg. Increases by four other facilities exceeded 1 million kg each (Tables 6-36, pp. 238-39 and 6-37, pp. 240-41).

Top TRI Facilities for Changes in Releases and Transfers of Metals

The top 50 TRI facilities for reductions in releases and transfers of metals and their compounds from 1995 to 1996 accumulated a total of 23 million kg in such reductions. The top-ranking facility for such decreases reported a reduction of 5 million kg. Two others reported reductions of more than 1 million kg. As in NPRI, transfers accounted for the majority of the reductions. Thirty-eight of the top 50 TRI facilities in this category reported the majority of their reductions in transfers (Table 6-38, pp. 242-43).

The 50 facilities with the largest 1995-1996 increases in releases and transfers of metals reported a total increase of 54 million kg. One facility reported an increase of 6 million kg (entirely in releases). A total of 16 facilities had increases of more than 1 million kg each. For 35 of the top 50 facilities, most or all of the increase came in transfers rather than releases (Table 6-39, pp. 244-45).

These 100 TRI facilities together reported more than half of all releases and transfers of metals and their compounds in both years. The 50 facilities with the largest increases also accounted for the great majority of the overall increase in releases and transfers of these substances from 1995 to 1996 (Figure 6-6).

[Text continues on p. 246.]

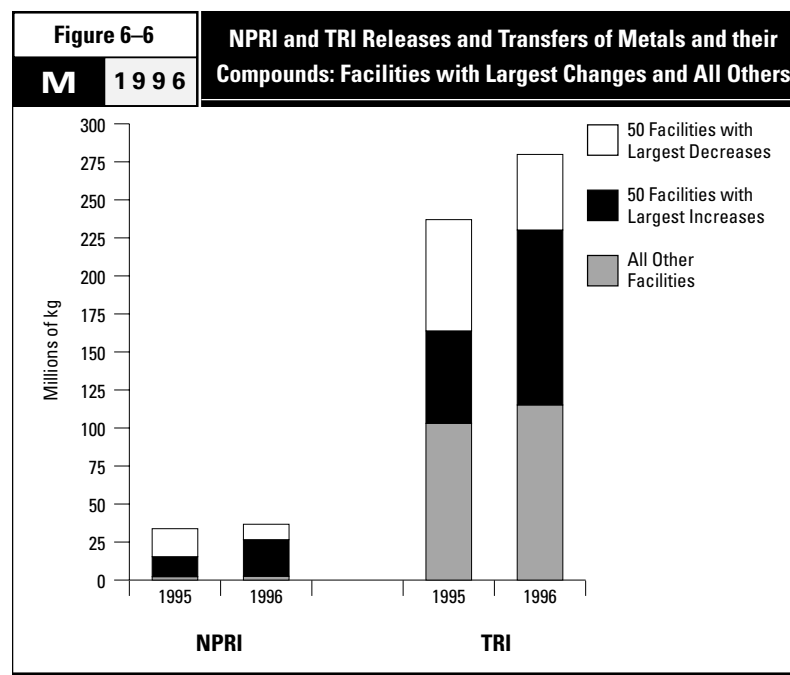


Table 6-30		NPRI Releases and Transfers of Metals and their Compounds (Ordered by Change in Total Releases and Transfers, 1995-1996)							
M 1996		Number of Forms		Total Releases and Transfers		Change 1995-1996		Total Releases and Transfers	
CAS Number	Chemical	1995	1996	1995 (kg)	1996 (kg)	Total Releases (kg)	Total Transfers (kg)	kg	%
—	Copper (and its compounds)	220	225	2,395,813	1,435,504	-998,706	38,397	-960,309	-40.1
—	Chromium (and its compounds)	202	213	3,085,937	2,747,282	-10,010	-328,645	-338,655	-11.0
—	Nickel (and its compounds)	131	137	1,121,477	897,311	-355,959	131,793	-224,166	-20.0
—	Cadmium (and its compounds)	15	11	54,950	21,735	-19,877	-13,338	-33,215	-60.4
—	Mercury (and its compounds)	3	2	19,305	9,647	-12	-9,646	-9,658	-50.0
7550-45-0	Titanium tetrachloride	4	4	1,807	91	-1,714	-2	-1,716	-95.0
—	Cobalt (and its compounds)	22	23	38,005	36,503	-3,483	1,981	-1,502	-4.0
—	Silver (and its compounds)	8	7	1,029	1,432	300	103	403	39.2
—	Antimony (and its compounds)	29	26	13,103	17,750	-533	5,180	4,647	35.5
—	Selenium (and its compounds)	5	4	33,611	40,023	1,577	4,835	6,412	19.1
1313-27-5	Molybdenum trioxide	11	12	11,121	19,433	-105	8,417	8,312	74.7
7440-62-2	Vanadium (fume or dust)	13	12	173,414	189,527	18,664	-2,551	16,113	9.3
1344-28-1	Aluminum oxide (fibrous forms)	10	10	58,404	118,825	-3,099	63,520	60,421	103.5
—	Arsenic (and its compounds)	34	33	74,078	172,813	67,358	31,377	98,735	133.3
7429-90-5	Aluminum (fume or dust)	29	36	613,535	717,376	13,227	90,614	103,841	16.9
—	Lead (and its compounds)	132	130	3,364,494	3,648,670	47,279	236,897	284,176	8.4
—	Zinc (and its compounds)	291	307	16,750,381	18,163,341	1,525,819	-112,859	1,412,960	8.4
—	Manganese (and its compounds)	213	233	5,975,690	8,472,152	-756,760	3,253,222	2,496,462	41.8
	Subtotal	1,372	1,425	33,786,154	36,709,415	-476,034	3,399,295	2,923,261	8.7
	% of Total	32.9	33.2	25.9	29.6				
	Total for All Matched NPRI Chemicals	4,164	4,298	130,420,771	124,129,147	-10,075,306	3,783,682	-6,291,624	-4.8

Table 6-31

**TRI Releases and Transfers of Metals and their Compounds
(Ordered by Change in Total Releases and Transfers, 1995-1996)**
M 1996

CAS Number	Chemical	Number of Forms		Total Releases and Transfers		Change 1995-1996		Total Releases and Transfers	
		1995	1996	1995 (kg)	1996 (kg)	Total Releases (kg)	Total Transfers (kg)	kg	%
—	Chromium (and its compounds)	3,273	3,154	23,290,791	22,431,439	2,075,539	-2,934,891	-859,352	-3.7
—	Cadmium (and its compounds)	156	143	1,077,341	803,686	81,263	-354,918	-273,655	-25.4
1313-27-5	Molybdenum trioxide	156	158	888,930	707,206	-72,380	-109,344	-181,724	-20.4
—	Mercury (and its compounds)	34	34	110,372	26,541	237	-84,067	-83,831	-76.0
—	Selenium (and its compounds)	51	47	188,258	172,535	-10,790	-4,933	-15,723	-8.4
7440-62-2	Vanadium (fume or dust)	16	14	24,651	19,169	-15,808	10,325	-5,482	-22.2
1314-20-1	Thorium dioxide	1	1	1,180	998	0	-181	-182	-15.4
—	Silver (and its compounds)	129	138	47,430	70,566	10,229	12,907	23,136	48.8
7550-45-0	Titanium tetrachloride	33	34	25,168	105,027	4,785	75,073	79,859	317.3
—	Cobalt (and its compounds)	461	480	447,595	582,899	-1,749	137,054	135,304	30.2
7440-38-2	Arsenic (and its compounds)	389	392	1,934,985	2,326,066	243,126	147,955	391,081	20.2
—	Nickel (and its compounds)	2,717	2,760	6,469,973	7,326,534	604,102	252,457	856,561	13.2
7440-36-0	Antimony (and its compounds)	676	673	2,512,638	3,440,276	352,446	575,192	927,638	36.9
7429-90-5	Aluminum (fume or dust)	317	310	4,692,884	6,130,323	778,175	659,265	1,437,439	30.6
1344-28-1	Aluminum oxide (fibrous forms)	56	48	1,635,461	4,470,053	-120,038	2,954,629	2,834,592	173.3
—	Lead (and its compounds)	1,660	1,640	20,201,499	24,883,926	66,708	4,615,718	4,682,427	23.2
—	Copper (and its compounds)	4,069	4,061	31,696,951	38,006,110	6,015,852	293,307	6,309,159	19.9
—	Manganese (and its compounds)	2,488	2,554	42,528,528	49,831,765	3,268,360	4,034,877	7,303,237	17.2
—	Zinc (and its compounds)	2,963	2,932	99,229,494	118,538,107	4,748,552	14,560,061	19,308,613	19.5
	Subtotal	19,645	19,573	237,004,129	279,873,224	18,028,609	24,840,486	42,869,095	18.1
	% of Total	32.7	33.8	21.1	25.4				
	Total for All Matched TRI Chemicals	60,057	57,927	1,123,604,548	1,101,701,543	-31,871,014	9,968,009	-21,903,005	-1.9

Table 6-32		NPRI Facilities with Largest Decrease in Total Releases of Metals and their Compounds							
Rank	Facility	City, Province	SIC Code		Number of Forms		Total Releases		
			Canada	US	1995	1996	1995 (kg)	1996 (kg)	
1	Algoma Steel Inc., Main Works	Sault Ste. Marie, ON	29	33	7	6	1,401,840	5,599	
2	Co-Steel Lasco	Whitby, ON	29	33	6	6	2,411,507	1,254,893	
3	Sydney Steel Corporation	Sydney, NS	29	33	8	8	530,500	331,280	
4	Inco Limited, Copper Cliff Smelter Complex	Copper Cliff, ON	29	33	6	6	621,640	427,818	
5	Inco Nickel Refinery, Copper Cliff Nickel Refinery	Copper Cliff, ON	29	33	7	*	153,630	*	
6	Riverside Brass, Riverside Brass & Aluminum Foundry	New Hamburg, ON	29	33	4	1	52,000	500	
7	Fonderies canadiennes d'acier Ltée	Montréal, QC	31	35	3	3	295,200	256,000	
8	Inco Copper Refinery, Copper Cliff Copper Refinery	Copper Cliff, ON	29	33	7	*	30,090	*	
9	Inco Limited, Manitoba Division	Thompson, MB	29	33	4	4	130,315	104,466	
10	Sammi Atlas Inc., Aciers inoxydables Atlas	Tracy, QC	29	33	5	5	27,655	1,840	
11	AltaSteel Ltd.	Edmonton, AB	29	33	5	5	624,322	608,341	
12	Esco Limited	Port Coquitlam, BC	29	33	3	3	79,246	65,743	
13	Ford Motor Company, Windsor Casting Plant	Windsor, ON	29	33	5	5	66,670	53,530	
14	QIT-Fer et Titane Inc.	Tracy, QC	29	33	6	3	21,240	12,900	
15	Owens-Corning Canada Inc., Guelph Glass Plant	Guelph, ON	35	32	1	1	7,728	1,250	
16	Sherritt International Corporation	Fort Saskatchewan, AB	37	28	4	4	7,336	1,990	
17	Ivaco Rolling Mills	L'Orignal, ON	29	33	5	7	16,256	11,020	
18	Nova Chemicals (Canada) Ltd.	Corunna, ON	36	29	7	2	6,671	1,462	
19	Shell Canada Products Ltd., Sarnia Manufacturing Centre	Corunna, ON	36	29	3	3	33,087	28,925	
20	Produits American Biltrite Ltée	Sherbrooke, QC	15	30	1	1	4,100	0	
21	F.F. Soucy Inc.	Rivière-du-Loup, QC	27	26	2	2	14,300	10,600	
22	St. Anne-Nackawic Pulp Company Ltd.	Nackawic, NB	27	26	1	1	17,610	14,000	
23	Ford Motor Company of Canada Ltd., Windsor Aluminum Plant	Windsor, ON	29	33	2	2	3,591	141	
24	Goodyear Canada Inc.	Medicine Hat, AB	15	30	1	1	3,834	619	
25	Chrysler Canada, Ltd., Windsor Assembly Plant	Windsor, ON	32	37	3	5	4,910	1,727	
26	Vintex Inc.	Mount Forest, ON	16	30	1	1	3,100	10	
27	Sternson Group Head Office	Brantford, ON	37	28	1	6	3,000	0	
28	Maritime Electric Company Ltd., Thermal Generating Station	Charlottetown, PE	31	35	1	*	2,800	*	
29	General Motors of Canada Ltd., Battery Plant-Autoplex	Oshawa, ON	33	36	2	2	2,503	228	
30	Mondo America Inc.	Laval, QC	15	30	1	1	2,268	0	
31	Dana Canada Inc. Axle Plant	Barrie, ON	32	37	3	3	3,640	1,900	
32	General Motors of Canada Limited, St. Catharines Foundry	St. Catharines, ON	32	37	4	*	1,303	*	
33	Mitsubishi Electronics Industries Canada Inc.	Midland, ON	33	36	2	2	1,489	287	
34	Sifto Canada Inc.	Unity, SK	35	28	1	1	1,330	150	
35	Rockwell International of Canada, Tilbury Brake Plant	Tilbury, ON	32	37	1	1	1,165	34	
36	Petro-Canada, raffinerie de Montréal	Montréal, QC	36	29	1	1	13,400	12,300	
37	Wolverine Tube (Canada) Inc.	Fergus, ON	29	33	3	3	15,423	14,495	
38	Celanese Canada Inc.	Edmonton, AB	37	28	1	1	1,080	208	
39	Dofasco Inc.	Hamilton, ON	29	33	7	7	16,617	15,909	
40	Can Mar Manufacturing Ltd. Inc.	Niagara Falls, ON	39	39	1	1	5,930	5,300	
41	Alloy Wheels International (Canada) Ltd.	Barrie, ON	32	37	1	1	600	0	
42	Kindred Industries Div. of Emco Ltd.	Midland, ON	30	34	3	3	1,415	823	
43	Atotech Canada Ltd.	Burlington, ON	37	28	1	2	653	88	
44	Brunswick Smelting Division, Fertilizer Operation	Belledune, NB	37	28	2	2	900	360	
45	Huls Canada (Brampton)	Brampton, ON	37	28	6	1	600	100	
46	Exide Canada Inc.	Drummondville, QC	33	36	2	*	500	*	
47	Ford Motor Company, Essex Aluminum Plant	Windsor, ON	29	33	7	7	605	145	
48	Henkel Canada Ltd., Henkel Surface Technologies	Rexdale, ON	37	28	3	3	1,300	900	
49	Daam Galvanizing Inc.	Edmonton, AB	30	34	1	1	800	400	
50	Les Forges de Sorel Inc.	St-Joseph-de-Sorel, QC	30	34	3	4	703	333	
Total					165	138	6,648,402	3,248,614	

* Indicates facility did not report any matched metals that year.

** Chemical accounting for more than 70% of decrease in total releases of metals from the facility.

➤ Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to TRI.

➤ UIJ=underground injection

Rank	Change 1995–1996 in Total Releases (kg)	Major Chemicals Reported with Decreases (Primary Media with Decreases)**
1	-1,396,241	Manganese and compounds (land)
2	-1,156,614	Copper and compounds (land)
3	-199,220	Manganese/Zinc/Lead and compounds (land)
4	-193,822	Nickel and compounds (air)
5	-153,630	Nickel/Lead and compounds (air)
6	-51,500	Copper/Zinc and compounds (air)
7	-39,200	Chromium and compounds (land)
8	-30,090	Copper and compounds (air)
9	-25,849	Nickel and compounds (air)
10	-25,815	Chromium/Nickel and compounds (water)
11	-15,981	Manganese and compounds (land)
12	-13,503	Manganese and compounds (land)
13	-13,140	Zinc/Manganese and compounds (water)
14	-8,340	Zinc and compounds (water, air)
15	-6,478	Zinc and compounds (air)
16	-5,346	Nickel and compounds (land, air)
17	-5,236	Zinc and compounds (air)
18	-5,209	Zinc/Copper and compounds (land)
19	-4,162	Vanadium, Nickel and compounds (air)
20	-4,100	Zinc and compounds (land)
21	-3,700	Manganese and compounds, Aluminum (water)
22	-3,610	Chromium and compounds (land)
23	-3,450	Aluminum (air)
24	-3,215	Zinc and compounds (air)
25	-3,183	Copper and compounds (air)
26	-3,090	Antimony and compounds (land)
27	-3,000	Aluminum oxide (air)
28	-2,800	Vanadium (air)
29	-2,275	Lead and compounds (air)
30	-2,268	Zinc and compounds (land)
31	-1,740	Manganese/Chromium/Nickel and compounds (air)
32	-1,303	Manganese/Copper/Chromium and compounds (air)
33	-1,202	Lead/Zinc and compounds (land)
34	-1,180	Zinc and compounds (UIJ)
35	-1,131	Manganese and compounds (water)
36	-1,100	Vanadium (air)
37	-928	Copper and compounds (land)
38	-872	Chromium and compounds (air)
39	-708	Copper and compounds (water)
40	-630	Chromium and compounds (land)
41	-600	Chromium and compounds (total releases)
42	-592	Chromium and compounds (air)
43	-565	Chromium and compounds (total releases)
44	-540	Vanadium, Chromium and compounds (total releases)
45	-500	Cadmium/Copper/Manganese/Zinc and compounds (total releases)
46	-500	Lead and compounds (total releases)
47	-460	Aluminum (air)
48	-400	Zinc and compounds (total releases)
49	-400	Zinc and compounds (total releases)
50	-370	Manganese and compounds (air)
	-3,399,788	

Table 6-33		NPRI Facilities with Largest Increase in Total Releases of Metals and their Compounds							
Rank	Facility	City, Province	SIC Code		Number of Forms		Total Releases		
			Canada	US	1995	1996	1995 (kg)	1996 (kg)	
1	Gerdau MRM Steel Inc.	Selkirk, MB	29	33	3	4	762,000	2,031,067	
2	Sidbec-Dosco (Ispat) Inc., aciérie	Contrecoeur, QC	29	33	5	5	1,510,387	2,322,985	
3	Hudson Bay Mining and Smelting Co. Ltd., Metallurgical Complex	Flin Flon, MB	29	33	5	5	161,217	416,922	
4	Sidbec-Dosco (Ispat) Inc., Sidbec-Feruni (Ispat)	Contrecoeur, QC	29	33	5	5	371,800	457,180	
5	Sammi Atlas Inc., Atlas Specialty Steels	Welland, ON	29	33	4	4	70,041	115,351	
6	Produits forestiers Donohue Inc., usine de pâte Kraft	St-Félicien, QC	27	26	2	2	177,200	214,600	
7	Imperial Oil, IOL Sarnia Refinery	Sarnia, ON	36	29	4	4	42,330	79,116	
8	Lake Erie Steel Company Ltd.	Nanticoke, ON	29	33	7	8	446,525	481,240	
9	Cartons St-Laurent Inc.	Latuque, QC	27	26	*	2	*	33,811	
10	Weyerhaeuser Canada Ltd., Kamloops Pulp Division	Kamloops, BC	27	26	*	1	*	31,300	
11	Métallurgie Noranda Inc., Fonderie Horne	Rouyn-Noranda, QC	29	33	11	10	648,045	676,550	
12	Weyerhaeuser Saskatchewan Ltd., Prince Albert Pulp & Paper	Prince Albert, SK	27	26	*	1	*	22,200	
13	Weyerhaeuser Canada Ltd., Grande Prairie Operations	Grande Prairie, AB	04	24	*	1	*	19,370	
14	Inco Limited, Central Mills	Copper Cliff, ON	29	33	2	2	17,310	36,430	
15	Stelco Inc., Hilton Works	Hamilton, ON	29	33	9	9	19,700	37,720	
16	Inco Limited, Port Colborne Refinery	Port Colborne, ON	29	33	5	5	42,462	57,397	
17	Metalex Products Ltd.	Richmond, BC	29	33	4	5	10,250	24,229	
18	Riverside Brass Ltd.	New Hamburg, ON	29	33	*	3	*	13,000	
19	Cobalt Refinery Company	Fort Saskatchewan, AB	29	33	*	4	*	11,260	
20	Spruce Falls Inc.	Kapuskasing/O'Brien, ON	27	26	*	1	*	10,501	
21	Recyclage d'aluminium Québec Inc.	Bécancour, QC	29	33	1	1	265,000	275,000	
22	Recyclage d'aluminium Québec Inc., Ragueneau	Baie-Comeau, QC	29	33	1	1	175,000	185,000	
23	North Atlantic Refining Ltd.	Come By Chance, NF	36	29	5	5	122,749	130,533	
24	Long Manufacturing Inc.	Cambridge, ON	32	37	2	2	158	7,818	
25	Stelco McMaster Ltée	Contrecoeur, QC	29	33	5	5	10,030	17,410	
26	Michelin North America (Canada) Inc.	Bridgewater, NS	15	30	6	2	5,354	12,712	
27	Falconbridge Limited, Smelter Complex	Falconbridge, ON	29	33	8	8	38,754	45,771	
28	Fabricated Steel Products Inc.	Dresden, ON	32	37	*	3	*	6,668	
29	National-Spar Inc.	Swift Current, SK	30	34	1	1	1	5,840	
30	Dominion Castings Ltd.	Hamilton, ON	29	33	2	3	1,227	6,591	
31	I-XI Industries Ltd., Medicine Hat Brick & Tile Plant	Medicine Hat, AB	35	32	*	2	*	4,700	
32	Cezinc (Zinc électrolytique du Canada Limitée)	Salaberry-de-Valleyfield, QC	29	33	8	8	115,361	118,880	
33	Noranda Mining and Exploration Inc., Brunswick Smelting Division	Belledune, NB	29	33	5	5	18,478	21,634	
34	ICI Canada, ICI Explosifs	Brownsburg, QC	37	28	2	2	5,330	8,350	
35	Kronos Canada, Inc.	Varennes, QC	37	28	3	3	42,500	45,436	
36	Vernomatic II	Downsview, ON	32	34	3	4	0	2,860	
37	Alcatel Cable	Montréal-Est, QC	29	33	1	1	0	2,000	
38	General Motors of Canada Limited, Diesel Division	London, ON	32	37	4	4	1,951	3,486	
39	Norcast Division of Tritech Precision, Fonderie Norcast Inc.	Mont-Joli, QC	30	34	4	4	2,534	4,062	
40	Métallurgie Noranda, Affinerie CCR	Montréal-Est, QC	29	33	9	9	4,320	5,440	
41	Les Technologies industrielles SNC Inc.	Le Gardeur, QC	37	28	2	2	100	1,200	
42	Trentonworks Ltd.	Trenton, NS	32	37	*	2	*	950	
43	Imperial Oil, IOL Strathcona Refinery	Edmonton, AB	36	29	4	3	1,509	2,445	
44	John Deere Limited	Welland, ON	31	35	*	2	*	930	
45	Vernomatic I	Concord, ON	32	34	3	3	0	900	
46	Canbro Inc.	Valleyfield, QC	37	28	3	3	100	900	
47	Motor Coach Industries Ltd., Plants 1, 2 and 3	Winnipeg, MB	32	37	2	2	710	1,476	
48	Stelwire Ltd., Parkdale Works	Hamilton, ON	30	34	3	3	668	1,178	
49	Huls Canada, Leaside Facility	Toronto, ON	37	28	1	6	100	600	
50	Babcock & Wilcox Canada	Cambridge, ON	30	34	*	5	*	500	
Total					154	185	5,091,201	8,013,499	

* Indicates facility did not report any matched metals that year.

** Chemical accounting for more than 70% of increase in total releases of metals from the facility.

► Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to TRI.

Rank	Change 1995–1996 in Total Releases (kg)	Major Chemicals Reported with Increases (Primary Media with Increases)**
1	1,269,067	Zinc and compounds (land)
2	812,598	Zinc and compounds (land)
3	255,705	Zinc/Lead and compounds (air)
4	85,380	Zinc/Lead and compounds (land)
5	45,310	Chromium and compounds (land)
6	37,400	Manganese and compounds (land)
7	36,786	Vanadium, Nickel and compounds (air)
8	34,715	Manganese and compounds (land)
9	33,811	Manganese and compounds (water)
10	31,300	Manganese and compounds (water)
11	28,505	Arsenic and compounds (air)
12	22,200	Manganese and compounds (water)
13	19,370	Manganese and compounds (water)
14	19,120	Nickel and compounds (water)
15	18,020	Zinc/Nickel and compounds (water), Manganese and compounds (air)
16	14,935	Copper/Nickel and compounds (land)
17	13,979	Zinc/Lead and compounds (land)
18	13,000	Zinc/Lead and compounds (air)
19	11,260	Nickel/Zinc and compounds (land)
20	10,501	Manganese and compounds (land)
21	10,000	Aluminum (land)
22	10,000	Aluminum (land)
23	7,784	Vanadium (air)
24	7,660	Copper and compounds (air)
25	7,380	Zinc and compounds (air)
26	7,358	Zinc and compounds (land)
27	7,017	Zinc and compounds (air)
28	6,668	Zinc and compounds (air)
29	5,839	Zinc and compounds (land)
30	5,364	Chromium and compounds (air)
31	4,700	Chromium/Manganese and compounds (land)
32	3,519	Zinc and compounds (air)
33	3,156	Lead and compounds (air)
34	3,020	Aluminum (land)
35	2,936	Manganese and compounds (water)
36	2,860	Manganese and compounds (air)
37	2,000	Copper and compounds (air)
38	1,535	Copper and compounds (air)
39	1,528	Manganese and compounds (land)
40	1,120	Copper and compounds (air)
41	1,100	Lead/Copper and compounds (land)
42	950	Manganese and compounds
43	936	Zinc and compounds (water)
44	930	Manganese/Chromium and compounds (total releases, transfers to disposal)
45	900	Manganese and compounds (total releases)
46	800	Aluminum, Copper and compounds (air)
47	766	Chromium and compounds, Aluminum (transfers to disposal, total releases)
48	510	Zinc and compounds (air)
49	500	Cadmium/Cobalt/Copper/Manganese and compounds (total releases, transfers to treatment)
50	500	Chromium/Cobalt/Copper/Manganese and compounds (transfers to treatment, total releases)
	2,922,298	

Table 6-34		NPRI Facilities with Largest Decrease in Total Releases and Transfers of Metals and their Compounds							
Rank	Facility	City, Province	SIC Code		Number of Forms		Total Releases and Transfers		
			Canada	US	1995	1996	1995 (kg)	1996 (kg)	
1	Co-Steel Lasco	Whitby, ON	29	33	6	6	8,442,331	4,833,403	
2	Algoma Steel Inc., Main Works	Sault Ste. Marie, ON	29	33	7	6	1,401,840	5,599	
3	Dominion Castings Ltd.	Hamilton, ON	29	33	2	3	1,487,191	912,596	
4	Titan Steel & Wire Co. Ltd.	Surrey, BC	30	33	2	2	398,235	36,960	
5	QIT-Fer et Titane Inc.	Tracy, QC	29	33	6	3	326,478	64,900	
6	Sydney Steel Corporation	Sydney, NS	29	33	8	8	530,500	331,280	
7	Inco Limited, Copper Cliff Smelter Complex	Copper Cliff, ON	29	33	6	6	621,640	427,818	
8	Slater Steels, Hamilton Specialty Bar Division	Hamilton, ON	29	33	6	9	1,455,999	1,268,707	
9	Inco Nickel Refinery, Copper Cliff Nickel Refinery	Copper Cliff, ON	29	33	7	*	153,630	*	
10	Gecamex Technologies Inc., Apex Metals Inc.	Kitchener, ON	32	34	3	3	136,000	0	
11	AltaSteel Ltd.	Edmonton, AB	29	33	5	5	797,452	674,199	
12	Owens-Corning Canada Inc., Geulph Glass Plant	Guelph, ON	35	32	1	1	125,048	5,970	
13	Magotteaux Inc.	Magog, QC	30	34	4	4	98,970	320	
14	Consumers Packaging Inc., Consumers Glass (Bramalea)	Brampton, ON	35	32	1	1	72,300	4,000	
15	Abitibi-Consolidated Inc., Division Port-Alfred	La Baie, QC	27	26	1	1	99,700	38,000	
16	Griffin Canada Inc.	Winnipeg, MB	29	33	1	1	69,480	13,740	
17	Riverside Brass, Riverside Brass & Aluminum Foundry	New Hamburg, ON	29	33	4	1	52,000	500	
18	Boler Group, Hendrickson Spring	Stratford, ON	32	34	1	1	81,000	30,560	
19	A.P. Green Refractories (Canada) Ltd.	Smithville, ON	35	32	1	1	77,632	30,601	
20	Ford Motor Company, Essex Aluminum Plant	Windsor, ON	29	33	7	7	88,970	47,332	
21	Fonderies canadiennes d'acier Ltée	Montréal, QC	31	35	3	3	295,410	256,550	
22	Cezinc (Zinc électrolytique du Canada Limitée)	Salaberry-de-Valleyfield, QC	29	33	8	8	185,561	148,765	
23	Duracell Canada Inc.	Mississauga, ON	33	36	2	2	87,294	52,900	
24	Stelfil Ltée	Lachine, QC	30	33	2	2	93,721	61,007	
25	Michelin North America (Canada) Inc., Waterville NS Plant	Cambridge Station, NS	15	30	6	2	40,071	7,362	
26	Inco Copper Refinery, Copper Cliff Copper Refinery	Copper Cliff, ON	29	33	7	*	30,090	*	
27	Inco Limited, Manitoba Division	Thompson, MB	29	33	4	4	130,315	104,466	
28	Johnson Matthey Limited, PMD-Brampton	Brampton, ON	39	33	3	3	18,918	300	
29	Prototype Circuits Inc.	Scarborough, ON	33	36	1	1	25,250	6,906	
30	GE Lighting Canada, Oakville Lamp Plant	Oakville, ON	33	36	3	3	39,833	22,565	
31	Ford Motor Company, Windsor Casting Plant	Windsor, ON	29	33	5	5	452,870	437,430	
32	Esco Limited	Port Coquitlam, BC	29	33	3	3	79,246	65,743	
33	Owens-Corning Canada Inc.	Edmonton, AB	35	32	1	*	13,498	*	
34	Sherritt International Corporation	Fort Saskatchewan, AB	37	28	4	4	23,706	10,700	
35	Standard Products (Canada) Ltd., Rubber Plant 2	Stratford, ON	15	30	1	1	58,149	45,300	
36	Stelpipe Ltd., Steel Tube Manufacturing	Welland, ON	29	33	2	2	15,665	3,336	
37	Belden Canada Inc.	Cobourg, ON	29	33	2	2	15,445	4,475	
38	Consumers Packaging Inc., Consumers Glass (Scoudouc)	Scoudouc, NB	35	32	1	1	10,500	0	
39	DuPont Canada Inc., Ajax Finishes Division	Ajax, ON	37	28	2	1	14,150	3,821	
40	Sivaco Québec	Marieville, QC	30	33	2	2	44,450	34,250	
41	Sternson Group Head Office	Brantford, ON	37	28	1	6	10,000	0	
42	Standard Products (Can.) Ltd., Mitchell Rubber Plant 4	Mitchell, ON	15	30	1	1	10,937	1,400	
43	Norcast Division de Trittech Precision, Fonderie Norcast Inc.	Mont-Joli, QC	30	34	4	4	19,191	9,736	
44	Varity/Kelsey-Hayes Canada Ltd., Eureka Foundry Division	Woodstock, ON	29	33	1	1	71,082	62,310	
45	General Motors of Canada Limited, Diesel Division	London, ON	32	37	4	4	16,475	9,323	
46	Goodyear Canada, usine de Québec	Québec, QC	15	30	1	1	7,004	18	
47	Stelco Inc., Hilton Works	Hamilton, ON	29	33	9	9	74,280	67,460	
48	LPB Poles Inc.	Masson-Angers, QC	25	24	3	3	7,417	787	
49	Nova Chemicals (Canada) Ltd.	Corunna, ON	36	29	7	2	6,671	1,462	
50	Horton CBI Limited	Fort Erie, ON	30	34	3	*	4,982	*	
Total					175	149	18,418,577	10,144,857	

* Indicates facility did not report any matched metals that year.

** Chemical accounting for more than 70% of decrease in total releases and transfers of metals from the facility.

► Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to TRI.

Rank	Change 1995–1996			Major Chemicals Reported with Decreases (Primary Media/Transfers with Decreases)**
	Total Releases (kg)	Total Transfers (kg)	Total Releases and Transfers (kg)	
1	-1,156,614	-2,452,314	-3,608,928	Zinc and compounds (transfers to disposal), Copper and compounds (land)
2	-1,396,241	0	-1,396,241	Manganese and compounds (land)
3	5,364	-579,959	-574,595	Chromium and compounds (transfers to disposal)
4	0	-361,275	-361,275	Zinc and compounds (transfers to disposal)
5	-8,340	-253,238	-261,578	Zinc and compounds (transfers to disposal)
6	-199,220	0	-199,220	Manganese/Zinc/Lead and compounds (land)
7	-193,822	0	-193,822	Nickel and compounds (air)
8	324	-187,616	-187,292	Lead/Zinc and compounds (transfers to treatment)
9	-153,630	0	-153,630	Nickel/Lead and compounds (air)
10	0	-136,000	-136,000	Zinc and compounds (transfers to treatment)
11	-15,981	-107,272	-123,253	Zinc/Manganese and compounds (transfers to disposal)
12	-6,478	-112,600	-119,078	Zinc and compounds (transfers to disposal)
13	0	-98,650	-98,650	Chromium and compounds (transfers to disposal)
14	0	-68,300	-68,300	Chromium and compounds (transfers to treatment)
15	0	-61,700	-61,700	Manganese and compounds (transfers to disposal)
16	140	-55,880	-55,740	Manganese and compounds (transfers to disposal)
17	-51,500	0	-51,500	Copper/Zinc and compounds (air)
18	0	-50,440	-50,440	Zinc and compounds (transfers to disposal)
19	0	-47,031	-47,031	Chromium and compounds (transfers to disposal)
20	-460	-41,178	-41,638	Aluminum (transfers to disposal)
21	-39,200	340	-38,860	Chromium and compounds (land)
22	3,519	-40,315	-36,796	Zinc/Selenium and compounds (transfers to disposal)
23	0	-34,394	-34,394	Manganese/Zinc and compounds (transfers to treatment)
24	-1	-32,713	-32,714	Zinc and compounds (transfers to disposal, treatment)
25	17	-32,726	-32,709	Zinc and compounds (transfers to disposal)
26	-30,090	0	-30,090	Copper and compounds (air)
27	-25,849	0	-25,849	Nickel and compounds (air)
28	0	-18,618	-18,618	Copper and compounds (transfers to disposal)
29	-117	-18,227	-18,344	Copper and compounds (transfers to treatment)
30	0	-17,268	-17,268	Lead and compounds (transfers to disposal)
31	-13,140	-2,300	-15,440	Manganese and compounds (total releases, transfers to disposal), Zinc and compounds (water)
32	-13,503	0	-13,503	Manganese and compounds (land)
33	-100	-13,398	-13,498	Chromium and compounds (transfers to disposal)
34	-5,346	-7,660	-13,006	Nickel and compounds (transfers to disposal)
35	0	-12,849	-12,849	Zinc and compounds (transfers to disposal)
36	60	-12,389	-12,329	Zinc and compounds (transfers to treatment)
37	0	-10,970	-10,970	Copper and compounds (transfers to treatment)
38	0	-10,500	-10,500	Chromium and compounds (transfers to disposal)
39	-130	-10,199	-10,329	Aluminum oxide, Zinc and compounds (transfers to treatment)
40	0	-10,200	-10,200	Zinc and compounds (transfers to treatment)
41	-3,000	-7,000	-10,000	Aluminum oxide (transfers to disposal)
42	0	-9,537	-9,537	Zinc and compounds (transfers to disposal)
43	1,528	-10,983	-9,455	Chromium and compounds (transfers to treatment)
44	-149	-8,623	-8,772	Manganese and compounds (transfers to disposal)
45	1,535	-8,687	-7,152	Manganese and compounds (transfers to disposal)
46	4	-6,990	-6,986	Zinc and compounds (transfers to disposal)
47	18,020	-24,840	-6,820	Zinc and compounds (transfers to disposal)
48	0	-6,630	-6,630	Chromium/Arsenic and compounds (transfers to treatment)
49	-5,209	0	-5,209	Zinc/Copper and compounds (land)
50	-65	-4,917	-4,982	Manganese/Nickel and compounds (transfers to disposal)
	-3,287,674	-4,986,046	-8,273,720	

Table 6-35

NPRI Facilities with Largest Increase in Total Releases and Transfers of Metals and their Compounds

M 1996

Rank	Facility	City, Province	SIC Code		Number of Forms		Total Releases and Transfers	
			Canada	US	1995	1996	1995 (kg)	1996 (kg)
1	Lake Erie Steel Company Ltd.	Nanticoke, ON	29	33	7	8	446,525	4,295,940
2	Gerdau MRM Steel Inc.	Selkirk, MB	29	33	3	4	762,000	2,031,067
3	Stelco McMaster Ltée	Contrecoeur, QC	29	33	5	5	1,874,430	3,072,110
4	Sidbec-Dosco (Ispat) Inc., acierie	Contrecoeur, QC	29	33	5	5	1,510,387	2,322,985
5	Dofasco Inc.	Hamilton, ON	29	33	7	7	1,947,875	2,556,762
6	Gerdau Courtice Steel Inc., Courtice Steel Inc.	Cambridge, ON	29	33	6	6	359,687	788,610
7	Metalex Products Ltd.	Richmond, BC	29	33	4	5	10,250	281,439
8	Hudson Bay Mining and Smelting Co. Ltd., Metallurgical Complex	Flin Flon, MB	29	33	5	5	161,217	416,922
9	Kronos Canada, Inc.	Varenes, QC	37	28	3	3	675,500	881,436
10	Sammi Atlas Inc., Atlas Specialty Steels	Welland, ON	29	33	4	4	286,341	477,451
11	Tonolli Canada Limited	Mississauga, ON	29	33	1	1	229,337	378,807
12	Dana Canada Inc., Spicer Driveshaft Division	Thorold, ON	32	37	2	2	1,388	121,540
13	Cartons St-Laurent Inc.	Latouque, QC	27	26	*	2	*	114,645
14	National-Standard Co. of Canada Ltd., Guelph Plant (70)	Guelph, ON	30	33	2	2	2,813	111,156
15	PPG Canada Inc., Works 84	Owen Sound, ON	35	32	*	1	*	105,000
16	Sidbec-Dosco (Ispat) Inc., Sidbec-Feruni (Ispat)	Contrecoeur, QC	29	33	5	5	371,800	457,180
17	Sammi Atlas Inc., Aciers inoxydables Atlas	Tracy, QC	29	33	5	5	397,805	482,950
18	Les Forges de Sorel Inc.	St-Joseph-de-Sorel, QC	30	34	3	4	120,503	201,487
19	Weyerhaeuser Canada Ltd., Kamloops Pulp Division	Kamloops, BC	27	26	*	1	*	69,900
20	Maritime Steel and Foundries Limited	New Glasgow, NS	39	39	*	5	*	66,000
21	A.G.Simpson Co. Ltd.	Oakville, ON	30	34	4	5	119	49,431
22	Dominion Colour Corporation	Ajax, ON	37	28	4	4	186,100	229,400
23	Cobalt Refinery Company	Fort Saskatchewan, AB	29	33	*	4	*	43,090
24	A.G. Simpson Co Ltd.	Oshawa, ON	32	34	4	5	112,923	154,960
25	Mitsubishi Electronics Industries Canada Inc.	Midland, ON	33	36	2	2	68,853	110,764
26	Stelwire Ltd., Parkdale Works	Hamilton, ON	30	34	3	3	74,385	115,159
27	F.F. Soucy Inc.	Rivière-du-Loup, QC	27	26	2	2	47,300	86,600
28	Société canadienne de métaux Reynolds	Baie-Comeau, QC	29	33	3	3	1,800	40,056
29	Produits forestiers Donohue Inc., usine de pâte Kraft	St-Félicien, QC	27	26	2	2	177,200	214,600
30	Norsk Hydro Canada Inc., Hydro Magnesium Canada	Bécancour, QC	29	33	2	2	0	37,000
31	Imperial Oil, IOL Sarnia Refinery	Sarnia, ON	36	29	4	4	42,330	79,159
32	Métallurgie Noranda, Affinerie CCR	Montréal-Est, QC	29	33	9	9	45,155	80,701
33	Métallurgie Noranda Inc., Fonderie Horne	Rouyn-Noranda, QC	29	33	11	10	648,045	676,550
34	Zalev Brothers Limited	Windsor, ON	29	33	7	7	850,293	878,062
35	Wabash Alloys	Toronto, ON	29	33	4	4	21,365	48,695
36	EKA Chimie Canada Inc.	Magog, QC	37	28	*	1	*	26,110
37	Protec Finishing Ltd.	Mississauga, ON	30	34	1	1	32,920	58,500
38	Daam Galvanizing Inc.	Edmonton, AB	30	34	1	1	4,900	27,300
39	Weyerhaeuser Saskatchewan Ltd., Prince Albert Pulp & Paper	Prince Albert, SK	27	26	*	1	*	22,200
40	Ivaco Rolling Mills	L'Orignal, ON	29	33	5	7	1,548,866	1,570,380
41	Weyerhaeuser Canada Ltd., Grande Prairie Operations	Grande Prairie, AB	04	24	*	1	*	19,370
42	Inco Limited, Central Mills	Copper Cliff, ON	29	33	2	2	17,310	36,430
43	Long Manufacturing Ltd.	Oakville, ON	32	37	1	1	1,607	20,550
44	Michelin North America (Canada) Inc.	Kitchener, ON	15	30	2	2	2,336	20,920
45	Valeo Engine Cooling Ltd., Automotive Division	Stratford, ON	32	35	3	3	37,178	55,392
46	Electro Finition	LaSalle, QC	30	34	1	1	0	17,630
47	Canbro Inc.	Valleyfield, QC	37	28	3	3	700	18,160
48	Air liquide Canada Inc., Usine d'électrodes	Montréal, QC	30	34	1	1	4,410	21,000
49	Baycoat Ltd.	Hamilton, ON	30	34	2	1	2,932	19,260
50	Inco Limited, Port Colborne Refinery	Port Colborne, ON	29	33	5	5	42,462	57,397
Total					155	177	13,129,347	24,068,213

* Indicates facility did not report any matched metals that year.

** Chemical accounting for more than 70% of increase in total releases and transfers of metals from the facility.

► Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to TRI.

Rank	Change 1995–1996			Major Chemicals Reported with Increases (Primary Media/Transfers with increases)**
	Total Releases (kg)	Total Transfers (kg)	Total Releases and Transfers (kg)	
1	34,715	3,814,700	3,849,415	Manganese/Zinc and compounds (transfers to disposal)
2	1,269,067	0	1,269,067	Zinc and compounds (land)
3	7,380	1,190,300	1,197,680	Zinc and compounds (transfers to treatment)
4	812,598	0	812,598	Zinc and compounds (land)
5	-708	609,595	608,887	Zinc and compounds (transfers to disposal)
6	-177	429,100	428,923	Zinc/Lead and compounds (transfers to disposal)
7	13,979	257,210	271,189	Lead and compounds (transfers to disposal)
8	255,705	0	255,705	Zinc/Lead and compounds (air)
9	2,936	203,000	205,936	Manganese and compounds (transfers to disposal)
10	45,310	145,800	191,110	Chromium and compounds (transfers to disposal, land), Zinc and compounds (transfers to disposal)
11	0	149,470	149,470	Lead and compounds (transfers to disposal)
12	0	120,152	120,152	Manganese and compounds (transfers to disposal)
13	33,811	80,834	114,645	Manganese and compounds (transfers to disposal)
14	0	108,343	108,343	Lead and compounds (transfers to disposal)
15	0	105,000	105,000	Chromium and compounds (transfers to disposal)
16	85,380	0	85,380	Zinc/Lead and compounds (land)
17	-25,815	110,960	85,145	Chromium and compounds (transfers to treatment)
18	-370	81,354	80,984	Chromium and compounds (transfers to treatment)
19	31,300	38,600	69,900	Manganese and compounds (transfers to disposal, water)
20	0	66,000	66,000	Aluminum oxide (transfers to disposal)
21	0	49,312	49,312	Manganese/Chromium/Nickel and compounds (transfers to disposal)
22	0	43,300	43,300	Lead and compounds (transfers to disposal)
23	11,260	31,830	43,090	Nickel and compounds (transfers to disposal)
24	0	42,037	42,037	Nickel/Manganese and compounds (transfers to disposal)
25	-1,202	43,113	41,911	Lead and compounds (transfers to disposal)
26	510	40,264	40,774	Zinc and compounds (transfers to disposal)
27	-3,700	43,000	39,300	Aluminum (transfers to disposal)
28	-200	38,456	38,256	Manganese/Copper and compounds (transfers to disposal)
29	37,400	0	37,400	Manganese and compounds (land)
30	0	37,000	37,000	Manganese and compounds (transfers to disposal)
31	36,786	43	36,829	Vanadium, Nickel and compounds (air)
32	1,120	34,426	35,546	Arsenic/Selenium and compounds (transfers to disposal)
33	28,505	0	28,505	Arsenic and compounds (air)
34	3	27,766	27,769	Zinc/Copper and compounds (transfers to disposal)
35	24	27,306	27,330	Aluminum (transfers to disposal)
36	0	26,110	26,110	Chromium and compounds (transfers to disposal)
37	0	25,580	25,580	Zinc and compounds (transfers to disposal)
38	-400	22,800	22,400	Zinc and compounds (transfers to treatment)
39	22,200	0	22,200	Manganese and compounds (water)
40	-5,236	26,750	21,514	Aluminum (transfers to disposal)
41	19,370	0	19,370	Manganese and compounds (water)
42	19,120	0	19,120	Nickel and compounds (water)
43	0	18,943	18,943	Nickel and compounds (transfers to treatment)
44	70	18,514	18,584	Zinc and compounds (transfers to disposal)
45	104	18,110	18,214	Lead and compounds (transfers to disposal)
46	0	17,630	17,630	Zinc and compounds (transfers to treatment)
47	800	16,660	17,460	Aluminum (transfers to disposal)
48	0	16,590	16,590	Manganese and compounds (transfers to disposal)
49	0	16,328	16,328	Chromium and compounds (transfers to disposal)
50	14,935	0	14,935	Copper/Nickel and compounds (land)
	2,746,580	8,192,286	10,938,866	

Table 6-36		TRI Facilities with Largest Decrease in Total Releases of Metals and their Compounds						
Rank	Facility	City, State	US SIC Code	Number of Forms		Total Releases		
				1995	1996	1995 (kg)	1996 (kg)	
1	ASARCO Inc., Ray Complex/Hayden Smelter	Hayden, AZ	33	8	8	8,249,523	5,040,544	
2	LTV Steel Co. Inc.	Cleveland, OH	33	5	5	1,151,424	360,980	
3	Northwestern Steel & Wire Co.	Sterling, IL	33	4	4	7,126,230	6,545,333	
4	Millennium Inorganic Chemicals, Millennium Chemicals, Hawkins Point Plant	Baltimore, MD	28	3	3	666,744	229,265	
5	Chemetals Inc., Comilog	New Johnsonville, TN	28	2	1	2,108,027	1,685,692	
6	US Steel Gary Works, USX Corp.	Gary, IN	33	10	12	2,961,275	2,739,011	
7	Imco Recycling Inc.	Sapulpa, OK	33	5	4	218,825	8,332	
8	North Star Recycling, Cargill Inc.	Saint Paul, MN	33	6	*	200,408	*	
9	Intermet Corp., Archer Creek Plant	Lynchburg, VA	33	5	3	219,212	27,005	
10	General Motors Corp., Powertrain Defiance	Defiance, OH	33	6	6	6,229,325	6,042,824	
11	Phelps Dodge Hidalgo Inc., Phelps Dodge Corp.	Playas, NM	33	1	1	4,542,226	4,378,694	
12	Gulf States Steel Inc., GSS Holding Corp.	Gadsden, AL	33	6	7	488,079	337,531	
13	CMI-Cast Parts Inc., CMI-International Inc.	Cadillac, MI	33	1	3	267,574	150,295	
14	General Motors Corp., GMTG Saginaw Metal Casting	Saginaw, MI	33	6	6	1,125,075	1,019,212	
15	Doe Run Co., Herculanum Smelter, Renco Group Inc.	Herculanum, MO	33	9	9	3,676,471	3,573,720	
16	LTV Steel Co. Inc.	East Chicago, IN	33	4	4	377,057	275,220	
17	Harrison Steel Castings Co.	Attica, IN	33	4	4	102,957	1,365	
18	Potlatch Corp., Idaho Pulp & Paperboard Div.	Lewiston, ID	Mult.	1	1	217,755	118,254	
19	Arvin N.A. Automotive, Arvin Industries Inc.	Dexter, MO	37	3	1	92,242	8,300	
20	Albemarle Corp.	Orangeburg, SC	28	1	1	132,789	50,730	
21	North Star Steel Houston, Cargill Inc.	Houston, TX	34	3	3	114,739	44,344	
22	Cytec Industries Inc.	Westwego, LA	28	5	5	122,677	52,654	
23	General Motors Corp., GMC Powertrain Div.	Danville, IL	33	6	*	66,849	*	
24	Electralloy Corp., G.O. Carlson Inc.	Oil City, PA	33	4	4	68,932	4,551	
25	DuPont Cape Fear	Leland, NC	28	3	3	70,922	9,251	
26	Behlen Mfg. Co.	Columbus, NE	34	2	2	60,204	1,220	
27	R.J. Reynolds Tobacco Co., RJR Nabisco Holding Corp.	Merry Hill, NC	20	1	1	69,587	11,368	
28	GNB Tech. Inc., Pacific Dunlop GNB Corp.	Leavenworth, KS	36	1	1	57,196	54	
29	General Electric Co., Silicone Products	Waterford, NY	28	2	2	492,814	436,286	
30	Lukens Steel Co., Lukens Inc.	Coatesville, PA	33	6	6	203,887	150,204	
31	Zinc Corp. of America, Horsehead Industries Inc.	Monaca, PA	33	10	9	265,390	220,257	
32	Strick Corp., Chassis Div.	Berwick, PA	37	2	*	43,810	*	
33	Amoco Chemical Co., Amoco Corp.	Decatur, AL	28	3	2	59,867	16,703	
34	Courtaulds Fibers Inc., Courtaulds Finance U.S. Inc.	Axis, AL	28	2	1	260,680	218,032	
35	Champion International Corp.	Bucksport, ME	26	1	1	119,698	79,077	
36	Georgia-Pacific Paper Operations	Crossett, AR	26	1	1	276,746	236,125	
37	Magotteaux Corp., Magotteaux International	Pulaski, TN	33	8	5	45,506	5,395	
38	Wabash Alloys, Connell L.P.	Wabash, IN	33	3	3	100,342	60,340	
39	Keymark Corp.	Fonda, NY	33	1	*	39,730	*	
40	Sloan Valve Co.	Augusta, AR	33	3	3	93,173	54,751	
41	USS/Kobe Steel Co.	Lorain, OH	33	5	6	42,195	4,356	
42	TXI Operations L.P.	Midlothian, TX	32	2	3	47,113	12,002	
43	American Steel Foundries, Amsted Ind. Inc.	Alliance, OH	33	5	6	37,390	3,030	
44	US Sugar Corp., Eastern Div. Chemical House	Canal Point, FL	20	2	2	92,137	58,026	
45	Kemira Pigments Inc., Kemira Holdings Inc.	Savannah, GA	28	4	4	208,753	175,705	
46	J. Ray McDermott Inc.	Amelia, LA	34	5	2	43,111	13,197	
47	Pyron Metal Powders Inc.	Greenback, TN	33	1	*	29,710	*	
48	Monarch Tile Inc., Ceragen Holdings S.A.	Marshall, TX	32	1	*	29,287	*	
49	Mountain Pass Operation, Unocal Corp.	Mountain Pass, CA	28	1	*	28,571	*	
50	Stanley-Bostitch, Stanley Works	Clinton, CT	33	1	1	41,020	12,864	
Total				184	159	43,385,254	34,472,099	

* Indicates facility did not report any matched metals that year.

** Chemical accounting for more than 70% of decrease in total releases of metals from the facility.

➤ Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to NPRI.

➤ UIJ=underground injection

Rank	Change 1995–1996 in Total Releases (kg)	Major Chemicals Reported with Decreases (Primary Media with Decreases)**
1	-3,208,979	Copper/Zinc and compounds (land)
2	-790,444	Manganese and compounds (land)
3	-580,897	Manganese/Zinc and compounds (land)
4	-437,478	Manganese and compounds (land)
5	-422,335	Manganese and compounds (land)
6	-222,263	Manganese and compounds (air)
7	-210,494	Aluminum (land)
8	-200,408	Copper/Zinc and compounds (land)
9	-192,206	Zinc/Manganese and compounds (land)
10	-186,501	Zinc and compounds (land)
11	-163,532	Copper and compounds (land)
12	-150,549	Zinc and compounds (land)
13	-117,278	Aluminum oxide (land)
14	-105,863	Zinc and compounds (land)
15	-102,751	Lead and compounds (land)
16	-101,837	Manganese and compounds (land)
17	-101,592	Chromium/Nickel and compounds (land)
18	-99,501	Zinc and compounds (land)
19	-83,942	Chromium and compounds (air)
20	-82,059	Manganese and compounds (land)
21	-70,395	Manganese/Chromium and compounds (land)
22	-70,023	Molybdenum trioxide (U/I)
23	-66,849	Zinc/Manganese and compounds (land)
24	-64,381	Chromium and compounds (air)
25	-61,671	Cobalt/Manganese and compounds (land)
26	-58,984	Zinc and compounds (land)
27	-58,219	Manganese and compounds (land)
28	-57,143	Lead and compounds (land)
29	-56,528	Copper and compounds (land)
30	-53,683	Chromium/Nickel and compounds (land)
31	-45,133	Zinc and compounds (air)
32	-43,810	Zinc and compounds (air)
33	-43,164	Cobalt/Manganese and compounds (water)
34	-42,649	Zinc and compounds (land)
35	-40,621	Zinc and compounds (land)
36	-40,621	Zinc and compounds (air, land)
37	-40,111	Aluminum (air)
38	-40,002	Copper and compounds (land)
39	-39,730	Aluminum (air)
40	-38,422	Copper and compounds (land)
41	-37,839	Manganese and compounds (land)
42	-35,112	Zinc and compounds (land)
43	-34,360	Chromium and compounds (air)
44	-34,111	Manganese and compounds (land)
45	-33,048	Chromium and compounds (land)
46	-29,913	Zinc and compounds (air)
47	-29,710	Copper and compounds (air)
48	-29,287	Zinc and compounds (land)
49	-28,571	Zinc and compounds (land)
50	-28,156	Zinc and compounds (land)
	-8,913,155	

Table 6-37		TRI Facilities with Largest Increase in Total Releases of Metals and their Compounds						
M 1996								
Rank	Facility	City, State	US SIC Code	Number of Forms		Total Releases		
				1995	1996	1995 (kg)	1996 (kg)	
1	Cyprus Miami Mining, Cyprus Amax Minerals Co.	Claypool, AZ	33	3	11	4,873,576	11,320,739	
2	BHP Copper Metals Co., BHP Copper Co.	San Manuel, AZ	33	9	5	204,603	2,562,031	
3	ASARCO Inc.	East Helena, MT	33	9	9	17,914,440	20,160,568	
4	Kennecott Utah Copper, Kennecott Holdings Corp.	Magna, UT	33	8	8	2,674,512	4,188,084	
5	ASARCO Inc., Glover Plant	Annapolis, MO	33	6	6	2,959,545	4,030,228	
6	American Chrome & Chemicals, Harrison's & Crossfield	Corpus Christi, TX	28	1	1	4,265,578	5,126,893	
7	Occidental Chemical Corp., Occidental Petroleum Corp.	Castle Hayne, NC	28	1	1	3,313,375	4,084,751	
8	Keystone Steel & Wire Co., Keystone Consolidated Industries	Peoria, IL	33	3	3	85,615	763,441	
9	Austeel Lemont Co. Inc.	Lemont, IL	33	4	5	24,749	668,313	
10	Kerr-Mcgee Chemical Corp. Electrolytic Plant, Kerr-Mcgee Corp.	Hamilton, MS	Mult.	3	3	1,811,170	2,350,576	
11	Geneva Steel	Vineyard, UT	33	7	8	370,594	813,663	
12	Glenbrook Nickel Co., Cominco American Inc.	Riddle, OR	33	1	1	547,714	922,590	
13	Imco Recycling Inc.	Morgantown, KY	33	4	5	281,499	621,454	
14	Chino Mines Co.	Hurley, NM	33	1	1	3,153,940	3,476,044	
15	Metal Mark Inc., Imco Recycling Inc.	Chicago Heights, IL	33	1	6	116	288,085	
16	Caparo Steel, Caparo Inc.	Farrell, PA	33	4	5	13,589	282,734	
17	Granite City Steel, National Steel Corp.	Granite City, IL	33	6	6	2,359,007	2,619,941	
18	Nucor Steel, Nucor Corp.	Jewett, TX	33	7	6	10,169	232,620	
19	FMC Corp.	Pocatello, ID	28	9	9	2,371,620	2,588,615	
20	Bowater Newsprint, Bowater Inc.	Calhoun, TN	26	*	3	*	207,357	
21	Elkem Metals Co.	Marietta, OH	33	5	5	5,112,992	5,308,852	
22	Georgia-Pacific Corp.	Brunswick, GA	26	2	2	27,703	211,010	
23	Griffin Wheel Co. Columbus Plant, Amsted Ind. Inc.	Groveport, OH	33	2	2	465,959	648,068	
24	North American Rayon Corp., North American Corp.	Elizabethton, TN	28	1	1	4,399	149,918	
25	Lenzing Fibers Corp.	Lowland, TN	28	2	2	4,580	149,206	
26	Louisiana Pigment Co. L.P., Kronos Louisiana Inc.	Westlake, LA	28	3	2	1,128,858	1,270,326	
27	Bowater Inc., Coated Paper & Pulp Div.	Catawba, SC	26	1	2	86,706	196,204	
28	Birmingham Steel Corp., Birmingham Alabama Steel Div.	Birmingham, AL	33	5	5	1,176	108,860	
29	American Alloys Inc.	New Haven, WV	33	2	2	43,506	145,433	
30	Simpson Steel Fabricators & Erectors Inc.	Murray, UT	34	7	9	1,020	97,884	
31	Kobe Copper Prods. Inc.	Pine Hall, NC	33	1	9	113	96,339	
32	Millennium Inorganic Chemicals Plant 1, Millennium Chemicals Inc.	Ashtabula, OH	28	1	2	6	81,660	
33	Champion International Corp., Sheldon Mill	Sheldon, TX	26	1	1	6,498	80,459	
34	Wheland Foundry Div., North American Royalties Inc.	Warrenton, GA	33	3	4	88,404	161,274	
35	Kerr-McGee Chemical Corp.	Henderson, NV	28	2	2	886,202	955,374	
36	Lynchburg Foundry Co., Intermet Corp.	Radford, VA	33	5	4	67,305	133,258	
37	SCM Chemicals Americas Plant II, SCM Chemicals Inc.	Ashtabula, OH	28	2	2	2,907	68,491	
38	Bethlehem Steel Corp.	Sparrows Point, MD	33	6	6	480,517	543,678	
39	Union Camp Corp.	Prattville, AL	Mult.	*	1	*	61,678	
40	Spicer Driveshaft Div., Dana Corp.	Louisville, KY	37	1	1	113	57,640	
41	Owens-Corning	Newark, OH	32	3	5	29	57,201	
42	QX Inc., Spectro Alloys Corp.	Hamel, MN	33	3	3	30,736	86,512	
43	AK Steel Corp., AK Steel Holding	Middletown, OH	33	7	11	332,166	385,704	
44	Wilson Trailer Co.	Sioux City, IA	37	5	5	578	52,495	
45	National Steel Corp., Midwest Steel Div.	Portage, IN	33	3	3	90,298	140,502	
46	Stone Container Corp.	Panama City, FL	26	*	1	*	50,023	
47	Quanex Corp., Macsteel Michigan Div.	Jackson, MI	33	6	6	31,902	80,249	
48	Industrial Chrome Inc.	Topeka, KS	34	1	1	0	47,732	
49	USS Fairfield Works, USX Corp.	Fairfield, AL	33	8	8	1,822,918	1,868,437	
50	Westvaco Corp., Bleached Board Div.	Covington, VA	26	*	2	*	45,460	
Total				175	211	57,953,004	80,648,657	

* Indicates facility did not report any matched metals that year.

** Chemicals accounting for more than 70% of increase in total releases of metals from the facility.

➤ Two TRI facilities reported in error: Gunderson Inc., Portland, OR, reported 2.8 kg air releases of manganese; Tennessee Aluminum Processor Inc., Mount Pleasant, TN, reported 720,000 kg on-site land releases and 165,000 kg transfers to disposal of aluminum. These facilities have been omitted from this table.

➤ Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to NPRI.

Rank	Change 1995–1996 in Total Releases (kg)	Major Chemicals Reported with Increases (Primary Media with Increases)**
1	6,447,163	Copper/Zinc and compounds (land)
2	2,357,428	Copper and compounds (air)
3	2,246,128	Zinc/Copper and compounds (land)
4	1,513,571	Copper and compounds (land)
5	1,070,683	Lead/Zinc and compounds (land)
6	861,315	Chromium and compounds (land)
7	771,376	Chromium and compounds (land)
8	677,827	Zinc and compounds (air)
9	643,565	Zinc and compounds (land)
10	539,406	Manganese and compounds (land)
11	443,069	Zinc and compounds (land)
12	374,876	Nickel and compounds (land)
13	339,955	Aluminum (land)
14	322,104	Copper and compounds (land)
15	287,969	Aluminum (land)
16	269,145	Chromium and compounds (water)
17	260,934	Zinc and compounds (land)
18	222,451	Zinc/Manganese and compounds (land)
19	216,994	Zinc and compounds (land)
20	207,357	Manganese and compounds (water, air), Zinc and compounds (air)
21	195,860	Chromium and compounds (land), Manganese and compounds (water)
22	183,307	Zinc and compounds (land)
23	182,108	Manganese and compounds (land)
24	145,519	Zinc and compounds (land)
25	144,626	Zinc and compounds (land)
26	141,468	Manganese and compounds (land)
27	109,498	Manganese/Zinc and compounds (water)
28	107,684	Zinc and compounds (air)
29	101,927	Manganese and compounds (land)
30	96,864	Manganese/Chromium/Copper and compounds (air)
31	96,225	Copper/Chromium and compounds (land)
32	81,654	Manganese and compounds (water)
33	73,961	Zinc and compounds (land)
34	72,871	Manganese and compounds (land)
35	69,172	Manganese and compounds (land)
36	65,953	Manganese/Zinc and compounds (land)
37	65,583	Manganese and compounds (water)
38	63,161	Manganese and compounds (land)
39	61,678	Manganese and compounds (land, water)
40	57,527	Manganese and compounds (air)
41	57,172	Manganese and compounds (land)
42	55,776	Copper and compounds (air)
43	53,538	Manganese/Cobalt/Chromium and compounds (land)
44	51,917	Manganese/Copper/Chromium and compounds (land)
45	50,204	Chromium/Zinc and compounds (land)
46	50,023	Manganese and compounds (land)
47	48,346	Zinc and compounds (air)
48	47,732	Chromium and compounds (land)
49	45,519	Zinc and compounds (land)
50	45,460	Zinc/Nickel and compounds (land)
	22,695,654	

Table 6-38		TRI Facilities with Largest Decrease in Total Releases and Transfers of Metals and their Compounds						
M 1996								
Rank	Facility	City, State	US SIC Code	Number of Forms		Total Releases and Transfers		
				1995	1996	1995 (kg)	1996 (kg)	
1	Zinc Corp. of America, Horsehead Industries Inc.	Monaca, PA	33	10	9	15,994,775	10,693,738	
2	ASARCO Inc., Ray Complex/Hayden Smelter	Hayden, AZ	33	8	8	10,259,961	8,074,073	
3	Electralloy Corp., G.O. Carlson Inc.	Oil City, PA	33	4	4	1,336,939	132,292	
4	Birmingham Southeast L.L.C., Birmingham Steel Corp.	Flowood, MS	33	5	6	841,426	3,814	
5	Northwestern Steel & Wire Co.	Sterling, IL	33	4	4	7,437,795	6,610,503	
6	American Steel Foundries, Amsted Ind. Inc.	Alliance, OH	33	5	6	1,204,982	390,778	
7	Allegheny Ludlum Corp.	Brackenridge, PA	33	8	8	1,145,807	331,633	
8	Avesta Sheffield Plate Inc., Avesta Sheffield N.A.	New Castle, IN	33	3	3	801,052	340	
9	North Star Recycling, Cargill Inc.	Saint Paul, MN	33	6	*	560,862	*	
10	Slater Steels, Fort Wayne Spec. Alloys Div.	Fort Wayne, IN	33	5	5	577,079	26,580	
11	Newport Steel Corp., NS Group Inc.	Wilder, KY	33	8	7	1,389,210	857,868	
12	Millennium Inorganic Chemicals, Millennium Chemicals, Hawkins Point Plant	Baltimore, MD	28	3	3	666,744	229,265	
13	Chemetals Inc., Comilog	New Johnsonville, TN	28	2	1	2,108,027	1,685,692	
14	Essex Group Inc.	Lithonia, GA	33	3	3	403,263	107	
15	Olin Brass Indianapolis, Olin Corp.	Indianapolis, IN	33	5	6	406,704	10,076	
16	Imco Recycling of Ohio Inc., Imco Recycling Inc.	Uhrichsville, OH	33	6	6	777,923	422,564	
17	Honda of America Mfg. Inc., American Honda Motor Co. Inc.	Anna, OH	37	5	4	495,982	141,663	
18	Shieldalloy Metallurgical, Metallurg Inc.	Newfield, NJ	33	5	4	330,521	443	
19	LTV Steel Co. Inc.	Cleveland, OH	33	5	5	1,231,367	919,869	
20	Rhone-Poulenc Basic Chemicals, Rhone-Poulenc Inc.	Martinez, CA	28	1	1	296,967	3,088	
21	ABC Rail Prods. Corp.	Calera, AL	33	2	2	862,954	581,621	
22	Electrosources Inc.	San Marcos, TX	36	1	1	274,960	3	
23	Millennium Petrochemical Inc., Millennium Chemicals Inc.	La Porte, TX	28	4	2	642,610	385,824	
24	Strick Corp., Chassis Div.	Berwick, PA	37	2	*	248,901	*	
25	Franklin Bronze & Alloy Co. Inc.	Franklin, PA	33	3	2	636,961	389,342	
26	North American Royalties Inc., Wheland Foundry Div.	Chattanooga, TN	33	6	6	766,811	520,969	
27	Wheeling-Pittsburgh Steel, Wheeling-Pittsburgh Corp.	Martins Ferry, OH	33	2	1	246,385	1,721	
28	Cox Creek Refining Co.	Baltimore, MD	33	3	*	240,594	*	
29	S. D. Warren Co.	Westbrook, ME	26	2	2	255,050	16,239	
30	US Steel Gary Works, USX Corp.	Gary, IN	33	10	12	3,011,361	2,784,398	
31	Ford Motor Co., Cleveland Casting	Brook Park, OH	33	6	7	889,735	678,329	
32	US Pipe & Foundry Co., Walter Industries Inc.	Union City, CA	Mult.	3	3	497,704	287,922	
33	Magotteaux Corp., Magotteaux International	Pulaski, TN	33	8	5	287,270	90,627	
34	Intermet Corp., Archer Creek Plant	Lynchburg, VA	33	5	3	219,214	29,028	
35	Corhart Refractories Corp.	Buckhannon, WV	32	1	1	264,157	74,410	
36	Erie Forge & Steel Inc.	Erie, PA	34	6	6	296,356	107,605	
37	General Motors Corp., Powertrain Defiance	Defiance, OH	33	6	6	6,229,567	6,043,234	
38	Johnstown Wire Techs.	Johnstown, PA	33	4	4	249,800	68,628	
39	Zinc Corp. of America, Horsehead Industries Inc.	Bartlesville, OK	33	5	5	847,317	669,714	
40	Philips Display Components Co., Philips Electronics N.A.	Ottawa, OH	36	3	3	204,020	31,302	
41	Phelps Dodge Hidalgo Inc., Phelps Dodge Corp.	Playas, NM	33	1	1	4,542,226	4,378,694	
42	Corning Inc., Fall Brook Plant	Corning, NY	32	2	2	328,790	168,881	
43	Gaston Copper Recycling Corp., Southwire Co.	Gaston, SC	33	7	*	158,939	*	
44	Gulf States Steel Inc., GSS Holding Corp.	Gadsden, AL	33	6	7	491,367	343,698	
45	Talley Metals Tech. Inc., Talley Ind. Inc.	Hartsville, SC	33	5	5	129,151	1,791	
46	Valero Refining Co., Valero Energy Corp.	Corpus Christi, TX	29	5	5	207,273	80,929	
47	Lenzing Fibers Corp.	Lowland, TN	28	2	2	267,619	149,206	
48	CMI-Cast Parts Inc., CMI-International Inc.	Cadillac, MI	33	1	3	267,574	150,409	
49	Fort Wayne Foundry Pontiac Inc., Cole Pattern & Eng. Co. Inc.	Fort Wayne, IN	33	2	4	206,129	93,632	
50	General Motors Corp., GMTG Saginaw Metal Casting	Saginaw, MI	33	6	6	1,125,511	1,019,639	
Total				220	199	73,163,692	49,682,184	

* Indicates facility did not report any matched metals that year.

** Chemical accounting for more than 70% of decrease in total releases and transfers of metals from the facility.

► Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to NPRI.

Rank	Change 1995–1996			Major Chemicals Reported with Decreases (Primary Media/Transfers with Decreases)**
	Total Releases (kg)	Total Transfers (kg)	Total Releases and Transfers (kg)	
1	-45,133	-5,255,903	-5,301,036	Zinc/Lead and compounds (transfers to disposal)
2	-3,208,979	1,023,092	-2,185,887	Copper and compounds (land)
3	-64,381	-1,140,266	-1,204,647	Chromium and compounds (transfers to disposal)
4	2,617	-840,229	-837,612	Lead/Manganese and compounds (transfers to disposal)
5	-580,897	-246,395	-827,292	Manganese/Zinc and compounds (land)
6	-34,360	-779,844	-814,204	Chromium and compounds (transfers to disposal)
7	-10,433	-803,741	-814,175	Nickel/Lead and compounds (transfers to disposal)
8	0	-800,712	-800,712	Chromium and compounds (transfers to treatment)
9	-200,408	-360,454	-560,862	Copper/Zinc and compounds (transfers to disposal, land)
10	-181	-550,317	-550,499	Chromium and compounds (transfers to treatment)
11	721	-532,063	-531,343	Zinc and compounds (transfers to treatment)
12	-437,478	0	-437,478	Manganese and compounds (land)
13	-422,335	0	-422,335	Manganese and compounds (land)
14	7	-403,163	-403,156	Copper and compounds (transfers to disposal)
15	-1,908	-394,720	-396,628	Copper and compounds (transfers to disposal)
16	-7,065	-348,294	-355,359	Aluminum (transfers to disposal)
17	159	-354,478	-354,319	Zinc and compounds (transfers to disposal)
18	-101	-329,977	-330,078	Chromium and compounds (transfers to disposal)
19	-790,444	478,946	-311,498	Manganese and compounds (land)
20	-40	-293,839	-293,879	Zinc and compounds (transfers to disposal)
21	-2,223	-279,110	-281,333	Manganese and compounds (transfers to disposal)
22	-2	-274,955	-274,957	Lead and compounds (transfers to disposal)
23	-54	-256,732	-256,785	Zinc and compounds (transfers to treatment)
24	-43,810	-205,091	-248,901	Zinc and compounds (transfers to disposal)
25	0	-247,619	-247,619	Zinc and compounds (transfers to disposal)
26	-2,730	-243,112	-245,843	Zinc/Manganese and compounds (transfers to disposal)
27	-10,674	-233,991	-244,665	Zinc and compounds (transfers to disposal)
28	-231	-240,363	-240,594	Copper/Nickel and compounds (transfers to disposal)
29	-5,850	-232,960	-238,810	Zinc and compounds (transfers to disposal)
30	-222,263	-4,699	-226,962	Manganese and compounds (air)
31	12,965	-224,371	-211,406	Zinc and compounds (transfers to disposal)
32	2,510	-212,292	-209,781	Zinc and compounds (transfers to disposal)
33	-40,111	-156,532	-196,643	Aluminum (transfers to disposal)
34	-192,206	2,020	-190,186	Zinc/Manganese and compounds (land)
35	-1,480	-188,266	-189,746	Chromium and compounds (transfers to disposal)
36	385	-189,136	-188,751	Zinc and compounds (transfers to disposal)
37	-186,501	167	-186,333	Zinc and compounds (land)
38	-447	-180,726	-181,172	Zinc and compounds (transfers to disposal)
39	-2,819	-174,785	-177,604	Cadmium and compounds (transfers to disposal)
40	-862	-171,857	-172,719	Lead and compounds (transfers to disposal)
41	-163,532	0	-163,532	Copper and compounds (land)
42	1,504	-161,414	-159,909	Lead and compounds (transfers to disposal)
43	-5,091	-153,849	-158,939	Zinc/Copper and compounds (transfers to treatment)
44	-150,549	2,880	-147,669	Zinc and compounds (land)
45	0	-127,359	-127,359	Chromium/Nickel/Manganese and compounds (transfers to disposal)
46	266	-126,610	-126,344	Copper/Nickel and compounds, Molybdenum trioxide (transfers to disposal)
47	144,626	-263,039	-118,413	Zinc and compounds (transfers to disposal)
48	-117,278	113	-117,165	Aluminum oxide (land)
49	-463	-112,034	-112,498	Aluminum (transfers to disposal)
50	-105,863	-10	-105,873	Zinc and compounds (land)
	-6,893,423	-16,588,085	-23,481,508	

Table 6-39		TRI Facilities with Largest Increase in Total Releases and Transfers of Metals and their Compounds						
Rank	Facility	City, State	US SIC Code	Number of Forms		Total Releases and Transfers		
				1995	1996	1995 (kg)	1996 (kg)	
1	Cyprus Miami Mining, Cyprus Amax Minerals Co.	Claypool, AZ	33	3	11	4,873,576	11,320,739	
2	Ameristeel Corp., Jacksonville Mill Div.	Baldwin, FL	33	*	6	*	3,520,868	
3	Regal Ware Inc.	Kewaskum, WI	34	6	6	538,862	3,646,730	
4	Nucor Steel, Nucor Corp.	Crawfordsville, IN	33	6	6	5,214,733	7,660,418	
5	BHP Copper Metals Co., BHP Copper Co.	San Manuel, AZ	33	9	5	213,585	2,562,847	
6	ASARCO Inc.	East Helena, MT	33	9	9	17,914,620	20,160,585	
7	USS Mon Valley Works Edgar Thomson Plant, USX Corp.	Braddock, PA	33	4	5	1,025,412	3,266,585	
8	Nucor-Yamato Steel Co., Nucor Corp.	Blytheville, AR	33	6	6	57,588	2,111,176	
9	Steel Dynamics Inc.	Butler, IN	33	1	4	6,117	2,058,367	
10	Nucor Steel, Nucor Corp.	Plymouth, UT	33	6	7	180,816	1,903,574	
11	Kennecott Utah Copper, Kennecott Holdings Corp.	Magna, UT	33	8	8	2,844,558	4,535,385	
12	Nucor Steel, Nucor Corp.	Darlington, SC	33	9	7	56,883	1,697,443	
13	Ameristeel Corp.	Jackson, TN	33	7	7	24,160	1,614,576	
14	Ameristeel Corp.	Charlotte, NC	33	6	6	20,075	1,450,444	
15	American Insulated Wire, Leviton Mfg. Co. Inc.	Attleboro, MA	33	5	5	10,323	1,083,324	
16	ASARCO Inc., Glover Plant	Annapolis, MO	33	6	6	2,959,545	4,030,228	
17	Koppel Steel Corp.	Koppel, PA	33	4	7	141,290	1,052,127	
18	Millennium Inorganic Chemicals Plant 1, Millennium Chemicals Inc.	Ashtabula, OH	28	1	2	6	897,986	
19	Rouge Steel Co.	Dearborn, MI	33	7	7	5,098,011	5,959,546	
20	American Chrome & Chemicals, Harrisons & Crossfield	Corpus Christi, TX	28	1	1	4,306,440	5,154,059	
21	Southwire Co.	Carrollton, GA	Mult.	17	27	391,195	1,196,917	
22	Austeel Lemont Co. Inc.	Lemont, IL	33	4	5	24,749	829,479	
23	Occidental Chemical Corp., Occidental Petroleum Corp.	Castle Hayne, NC	28	1	1	3,315,098	4,089,286	
24	Frog Switch & Mfg. Co.	Carlisle, PA	33	3	3	45,782	761,583	
25	Timken Co., Faircrest Steel Plant	Canton, OH	33	7	7	28,325	708,942	
26	Madison Ind. Inc.	Old Bridge, NJ	28	3	3	335,201	995,493	
27	Grede Foundries Inc., Milwaukee Steel Div.	Milwaukee, WI	33	3	5	92,887	694,267	
28	Ameristeel Knoxville Mill Div., Ameristeel Corp.	Knoxville, TN	33	6	6	50,654	604,950	
29	Metal Mark Inc., Imco Recycling Inc.	Chicago Heights, IL	33	1	6	14,863	565,941	
30	Kerr-McGee Chemical Corp. Electrolytic Plant, Kerr-McGee Corp.	Hamilton, MS	Mult.	3	3	1,811,170	2,350,576	
31	Timken Co., Harrison Steel Plant	Canton, OH	33	7	7	39,698	535,843	
32	American Bumper & Mfg. Co.	Ionia, MI	34	2	2	86,418	544,802	
33	Thomson Consumer Electronics Inc.	Circleville, OH	32	3	3	160,325	617,507	
34	Geneva Steel	Vineyard, UT	33	7	8	370,594	813,663	
35	C&D Powercom Inc., C&D Charter Power Sys. Inc.	Conyers, GA	36	1	1	574	432,313	
36	Quemetco Inc., RSR Corp.	Indianapolis, IN	33	5	6	827,741	1,236,567	
37	Cascade Steel Rolling Mills, Schnitzer Steel Ind.	McMinnville, OR	33	5	5	1,971	401,490	
38	DuPont Sabine River Works	Orange, TX	28	5	5	139,340	537,985	
39	Bar Techs. Inc., Primary Ops.	Johnstown, PA	33	*	5	*	377,472	
40	Glenbrook Nickel Co., Cominco American Inc.	Riddle, OR	33	1	1	547,714	922,590	
41	Marport Smelting Co.	East Chicago, IN	33	3	3	32,744	380,994	
42	Tamco	Rancho Cucamonga, CA	33	4	3	125,485	472,989	
43	Imco Recycling Inc.	Morgantown, KY	33	4	5	281,499	621,454	
44	General Battery Corp., Exide Corp.	Reading, PA	33	6	6	892,046	1,223,231	
45	Chino Mines Co.	Hurley, NM	33	1	1	3,153,940	3,476,044	
46	Boyles Galvanizing Co., Kinark Corp.	Commerce City, CO	34	2	1	13,333	322,292	
47	Charter Steel, Charter Mfg. Co. Inc.	Saukville, WI	33	5	6	120,050	428,943	
48	Auburn Steel Co. Inc.	Auburn, NY	33	4	4	4,209	298,393	
49	Able Electro Polishing	Chicago, IL	34	1	1	18,701	293,995	
50	Granite City Steel, National Steel Corp.	Granite City, IL	33	6	6	2,359,586	2,620,484	
Total				224	266	60,772,493	115,043,496	

* Indicates facility did not report any matched metals that year. ** Chemical accounting for more than 70% of increase in total releases and transfers of metals from the facility.

➤ Three TRI facilities reported in error: Thomson Consumer Electronics, Dunmore, PA, reported 3.1 kg transfers to disposal of lead compounds; Gunderson Inc., Portland, OR, reported 2.8 kg air releases of manganese; Tennessee Aluminum Processor Inc., Mount Pleasant, TN, reported 720,000 kg on-site land releases and 165,000 kg transfers to disposal of aluminum; These facilities have been omitted from this table.

➤ One TRI facility was assigned the wrong name in the database. Koppel Steel Corp. is the correct name for the facility in Koppel, PA.

➤ Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to NPRI.

Rank	Change 1995–1996			Major Chemicals Reported with Increases (Primary Media/Transfers with Increases)**
	Total Releases (kg)	Total Transfers (kg)	Total Releases and Transfers (kg)	
1	6,447,163	0	6,447,163	Copper/Zinc and compounds (land)
2	8,663	3,512,205	3,520,868	Zinc and compounds (transfers to treatment, disposal)
3	0	3,107,868	3,107,868	Aluminum oxide (transfers to disposal)
4	-9,197	2,454,882	2,445,685	Zinc and compounds (transfers to disposal)
5	2,357,428	-8,166	2,349,262	Copper and compounds (air)
6	2,246,128	-163	2,245,966	Zinc/Copper and compounds (land)
7	-1,157	2,242,329	2,241,172	Zinc and compounds (transfers to disposal)
8	-5,967	2,059,555	2,053,588	Zinc and compounds (transfers to treatment)
9	1,459	2,050,791	2,052,249	Zinc and compounds (transfers to disposal)
10	-6,009	1,728,767	1,722,758	Zinc and compounds (transfers to treatment)
11	1,513,571	177,256	1,690,828	Copper and compounds (land)
12	13,980	1,626,580	1,640,560	Zinc and compounds (transfers to disposal)
13	-11,522	1,601,938	1,590,416	Zinc and compounds (transfers to treatment)
14	-438	1,430,806	1,430,368	Zinc and compounds (transfers to treatment)
15	643	1,072,358	1,073,001	Copper and compounds (transfers to disposal)
16	1,070,683	0	1,070,683	Lead/Zinc and compounds (land)
17	3,875	906,962	910,837	Zinc and compounds (transfers to disposal)
18	81,654	816,327	897,980	Manganese and compounds (transfers to disposal)
19	-238	861,773	861,535	Zinc/Manganese and compounds (transfers to disposal)
20	861,315	-13,696	847,619	Chromium and compounds (land)
21	-24,888	830,610	805,722	Zinc/Lead and compounds (transfers to treatment)
22	643,565	161,166	804,731	Zinc and compounds (land)
23	771,376	2,812	774,188	Chromium and compounds (land)
24	3	715,798	715,801	Manganese and compounds (transfers to disposal)
25	277	680,340	680,617	Zinc and compounds (transfers to treatment)
26	-58	660,350	660,292	Zinc and compounds (transfers to treatment)
27	305	601,075	601,380	Manganese/Chromium and compounds (transfers to disposal)
28	-24,883	579,179	554,296	Zinc and compounds (transfers to treatment)
29	287,969	263,109	551,078	Aluminum (land, transfers to disposal)
30	539,406	0	539,406	Manganese and compounds (land)
31	1,691	494,454	496,145	Zinc and compounds (transfers to treatment)
32	-1,351	459,734	458,384	Nickel and compounds (transfers to treatment)
33	218	456,964	457,182	Lead and compounds (transfers to disposal), Chromium and compounds (transfers to treatment)
34	443,069	0	443,069	Zinc and compounds (land)
35	77	431,663	431,740	Lead and compounds (transfers to treatment)
36	-1,693	410,520	408,826	Antimony/Lead and compounds (transfers to disposal)
37	-770	400,289	399,520	Zinc and compounds (transfers to treatment)
38	-2,916	401,561	398,645	Nickel and compounds (transfers to disposal)
39	1,145	376,327	377,472	Zinc and compounds (transfers to disposal)
40	374,876	0	374,876	Nickel and compounds (land)
41	-4	348,254	348,250	Zinc/Copper and compounds (transfers to disposal)
42	720	346,784	347,504	Zinc and compounds (transfers to disposal)
43	339,955	0	339,955	Aluminum (land)
44	-59	331,243	331,185	Lead and compounds (transfers to disposal, treatment)
45	322,104	0	322,104	Copper and compounds (land)
46	7	308,952	308,959	Zinc and compounds (transfers to disposal)
47	5,796	303,098	308,893	Zinc and compounds (transfers to treatment)
48	-1,967	296,151	294,184	Zinc and compounds (transfers to treatment)
49	5	275,290	275,294	Chromium and compounds (transfers to treatment)
50	260,934	-36	260,898	Zinc and compounds (land)
	18,506,944	35,764,059	54,271,002	

6.5 Industry Distribution

No change in rank occurred for any of the top seven NPRI industries for total releases and transfers from 1995 to 1996. The primary metal industries (US SIC code 33) reported the largest NPRI releases and transfers in both years, followed by chemical manufacturing (US SIC code 28), and paper products (US SIC code 26, see **Table 6-40**, pp. 248-49).

The paper products industry reported the largest reduction in NPRI reporting from 1995 to 1996, a decrease of 9 million kg, almost one-third of that sector's 1995 total. This reduction came almost entirely in lowered releases (with only a small increase in transfers). The largest increase—4 million kg—was reported by the primary metal industries. Most of this increase was reported in transfers. Releases and transfers reported by other industries changed less than 1 million kg one way or the other.

Taking Stock 1995 featured a special examination of trends and influences in reporting by pulp and paper producers in both countries. That review found many Canadian pulp mills taking steps to reduce their surface water discharges, responding in part to new federal and provincial regulations that placed more stringent limits on such discharges. Many Canadian mills indicated that new treatment capacity would be fully operational by the end of 1995. The substantial reductions reported in these 1996 data would seem to testify to the effectiveness of those measures.

Industries' rankings for total releases and transfers were even more stable in TRI for 1995-1996. No change in rank occurred for any of the top 11 TRI industries (**Table 6-41**, pp. 250-51).

In TRI, chemical manufacturing reported the largest releases and transfers in both years and the largest reduction—29 million kg. Primary metal industries ranked second for total releases and transfers in both years and reported the largest increase—32 million kg. As in NPRI, paper products ranked third for total releases and transfers in both years.

About three-quarters of the chemical industry's TRI reduction occurred in releases. The primary metal industries' increase consisted about equally of releases and transfers.

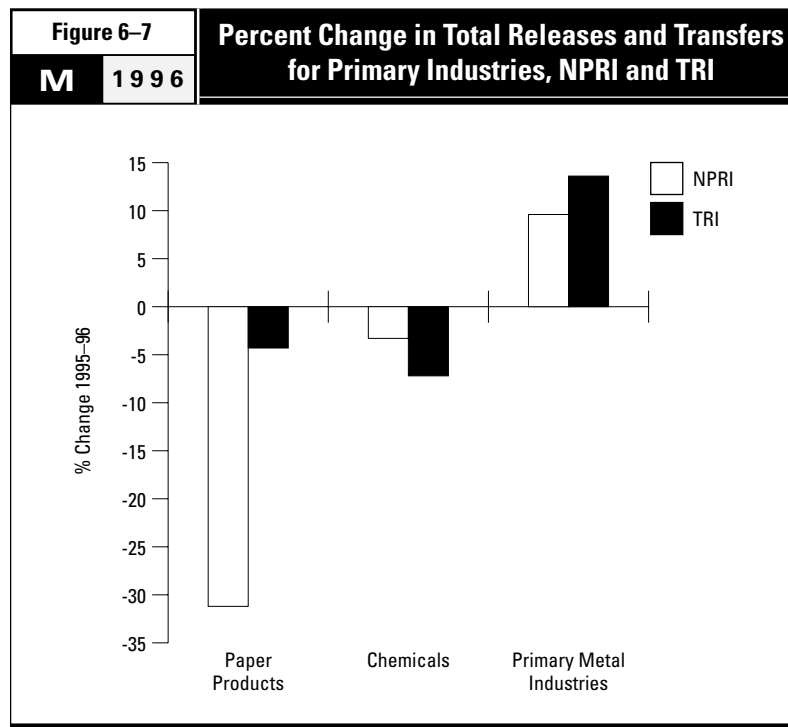
Although the paper products and chemicals industries reported decreases in both countries, the Canadian paper industry's 31 percent reduction far outstripped the 4 percent reduction reported by its US counterparts. In the chemical manufacturing industry, the larger percentage reduction occurred in the United States (7 percent decrease in TRI compared to 3 percent in NPRI). The primary metal industries' increase was also somewhat larger in the United States (14 percent, compared to 10 percent in Canada, see **Figure 6-7**).

Facilities with large increases may include those newly reporting in 1996 as well as entities that previously reported separately but combined their reporting as one facility in 1996. Facilities with large decreases may include those whose use of the substance(s) declined below the reporting threshold for 1996, plants that closed, or a company that sold part of a facility and the resulting operations now report as two facilities instead of one.

Top NPRI Facilities for Changes in Releases

Eighteen of the 50 NPRI facilities with the largest decreases in releases from 1995 to 1996 reported in the paper products industry (US SIC code 26), the industry which had the largest reduction. Eight facilities with large reductions reported in chemical manufacturing (US SIC code 28) and six each in primary metal industries (US SIC code 33) and transportation equipment manufacture (US SIC code 37). The top 50 facilities for reductions reported a total decrease of 20 million kg (**Table 6-42**, pp. 252-53).

Sherritt International Corporation in Fort Saskatchewan, Alberta, reported the largest decreases in releases from 1995 to 1996. Sherritt previously reported for itself and two related units as one facility. In 1996, the three entities filed separately for the first time, giving Sherritt International an apparent large reduction in amounts reported. The facilities with the second- and third-largest decreases in releases both eliminated methanol discharges to surface water by installing treatment facilities in 1995, which were fully operational in 1996. These facilities were the James River Corporation in Marathon, Ontario, and Cartons St-Laurent in Latuque, Quebec. Both are paper products manufacturers. As noted in *Taking Stock 1995*, many Canadian pulp and paper mills installed such equipment during 1995. Ranking fourth for reductions, Methanex Corporation in Medicine Hat, Alberta, brought vent gas recovery systems on-line at two plants, virtually eliminating stack emissions of methanol from those operations.



The 50 NPRI facilities with the largest increases were somewhat less concentrated among the industries. Nine reported in chemical manufacturing and eight each in paper products, primary metal industries, and transportation equipment. The top 50 facilities reported a total increase of 11 million kg (**Table 6-43**, pp. 254-55).

Agrium Products in Fort Saskatchewan, Alberta, ranked first in NPRI for increased releases from 1995 to 1996. This facility filed separately (from Sherritt International Corporation, noted above) for the first time in 1996, creating the apparent increase. Ranking second for increased releases was Gerdau MRM Steel in Selkirk, Manitoba. As described earlier in this chapter (**Section 6.4.2**), this facility attributed its increases to improved estimation methods. The Gerdau facility also combined filing with a neighboring facility, owned by the same parent company, that had previously reported separately. Celanese Canada in Edmonton, Alberta, ranked fourth for increased releases and attributed its increase to improved data collection. With the fifth-largest increase in releases, Sidbec-Dosco (Ispat) Acierie in Contrecoeur, Quebec, reported a change in its raw materials during 1996, as noted earlier in this chapter.

Top NPRI Facilities for Changes in Releases and Transfers

The top 50 facilities in NPRI for reductions in total releases and transfers from 1995 to 1996 reported 27 million kg of reductions. Eleven facilities reported in primary metal industries (US SIC code 33) and 10 each in paper product manufacturing (US SIC code 26) and chemical manufacturing (US SIC code 28). Decreases in releases amounted to 71 percent of the total reduction (**Table 6-44**, pp. 256-57).

Three of the four facilities whose explanations of large reductions in releases appear above also ranked among the top facilities for reductions of total releases and transfers: Sherritt International Corporation in Fort Saskatchewan, Alberta, ranked second overall; James River Corporation in Marathon, Ontario, ranked third; and Methanex Corporation in Medicine Hat, Alberta, ranked fifth.

The top 50 NPRI facilities for increases in total releases and transfers reported 21 million kg more in 1996 than in 1995. Sixteen of these facilities reported in primary metal industries and 15 in chemical manufacturing. More than half (54 percent) of the increase by these facilities was reported in transfers (**Table 6-45**, pp. 258-59).

Agrium Products in Fort Saskatchewan, Alberta, ranked second for overall increases and Gerdau MRM Steel in Selkirk, Manitoba, ranked fourth. Explanations of their increases appear above.

The 50 facilities with large reductions contributed much of NPRI's overall reduction in total releases and transfers from 1995 to 1996. Taken together, the facilities with the largest changes—the 50 with the greatest decreases and the 50 with the greatest increases—continued to account for more than half of all releases and transfers reported to NPRI (**Figure 6-8**).

Top TRI Facilities for Changes in Releases

Half of the 50 TRI facilities with the largest decreases in releases from 1995 to 1996 reported in the chemical industry (US SIC code 28). Six of the facilities reported in the primary metal industries (US SIC code 33). No other industry had more than

five facilities among the top reducers. The releases from these 50 facilities decreased by 47 million kg from 1995 to 1996 (**Table 6-46**, pp. 260-61).

Among the top 50 TRI facilities for increases were 17 primary metals facilities and 17 chemical industry facilities. The total increase reported from the 50 facilities with the largest individual increases was 43 million kg (**Table 6-47**, pp. 262-63).

Top TRI Facilities for Changes in Releases and Transfers

The top 50 facilities in TRI for decreases in total releases and transfers from 1995 to 1996 reported reductions of 67 million kg. Twenty-eight of these facilities reported in the chemical manufacturing industry (US SIC code 28) and another 9 in primary metal industries (US SIC code 33). More than half (57 percent) of the reductions from these 50 facilities came in releases (**Table 6-48**, pp. 264-65).

The top 50 TRI facilities for increases in total releases and transfers reported an increase of 68 million kg. Twenty-two were primary metals facilities and 19 were chemical manufacturing facilities. Transfers accounted for 55 percent of the 50 facilities' increases (**Table 6-49**, pp. 266-67).

As in NPRI, the 50 facilities with large reductions contributed much of TRI's overall reduction in total releases and transfers from 1995 to 1996. In TRI, the 100 facilities with the largest changes—50 with large decreases and 50 with large increases—continued to represent about one-fourth of all releases and transfers reported (**Figure 6-8**).

[Text continues on p. 268.]

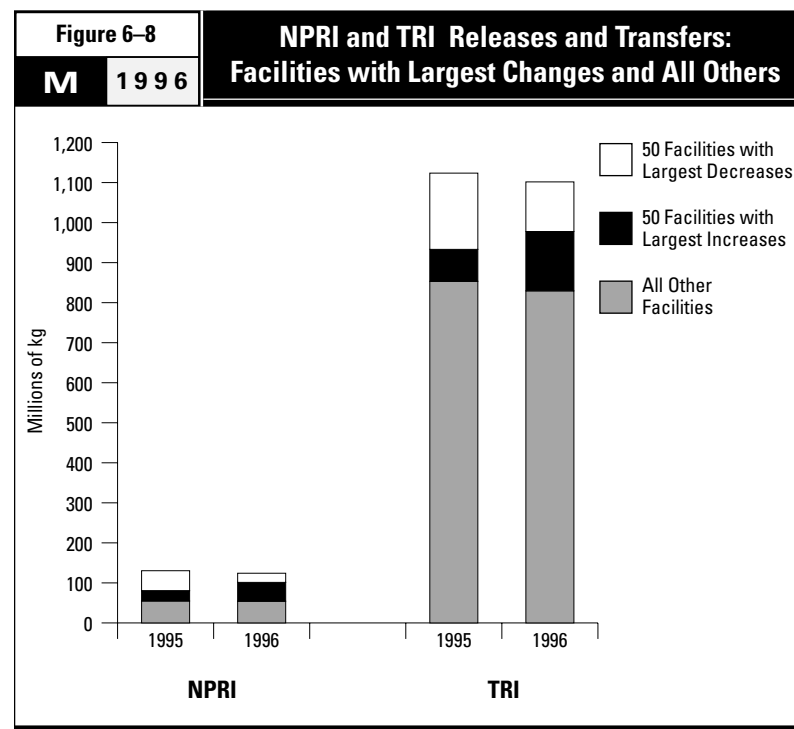


Table 6-40		NPRI Releases and Transfers, by Industry (US SIC Code) (Ordered by Total 1996 Releases and Transfers)				
M	1996					
		1995				
US SIC Code	Industry	Number of Forms	Total Releases (kg)	Total Transfers (kg)	Total Releases and Transfers (kg)	Rank
33	Primary Metal Industries	602	18,621,142	18,761,751	37,382,893	1
28	Chemicals	1,325	22,852,744	11,252,466	34,105,210	2
26	Paper Products	302	26,276,639	1,968,046	28,244,685	3
37	Transportation Equipment	304	6,599,971	953,248	7,553,219	4
30	Rubber and Plastics Products	275	6,325,235	1,123,574	7,448,809	5
29	Petroleum and Coal Products	353	4,903,716	399,148	5,302,864	6
34	Fabricated Metals Products	381	1,779,841	1,566,217	3,346,058	7
24	Lumber and Wood Products	135	1,211,133	65,170	1,276,303	9
32	Stone/Clay/Glass Products	87	1,062,555	384,957	1,447,512	8
27	Printing and Publishing	21	766,524	101,053	867,577	11
39	Misc. Manufacturing Industries	76	123,388	212,165	335,553	16
20	Food Products	98	35,513	403,624	439,137	15
35	Industrial Machinery	68	464,116	125,681	589,797	13
25	Furniture and Fixtures	29	486,807	7,793	494,600	14
36	Electronic/Electrical Equipment	84	225,527	408,568	634,095	12
22	Textile Mill Products	19	918,196	8,004	926,200	10
31	Leather Products	3	17,858	6,030	23,888	17
23	Apparel and Other Textile Products	1	860	0	860	19
38	Measurement/Photographic Instruments	1	1	1,500	1,501	18
Total		4,164	92,671,766	37,749,005	130,420,771	
		Change 1995-1996				
US SIC Code	Industry	Number	kg	kg	kg	Rank
33	Primary Metal Industries	-13	642,415	2,927,900	3,570,315	19
28	Chemicals	42	-1,584,672	469,442	-1,115,230	2
26	Paper Products	15	-8,842,511	40,971	-8,801,540	1
37	Transportation Equipment	50	-211,816	140,551	-71,265	8
30	Rubber and Plastics Products	-7	-370,228	-12,379	-382,607	4
29	Petroleum and Coal Products	-20	-199,954	121,739	-78,215	7
34	Fabricated Metals Products	3	254,198	196,417	450,615	17
24	Lumber and Wood Products	8	523,292	-8,386	514,906	18
32	Stone/Clay/Glass Products	6	-144,573	-141,810	-286,383	5
27	Printing and Publishing	2	-95,172	82,685	-12,487	9
39	Misc. Manufacturing Industries	31	414,136	-10,018	404,118	16
20	Food Products	18	333,737	-33,209	300,528	15
35	Industrial Machinery	-4	-44,265	48,069	3,804	14
25	Furniture and Fixtures	-4	-11,732	1,713	-10,019	11
36	Electronic/Electrical Equipment	11	-139,542	-38,079	-177,621	6
22	Textile Mill Products	-3	-586,545	-2,047	-588,592	3
31	Leather Products	-1	-11,958	1,570	-10,388	10
23	Apparel and Other Textile Products	0	-120	0	-120	13
38	Measurement/Photographic Instruments	0	4	-1,450	-1,446	12
Total		134	-10,075,306	3,783,682	-6,291,624	

1996				
Number of Forms	Total Releases (kg)	Total Transfers (kg)	Total Releases and Transfers (kg)	Rank
589	19,263,557	21,689,651	40,953,208	1
1,367	21,268,072	11,721,908	32,989,980	2
317	17,434,128	2,009,017	19,443,145	3
354	6,388,155	1,093,799	7,481,954	4
268	5,955,007	1,111,195	7,066,202	5
333	4,703,762	520,887	5,224,649	6
384	2,034,039	1,762,634	3,796,673	7
143	1,734,425	56,784	1,791,209	8
93	917,982	243,147	1,161,129	9
23	671,352	183,738	855,090	10
107	537,524	202,147	739,671	11
116	369,250	370,415	739,665	12
64	419,851	173,750	593,601	13
25	475,075	9,506	484,581	14
95	85,985	370,489	456,474	15
16	331,651	5,957	337,608	16
2	5,900	7,600	13,500	17
1	740	0	740	18
1	5	50	55	19
4,298	82,596,460	41,532,687	124,129,147	

Percent Change 1995–1996				
%	%	%	%	Rank
-2.2	3.4	15.6	9.6	15
3.2	-6.9	4.2	-3.3	9
5.0	-33.7	2.1	-31.2	4
16.4	-3.2	14.7	-0.9	13
-2.5	-5.9	-1.1	-5.1	8
-5.7	-4.1	30.5	-1.5	11
0.8	14.3	12.5	13.5	16
5.9	43.2	-12.9	40.3	17
6.9	-13.6	-36.8	-19.8	6
9.5	-12.4	81.8	-1.4	12
40.8	335.6	-4.7	120.4	19
18.4	939.8	-8.2	68.4	18
-5.9	-9.5	38.2	0.6	14
-13.8	-2.4	22.0	-2.0	10
13.1	-61.9	-9.3	-28.0	5
-15.8	-63.9	-25.6	-63.5	2
-33.3	-67.0	26.0	-43.5	3
0.0	-14.0	—	-14.0	7
0.0	400.0	-96.7	-96.3	1
3.2	-10.9	10.0	-4.8	

Table 6-41		TRI Releases and Transfers, by Industry (US SIC Code) (Ordered by Total 1996 Releases and Transfers)				
M	1996					
		1995				
US SIC Code	Industry	Number of Forms	Total Releases (kg)	Total Transfers (kg)	Total Releases and Transfers (kg)	Rank
28	Chemicals	16,590	282,568,964	117,383,332	399,952,296	1
33	Primary Metal Industries	5,935	146,941,489	91,621,288	238,562,777	2
26	Paper Products	1,972	99,594,789	23,822,196	123,416,985	3
	Multiple Codes 20-39	4,462	54,701,142	18,269,964	72,971,106	4
30	Rubber and Plastics Products	3,171	43,799,336	6,929,589	50,728,925	5
37	Transportation Equipment	3,822	41,763,984	7,563,294	49,327,278	6
34	Fabricated Metals Products	6,823	26,395,686	11,105,048	37,500,734	7
29	Petroleum and Coal Products	2,739	20,614,116	3,588,754	24,202,870	8
36	Electronic/Electrical Equipment	2,670	9,442,328	10,070,821	19,513,149	9
25	Furniture and Fixtures	1,363	17,823,103	439,624	18,262,727	10
20	Food Products	2,604	6,390,087	7,605,659	13,995,746	11
32	Stone/Clay/Glass Products	1,369	8,250,840	3,390,742	11,641,582	14
27	Printing and Publishing	410	13,412,651	265,557	13,678,208	13
24	Lumber and Wood Products	1,615	13,484,202	243,621	13,727,823	12
35	Industrial Machinery	2,486	7,873,638	2,997,889	10,871,527	15
22	Textile Mill Products	553	6,754,882	1,341,051	8,095,933	17
38	Measurement/Photographic Instruments	607	6,140,957	2,197,622	8,338,579	16
39	Misc. Manufacturing Industries	661	4,857,053	1,441,874	6,298,927	18
31	Leather Products	150	770,970	793,673	1,564,643	19
23	Apparel and Other Textile Products	37	443,240	39,909	483,149	20
21	Tobacco Products	18	469,508	72	469,580	21
	Total	60,057	812,492,966	311,111,582	1,123,604,548	
		Change 1995-1996				
US SIC Code	Industry	Number	kg	kg	kg	Rank
28	Chemicals	-363	-21,446,415	-7,239,386	-28,685,801	1
33	Primary Metal Industries	-19	16,652,477	15,807,954	32,460,431	21
26	Paper Products	6	-4,222,858	-1,046,464	-5,269,322	3
	Multiple Codes 20-39	-646	-13,095,145	-3,163,569	-16,258,714	2
30	Rubber and Plastics Products	-121	-1,651,083	-380,650	-2,031,733	6
37	Transportation Equipment	-114	-1,367,773	-1,409,910	-2,777,683	4
34	Fabricated Metals Products	-253	-4,164,358	3,976,572	-187,786	11
29	Petroleum and Coal Products	-15	2,829,987	324,468	3,154,455	20
36	Electronic/Electrical Equipment	-127	-1,175,139	2,639,978	1,464,839	17
25	Furniture and Fixtures	-211	-2,345,413	-74,707	-2,420,120	5
20	Food Products	-20	1,250,338	461,220	1,711,558	18
32	Stone/Clay/Glass Products	51	2,310,408	495,853	2,806,261	19
27	Printing and Publishing	-40	-1,331,798	-6,021	-1,337,819	9
24	Lumber and Wood Products	-20	-1,544,106	-69,060	-1,613,166	8
35	Industrial Machinery	-75	-1,099,664	932,946	-166,718	13
22	Textile Mill Products	-67	76,143	-225,084	-148,941	14
38	Measurement/Photographic Instruments	-44	-674,951	-448,204	-1,123,155	10
39	Misc. Manufacturing Industries	-26	-969,386	-647,307	-1,616,693	7
31	Leather Products	-25	-234,080	50,288	-183,792	12
23	Apparel and Other Textile Products	-1	205,301	-11,012	194,289	16
21	Tobacco Products	0	126,505	109	126,614	15
	Total	-2,130	-31,871,014	9,968,009	-21,903,005	

1996				
Number of Forms	Total Releases (kg)	Total Transfers (kg)	Total Releases and Transfers (kg)	Rank
16,227	261,122,549	110,143,946	371,266,495	1
5,916	163,593,966	107,429,242	271,023,208	2
1,978	95,371,931	22,775,732	118,147,663	3
3,816	41,605,997	15,106,395	56,712,392	4
3,050	42,148,253	6,548,939	48,697,192	5
3,708	40,396,211	6,153,384	46,549,595	6
6,570	22,231,328	15,081,620	37,312,948	7
2,724	23,444,103	3,913,222	27,357,325	8
2,543	8,267,189	12,710,799	20,977,988	9
1,152	15,477,690	364,917	15,842,607	10
2,584	7,640,425	8,066,879	15,707,304	11
1,420	10,561,248	3,886,595	14,447,843	12
370	12,080,853	259,536	12,340,389	13
1,595	11,940,096	174,561	12,114,657	14
2,411	6,773,974	3,930,835	10,704,809	15
486	6,831,025	1,115,967	7,946,992	16
563	5,466,006	1,749,418	7,215,424	17
635	3,887,667	794,567	4,682,234	18
125	536,890	843,961	1,380,851	19
36	648,541	28,897	677,438	20
18	596,013	181	596,194	21
57,927	780,621,952	321,079,591	1,101,701,543	

Percent Change 1995–1996				
%	%	%	%	Rank
-2.2	-7.6	-6.2	-7.2	8
-0.3	11.3	17.3	13.6	18
0.3	-4.2	-4.4	-4.3	10
-14.5	-23.9	-17.3	-22.3	2
-3.8	-3.8	-5.5	-4.0	11
-3.0	-3.3	-18.6	-5.6	9
-3.7	-15.8	35.8	-0.5	14
-0.5	13.7	9.0	13.0	17
-4.8	-12.4	26.2	7.5	15
-15.5	-13.2	-17.0	-13.3	4
-0.8	19.6	6.1	12.2	16
3.7	28.0	14.6	24.1	19
-9.8	-9.9	-2.3	-9.8	7
-1.2	-11.5	-28.3	-11.8	5
-3.0	-14.0	31.1	-1.5	13
-12.1	1.1	-16.8	-1.8	12
-7.2	-11.0	-20.4	-13.5	3
-3.9	-20.0	-44.9	-25.7	1
-16.7	-30.4	6.3	-11.7	6
-2.7	46.3	-27.6	40.2	21
0.0	26.9	151.4	27.0	20
-3.5	-3.9	3.2	-1.9	

Table 6-42		NPRI Facilities with Largest Decrease in Total Releases							
M 1996									
Rank	Facility	City, Province	SIC Code		Number of Forms		Total Releases		
			Canada	US	1995	1996	1995 (kg)	1996 (kg)	
1	Sherritt International Corporation	Fort Saskatchewan, AB	37	28	13	10	2,275,064	179,700	
2	James River Corporation	Marathon, ON	27	26	4	4	2,215,100	149,600	
3	Cartons St-Laurent Inc.	Latuque, QC	27	26	4	8	2,407,638	402,093	
4	Methanex Corporation	Medicine Hat, AB	37	28	5	4	3,353,220	1,454,080	
5	Domtar Packaging, Red Rock Mill	Red Rock, ON	27	26	1	2	1,900,000	235,117	
6	Irving Pulp & Paper Ltd./Irving Tissue Co.	Saint John, NB	27	26	4	4	3,663,623	2,183,425	
7	Algoma Steel Inc., Main Works	Sault Ste. Marie, ON	29	33	17	16	1,598,360	261,169	
8	Co-Steel Lasco	Whitby, ON	29	33	6	6	2,411,507	1,254,893	
9	Les Papiers Perkins Ltée	Candiac, QC	27	26	1	*	793,700	*	
10	Bayer Rubber Inc.	Sarnia, ON	37	28	15	16	2,336,921	1,725,826	
11	Standard Products (Canada) Ltd., Rubber Plant 1	Stratford, ON	15	30	3	3	951,015	582,700	
12	Avenor Inc.	Thunder Bay, ON	27	26	7	8	1,123,783	767,070	
13	General Motors of Canada Limited, Truck Plant-Autoplex	Oshawa, ON	32	37	12	11	850,907	610,855	
14	Weyerhaeuser Saskatchewan Ltd., Prince Albert Pulp & Paper	Prince Albert, SK	27	26	4	6	672,732	437,406	
15	Pétromont, société en commandite	Montréal-Est, QC	37	28	1	2	350,611	131,106	
16	Domtar Papers, Cornwall Business Unit	Cornwall, ON	27	26	6	6	598,950	386,122	
17	Velcro Canada Inc.	Brampton, ON	19	22	3	*	204,985	*	
18	Sydney Steel Corporation	Sydney, NS	29	33	10	9	533,500	331,280	
19	General Motors of Canada Limited, Car Plant-Autoplex	Oshawa, ON	32	37	12	11	1,412,204	1,216,263	
20	Durabla Canada Ltd.	Belleville, ON	15	30	1	2	201,000	9,000	
21	Abitibi-Consolidated Inc., Division Belgo	Shawinigan, QC	27	26	4	4	189,126	3,877	
22	Sammi Atlas Inc., Aciers inoxydables Atlas	Tracy, QC	29	33	11	11	748,235	563,787	
23	3M Canada Company (Perth)	Perth, ON	35	32	5	3	209,287	47,137	
24	Inco Nickel Refinery, Copper Cliff Nickel Refinery	Copper Cliff, ON	29	33	7	*	153,630	*	
25	Petro-Canada, Edmonton Refinery	Edmonton, AB	36	29	15	14	227,200	76,415	
26	Chrysler Canada, Ltd., Pillette Road Truck Assembly Plant	Windsor, ON	32	37	8	8	219,276	107,481	
27	Freightliner of Canada Ltd.	St. Thomas, ON	32	37	4	4	172,280	71,750	
28	loco Refinery—Imperial Oil	Port Moody, BC	36	29	14	*	95,310	*	
29	Stone-Consolidated Corporation	Kenora, ON	27	26	3	3	99,783	4,501	
30	Imperial Oil, IOL Dartmouth Refinery	Dartmouth, NS	36	29	13	13	284,268	192,792	
31	Cami Automotive Inc.	Ingersoll, ON	32	37	12	12	389,808	300,226	
32	MB Paper Ltd.	Powell River, BC	27	26	5	4	371,000	285,110	
33	Ford Motor Company, St. Thomas Assembly Plant	St. Thomas, ON	32	37	12	11	626,463	543,878	
34	Formica Canada Inc., FCI-JN	St-Jean-sur-Richelieu, QC	27	26	2	2	420,000	339,192	
35	Sulconam Inc., Sulfur Plant	Montréal-Est, QC	37	28	2	2	84,700	5,500	
36	Canac Kitchens Limited	Thornhill, ON	25	24	16	6	205,317	129,749	
37	Tarxien Components Corporation, Paint Facility	Concord, ON	16	30	5	7	204,772	130,431	
38	Industries James Maclaren Inc., Div. de la pâte Kraft	Thurso, QC	27	26	3	3	125,760	51,850	
39	Maax, Division fibre de verre moderne-usine 4	Tring-Jonction, QC	16	30	1	1	91,820	19,373	
40	Canfor, Prince George Pulp & Paper Mills	Prince George, BC	27	26	4	4	469,600	397,700	
41	Dow Chemical Canada Inc.	Sarnia, ON	37	28	20	20	482,557	411,891	
42	Industries James Maclaren Inc., Div. du papier journal	Masson-Angers, QC	27	26	1	1	80,507	10,410	
43	Borden Co., Sunworthy Wallcoverings	Brampton, ON	27	26	5	5	705,800	635,850	
44	Pétromont, société en commandite	Varenes, QC	37	28	9	10	445,966	382,315	
45	Aluminerie de Bécancour Inc.	Bécancour, QC	29	33	3	3	204,200	141,300	
46	JPE Canada Inc.	Peterborough, ON	16	30	4	3	186,999	124,158	
47	Irving Paper	Saint John, NB	27	26	1	2	59,228	782	
48	Daishowa Inc., usine de Québec	Québec, QC	27	26	3	1	56,900	0	
49	Camco Inc.	Hamilton, ON	33	35	5	4	76,710	20,163	
50	Montell Canada Inc	Varenes, QC	37	28	5	5	83,838	28,594	
Total					331	294	37,625,160	17,343,917	

* Indicates facility did not report any matched chemicals that year.

** Chemical accounting for more than 70% of decrease in total releases from the facility.

► Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to TRI.

Rank	Change 1995–1996 in Total Releases (kg)	Major Chemicals Reported with Decreases (Primary Media with Decreases)**
1	-2,095,364	Methanol (air)
2	-2,065,500	Methanol (water)
3	-2,005,545	Methanol (water)
4	-1,899,140	Methanol (air)
5	-1,664,883	Methanol (water)
6	-1,480,198	Methanol (water)
7	-1,337,191	Manganese and compounds (land)
8	-1,156,614	Copper and compounds (land)
9	-793,700	Xylene (air)
10	-611,095	Chloromethane, Hydrochloric acid, 1,3-Butadiene (air)
11	-368,315	Xylene (air)
12	-356,713	Methanol (air)
13	-240,052	Xylene, n-Butyl alcohol (air)
14	-235,326	Chlorine (air)
15	-219,505	Ethylene (air)
16	-212,828	Methanol (water)
17	-204,985	Methyl ethyl ketone (air)
18	-202,220	Manganese/Zinc/Lead and compounds (land)
19	-195,941	Xylene, n-Butyl alcohol (air)
20	-192,000	Toluene (air)
21	-185,249	Formaldehyde (water)
22	-184,448	Nitric acid and nitrate compounds (water)
23	-162,150	Xylene, Toluene (air)
24	-153,630	Nickel/Lead and compounds (air)
25	-150,785	Propylene, Xylene, Toluene (air)
26	-111,795	Xylene (air)
27	-100,530	Toluene (air)
28	-95,310	Xylene, Toluene, 1,2,4-Trimethylbenzene, Cyclohexane, Propylene (air)
29	-95,282	Methanol (water)
30	-91,476	Xylene, Toluene (air)
31	-89,582	Xylene, Methyl ethyl ketone (air)
32	-85,890	Methanol, Chlorine (air)
33	-82,585	n-Butyl alcohol, Methyl isobutyl ketone (air)
34	-80,808	Methanol (air)
35	-79,200	Diethanolamine (land)
36	-75,568	Toluene, Methyl isobutyl ketone, Styrene, n-Butyl alcohol (air)
37	-74,341	Methanol (air)
38	-73,910	Chlorine dioxide (air)
39	-72,447	Styrene (air)
40	-71,900	Methanol (air)
41	-70,666	Ethylene (air), Asbestos (land)
42	-70,097	Methanol (water)
43	-69,950	Toluene, Methyl ethyl ketone (air)
44	-63,651	Ethylene (air)
45	-62,900	Hydrogen fluoride (air)
46	-62,841	Xylene, Methyl ethyl ketone (air)
47	-58,446	Methanol (water)
48	-56,900	Methanol (water)
49	-56,547	Xylene, Toluene, 1,2,4-Trimethylbenzene (air)
50	-55,244	Propylene (air)
	-20,281,243	

Table 6-43		NPRI Facilities with Largest Increase in Total Releases							
Rank	Facility	City, Province	SIC Code		Number of Forms		Total Releases		
			Canada	US	1995	1996	1995 (kg)	1996 (kg)	
1	Agrium Products Inc.	Fort Saskatchewan, AB	37	28	*	10	*	2,121,980	
2	Gerdau MRM Steel Inc.	Selkirk, MB	29	33	4	5	762,000	2,031,067	
3	Inco Limited, Copper Cliff Smelter Complex	Copper Cliff, ON	29	33	7	7	3,662,640	4,773,818	
4	Celanese Canada Inc.	Edmonton, AB	37	28	10	10	3,497,171	4,492,813	
5	Sidbec-Dosco (Ispat) Inc., acierie	Contrecoeur, QC	29	33	5	5	1,510,387	2,322,985	
6	Agrium Products Inc.	Redwater, AB	37	28	11	15	651,881	956,800	
7	Kraft Canada Inc., Ingleside Cheese Operations	Ingleside, ON	10	20	1	2	0	280,000	
8	Fletcher Challenge Canada, Elk Falls Mill	Campbell River, BC	27	26	4	4	612,600	884,500	
9	Hudson Bay Mining and Smelting Co. Ltd., Metallurgical Complex	Flin Flon, MB	29	33	6	6	181,387	437,092	
10	Chrysler Canada, Ltd., Bramalea Assembly Plant	Brampton, ON	32	37	11	12	153,985	407,240	
11	Pétroles Coastal Canada Inc., Pétrochimie Coastal du Canada	Montréal, QC	37	28	7	7	71,398	292,217	
12	M.B. Paper, Alberni Specialties Division	Port Alberni, BC	27	26	2	3	0	183,718	
13	René Matériaux Composites Ltée	St-Éphrem-de-Beauce, QC	32	37	*	2	*	144,000	
14	Louisiana-Pacific Canada Ltd., Dawson Creek OSB	Dawson Creek, BC	25	24	*	2	*	130,682	
15	Crown Cork & Seal Canada Inc., Plant 244	Concord, ON	30	34	5	4	29,956	158,412	
16	Dow Chemical Canada Inc., Western Canada Operations	Fort Saskatchewan, AB	37	28	23	24	273,025	400,338	
17	Morbern Incorporated	Cornwall, ON	16	30	3	3	632,240	746,600	
18	Societe d'électrolyse et de chimie Alcan, usine Arvida	Jonquière, QC	29	33	5	5	273,990	378,600	
19	Produits forestiers Donohue Inc., usine de pâte Kraft	St-Félicien, QC	27	26	8	8	315,900	418,300	
20	International Wallcoverings Ltd.	Brampton, ON	27	26	4	4	316,000	416,300	
21	Shell Canada Products Ltd., Scotford Refinery	Fort Saskatchewan, AB	36	29	10	11	54,603	153,641	
22	Filpac Inc./Transformateur de pellicules d'emballage	Terrebonne, QC	16	26	1	1	24,000	120,000	
23	Stelco Inc., Hilton Works	Hamilton, ON	29	33	21	21	259,745	352,705	
24	Alcan Smelters and Chemicals Ltd.	Kitimat, BC	29	33	4	4	492,000	583,200	
25	Sidbec-Dosco (Ispat) Inc., Sidbec-Feruni (Ispat)	Contrecoeur, QC	29	33	5	5	371,800	457,180	
26	Grant Forest Products Corp.	Englehart, ON	25	24	1	1	4,200	81,800	
27	Nutrite Inc., Nitrogen Division	Maitland, ON	37	28	4	4	162,631	240,000	
28	Centrifugal Coaters Inc.	Oakville, ON	30	34	3	3	83,000	153,720	
29	Uniboard Canada Inc.	Mont-Laurier, QC	25	24	2	2	145,437	214,830	
30	Secal, usine Vaudreuil	Jonquière, QC	37	28	3	3	99,670	166,418	
31	Uniboard Canada Inc.	Val-d'Or, QC	25	24	1	2	0	64,800	
32	AT Plastics Inc.	Edmonton, AB	37	28	4	6	149,778	213,487	
33	Dana Canada Inc. Axle Plant	Barrie, ON	32	37	5	6	43,640	106,000	
34	Trentonworks Ltd.	Trenton, NS	32	37	*	7	*	60,550	
35	Honda of Canada Mfg., Div. of Honda Canada Inc.	Alliston, ON	32	37	10	10	226,123	285,333	
36	Maax, Division fibre de verre moderne-usine 5	Tring-Jonction, QC	16	30	*	1	*	58,119	
37	Malette Inc., Kraft Pulp & Paper Division	Smooth Rock Falls, ON	27	26	3	3	218,560	273,900	
38	Butcher Engineering Enterprises Ltd., Orenda Plant	Brampton, ON	30	34	1	3	12,100	67,000	
39	Domco Inc.	Farnham, QC	39	39	4	4	291,370	345,912	
40	Sunoco Inc., Sarnia Refinery	Sarnia, ON	36	29	16	15	248,975	303,514	
41	Macmillan Bloedel, North Superior Forest Products	Wawa, ON	25	24	*	2	*	52,000	
42	OSF Inc., P12	Weston, ON	26	24	3	5	43,507	94,754	
43	North Atlantic Refining Ltd.	Come By Chance, NF	36	29	15	15	284,203	335,223	
44	Camoplast Inc., Groupe composite récréatif, Roski IV	Grand-Mère, QC	32	37	1	2	4,500	55,000	
45	Rexam Metallizing	Brantford, ON	27	26	2	2	240,000	290,100	
46	Glopak Inc.	Montréal, QC	16	26	1	1	34,300	82,969	
47	Lilly Industries, Inc., Guardsman Products Ltd.	Cornwall, ON	37	28	12	13	4,364	52,270	
48	Steelwood Doors Co.	Woodbridge, ON	16	30	2	2	88,410	136,080	
49	Beauce composites Inc.	Ste-Clotilde-de-Beauce, QC	32	37	*	2	*	43,536	
50	Fleet Industries Ltd.	Fort Erie, ON	32	37	*	2	*	43,089	
Total					250	296	16,531,476	27,464,592	

* Indicates facility did not report any matched chemicals that year.

** Chemical accounting for more than 70% of increase in total releases from the facility.

➤ Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to NPRI.

➤ UIJ = underground injection

Rank	Change 1995–1996 in Total Releases (kg)	Major Chemicals Reported with Increases (Primary Media with Increases)**
1	2,121,980	Methanol (air)
2	1,269,067	Zinc and compounds (land)
3	1,111,178	Sulfuric acid (air)
4	995,642	Methanol (U/L)
5	812,598	Zinc and compounds (land)
6	304,919	Nitric acid and nitrate compounds (U/L)
7	280,000	Nitric acid and nitrate compounds (water)
8	271,900	Methanol (air)
9	255,705	Zinc/Lead and compounds (air)
10	253,255	Methyl ethyl ketone, Toluene (air)
11	220,819	p-Xylene, Ethylene (air)
12	183,718	Nitric acid and nitrate compounds (water)
13	144,000	Styrene, Dichloromethane (air)
14	130,682	Methanol (air)
15	128,456	n-Butyl alcohol, Xylene (air)
16	127,313	Ethylene (air)
17	114,360	Methyl ethyl ketone (air)
18	104,610	Hydrogen fluoride (air)
19	102,400	Chlorine dioxide (air), Manganese and compounds (land)
20	100,300	Methyl ethyl ketone, Toluene (air)
21	99,038	Toluene, Benzene (land)
22	96,000	Methanol (air)
23	92,960	Benzene, Hydrochloric acid (air)
24	91,200	Hydrogen fluoride (air)
25	85,380	Zinc/Lead and compounds (land)
26	77,600	Formaldehyde (air)
27	77,369	Nitric acid and nitrate compounds (water)
28	70,720	Methyl ethyl ketone (air)
29	69,393	Methanol (air)
30	66,748	Hydrochloric acid (air)
31	64,800	Formaldehyde (air)
32	63,709	Vinyl acetate (air)
33	62,360	Phenol (air)
34	60,550	Xylene, Toluene (air)
35	59,210	Xylene, Methyl ethyl ketone (air)
36	58,119	Styrene (air)
37	55,340	Chlorine dioxide, Methanol (air)
38	54,900	Methyl ethyl ketone, Xylene (air)
39	54,542	Methyl ethyl ketone (air)
40	54,539	Xylene (air)
41	52,000	Formaldehyde, Phenol (air)
42	51,247	Methyl ethyl ketone, Xylene, m-Xylene (air)
43	51,020	Methyl tert-butyl ether, Vanadium, Toluene (air)
44	50,500	Styrene (air)
45	50,100	Methyl ethyl ketone (air)
46	48,669	Methanol (air)
47	47,906	Toluene, Styrene, Methanol (air)
48	47,670	Xylene (air)
49	43,536	Styrene (air)
50	43,089	Trichloroethylene (air)
	10,933,116	

Table 6-44		NPRI Facilities with Largest Decrease in Total Releases and Transfers						
Rank	Facility	City, Province	SIC Code		Number of Forms		Total Releases and Transfers	
			Canada	US	1995	1996	1995 (kg)	1996 (kg)
1	Co-Steel Lasco	Whitby, ON	29	33	6	6	8,442,331	4,833,403
2	Sherritt International Corporation	Fort Saskatchewan, AB	37	28	13	10	2,291,434	188,410
3	James River Corporation	Marathon, ON	27	26	4	4	2,215,710	150,080
4	CXY Chemicals-Nanaimo Plant	Nanaimo, BC	37	28	2	*	1,988,244	*
5	Methanex Corporation	Medicine Hat, AB	37	28	4	3	3,385,170	1,458,000
6	Cartons St-Laurent Inc.	Latuque, QC	27	26	4	8	2,408,582	482,934
7	Domtar Packaging, Red Rock Mill	Red Rock, ON	27	26	1	2	1,900,000	235,117
8	Irving Pulp & Paper Ltd./Irving Tissue Co.	Saint John, NB	27	26	4	4	3,663,623	2,183,425
9	Algoma Steel Inc., Main Works	Sault Ste. Marie, ON	29	33	17	16	1,598,360	261,169
10	Les Papiers Perkins Ltée	Candiac, QC	27	26	1	*	793,700	*
11	Bayer Rubber Inc.	Sarnia, ON	37	28	15	16	2,718,271	2,126,066
12	Dominion Castings Ltd.	Hamilton, ON	29	33	3	4	1,487,191	912,596
13	AT Plastics Inc.	Edmonton, AB	37	28	4	6	738,168	213,487
14	Standard Products (Canada) Ltd., Rubber Plant 1	Stratford, ON	15	30	3	3	968,380	599,800
15	Titan Steel & Wire Co. Ltd.	Surrey, BC	30	33	7	7	419,155	59,932
16	Avenor Inc.	Thunder Bay, ON	27	26	7	8	1,123,783	767,070
17	Oakside Chemicals Limited	London, ON	37	28	5	5	323,440	900
18	Ford Motor Company, Ontario Truck	Oakville, ON	32	37	8	10	535,601	258,637
19	QIT-Fer et Titane Inc.	Tracy, QC	29	33	6	3	326,478	64,900
20	Weyerhaeuser Saskatchewan Ltd., Prince Albert Pulp & Paper	Prince Albert, SK	27	26	4	6	672,732	437,406
21	General Motors of Canada Limited, Truck Plant-Autoplex	Oshawa, ON	32	37	12	11	874,213	639,897
22	Pétromont, société en commandite	Montréal-Est, QC	37	28	1	2	350,611	131,106
23	Domtar Papers, Cornwall Business Unit	Cornwall, ON	27	26	6	6	599,150	386,322
24	Velcro Canada Inc.	Brampton, ON	19	22	3	*	204,985	*
25	General Motors of Canada Limited, Car Plant-Autoplex	Oshawa, ON	32	37	12	11	1,427,915	1,224,673
26	Sydney Steel Corporation	Sydney, NS	29	33	10	9	533,500	331,280
27	Durabla Canada Ltd.	Belleville, ON	15	30	1	2	201,000	9,000
28	Abitibi-Consolidated Inc., Division Belgo	Shawinigan, QC	27	26	4	4	189,126	3,877
29	Slater Steels, Hamilton Specialty Bar Division	Hamilton, ON	29	33	6	10	1,455,999	1,280,136
30	3M Canada Company (Perth)	Perth, ON	35	32	5	3	209,668	47,137
31	Inco Nickel Refinery, Copper Cliff Nickel Refinery	Copper Cliff, ON	29	33	7	*	153,630	*
32	Gecamex Technologies Inc., Apex Metals Inc.	Kitchener, ON	32	34	3	3	136,000	0
33	AltaSteel Ltd.	Edmonton, AB	29	33	6	6	806,016	678,621
34	Western Co-Operative Fertilizers Limited	Calgary, AB	37	28	1	1	154,000	26,800
35	Sammi Atlas Inc., Aciers inoxydables Atlas	Tracy, QC	29	33	11	11	1,201,305	1,076,897
36	Owens-Corning Canada Inc., Guelph Glass Plant	Guelph, ON	35	32	1	2	125,048	7,480
37	Petro-Canada, Edmonton Refinery	Edmonton, AB	36	29	15	14	227,200	110,115
38	Chrysler Canada, Ltd., Pillette Road Truck Assembly Plant	Windsor, ON	32	37	8	8	222,823	109,938
39	PPG Canada Inc., Clarkson Coatings & Related Products	Mississauga, ON	37	28	13	12	279,009	169,138
40	BASF Canada Inc. - Sarnia Site	Sarnia, ON	37	28	2	*	104,740	*
41	Magotteaux Inc.	Magog, QC	30	39	4	4	98,970	320
42	Stone-Consolidated Corporation	Kenora, ON	27	26	3	3	100,053	4,661
43	loco Refinery—Imperial Oil	Port Moody, BC	36	29	14	*	95,310	*
44	Ford Motor Company, Essex Aluminum Plant	Windsor, ON	29	33	10	9	157,985	63,353
45	Imperial Oil, IOL Dartmouth Refinery	Dartmouth, NS	36	29	13	13	287,108	194,077
46	Agropur Coopérative agro-alimentaire, Agropur la Fromagerie	Granby, QC	10	20	4	4	264,000	172,000
47	Kenworth du Canada	Ste-Thérèse, QC	32	37	2	*	91,790	*
48	Boler Group, Hendrickson Spring	Stratford, ON	32	34	2	4	175,600	84,468
49	Cami Automotive Inc.	Ingersoll, ON	32	37	12	12	395,773	304,947
50	Ford Motor Company, St. Thomas Assembly Plant	St. Thomas, ON	32	37	12	11	646,470	560,114
Total					321	296	49,769,350	22,849,689

* Indicates facility did not report any matched chemicals that year.

** Chemicals accounting for more than 70% of decrease in total releases and transfers from the facility.

► Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to TRI.

Rank	Change 1995–1996			Major Chemicals Reported with Decreases (Primary Media/Transfers with Decreases)**
	Total Releases (kg)	Total Transfers (kg)	Total Releases and Transfers (kg)	
1	-1,156,614	-2,452,314	-3,608,928	Zinc and compounds (transfers to disposal), Copper and compounds (land)
2	-2,095,364	-7,660	-2,103,024	Methanol (air)
3	-2,065,500	-130	-2,065,630	Methanol (water)
4	-244	-1,988,000	-1,988,244	Asbestos (transfers to disposal)
5	-1,899,140	-28,030	-1,927,170	Methanol (air)
6	-2,005,545	79,897	-1,925,648	Methanol (water)
7	-1,664,883	0	-1,664,883	Methanol (water)
8	-1,480,198	0	-1,480,198	Methanol (water)
9	-1,337,191	0	-1,337,191	Manganese and compounds (land)
10	-793,700	0	-793,700	Xylene (air)
11	-611,095	18,890	-592,205	Chloromethane, Benzene (air)
12	5,364	-579,959	-574,595	Chromium and compounds (transfers to disposal)
13	63,709	-588,390	-524,681	Vinyl acetate (transfers to treatment)
14	-368,315	-265	-368,580	Xylene (air)
15	10	-359,233	-359,223	Zinc and compounds (transfers to disposal)
16	-356,713	0	-356,713	Methanol (air)
17	200	-322,740	-322,540	Xylene (transfers to treatment)
18	-46,831	-230,133	-276,964	Toluene (transfers to treatment, air)
19	-8,340	-253,238	-261,578	Zinc and compounds (transfers to disposal)
20	-235,326	0	-235,326	Chlorine (air)
21	-240,052	5,736	-234,316	Xylene, n-Butyl alcohol (air)
22	-219,505	0	-219,505	Ethylene (air)
23	-212,828	0	-212,828	Methanol (water)
24	-204,985	0	-204,985	Methyl ethyl ketone (air)
25	-195,941	-7,301	-203,242	Xylene, n-Butyl alcohol (air)
26	-202,220	0	-202,220	Manganese/Zinc/Lead and compounds (land)
27	-192,000	0	-192,000	Toluene (air)
28	-185,249	0	-185,249	Formaldehyde (water)
29	424	-176,287	-175,863	Lead/Zinc and compounds (transfers to treatment)
30	-162,150	-381	-162,531	Xylene, Toluene (air)
31	-153,630	0	-153,630	Nickel/Lead and compounds (air)
32	0	-136,000	-136,000	Zinc and compounds (transfers to treatment)
33	-16,932	-110,463	-127,395	Zinc/Manganese and compounds (transfers to disposal)
34	0	-127,200	-127,200	Asbestos (transfers to disposal)
35	-184,448	60,040	-124,408	Nitric acid and nitrate compounds (water)
36	-4,968	-112,600	-117,568	Zinc and compounds (transfers to disposal)
37	-150,785	33,700	-117,085	Propylene, Xylene (air)
38	-111,795	-1,090	-112,885	Xylene (air)
39	-4,501	-105,370	-109,871	Xylene (transfers to treatment)
40	-140	-104,600	-104,740	1,3-Butadiene, Styrene (transfers to treatment)
41	0	-98,650	-98,650	Chromium and compounds (transfers to disposal)
42	-95,282	-110	-95,392	Methanol (water)
43	-95,310	0	-95,310	Xylene, Toluene, 1,2,4-Trimethylbenzene, Cyclohexane, Propylene (air)
44	-53,454	-41,178	-94,632	Styrene (air), Aluminum (transfers to disposal)
45	-91,476	-1,555	-93,031	Xylene, Toluene (air)
46	0	-92,000	-92,000	Nitric acid and nitrate compounds (transfers to sewage)
47	-46,780	-45,010	-91,790	Toluene (air, transfers to treatment)
48	-40,692	-50,440	-91,132	Zinc and compounds (transfers to disposal), Xylene (air)
49	-89,582	-1,244	-90,826	Xylene, Methyl ethyl ketone (air)
50	-82,585	-3,771	-86,356	Xylene, n-Butyl alcohol, Methyl isobutyl ketone (air)
	-19,092,582	-7,827,079	-26,919,661	

Table 6-45		NPRI Facilities with Largest Increase in Total Releases and Transfers						
Rank	Facility	City, Province	SIC Code		Number of Forms		Total Releases and Transfers	
			Canada	US	1995	1996	1995 (kg)	1996 (kg)
1	Lake Erie Steel Company Ltd.	Nanticoke, ON	29	33	19	19	639,890	4,418,007
2	Agrium Products Inc.	Fort Saskatchewan, AB	37	28	*	10	*	2,144,294
3	Aimco Solrec Ltd.	Milton, ON	37	28	*	6	*	2,134,024
4	Gerdau MRM Steel Inc.	Selkirk, MB	29	33	4	5	762,000	2,031,067
5	Stelco McMaster Ltée	Contrecoeur, QC	29	33	5	5	1,874,430	3,072,110
6	Inco Limited, Copper Cliff Smelter Complex	Copper Cliff, ON	29	33	7	7	3,662,640	4,773,818
7	Celanese Canada Inc.	Edmonton, AB	37	28	10	10	3,532,829	4,541,668
8	Sidbec-Dosco (Ispat) Inc., acierie	Contrecoeur, QC	29	33	5	5	1,510,387	2,322,985
9	Dominion Colour Corporation	Ajax, ON	37	28	6	6	3,336,200	4,099,450
10	Dofasco Inc.	Hamilton, ON	29	33	18	18	2,523,129	3,133,333
11	Gerdau Courtice Steel Inc., Courtice Steel Inc.	Cambridge, ON	29	33	7	7	359,767	799,450
12	Agrium Products Inc.	Redwater, AB	37	28	11	15	651,881	1,011,810
13	Huntsman Corporation Canada Inc.	Guelph, ON	37	28	8	8	38,542	347,261
14	Kraft Canada Inc., Ingleside Cheese Operations	Ingleside, ON	10	20	1	2	0	280,000
15	Fletcher Challenge Canada, Elk Falls Mill	Campbell River, BC	27	26	4	4	612,600	884,500
16	Metalex Products Ltd.	Richmond, BC	29	33	4	5	10,250	281,439
17	Chrysler Canada, Ltd., Bramalea Assembly Plant	Brampton, ON	32	37	11	12	184,096	451,697
18	Les Produits chimiques Delmar Inc.	LaSalle, QC	37	28	5	5	372,200	636,200
19	Hudson Bay Mining and Smelting Co. Ltd., Metallurgical Complex	Flin Flon, MB	29	33	6	6	181,387	437,092
20	Stelco Inc., Hilton Works	Hamilton, ON	29	33	21	21	515,125	750,345
21	Pétroles Coastal Canada Inc., Pétrochimie Coastal du Canada	Montréal, QC	37	28	7	7	72,679	293,395
22	Kronos Canada, Inc.	Varennes, QC	37	28	8	8	704,100	904,546
23	Sammi Atlas Inc., Atlas Specialty Steels	Welland, ON	29	33	5	5	297,441	485,700
24	Inland Technologies Inc., Debert Treatment Centre	Debert, NS	36	29	*	1	*	181,328
25	Tonolli Canada Limited	Mississauga, ON	29	33	1	1	229,337	378,807
26	René Matériaux Composites Ltée	St-Éphrem-de-Beauce, QC	32	37	*	2	*	144,000
27	Dow Chemical Canada Inc., Western Canada Operations	Fort Saskatchewan, AB	37	28	23	24	338,276	475,688
28	Louisiana-Pacific Canada Ltd., Dawson Creek OSB	Dawson Creek, BC	25	24	*	2	*	130,682
29	Crown Cork & Seal Canada Inc., Plant 244	Concord, ON	30	34	5	4	29,956	158,412
30	Dana Canada Inc., Spicer Driveshaft Division	Thorold, ON	32	37	2	2	1,388	121,540
31	Filpac Inc./Transformateur de pellicules d'emballage	Terrebonne, QC	16	26	1	1	140,000	258,000
32	Morbarn Incorporated	Cornwall, ON	16	30	3	3	632,240	746,600
33	National-Standard Co. of Canada Ltd., Guelph Plant (70)	Guelph, ON	30	33	3	3	3,726	112,069
34	Morton International, Ltd.	Ajax, ON	37	28	*	8	*	106,453
35	PPG Canada Inc., Works 84	Owen Sound, ON	35	32	*	1	*	105,000
36	Societe d'électrolyse et de chimie Alcan, usine Arvida	Jonquière, QC	29	33	5	5	273,990	378,600
37	Produits forestiers Donohue Inc., usine de pâte Kraft	St-Félicien, QC	27	26	8	8	315,900	418,300
38	International Wallcoverings Ltd.	Brampton, ON	27	26	4	4	316,000	416,300
39	Shell Canada Products Ltd., Scotford Refinery	Fort Saskatchewan, AB	36	29	10	11	54,603	153,649
40	Monsanto Canada Inc., Produits chimiques	LaSalle, QC	16	30	8	8	363,206	461,394
41	M.B. Paper, Alberní Specialties Division	Port Alberní, BC	27	26	2	3	97,200	195,258
42	Alcan Smelters and Chemicals Ltd.	Kitimat, BC	29	33	4	4	492,000	583,200
43	Petro-Canada, Burrard Products Terminal	Petro Moody, BC	36	29	6	8	5,000	94,958
44	Sidbec-Dosco (Ispat) Inc., Sidbec-Feruni (Ispat)	Contrecoeur, QC	29	33	5	5	371,800	457,180
45	Lilly Industries, Inc., Guardsman Products Ltd.	Cornwall, ON	37	28	12	13	51,041	132,490
46	Les Forges de Sorel Inc.	St-Joseph-de-Sorel, QC	30	34	3	4	120,503	201,487
47	Grant Forest Products Corp.	Englehart, ON	25	24	1	1	4,200	81,800
48	Nutrite Inc., Nitrogen Division	Maitland, ON	37	28	4	4	165,631	240,325
49	Huls Canada (Brampton)	Brampton, ON	37	28	8	3	4,367	76,241
50	Uniboard Canada Inc., Unires	Val-d'Or, QC	37	28	2	2	55,092	126,832
Total					292	331	25,907,029	47,170,784

* Indicates facility did not report any matched chemicals that year.

** Chemicals accounting for more than 70% of increase in total releases and transfers from the facility.

➤ Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to TRI.

➤ UIJ = underground injection

Rank	Change 1995–1996			Major Chemicals Reported with Increases (Primary Media/Transfers with Increases)**
	Total Releases (kg)	Total Transfers (kg)	Total Releases and Transfers (kg)	
1	-36,583	3,814,700	3,778,117	Manganese and compounds (transfers to disposal)
2	2,121,980	22,314	2,144,294	Methanol (air)
3	33,708	2,100,316	2,134,024	Xylene, Toluene (transfers to treatment)
4	1,269,067	0	1,269,067	Zinc and compounds (land)
5	7,380	1,190,300	1,197,680	Zinc and compounds (transfers to treatment)
6	1,111,178	0	1,111,178	Sulfuric acid (air)
7	995,642	13,197	1,008,839	Methanol (UIJ)
8	812,598	0	812,598	Zinc and compounds (land)
9	-50	763,300	763,250	Nitric acid and nitrate compounds (transfers to sewage)
10	-5,403	615,607	610,204	Zinc and compounds (transfers to disposal)
11	-167	439,850	439,683	Zinc/Lead and compounds (transfers to disposal)
12	304,919	55,010	359,929	Nitric acid and nitrate compounds (UIJ)
13	719	308,000	308,719	Phenol (transfers to disposal)
14	280,000	0	280,000	Nitric acid and nitrate compounds (water)
15	271,900	0	271,900	Methanol (air)
16	13,979	257,210	271,189	Lead and compounds (transfers to disposal)
17	253,255	14,346	267,601	Methyl ethyl ketone, Toluene (air)
18	-2,100	266,100	264,000	Toluene (transfers to treatment)
19	255,705	0	255,705	Zinc/Lead and compounds (air)
20	92,960	142,260	235,220	Asbestos (transfers to disposal), Phenol (transfers to sewage)
21	220,819	-103	220,716	p-Xylene, Ethylene (air)
22	-2,554	203,000	200,446	Manganese and compounds (transfers to disposal)
23	42,459	145,800	188,259	Chromium and compounds (transfers to disposal, land), Zinc and compounds (transfers to disposal)
24	0	181,328	181,328	Ethylene glycol (transfers to treatment)
25	0	149,470	149,470	Lead and compounds (transfers to disposal)
26	144,000	0	144,000	Styrene, Dichloromethane (air)
27	127,313	10,099	137,412	Ethylene (air)
28	130,682	0	130,682	Methanol (air)
29	128,456	0	128,456	n-Butyl alcohol, Xylene (air)
30	0	120,152	120,152	Manganese and compounds (transfers to disposal)
31	96,000	22,000	118,000	Methanol (air)
32	114,360	0	114,360	Methyl ethyl ketone (air)
33	0	108,343	108,343	Lead and compounds (transfers to disposal)
34	0	106,453	106,453	Methyl ethyl ketone, Methanol (transfers to treatment)
35	0	105,000	105,000	Chromium and compounds (transfers to disposal)
36	104,610	0	104,610	Hydrogen fluoride (air)
37	102,400	0	102,400	Chlorine dioxide (air), Manganese and compounds (land)
38	100,300	0	100,300	Methyl ethyl ketone, Toluene (air)
39	99,038	8	99,046	Toluene, Benzene (land)
40	-1,148	99,336	98,188	n-Butyl alcohol (transfers to treatment)
41	183,718	-85,660	98,058	Nitric acid and nitrate compounds (water)
42	91,200	0	91,200	Hydrogen fluoride (air)
43	-42	90,000	89,958	Asbestos (transfers to disposal)
44	85,380	0	85,380	Zinc/Lead and compounds (land)
45	47,906	33,543	81,449	Toluene, Styrene (air), Methyl ethyl ketone (transfers to treatment)
46	-370	81,354	80,984	Chromium and compounds (transfers to treatment)
47	77,600	0	77,600	Formaldehyde (air)
48	77,369	-2,675	74,694	Nitric acid and nitrate compounds (water)
49	-500	72,374	71,874	Toluene (transfers to treatment)
50	40	71,700	71,740	Formaldehyde (transfers to treatment)
	9,749,723	11,514,032	21,263,755	

Table 6-46		TRI Facilities with Largest Decrease in Total Releases						
M 1996								
Rank	Facility	City, State	US SIC Code	Number of Forms		Total Releases		
				1995	1996	1995 (kg)	1996 (kg)	
1	DuPont	Beaumont, TX	28	27	19	8,523,823	3,900,458	
2	ASARCO Inc., Ray Complex/Hayden Smelter	Hayden, AZ	33	9	9	8,304,071	5,098,392	
3	Courtaulds Fibers Inc., Courtaulds Finance U.S. Inc.	Axis, AL	28	5	4	15,427,755	12,781,200	
4	Hoechst-Celanese Chemical, Hoechst Corp., Clear Lake Plant	Pasadena, TX	28	20	20	6,171,389	3,829,752	
5	Sterling Chemicals Inc.	Texas City, TX	28	36	36	5,384,580	3,072,311	
6	Lenzing Fibers Corp.	Lowland, TN	28	5	5	10,526,240	8,357,871	
7	IMC-Agrico Co., New Wales Plant	Mulberry, FL	Mult.	2	2	3,746,031	2,056,692	
8	Pharmacia & Upjohn Co.	Portage, MI	28	26	23	3,305,569	1,774,718	
9	BASF Corp.	Freeport, TX	28	25	24	7,853,879	6,507,414	
10	Cytec Industries Inc.	Westwego, LA	28	22	23	10,573,158	9,372,031	
11	BP Chemicals Inc. Green Lake, BP America Inc.	Port Lavaca, TX	28	16	16	4,501,820	3,478,370	
12	Reynolds Metals Co.	Sheffield, AL	34	12	11	1,285,786	268,980	
13	Shell Oil Co.	Deer Park, TX	Mult.	51	93	1,904,354	1,020,508	
14	Finch Pruyn & Co. Inc.	Glens Falls, NY	26	5	5	1,983,407	1,101,459	
15	Craig Industries	Teresita, MO	28	1	*	860,082	*	
16	LTV Steel Co. Inc.	Cleveland, OH	33	9	9	1,176,775	382,522	
17	Corn Prods. & Best Foods, CPC International Inc.	Bedford Park, IL	20	2	4	1,021,317	234,923	
18	Tennessee Eastman, Eastman Chemical	Kingsport, TN	28	59	56	3,179,813	2,428,417	
19	Coastal Chem Inc., Coastal Corp.	Cheyenne, WY	28	12	12	3,532,109	2,787,824	
20	Bayer Corp.	New Martinsville, WV	28	30	29	3,811,026	3,137,226	
21	Champion International Corp.	Canton, NC	26	14	14	1,931,914	1,296,194	
22	DuPont	Victoria, TX	28	29	29	9,369,476	8,737,254	
23	Exxon Chemical, Exxon Corp.	Baton Rouge, LA	28	34	34	953,393	335,426	
24	Goodyear Tire & Rubber Co.	Lincoln, NE	30	5	5	1,054,510	443,643	
25	Champion International Corp.	Cantonment, FL	26	12	11	1,002,462	410,720	
26	Fina Oil & Chemical, American Petrofina Inc.	Big Spring, TX	29	15	15	830,819	239,283	
27	Tippecanoe Labs., Eli Lilly & Co.	Shadeland, IN	28	18	18	1,090,024	498,582	
28	Alcoa	Riverdale, IA	33	13	9	817,376	239,030	
29	Northwestern Steel & Wire Co.	Sterling, IL	33	8	7	7,146,964	6,568,816	
30	Mountain Pass Operation, Unocal Corp.	Mountain Pass, CA	28	5	*	576,230	*	
31	Wheeling-Pittsburgh Steel Corp, Steubenville East Plant	Follansbee, WV	33	14	13	700,371	131,976	
32	International Paper Co. Riverdale Mill	Selma, AL	26	12	12	922,289	384,145	
33	Weyerhaeuser Co.	Longview, WA	Mult.	17	19	2,524,022	1,988,038	
34	Vicksburg Chemical Co.	Vicksburg, MS	28	3	3	3,279,594	2,746,993	
35	O'Sullivan Corp.	Winchester, VA	30	10	7	848,342	316,393	
36	3M Co.	Guin, AL	30	15	13	750,117	219,818	
37	Kurz-Hastings Inc.	Philadelphia, PA	39	6	7	607,129	123,358	
38	Monsanto Co.	Decatur, AL	28	13	12	526,336	48,822	
39	Rubicon Inc.	Geismar, LA	28	24	24	3,508,048	3,038,774	
40	IBP Inc.	Columbus Junction, IA	20	3	3	1,315,197	848,084	
41	Millennium Inorganic Chemicals, Millennium Chemicals, Hawkins Point Plant	Baltimore, MD	28	7	7	675,743	238,223	
42	Chemetals Inc., Comilog	New Johnsonville, TN	28	3	2	2,108,049	1,689,017	
43	IBP Inc.	Joslin, IL	Mult.	4	4	2,222,455	1,814,429	
44	Dana Corp. Victor Products Div.	Robinson, IL	30	2	1	456,386	53,956	
45	Eastman Kodak Co., Kodak Park	Rochester, NY	38	50	50	3,637,518	3,242,677	
46	Ford Motor Co., Michigan Truck Plant	Wayne, MI	37	19	20	738,180	343,850	
47	DuPont Cape Fear	Leland, NC	28	21	19	1,641,750	1,258,879	
48	Pfizer Inc-Groton Site	Groton, CT	28	22	20	771,382	395,017	
49	Chevron Chemical Co. Oak Point Plant, Chevron Corp.	Belle Chasse, LA	28	10	10	813,977	442,555	
50	Carpenter Tech. Corp.	Reading, PA	33	13	13	1,432,636	1,079,225	
Total				795	801	157,325,673	110,764,245	

* Indicates facility did not report any matched chemicals that year.

** Chemical accounting for more than 70% of decrease in total releases from the facility.

➤ Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to NPRI.

➤ UIJ = underground injection

Rank	Change 1995–1996 in Total Releases (kg)	Major Chemicals Reported with Decreases (Primary Media with Decreases)**
1	-4,623,365	Acetonitrile, Nitric acid and nitrate compounds (UIJ)
2	-3,205,679	Copper/Zinc and compounds (land)
3	-2,646,555	Carbon disulfide (air)
4	-2,341,637	Ethylene glycol (UIJ)
5	-2,312,269	Nitric acid and nitrate compounds (UIJ)
6	-2,168,369	Carbon disulfide (air)
7	-1,689,339	Phosphoric acid (land)
8	-1,530,851	Methanol (UIJ)
9	-1,346,465	Nitric acid and nitrate compounds (water)
10	-1,201,127	Acrylic acid (UIJ)
11	-1,023,450	Acetonitrile, Cyanide compounds (UIJ)
12	-1,016,806	Methyl ethyl ketone, Toluene (air)
13	-883,846	Phenol (UIJ)
14	-881,948	Nitric acid and nitrate compounds (water)
15	-860,082	Methanol (air)
16	-794,253	Manganese and compounds (land)
17	-786,394	Hydrochloric acid (air)
18	-751,396	Hydrochloric acid (air)
19	-744,285	Nitric acid and nitrate compounds (UIJ)
20	-673,800	Nitric acid and nitrate compounds (water)
21	-635,720	Methanol (air)
22	-632,222	Nitric acid and nitrate compounds (UIJ)
23	-617,967	Nitric acid and nitrate compounds (water)
24	-610,867	Toluene (air)
25	-591,742	Methanol (air)
26	-591,536	Propylene (air)
27	-591,442	Nitric acid and nitrate compounds (water)
28	-578,346	Methyl ethyl ketone, Tetrachloroethylene, Toluene (air)
29	-578,148	Manganese/Zinc and compounds (land)
30	-576,230	Nitric acid and nitrate compounds (land)
31	-568,395	Ethylene, Benzene (air)
32	-538,144	Methanol (air)
33	-535,984	Methanol (air)
34	-532,601	Nitric acid and nitrate compounds (water)
35	-531,949	Methyl ethyl ketone, Methyl isobutyl ketone (air)
36	-530,299	Xylene, 1,2,4-Trimethylbenzene (air)
37	-483,771	Toluene, Methyl isobutyl ketone (air)
38	-477,514	Hydrochloric acid (air)
39	-469,274	Nitric acid and nitrate compounds (UIJ)
40	-467,113	Nitric acid and nitrate compounds (water)
41	-437,520	Manganese and compounds (land)
42	-419,032	Manganese and compounds (land)
43	-408,026	Nitric acid and nitrate compounds (water)
44	-402,430	Toluene (air)
45	-394,841	Methanol, Acetaldehyde (air)
46	-394,330	n-Butyl alcohol, Xylene, Methyl isobutyl ketone, Methanol (air)
47	-382,871	Methanol, Hydrochloric acid (air), Acetaldehyde (land)
48	-376,365	Methanol (water)
49	-371,422	Ethylene glycol (UIJ)
50	-353,411	Nitric acid and nitrate compounds (water)
	-46,561,428	

Table 6-47		TRI Facilities with Largest Increase in Total Releases						
Rank	Facility	City, State	US SIC Code	Number of Forms		Total Releases		
				1995	1996	1995 (kg)	1996 (kg)	
1	Cyprus Miami Mining, Cyprus Amax Minerals Co.	Claypool, AZ	33	5	13	4,923,985	11,434,588	
2	PCS Nitrogen Fertilizer L.P., Potash Corp. of Saskatchewan	Geismar, LA	28	11	11	6,939,334	9,740,764	
3	BHP Copper Metals Co., BHP Copper Co.	San Manuel, AZ	33	11	7	204,603	2,562,031	
4	ASARCO Inc.	East Helena, MT	33	10	10	17,921,775	20,167,883	
5	Monsanto Co.	Gonzalez, FL	28	21	18	5,936,350	7,808,149	
6	John Morrell & Co., Smithfield Foods Inc.	Sioux Falls, SD	20	2	3	0	1,541,964	
7	Kennecott Utah Copper, Kennecott Holdings Corp.	Magna, UT	33	14	14	2,715,080	4,239,682	
8	Mobil Chemical Co., Mobil Corp., Houston Olefins Plant	Houston, TX	28	10	11	110,282	1,436,132	
9	Amoco Petroleum Prods., Amoco Corp., Texas City Business Unit	Texas City, TX	29	28	33	556,641	1,713,945	
10	ASARCO Inc., Glover Plant	Annapolis, MO	33	6	6	2,959,545	4,030,233	
11	Armco Inc.	Butler, PA	33	14	14	4,728,754	5,711,055	
12	American Chrome & Chemicals, Harrisons & Crossfield	Corpus Christi, TX	28	2	2	4,266,281	5,127,603	
13	Occidental Chemical Corp., Occidental Petroleum Corp.	Castle Hayne, NC	28	2	2	3,313,376	4,084,758	
14	Bayway Refining Co., Tosco Corp.	Linden, NJ	29	19	22	200,333	914,083	
15	Monsanto Co.	Luling, LA	28	13	13	1,978,881	2,673,598	
16	Chevron Prods. Co., Chevron Corp., Pascagoula Refinery	Pascagoula, MS	Mult.	27	27	808,093	1,491,140	
17	DuPont Chambers Works, DuPont Dow Elastomers LLC	Deepwater, NJ	28	44	40	275,362	941,791	
18	Chevron USA Prods. Co., Chevron USA	El Segundo, CA	29	30	31	135,579	792,478	
19	Austeel Lemont Co. Inc.	Lemont, IL	33	4	5	24,749	668,315	
20	IMC-Agrico Co., IMC Global Inc.	Uncle Sam, LA	28	3	3	978,003	1,617,114	
21	Royal Oak Ent's., Kenbridge Kilns	Kenbridge, VA	28	*	1	*	597,739	
22	Gencorp Inc.	Columbus, MS	22	7	7	1,135,155	1,726,991	
23	Keystone Steel & Wire Co., Keystone Consolidated Industries	Peoria, IL	33	4	4	215,319	773,430	
24	Kerr-McGee Chemical Corp., Kerr-McGee Corp., Electrolytic Plant	Hamilton, MS	Mult.	6	5	1,812,805	2,352,213	
25	El Dorado Chemical Co., LSB Ind. Inc.	El Dorado, AR	28	4	4	153,741	661,713	
26	New Boston Coke Corp.	New Boston, OH	33	2	10	58,268	544,918	
27	Horner Charcoal Co. Inc.	Taneyville, MO	28	*	1	*	471,706	
28	Armco Inc.	Coshocton, OH	33	6	6	132,840	600,928	
29	International Paper, Pineville Mill	Pineville, LA	26	6	7	648,194	1,110,724	
30	Ford Motor Co., Louisville Assembly Plant	Louisville, KY	37	17	16	526,616	983,157	
31	Geneva Steel	Vineyard, UT	33	20	21	408,537	863,321	
32	Freeport Brick Co., Freeport Refractories Inc.	Freeport, PA	32	1	1	0	453,515	
33	Chevron Prods. Co., Chevron Corp., Richmond Refinery	Richmond, CA	29	29	28	61,820	513,293	
34	Magnesium Corp. of America, Renco Group Inc.	Rowley, UT	33	6	6	29,168,744	29,619,647	
35	Three Rivers Refy., Ultramar Diamond Shamrock Inc.	Three Rivers, TX	29	22	20	58,799	505,230	
36	North American Stainless L.P., Acerinox S.A. Spain	Ghent, KY	33	4	5	5,723	437,029	
37	Wacker Siltronic Corp.	Portland, OR	36	3	4	963	401,166	
38	Leprino Foods Co.	Roswell, NM	20	2	3	0	398,380	
39	Angus Chemical Co.	Sterlington, LA	28	11	11	2,438,165	2,835,645	
40	Alcoa	Rockdale, TX	33	8	8	166,978	558,244	
41	Flexel Indiana Inc.	Covington, IN	30	5	5	861,798	1,249,237	
42	Aquaglass Corp., Masco Corp.	Adamsville, TN	30	1	4	665,652	1,048,316	
43	Glenbrook Nickel Co., Cominco American Inc.	Riddle, OR	33	1	1	547,714	922,592	
44	Zeneca Specialties, Zeneca Inc.	Mount Pleasant, TN	28	14	14	266,805	615,814	
45	IMC-Agrico Co., IMC Global Inc., Faustina Plant	Saint James, LA	28	7	9	2,339,824	2,686,077	
46	Imco Recycling Inc.	Morgantown, KY	33	4	5	281,499	621,453	
47	FMC Corp.	Pocatello, ID	28	11	12	3,239,953	3,570,828	
48	Chino Mines Co.	Hurley, NM	33	2	2	3,217,568	3,539,365	
49	Royal Oak Ent's., Medford Furnace	White City, OR	28	*	1	*	321,280	
50	Novartis Crop Protection Inc., Novartis Corp.	St. Gabriel, LA	28	19	18	341,410	653,455	
Total				498	524	107,731,896	150,334,712	

* Indicates facility did not report any matched chemicals that year.

** Chemical accounting for more than 70% of increase in total releases from the facility.

➤ Three TRI facilities reported in error: Gunderson Inc., Portland, OR, reported 2.8 kg air releases of manganese; Tennessee Aluminum Processor Inc., Mount Pleasant, TN, reported 720,000 kg on-site land releases and 165,000 kg transfers to disposal of aluminum; National Steel Corp., Ecorse, MI, reported 500,000 kg surface water discharges of ethylene glycol. These facilities have been omitted from this table.

➤ Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to NPRI.

➤ UIJ = underground injection

Rank	Change 1995–1996 in Total Releases (kg)	Major Chemicals Reported with Increases (Primary Media with Increases)**
1	6,510,603	Copper/Zinc and compounds (land)
2	2,801,430	Phosphoric acid (water)
3	2,357,428	Copper and compounds (air)
4	2,246,108	Zinc/Copper and compounds (land)
5	1,871,799	Nitric acid and nitrate compounds (UIJ)
6	1,541,964	Nitric acid and nitrate compounds (water)
7	1,524,602	Copper and compounds (land)
8	1,325,850	Ethylene (air)
9	1,157,304	Methanol (air)
10	1,070,688	Lead/Zinc and compounds (land)
11	982,301	Nitric acid and nitrate compounds (water)
12	861,322	Chromium and compounds (land)
13	771,382	Chromium and compounds (land)
14	713,750	Nitric acid and nitrate compounds (water)
15	694,717	Formaldehyde (UIJ)
16	683,047	Methanol (air)
17	666,429	Nitric acid and nitrate compounds (water)
18	656,899	Nitric acid and nitrate compounds (water), Methanol (air)
19	643,566	Zinc and compounds (land)
20	639,111	Phosphoric acid (water)
21	597,739	Methanol (air)
22	591,836	Methyl ethyl ketone (air)
23	558,111	Zinc and compounds (air)
24	539,408	Manganese and compounds (land)
25	507,972	Nitric acid and nitrate compounds (air, water)
26	486,650	Ethylene (air)
27	471,706	Methanol (air)
28	468,088	Nitric acid and nitrate compounds (water)
29	462,530	Methanol (air)
30	456,541	Xylene, n-Butyl alcohol (air)
31	454,784	Zinc and compounds (land)
32	453,515	Phosphoric acid (land)
33	451,473	Nitric acid and nitrate compounds (water), Methanol (air)
34	450,903	Chlorine (air)
35	446,431	Toluene, Naphthalene, p-Xylene (land)
36	431,306	Nitric acid and nitrate compounds (water)
37	400,203	Nitric acid and nitrate compounds (water)
38	398,380	Nitric acid and nitrate compounds (land)
39	397,480	Formaldehyde, Nitric acid and nitrate compounds (UIJ)
40	391,266	Hydrochloric acid (air)
41	387,439	Carbon disulfide (air)
42	382,664	Styrene (air)
43	374,878	Nickel and compounds (land)
44	349,009	Methanol (UIJ)
45	346,253	Phosphoric acid (water)
46	339,954	Aluminum (land)
47	330,875	Zinc and compounds, Phosphorus (land)
48	321,797	Copper and compounds (land)
49	321,280	Methanol (air)
50	312,045	Nitric acid and nitrate compounds (water)
	42,602,816	

Table 6-48		TRI Facilities with Largest Decrease in Total Releases and Transfers						
Rank	Facility	City, State	US SIC Code	Number of Forms		Total Releases and Transfers		
				1995	1996	1995 (kg)	1996 (kg)	
1	Zinc Corp. of America, Horsehead Industries Inc.	Monaca, PA	33	10	9	15,994,774	10,693,789	
2	DuPont	Beaumont, TX	28	27	19	8,813,594	4,184,484	
3	Millennium Petrochemical Inc., Millennium Chemicals Inc.	La Porte, TX	28	22	22	5,148,906	1,446,941	
4	DuPont Cape Fear	Leland, NC	28	21	19	5,230,485	1,818,428	
5	Hoechst-Celanese Chemical, Hoechst Corp., Clear Lake Plant	Pasadena, TX	28	20	20	7,492,891	4,086,890	
6	Georgia-Pacific Resins Inc., Georgia-Pacific Corp.	Elk Grove, CA	28	9	17	2,789,216	2,923	
7	Courtaulds Fibers Inc., Courtaulds Finance U.S. Inc.	Axis, AL	28	5	4	15,427,755	12,781,200	
8	Lenzing Fibers Corp.	Lowland, TN	28	5	5	10,789,279	8,357,871	
9	Sterling Chemicals Inc.	Texas City, TX	28	36	36	5,427,251	3,125,041	
10	ASARCO Inc., Ray Complex/Hayden Smelter	Hayden, AZ	33	9	9	10,314,507	8,131,927	
11	IMC-Agrico Co. New Wales Plant	Mulberry, FL	Mult.	2	2	3,746,031	2,056,692	
12	Simpson Pasadena Paper Co., Simpson Investment Co.	Pasadena, TX	26	8	8	4,359,972	2,719,655	
13	PD Glycol, Occidental Petroleum Corp.	Beaumont, TX	28	6	6	1,783,723	241,252	
14	BASF Corp.	Freeport, TX	28	25	24	7,946,118	6,639,026	
15	Cytec Industries Inc.	Westwego, LA	28	22	23	10,584,493	9,382,053	
16	Electralloy Corp., G.O. Carlson Inc.	Oil City, PA	33	4	5	1,336,940	137,395	
17	BP Chemicals Inc. Green Lake, BP America Inc.	Port Lavaca, TX	28	16	16	4,527,430	3,490,680	
18	Reynolds Metals Co.	Sheffield, AL	34	12	11	1,293,942	272,481	
19	Exxon Chemical, Exxon Corp.	Baton Rouge, LA	28	34	34	1,351,471	412,430	
20	Allegheny Ludlum Corp.	Brackenridge, PA	33	11	11	1,543,612	641,257	
21	DuPont	Victoria, TX	28	29	29	10,102,715	9,215,769	
22	Finch Pruyn & Co. Inc.	Glens Falls, NY	26	5	5	1,983,432	1,101,461	
23	DuPont	Louisville, KY	28	10	8	910,861	46,077	
24	Craig Industries	Teresita, MO	28	1	*	860,082	*	
25	American Steel Foundries, Amsted Ind. Inc.	Alliance, OH	33	7	7	1,272,043	423,435	
26	Birmingham Southeast L.L.C., Birmingham Steel Corp.	Flowood, MS	33	5	6	841,427	3,815	
27	Northwestern Steel & Wire Co.	Sterling, IL	33	8	7	7,458,529	6,633,986	
28	Avesta Sheffield Plate Inc., Avesta Sheffield N.A.	New Castle, IN	33	5	5	1,029,635	216,902	
29	Corn Prods. & Best Foods, CPC International Inc.	Bedford Park, IL	20	2	4	1,021,317	234,925	
30	Coastal Chem Inc., Coastal Corp.	Cheyenne, WY	28	12	12	3,532,157	2,787,940	
31	Merichem Co., Greens Bayou Plant	Houston, TX	28	12	12	2,034,265	1,297,635	
32	Tennessee Eastman, Eastman Chemical	Kingsport, TN	28	59	56	3,709,943	3,014,580	
33	Merck & Co. Inc.	Rahway, NJ	28	17	17	1,132,654	442,672	
34	Cargill Corn Milling, Cargill Inc.	Cedar Rapids, IA	20	2	*	681,626	*	
35	Bayer Corp.	New Martinsville, WV	28	30	29	3,839,929	3,158,483	
36	Rubicon Inc.	Geismar, LA	28	24	24	3,727,642	3,060,833	
37	Fairmount Chemical Co. Inc.	Newark, NJ	28	5	3	716,867	56,542	
38	Shell Oil Co.	Deer Park, TX	Mult.	51	93	2,509,316	1,849,670	
39	Chemical Solvents Inc., Denison Facility	Cleveland, OH	28	13	12	686,655	31,221	
40	Champion International Corp.	Canton, NC	26	14	14	1,938,300	1,297,465	
41	Alcoa	Riverdale, IA	33	13	9	879,076	240,766	
42	Goodyear Tire & Rubber Co.	Lincoln, NE	30	5	5	1,110,036	475,503	
43	OSI Specialties Inc., Organosilicones Group	Friendly, WV	28	15	15	1,402,734	772,806	
44	3M Co.	Guin, AL	30	15	13	992,709	363,212	
45	Pharmacia & Upjohn Co.	Portage, MI	28	26	23	4,751,354	4,124,145	
46	Champion International Corp.	Cantonment, FL	26	12	11	1,021,958	419,435	
47	Monsanto Co., Indian Orchard	Springfield, MA	Mult.	19	17	2,158,079	1,563,089	
48	ISK Biosciences Corp., ISK Americas Inc.	Houston, TX	28	13	10	846,437	251,668	
49	Fina Oil & Chemical, American Petrofina Inc.	Big Spring, TX	29	15	15	830,819	239,284	
50	Mountain Pass Operation, Unocal Corp.	Mountain Pass, CA	28	5	*	576,230	*	
Total				753	761	190,461,217	123,945,734	

* Indicates facility did not report any matched chemicals that year.

** Chemical accounting for more than 70% of decrease in total releases and transfers from the facility.

➤ Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to NPRI.

➤ UIJ = underground injection

Rank	Change 1995–1996			Major Chemicals Reported with Decreases (Primary Media/Transfers with Decreases)**
	Total Releases (kg)	Total Transfers (kg)	Total Releases and Transfers (kg)	
1	-45,132	-5,255,853	-5,300,985	Zinc/Lead and compounds (transfers to disposal)
2	-4,623,365	-5,745	-4,629,110	Acetonitrile, Nitric acid and nitrate compounds (UIJ)
3	36,195	-3,738,160	-3,701,965	Vinyl acetate (transfers to treatment)
4	-382,871	-3,029,185	-3,412,057	Ethylene glycol (transfers to treatment)
5	-2,341,637	-1,064,363	-3,406,001	Ethylene glycol (UIJ, transfers to sewage)
6	965	-2,787,257	-2,786,293	Xylene (transfers to treatment)
7	-2,646,555	0	-2,646,555	Carbon disulfide (air)
8	-2,168,369	-263,039	-2,431,408	Carbon disulfide (air)
9	-2,312,269	10,063	-2,302,210	Nitric acid and nitrate compounds (UIJ)
10	-3,205,679	1,023,099	-2,182,580	Copper and compounds (land)
11	-1,689,339	0	-1,689,339	Phosphoric acid (land)
12	-42,530	-1,597,788	-1,640,317	Methanol (transfers to sewage)
13	5,966	-1,548,437	-1,542,471	Ethylene glycol (transfers to treatment)
14	-1,346,465	39,375	-1,307,092	Nitric acid and nitrate compounds (water)
15	-1,201,127	-1,311	-1,202,440	Acrylic acid (UIJ)
16	-59,279	-1,140,266	-1,199,545	Chromium and compounds (transfers to disposal)
17	-1,023,450	-13,299	-1,036,750	Acetonitrile, Cyanide compounds (UIJ)
18	-1,016,806	-4,655	-1,021,461	Methyl ethyl ketone, Toluene (air)
19	-617,967	-321,072	-939,041	Nitric acid and nitrate compounds (water), Methanol (transfers to disposal)
20	-98,615	-803,741	-902,355	Nickel/Lead and compounds (transfers to disposal)
21	-632,222	-254,724	-886,946	Nitric acid and nitrate compounds (UIJ), Cresol (transfers to treatment)
22	-881,948	-23	-881,971	Nitric acid and nitrate compounds (water)
23	-20,531	-844,253	-864,784	Toluene (transfers to treatment)
24	-860,082	0	-860,082	Methanol (air)
25	-7,967	-840,643	-848,608	Chromium and compounds (transfers to disposal)
26	2,617	-840,229	-837,612	Lead/Manganese and compounds (transfers to disposal)
27	-578,148	-246,394	-824,543	Manganese/Zinc and compounds (land)
28	2,903	-815,636	-812,733	Chromium and compounds (transfers to treatment)
29	-786,394	2	-786,392	Hydrochloric acid (air)
30	-744,285	68	-744,217	Nitric acid and nitrate compounds (UIJ)
31	-214,139	-522,494	-736,630	Naphthalene, Xylene (transfers to treatment), m-Cresol, o-Cresol, Aniline (UIJ)
32	-751,396	56,032	-695,363	Hydrochloric acid (air)
33	-9,142	-680,842	-689,982	Methanol (transfers to sewage)
34	-54	-681,573	-681,626	Ethylene glycol (transfers to sewage)
35	-673,800	-7,646	-681,446	Nitric acid and nitrate compounds (water)
36	-469,274	-197,535	-666,809	Nitric acid and nitrate compounds, Aniline (UIJ)
37	-2,689	-657,635	-660,325	Methanol (transfers to sewage)
38	-883,846	224,198	-659,646	Phenol (UIJ)
39	26,559	-681,995	-655,434	Dichloromethane, Methyl ethyl ketone, Methyl isobutyl ketone, Styrene, Toluene (transfers to treatment)
40	-635,720	-5,116	-640,835	Methanol (air)
41	-578,346	-59,966	-638,310	Methyl ethyl ketone, Tetrachloroethylene, Toluene (air)
42	-610,867	-23,668	-634,533	Toluene (air)
43	-25,194	-604,734	-629,928	Methanol (transfers to treatment)
44	-530,299	-99,200	-629,497	Xylene, 1,2,4-Trimethylbenzene (air), Methyl ethyl ketone (transfers to treatment)
45	-1,530,851	903,641	-627,209	Methanol (UIJ)
46	-591,742	-10,781	-602,523	Methanol (air)
47	-3,431	-591,559	-594,990	Methanol, Formaldehyde (transfers to sewage)
48	-36,935	-557,834	-594,769	Xylene (transfers to treatment), Methanol (transfers to disposal)
49	-591,536	1	-591,535	Propylene (air)
50	-576,230	0	-576,230	Nitric acid and nitrate compounds (land)
	-37,973,318	-28,542,172	-66,515,483	

Table 6-49		TRI Facilities with Largest Increase in Total Releases and Transfers						
Rank	Facility	City, State	US SIC Code	Number of Forms		Total Releases and Transfers		
				1995	1996	1995 (kg)	1996 (kg)	
1	Cyprus Miami Mining, Cyprus Amax Minerals Co.	Claypool, AZ	33	5	13	4,923,985	11,434,588	
2	Ameristeel Corp., Jacksonville Mill Div.	Baldwin, FL	33	*	6	0	3,520,881	
3	Regal Ware Inc.	Kewaskum, WI	34	6	6	538,864	3,646,750	
4	PCS Nitrogen Fertilizer L.P., Potash Corp. of Saskatchewan	Geismar, LA	28	11	11	6,955,698	9,741,288	
5	Nucor Steel, Nucor Corp.	Crawfordsville, IN	33	8	9	5,227,302	7,664,563	
6	BHP Copper Metals Co., BHP Copper Co.	San Manuel, AZ	33	11	7	213,584	2,562,848	
7	ASARCO Inc.	East Helena, MT	33	10	10	17,921,956	20,167,898	
8	USS Mon Valley Works Edgar Thomson Plant, USX Corp.	Braddock, PA	33	6	7	1,068,496	3,276,873	
9	Steel Dynamics Inc.	Butler, IN	33	1	4	6,117	2,058,376	
10	Nucor-Yamato Steel Co., Nucor Corp.	Blytheville, AR	33	8	7	72,020	2,111,182	
11	Monsanto Co.	Gonzalez, FL	28	21	18	5,939,345	7,810,317	
12	Nucor Steel, Nucor Corp.	Plymouth, UT	33	8	9	180,864	1,903,634	
13	Kennecott Utah Copper, Kennecott Holdings Corp.	Magna, UT	33	14	14	2,885,129	4,586,985	
14	Nucor Steel, Nucor Corp.	Darlington, SC	33	9	7	56,884	1,697,450	
15	Ameristeel Corp.	Jackson, TN	33	7	7	24,159	1,614,579	
16	John Morrell & Co., Smithfield Foods Inc.	Sioux Falls, SD	20	2	3	0	1,542,395	
17	Ameristeel Corp.	Charlotte, NC	33	6	6	20,076	1,450,445	
18	Mobil Chemical Co., Mobil Corp., Houston Olefins Plant	Houston, TX	28	10	11	144,792	1,457,302	
19	Noltex L.L.C., Mitsubishi Chemical America Inc.	La Porte, TX	28	*	2	0	1,200,688	
20	DuPont Chambers Works, DuPont Dow Elastomers LLC	Deepwater, NJ	28	44	40	1,088,100	2,239,548	
21	Amoco Petroleum Prods., Amoco Corp., Texas City Business Unit	Texas City, TX	29	28	33	591,857	1,730,490	
22	ASARCO Inc., Glover Plant	Annapolis, MO	33	6	6	2,959,545	4,030,233	
23	American Insulated Wire, Leviton Mfg. Co. Inc.	Attleboro, MA	33	6	5	14,073	1,083,329	
24	Armco Inc.	Butler, PA	33	14	14	4,744,405	5,711,055	
25	Koppel Steel Corp.	Koppel, PA	33	4	7	141,290	1,052,130	
26	FMC Corp.	Baltimore, MD	28	14	16	281,358	1,183,916	
27	Millennium Inorganic Chemicals Plant 1, Millennium Chemicals Inc.	Ashtabula, OH	28	4	5	10,605	899,711	
28	Xerox Corp.	Webster, NY	35	10	8	57,175	943,831	
29	Amoco Chemical Co., Amoco Corp.	Decatur, AL	28	17	16	1,021,622	1,890,473	
30	Rouge Steel Co.	Dearborn, MI	33	8	7	5,098,011	5,959,573	
31	American Chrome & Chemicals, Harrisons & Crossfield	Corpus Christi, TX	28	2	2	4,307,143	5,154,768	
32	Three Rivers Refy., Ultramar Diamond Shamrock Inc.	Three Rivers, TX	29	22	20	59,668	897,335	
33	Southwire Co.	Carrollton, GA	Mult.	19	30	396,307	1,202,979	
34	Austeel Lemont Co. Inc.	Lemont, IL	33	4	5	24,749	829,481	
35	Chevron Prods. Co., Chevron Corp., Pascagoula Refinery	Pascagoula, MS	Mult.	27	27	810,517	1,597,808	
36	Occidental Chemical Corp., Occidental Petroleum Corp.	Castle Hayne, NC	28	2	2	3,315,099	4,089,293	
37	DuPont Dow Elastomers LLC	Louisville, KY	28	*	6	0	767,659	
38	Union Carbide Corp.	Texas City, TX	28	39	38	1,699,877	2,467,393	
39	Warner-Lambert Co., Parke-Davis Div.	Holland, MI	28	12	12	2,982,123	3,740,404	
40	Bayway Refining Co., Tosco Corp.	Linden, NJ	29	19	22	202,334	918,113	
41	Frog Switch & Mfg. Co.	Carlisle, PA	33	4	3	50,026	761,586	
42	Flexsys America L.P. Krummrich	East Saint Louis, IL	28	*	5	0	697,434	
43	Monsanto Co.	Luling, LA	28	13	13	1,987,411	2,683,997	
44	Timken Co., Faircast Steel Plant	Canton, OH	33	7	7	28,324	708,944	
45	Madison Ind. Inc.	Old Bridge, NJ	28	4	4	335,201	995,495	
46	IMC-Agrico Co., IMC Global Inc.	Uncle Sam, LA	28	3	3	978,003	1,617,114	
47	Chevron USA Prods. Co., Chevron USA	El Segundo, CA	29	30	31	174,035	802,296	
48	Grede Foundries Inc., Milwaukee Steel Div.	Milwaukee, WI	33	4	7	92,887	695,033	
49	Royal Oak Ents., Kenbridge Kilns	Kenbridge, VA	28	*	1	0	597,739	
50	Oxid L.P.	Houston, TX	28	4	4	283,495	871,788	
Total				513	556	79,914,511	148,269,990	

* Indicates facility did not report any matched chemicals that year.

** Chemical accounting for more than 70% of increase in total releases and transfers from the facility.

- ▶ Four TRI facilities reported in error: Thomson Consumer Electronics, Dunmore, PA, reported 3.1 kg transfers to disposal of lead compounds; Gunderson Inc., Portland, OR, reported 2.8 kg air releases of manganese; Tennessee Aluminum Processor Inc., Mount Pleasant, TN, reported 720,000 kg on-site land releases and 165,000 kg transfers to disposal of aluminum; National Steel Corp., Ecorse, MI, reported 500,000 kg surface water discharges of ethylene glycol. These facilities have been omitted from this table.
- ▶ One TRI facility was assigned the wrong name in the database. Koppel Steel Corp. is the correct name for the facility in Koppel, PA.

Rank	Change 1995–1996			Major Chemicals Reported with Increases (Primary Media/transfers with Increases)**
	Total Releases (kg)	Total Transfers (kg)	Total Releases and Transfers (kg)	
1	6,510,603	0	6,510,603	Copper/Zinc and compounds (land)
2	8,662	3,512,219	3,520,881	Zinc and compounds (transfers to disposal, treatment)
3	0	3,107,886	3,107,886	Aluminum oxide (transfers to disposal)
4	2,801,430	-15,842	2,785,590	Phosphoric acid (water)
5	-17,656	2,454,918	2,437,261	Zinc and compounds (transfers to disposal)
6	2,357,428	-8,165	2,349,264	Copper and compounds (air)
7	2,246,108	-164	2,245,942	Zinc/Copper and compounds (land)
8	-33,970	2,242,346	2,208,377	Zinc and compounds (transfers to disposal)
9	1,458	2,050,801	2,052,259	Zinc and compounds (transfers to disposal)
10	-20,399	2,059,562	2,039,162	Zinc and compounds (transfers to treatment)
11	1,871,799	-826	1,870,972	Nitric acid and nitrate compounds (UIJ)
12	-6,000	1,728,771	1,722,770	Zinc and compounds (transfers to treatment)
13	1,524,602	177,259	1,701,856	Copper and compounds (land)
14	13,977	1,626,589	1,640,566	Zinc and compounds (transfers to disposal)
15	-11,521	1,601,941	1,590,420	Zinc and compounds (transfers to treatment)
16	1,541,964	431	1,542,395	Nitric acid and nitrate compounds (water)
17	-440	1,430,809	1,430,369	Zinc and compounds (transfers to treatment)
18	1,325,850	-13,338	1,312,510	Ethylene (air)
19	12,172	1,188,516	1,200,688	Methanol, Vinyl acetate (transfers to treatment)
20	666,429	485,020	1,151,448	Nitric acid and nitrate compounds (water), 1,2-Dichlorobenzene (transfers to treatment)
21	1,157,304	-18,669	1,138,633	Methanol (air)
22	1,070,688	0	1,070,688	Lead/Zinc and compounds (land)
23	-3,107	1,072,363	1,069,256	Copper and compounds (transfers to disposal)
24	982,301	-15,652	966,650	Nitric acid and nitrate compounds (water)
25	3,875	906,966	910,840	Zinc and compounds (transfers to disposal)
26	-12,755	915,312	902,558	Methanol (transfers to treatment)
27	72,776	816,330	889,106	Manganese and compounds (transfers to disposal)
28	-21,329	907,987	886,656	Dichloromethane (transfers to disposal)
29	152,971	715,881	868,851	Methanol (transfers to treatment)
30	-239	861,803	861,562	Zinc/Manganese and compounds (transfers to disposal)
31	861,322	-13,697	847,625	Chromium and compounds (land)
32	446,431	391,232	837,667	Toluene, Naphthalene, m-Xylene (land, transfers to treatment)
33	-23,939	830,612	806,672	Zinc/Lead and compounds (transfers to treatment)
34	643,566	161,166	804,732	Zinc and compounds (land)
35	683,047	104,248	787,291	Methanol (air)
36	771,382	2,812	774,194	Chromium and compounds (land)
37	32,085	735,574	767,659	Toluene (transfers to treatment)
38	-53,590	821,102	767,516	Methanol (transfers to sewage)
39	-187,302	945,583	758,281	Methanol, Dichloromethane (transfers to treatment)
40	713,750	2,027	715,779	Nitric acid and nitrate compounds (water)
41	-4,241	715,801	711,560	Manganese and compounds (transfers to disposal)
42	118,367	579,067	697,434	o-Xylene (air, transfers to sewage), 4-Nitrophenol (transfers to treatment), Methyl ethyl ketone (transfers to sewage)
43	694,717	1,869	696,586	Formaldehyde (UIJ)
44	277	680,343	680,620	Zinc and compounds (transfers to treatment)
45	-58	660,353	660,294	Zinc and compounds (transfers to treatment)
46	639,111	0	639,111	Phosphoric acid (water)
47	656,899	-28,638	628,261	Nitric acid and nitrate compounds (water), Methanol (air)
48	533	601,612	602,146	Manganese/Chromium and compounds (transfers to disposal)
49	597,739	0	597,739	Methanol (air)
50	624	587,670	588,293	Ethylene glycol (transfers to disposal)
	30,785,701	37,569,790	68,355,479	

- Does not include ammonia, isopropyl alcohol, non-air emissions of hydrochloric acid and sulfuric acid, and chemicals not reported to NPRI.
- UIJ = underground injection

6.6 Projections

NPRI facilities project their total releases and total transfers for three years, while TRI facilities report projections in seven waste management categories two years ahead. Thus, projections can be compared only for the next two years and only with the two TRI categories (quantity released/disposed of and quantity treated off-site) that correspond to releases and transfers. TRI facilities submit their projections, along with current year amounts, in a different part of the TRI reporting form (Section 8) from the amounts for releases and transfers (from Sections 5 and 6 of the TRI form) presented in other parts of this report. Therefore, actual amounts shown for 1996 differ somewhat.

NPRI facilities in the matched data set projected a decrease in total releases and transfers of 3 percent from 1996 to 1997 and 8 percent from 1996 to 1998. Matched TRI facilities projected somewhat smaller reductions: 2 percent from 1996 to 1997 and 6 percent from 1996 to 1998. The projections are roughly comparable to the performance one can note in the two PRTRs for 1995 to 1996 (Table 6-50).

6.6.1 Geographic Distribution

Ontario facilities projected the largest reduction among Canadian provinces, 6 million kg (9 percent) by 1998. Ontario reported Canada's largest releases and transfers in 1996 as well as the largest reduction from amounts reported in 1995. Facilities in Saskatchewan projected the largest percentage reduction, 16 percent, while that projected by Alberta facilities was second largest, 1.5 million kg. In Manitoba, Newfoundland, Nova Scotia, and Prince Edward Island, NPRI facilities expected to report larger amounts in 1998, although the changes expected were relatively small (Table 6-51, p. 270 and Figure 6-9).

In the United States, Texas facilities projected the largest reduction, 8 million kg by 1998. Texas was the US state with the largest total releases and transfers in 1995 and 1996. Facilities in Louisiana expected to reduce their releases and transfers by 7 million kg by 1998, the second-largest projected reduction. Alabama, ranking ninth for total releases and transfers in 1996, ranked third for expected decreases, with 6 million kg. The largest percentage reduction projected was that of Alaska, whose facilities expected to cut releases and transfers by 82 percent by 1998. Increases were projected in 10 states, including a projected increase of almost 2 million kg in Washington State (Table 6-52, p. 271 and Figure 6-10).

6.6.2 Chemical Distribution

NPRI and TRI facilities projected reductions for most of the chemicals with the largest 1996 releases and transfers, although the percentage decreases expected varied considerably. For methanol, the chemical with the largest total releases and transfers in both countries, NPRI facilities projected an 8 percent reduction by 1998, while TRI facilities projected a 4 percent reduction (Tables 6-53, p. 273 and 6-54, p. 274). For individual chemicals, projected changes differed strikingly from actual changes reported from 1995 to 1996 (Figure 6-11, p. 272).

In NPRI, projections for chemicals with the largest total releases and transfers in 1996 ranged from a decrease of 51 percent for phenol to an increase of 60 percent for hydrochloric acid. TRI facilities projected their largest percentage reductions among the chemicals with the largest total releases and transfers in 1996 for trichloroethylene (41 percent) and propylene (35 percent). The largest percentage increase expected in TRI was 17 percent for acetonitrile.

6.6.3 Industry Distribution

The chemical industry (US SIC code 28) projected the largest absolute reductions in both countries, 5 million kg in NPRI and 29 million kg in TRI by 1998. Primary metal industries (US SIC code 33) expected to report the second-largest absolute reductions in NPRI, 3 million kg, while the rubber and plastics products industry projected the second-largest reduction in TRI, 7 million kg (Tables 6-55, p. 276 and 6-56, p. 277).

The two industries with the largest total releases and transfers in 1996 in both countries were the chemical industry and the primary metal industries. For the chemical industry, the projections represent an increasing pace of reductions compared to actual change in NPRI reporting for 1995 to 1996 and a somewhat slower pace of reductions in TRI. For the primary metal industries, the projections represent a reversal of the substantial percentage increases posted in both countries for 1995 to 1996 (Figure 6-12, p. 275).

The paper products industry, which ranked third in both countries for total releases and transfers in 1996, projected a reduction of 1 million kg in NPRI and 6 million kg in TRI by 1998, reductions of 6 and 5 percent respectively. As noted earlier, the Canadian paper industry cut its reported releases and transfers nearly one-third from 1995 to 1996.

	Actual Volume			Actual Change 1995-1996 (%)	Projections				
	1995 (kg)	1996 (kg)	1997 (kg)		Change 1996-1997 (%)	1998 (kg)	Change 1997-1998 (%)	Change 1996-1998 (%)	
NPRI*	130,420,771	124,129,147		-4.8	120,247,117	-3.1	114,472,129	-4.8	-7.8
TRI**	1,124,708,570	1,092,058,137		-2.9	1,066,890,139	-2.3	1,024,707,998	-4.0	-6.2

* One form projected 41,000,000 kilograms in error; the correct amount (used here) is 26,000 kilograms.

** Sections 8.1 plus 8.7 on TRI Form R.

► 1995 data from 1995 reporting forms; 1996-1998 data from 1996 reporting forms.

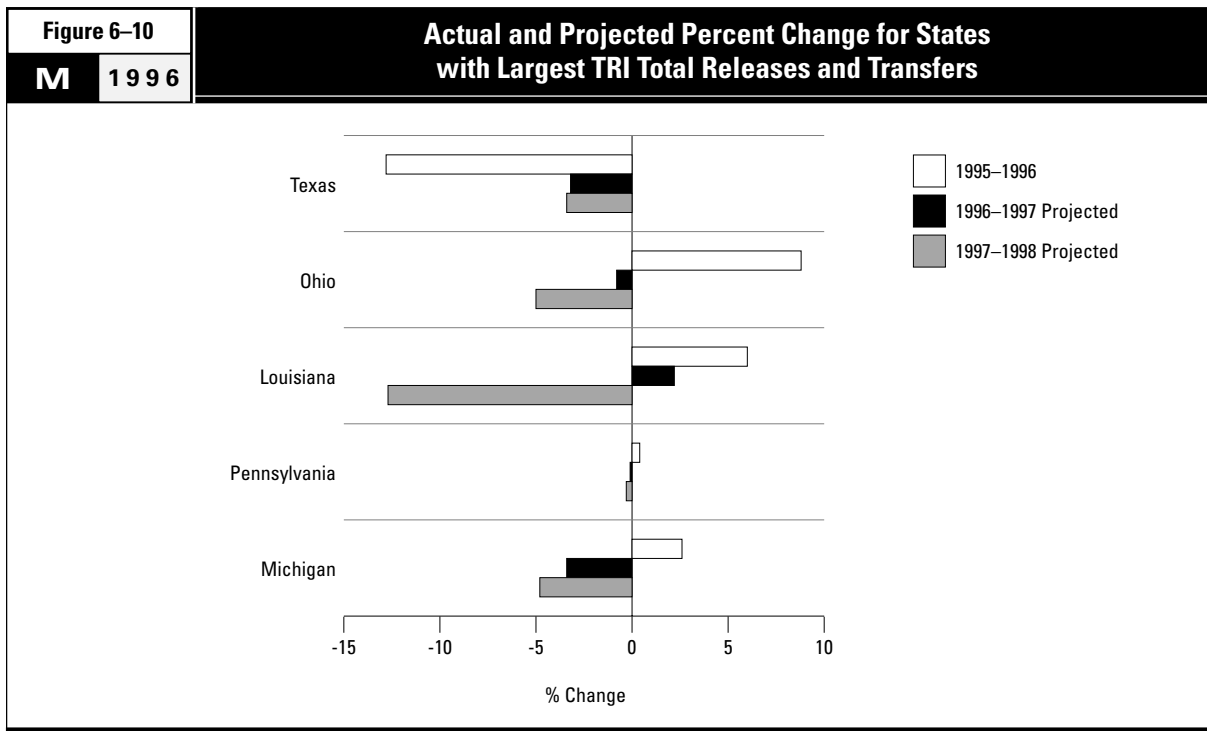
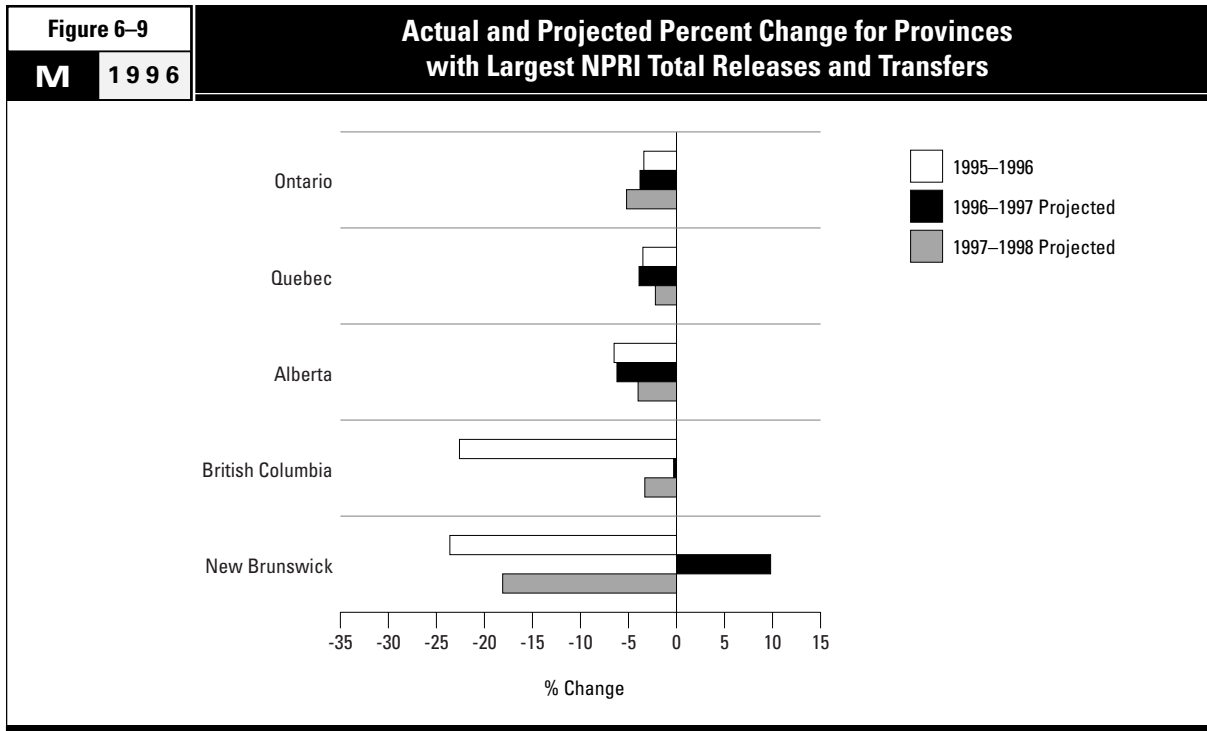


Table 6-51		Actual and Projected Change in NPRI Total Releases and Transfers, by Province (Ordered by Total Releases and Transfers for 1996)									
Province	Total Releases and Transfers		Actual Change 1995-1996		Projected Change 1996-1997		Projected Change 1997-1998		Projected Change 1996-1998		
	1995 (kg)	1996 (kg)	kg	%	kg	%	kg	%	kg	%	
Ontario	71,149,220	68,763,262	-2,385,958	-3.4	-2,643,210	-3.8	-3,463,612	-5.2	-6,106,822	-8.9	
Quebec	23,761,291	22,940,209	-821,082	-3.5	-893,963	-3.9	-474,364	-2.2	-1,368,327	-6.0	
Alberta	16,232,714	15,174,849	-1,057,865	-6.5	-942,321	-6.2	-568,551	-4.0	-1,510,872	-10.0	
British Columbia	8,098,792	6,271,403	-1,827,389	-22.6	-18,418	-0.3	-205,824	-3.3	-224,242	-3.6	
New Brunswick	6,350,887	4,852,765	-1,498,122	-23.6	477,373	9.8	-965,000	-18.1	-487,627	-10.0	
Manitoba	1,819,275	3,308,100	1,488,825	81.8	9,049	0.3	42,623	1.3	51,672	1.6	
Nova Scotia	1,691,010	1,600,964	-90,046	-5.3	127,701	8.0	-24,741	-1.4	102,960	6.4	
Saskatchewan	1,019,921	799,321	-220,600	-21.6	-7,348	-0.9	-119,033	-15.0	-126,381	-15.8	
Newfoundland	284,231	400,708	116,477	41.0	7,167	1.8	588	0.1	7,755	1.9	
Prince Edward Island	13,420	17,553	4,133	30.8	1,953	11.1	2,926	15.0	4,879	27.8	
Total	130,420,771	124,129,147	-6,291,624	-4.8	-3,882,030	-3.1	-5,774,988	-4.8	-9,657,018	-7.8	

- One form projected 41,000,000 kilograms in error; the correct amount (used here) is 26,000 kilograms.
- 1995 data from 1995 reporting forms; 1996-1998 data from 1996 reporting forms.

Table 6-52

**Actual and Projected Change in TRI Total Releases and Transfers, by State
(Ordered by Total Releases and Transfers for 1996)**

M 1996

State	Total Releases and Transfers		Actual Change 1995-1996		Projected Change 1996-1997		Projected Change 1997-1998		Projected Change 1996-1998	
	1995 (kg)	1996 (kg)	kg	%	kg	%	kg	%	kg	%
Texas	144,299,018	125,830,212	-18,468,806	-12.8	-4,080,896	-3.2	-4,130,321	-3.4	-8,211,217	-6.5
Ohio	66,083,643	71,915,392	5,831,749	8.8	-605,284	-0.8	-3,553,535	-4.0	-4,158,819	-5.8
Louisiana	63,893,036	67,736,514	3,843,478	6.0	1,480,445	2.2	-8,767,057	-12.7	-7,286,612	-10.8
Pennsylvania	57,809,567	58,053,557	243,990	0.4	-75,180	-0.1	-145,973	-0.3	-221,153	-0.4
Michigan	51,920,937	53,265,751	1,344,814	2.6	-1,805,770	-3.4	-2,456,864	-4.8	-4,262,634	-8.0
Indiana	51,589,694	46,219,173	-5,370,521	-10.4	265,920	0.6	303,000	0.7	568,920	1.2
Tennessee	47,957,672	45,881,597	-2,076,075	-4.3	-699,248	-1.5	-2,618,901	-5.8	-3,318,149	-7.2
Illinois	48,767,153	45,834,030	-2,933,123	-6.0	-62,408	-0.1	-1,113,426	-2.4	-1,175,834	-2.6
Alabama	45,646,739	41,115,355	-4,531,384	-9.9	-6,257,728	-15.2	-114,088	-0.3	-6,371,816	-15.5
Utah	34,200,964	38,012,758	3,811,794	11.1	2,944,862	7.7	-5,759,502	-14.1	-2,814,640	-7.4
North Carolina	39,588,174	36,209,472	-3,378,702	-8.5	-757,419	-2.1	-2,121,748	-5.0	-2,879,167	-7.0
Florida	31,578,300	33,448,234	1,869,934	5.9	-391,546	-1.2	367,071	1.1	-24,475	-0.1
Virginia	26,905,967	27,524,509	618,542	2.3	684,880	2.5	-631,172	-2.2	53,708	0.2
Missouri	26,644,112	26,111,588	-532,524	-1.0	-815,396	-3.1	-603,410	-2.4	-1,418,806	-5.4
South Carolina	25,515,434	26,023,366	507,932	1.0	155,303	0.6	-1,717,513	-6.6	-1,562,210	-6.0
Arizona	18,528,000	24,769,430	6,241,430	33.7	-3,085,880	-12.5	-667,286	-3.1	-3,753,166	-15.2
Georgia	23,710,030	24,237,910	527,880	2.2	-296,930	-1.2	-360,133	-1.5	-657,063	-2.7
Wisconsin	22,527,469	23,139,497	612,028	2.7	-998,191	-4.3	-208,230	-0.9	-1,206,421	-5.2
Montana	19,404,342	21,472,082	2,067,740	10.7	-563,648	-2.6	-2,325	-0.0	-565,973	-2.6
Mississippi	21,524,480	21,076,040	-448,440	-2.1	-1,787,220	-8.5	-3,538,859	-18.3	-5,326,079	-25.3
California	18,812,926	19,287,546	474,620	2.5	-665,934	-3.5	-305,132	-1.6	-971,066	-5.0
New York	22,033,078	18,868,721	-3,164,357	-14.4	-2,353,566	-12.5	-957,996	-5.8	-3,311,562	-17.6
Kentucky	17,883,107	18,010,096	126,989	0.7	-105,841	-0.6	-47,726	-0.3	-153,567	-0.9
New Jersey	18,188,249	16,173,286	-2,014,963	-11.1	-1,905,184	-11.8	47,029	0.3	-1,858,155	-11.5
Oregon	15,550,522	15,747,953	197,431	1.3	600,432	3.8	198,022	1.2	798,454	5.1
West Virginia	15,271,925	13,554,798	-1,717,127	-11.2	-1,119,759	-8.3	-549,868	-4.4	-1,669,627	-12.3
Iowa	14,924,724	12,723,280	-2,201,444	-14.8	-367,807	-2.9	-43,223	-0.3	-411,030	-3.2
Arkansas	17,007,372	11,918,366	-5,089,006	-29.9	-653,455	-5.5	-597,781	-5.3	-1,251,236	-10.5
Kansas	10,589,215	10,619,712	30,497	0.3	67,840	0.6	813,703	7.6	881,543	8.3
Washington	11,678,587	10,323,116	-1,355,471	-11.6	1,356,749	13.1	410,614	3.5	1,767,363	17.1
Minnesota	11,588,336	10,033,915	-1,554,421	-13.4	-111,185	-1.1	-218,028	-2.2	-329,213	-3.3
New Mexico	8,457,959	9,132,457	674,498	7.0	365,014	3.0	-285,666	-3.0	79,348	0.9
Massachusetts	8,606,754	8,259,405	-347,349	-4.0	-456,029	-5.5	-109,117	-1.4	-565,146	-6.8
Oklahoma	8,285,054	7,809,039	-476,015	-5.7	-126,619	-1.6	-430,523	-5.6	-557,142	-7.1
Maryland	8,883,062	7,495,707	-1,387,355	-15.6	-770,248	-10.3	12,385	0.2	-757,863	-10.1
Puerto Rico	7,439,966	6,876,981	-562,985	-7.6	-354,279	-5.2	-89,021	-1.4	-443,300	-6.4
Connecticut	8,993,641	6,137,022	-2,856,619	-31.8	-524,588	-8.5	-440,726	-7.9	-965,314	-15.7
Idaho	5,064,892	5,384,039	319,147	6.3	-254,231	-4.7	91,918	1.8	-162,313	-3.0
Nebraska	5,008,013	4,196,461	-811,552	-16.2	-174,739	-4.2	-1,271,661	-31.6	-1,446,400	-34.5
Maine	4,676,767	3,805,018	-871,749	-18.6	178,519	4.7	-29,822	-0.7	148,697	3.9
Wyoming	4,009,510	3,336,868	-672,642	-16.8	-13,807	-0.4	-27,532	-0.8	-41,339	-1.2
South Dakota	998,973	2,709,454	1,710,481	171.2	67,825	2.5	9,365	0.3	77,190	2.8
Delaware	2,925,471	2,643,521	-281,950	-9.6	-440,037	-16.6	47,190	2.1	-392,847	-14.9
Colorado	2,070,324	2,302,841	232,517	11.2	-913	-0.0	-2,144	-0.1	-3,057	-0.1
Nevada	1,536,403	1,514,154	-22,249	-1.4	108,589	7.2	-4,510	-0.3	104,079	6.9
New Hampshire	1,262,595	1,349,399	86,804	6.9	-36,322	-2.7	-38,440	-2.9	-74,762	-5.5
Rhode Island	1,659,333	1,229,557	-429,776	-25.9	-229,850	-18.7	-90,975	-9.1	-320,825	-26.1
Alaska	1,011,810	1,023,242	11,432	1.1	-597,530	-58.4	-239,608	-56.3	-837,138	-81.8
Virgin Islands	636,331	732,947	96,616	15.2	50,559	6.9	0	0.0	50,559	6.9
North Dakota	912,660	501,877	-410,783	-45.0	104,590	20.8	-169,712	-27.0	-65,122	-12.0
Vermont	416,826	311,116	-105,710	-25.4	-52,133	-16.8	-23,299	-8.0	-75,432	-24.2
Hawaii	229,451	169,731	-59,720	-26.0	-2,723	-1.6	422	0.3	-2,301	-1.4
District of Columbia	0	44	44	—	0	0.0	-9	-20.5	-9	-20.5
Total	1,124,708,570	1,092,058,137	-32,650,431	-2.9	-25,167,998	-2.3	-42,182,141	-3.0	-67,350,139	-6.2

- Sections 8.1 plus 8.7 on TRI Form R.
- 1995 data from 1995 reporting forms; 1996-1998 data from 1996 reporting forms.

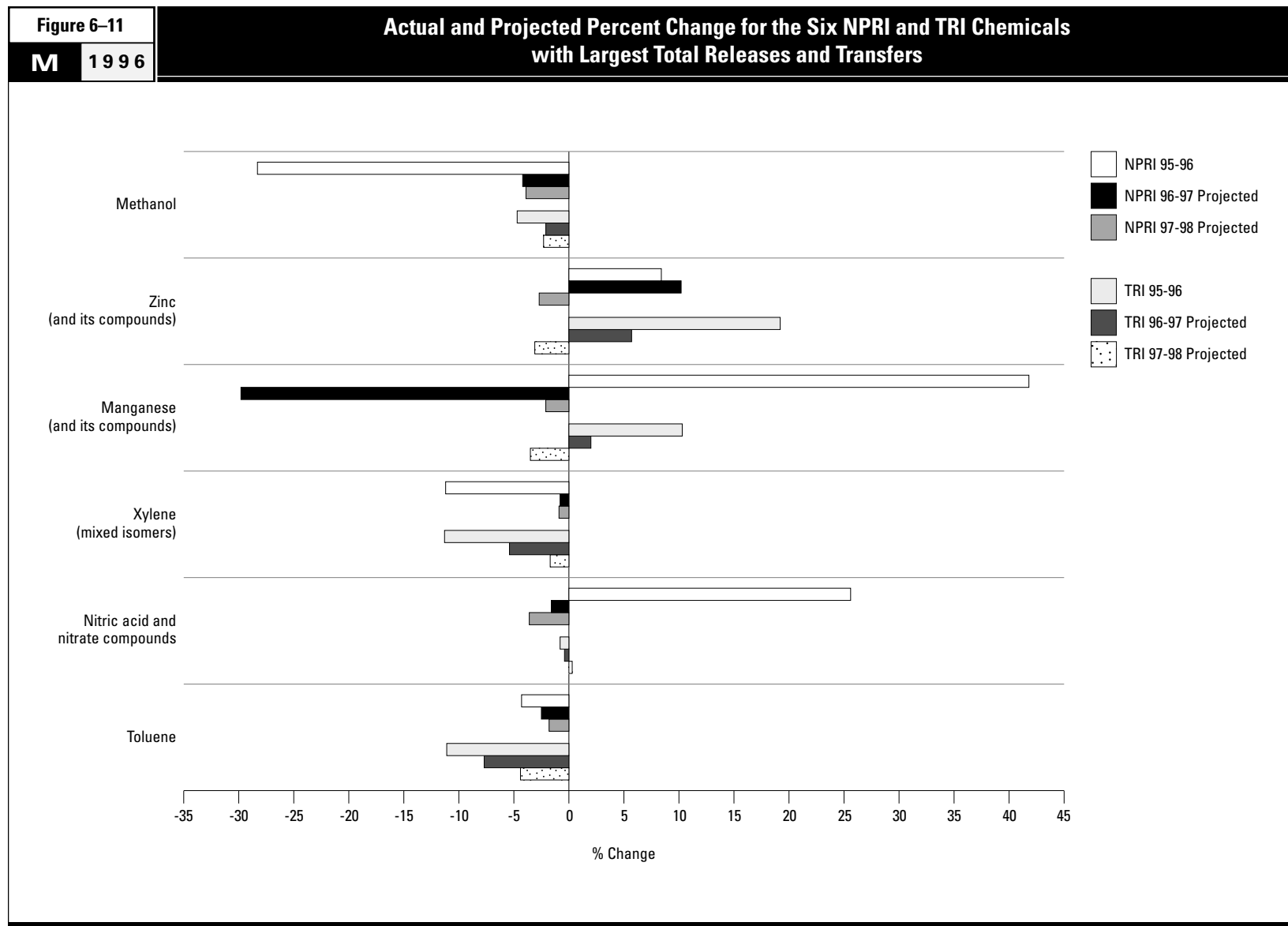


Table 6-53

M 1996

Actual and Projected Change for the 25 NPRI Chemicals with the Largest Total Releases and Transfers

CAS Number	Chemical	Total Releases and Transfers		Actual Change 1995-1996		Projected Change 1996-1997		Projected Change 1997-1998		Projected Change 1996-1998	
		1995 (kg)	1996 (kg)	kg	%	kg	%	kg	%	kg	%
67-56-1	Methanol	32,130,982	23,025,214	-9,105,768	-28.3	-961,444	-4.2	-870,327	-3.9	-1,831,771	-8.0
—	Zinc (and its compounds)	16,750,381	18,163,341	1,412,960	8.4	1,854,106	10.2	-540,132	-2.7	1,313,974	7.2
—	Manganese (and its compounds)	5,975,690	8,472,152	2,496,462	41.8	-2,523,600	-29.8	-123,570	-2.1	-2,647,170	-31.2
1330-20-7	Xylene (mixed isomers)	9,259,358	8,202,714	-1,056,644	-11.4	-44,326	-0.5	-71,483	-0.9	-115,809	-1.4
—	Nitric acid and nitrate compounds	6,059,390	7,612,530	1,553,140	25.6	-121,448	-1.6	-266,611	-3.6	-388,059	-5.1
108-88-3	Toluene	7,730,588	7,401,176	-329,412	-4.3	-185,882	-2.5	-132,199	-1.8	-318,081	-4.3
78-93-3	Methyl ethyl ketone	5,379,472	6,356,037	976,565	18.2	-420,833	-6.6	-451,279	-7.6	-872,112	-13.7
7664-93-9	Sulfuric acid	3,660,258	4,925,552	1,265,294	34.6	-1,267,776	-25.7	3,670	0.1	-1,264,106	-25.7
—	Lead (and its compounds)	3,364,494	3,648,670	284,176	8.4	925,551	25.4	-906,018	-19.8	19,533	0.5
110-82-7	Cyclohexane	2,937,933	3,173,648	235,715	8.0	-68,074	-2.1	-1,015,234	-32.7	-1,083,308	-34.1
—	Chromium (and its compounds)	3,085,937	2,747,282	-338,655	-11.0	-163,862	-6.0	5,292	0.2	-158,570	-5.8
75-09-2	Dichloromethane	2,246,081	2,288,724	42,643	1.9	-72,952	-3.2	-346,726	-15.6	-419,678	-18.3
74-85-1	Ethylene	2,328,642	2,246,209	-82,433	-3.5	-59,345	-2.6	-109,309	-5.0	-168,654	-7.5
71-43-2	Benzene	1,938,524	1,871,519	-67,005	-3.5	-205,411	-11.0	-178,513	-10.7	-383,924	-20.5
7664-39-3	Hydrogen fluoride	1,702,145	1,820,584	118,439	7.0	-45,206	-2.5	-4,005	-0.2	-49,211	-2.7
50-00-0	Formaldehyde	1,387,307	1,702,181	314,874	22.7	6,587	0.4	16,373	1.0	22,960	1.3
71-36-3	n-Butyl alcohol	1,509,033	1,496,357	-12,676	-0.8	-27,588	-1.8	39,537	2.7	11,949	0.8
—	Copper (and its compounds)	2,395,813	1,435,504	-960,309	-40.1	938	0.1	-104,811	-7.3	-103,873	-7.2
7647-01-0	Hydrochloric acid	1,272,821	1,312,809	39,988	3.1	771,767	58.8	11,099	0.5	782,866	59.6
10049-04-4	Chlorine dioxide	1,062,318	1,169,215	106,897	10.1	-158,466	-13.6	-90,605	-9.0	-249,071	-21.3
100-42-5	Styrene	976,254	1,121,513	145,259	14.9	-82,371	-7.3	33	0.0	-82,338	-7.3
1332-21-4	Asbestos (friable)	3,475,355	1,072,209	-2,403,146	-69.1	-183,119	-17.1	-40,000	-4.5	-223,119	-20.8
107-21-1	Ethylene glycol	886,777	1,039,833	153,056	17.3	57,568	5.5	-2,875	-0.3	54,693	5.3
115-07-1	Propylene	1,248,941	995,162	-253,779	-20.3	-47,847	-4.8	-64,130	-6.8	-111,977	-11.3
108-95-2	Phenol	516,606	983,653	467,047	90.4	-412,412	-41.9	-91,862	-16.1	-504,274	-51.3
	Subtotal	119,255,040	114,276,678	-4,978,362	-4.2	-3,454,335	-3.0	-5,333,685	-4.8	-8,788,020	-7.7
	% of Total	91.4	92.1								
	Total for All Matched NPRI Chemicals	130,420,771	124,129,147	-6,291,624	-4.8	-3,882,030	-3.1	-5,774,988	-4.8	-9,657,018	-7.8

- One form projected 41,000,000 kilograms in error; the correct amount (used here) is 26,000 kilograms.
- 1995 data from 1995 reporting forms; 1996-1998 data from 1996 reporting forms.

Table 6-54		Actual and Projected Change for the 25 TRI Chemicals with the Largest Total Releases and Transfers									
CAS Number	Chemical	Total Releases and Transfers		Actual Change 1995-1996		Projected Change 1996-1997		Projected Change 1997-1998		Projected Change 1996-1998	
		1995 (kg)	1996 (kg)	kg	%	kg	%	kg	%	kg	%
67-56-1	Methanol	171,607,780	163,459,568	-8,148,212	-4.7	-3,512,315	-2.1	-3,709,106	-2.3	-7,221,421	-4.4
—	Nitric acid and nitrate compounds	122,596,719	121,603,295	-993,424	-0.8	-454,275	-0.4	366,775	0.3	-87,500	-0.1
—	Zinc (and its compounds)	97,294,097	115,988,441	18,694,345	19.2	6,570,972	5.7	-3,821,854	-3.1	2,749,118	2.4
108-88-3	Toluene	73,811,016	65,612,500	-8,198,517	-11.1	-5,082,150	-7.7	-2,687,134	-4.4	-7,769,284	-11.8
—	Manganese (and its compounds)	41,930,620	46,268,343	4,337,723	10.3	933,124	2.0	-1,628,844	-3.5	-695,719	-1.5
1330-20-7	Xylene (mixed isomers)	49,303,461	43,723,298	-5,580,163	-11.3	-2,367,846	-5.4	-709,903	-1.7	-3,077,749	-7.0
—	Copper (and its compounds)	28,928,630	38,861,578	9,932,948	34.3	-1,012,796	-2.6	-100,106	-0.3	-1,112,902	-2.9
75-15-0	Carbon disulfide	38,595,991	33,340,740	-5,255,251	-13.6	-6,098,552	-18.3	-1,224,840	-4.5	-7,323,393	-22.0
7647-01-0	Hydrochloric acid	43,080,363	31,758,888	-11,321,474	-26.3	-1,394,521	-4.4	-1,105,494	-3.6	-2,500,015	-7.9
7782-50-5	Chlorine	30,549,345	31,043,962	494,617	1.6	-534,646	-1.7	-6,253,189	-20.5	-6,787,835	-21.9
7664-38-2	Phosphoric acid	27,659,043	30,141,960	2,482,917	9.0	4,042,720	13.4	-7,516,995	-22.0	-3,474,274	-11.5
75-09-2	Dichloromethane	31,485,222	29,851,371	-1,633,851	-5.2	-3,859,289	-12.9	-4,524,196	-17.4	-8,383,486	-28.1
78-93-3	Methyl ethyl ketone	34,223,054	29,624,275	-4,598,779	-13.4	-2,425,616	-8.2	-1,498,132	-5.5	-3,923,748	-13.2
—	Chromium (and its compounds)	22,218,576	22,399,693	181,117	0.8	-451,017	-2.0	26,556	0.1	-424,460	-1.9
100-42-5	Styrene	22,317,698	21,436,526	-881,171	-3.9	815,898	3.8	457,302	2.1	1,273,200	5.9
—	Lead (and its compounds)	18,069,283	20,487,482	2,418,198	13.4	-737,529	-3.6	-842,683	-4.3	-1,580,212	-7.7
107-21-1	Ethylene glycol	25,393,790	18,323,498	-7,070,292	-27.8	-262,504	-1.4	416,408	2.3	153,904	0.8
74-85-1	Ethylene	16,185,950	15,728,123	-457,827	-2.8	-505,929	-3.2	-663,020	-4.4	-1,168,948	-7.4
75-05-8	Acetonitrile	15,924,740	13,215,514	-2,709,226	-17.0	974,722	7.4	1,273,328	9.0	2,248,050	17.0
71-36-3	n-Butyl alcohol	14,146,119	13,111,044	-1,035,076	-7.3	-458,236	-3.5	158,690	1.3	-299,546	-2.3
115-07-1	Propylene	12,543,468	12,104,501	-438,967	-3.5	-1,402,346	-11.6	-2,850,958	-26.6	-4,253,305	-35.1
50-00-0	Formaldehyde	10,085,287	10,894,426	809,140	8.0	-24,804	-0.2	4,521	0.0	-20,283	-0.2
79-01-6	Trichloroethylene	12,616,016	10,582,223	-2,033,793	-16.1	-2,597,419	-24.5	-1,733,572	-21.7	-4,330,991	-40.9
7664-93-9	Sulfuric acid	13,789,132	9,856,222	-3,932,910	-28.5	319,985	3.2	-430,312	-4.2	-110,327	-1.1
108-10-1	Methyl isobutyl ketone	11,013,155	9,546,167	-1,466,988	-13.3	-904,300	-9.5	-469,973	-5.4	-1,374,273	-14.4
	Subtotal	985,368,555	958,963,639	-26,404,916	-2.7	-20,428,669	-2.1	-39,066,731	-4.2	-59,495,400	-6.2
	% of Total	87.6	87.8								
	Total for All Matched TRI Chemicals	1,124,708,570	1,092,058,137	-32,650,433	-2.9	-25,167,998	-2.3	-42,182,141	-4.0	-67,350,139	-6.2

- Sections 8.1 plus 8.7 on TRI Form R.
- 1995 data from 1995 reporting forms; 1996-1998 data from 1996 reporting forms.

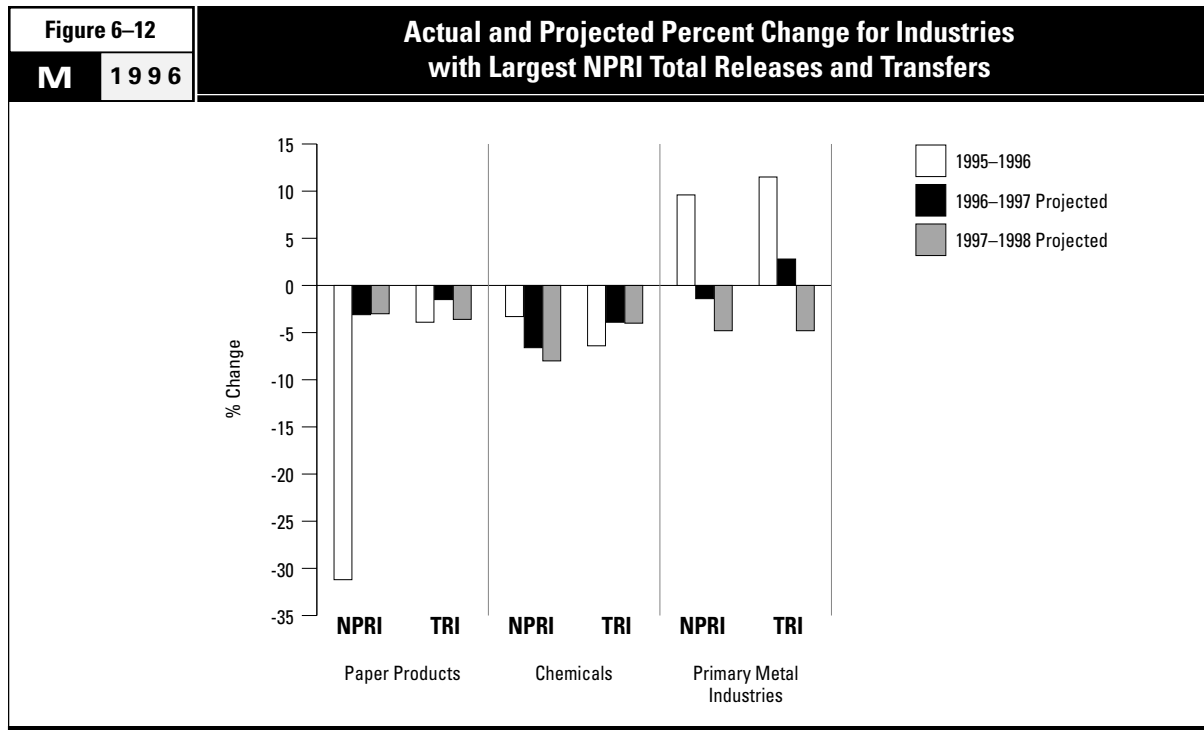


Table 6-55		Actual and Projected Change in NPRI Total Releases and Transfers, by Industry (US SIC Code) (Ordered by Total Releases and Transfers for 1996)									
M 1996		Total Releases and Transfers		Actual Change 1995-1996		Projected Change 1996-1997		Projected Change 1997-1998		Projected Change 1996-1998	
US SIC Code	Industry	1995 (kg)	1996 (kg)	kg	%	kg	%	kg	%	kg	%
33	Primary Metal Industries	37,382,893	40,953,208	3,570,315	9.6	-565,422	-1.4	-1,948,308	-4.8	-2,513,730	-6.1
28	Chemicals	34,105,210	32,989,980	-1,115,230	-3.3	-2,175,753	-6.6	-2,459,834	-8.0	-4,635,587	-14.1
26	Paper Products	28,244,685	19,443,145	-8,801,540	-31.2	-595,639	-3.1	-572,809	-3.0	-1,168,448	-6.0
37	Transportation Equipment	7,553,219	7,481,954	-71,265	-0.9	-62,715	-0.8	118,035	1.6	55,320	0.7
30	Rubber and Plastics Products	7,448,809	7,066,202	-382,607	-5.1	-421,755	-6.0	-213,579	-3.2	-635,334	-9.0
29	Petroleum and Coal Products	5,302,864	5,224,649	-78,215	-1.5	-4,803	-0.1	-195,497	-3.7	-200,300	-3.8
34	Fabricated Metals Products	3,346,058	3,796,673	450,615	13.5	205,844	5.4	-172,596	-4.3	33,248	0.9
24	Lumber and Wood Products	1,276,303	1,791,209	514,906	40.3	56,550	3.2	28,899	1.6	85,449	4.8
32	Stone/Clay/Glass Products	1,447,512	1,161,129	-286,383	-19.8	-114,557	-9.9	-93,671	-9.0	-208,228	-17.9
27	Printing and Publishing	867,577	855,090	-12,487	-1.4	-81,096	-9.5	-7,003	-0.9	-88,099	-10.3
39	Misc. Manufacturing Industries	335,553	739,671	404,118	120.4	-216,701	-29.3	-194,042	-37.1	-410,743	-55.5
20	Food Products	439,137	739,665	300,528	68.4	-39,760	-5.4	-45,255	-6.5	-85,015	-11.5
35	Industrial Machinery	589,797	593,601	3,804	0.6	30,754	5.2	-26,408	-4.2	4,346	0.7
25	Furniture and Fixtures	494,600	484,581	-10,019	-2.0	249,704	51.5	37,582	5.1	287,286	59.3
36	Electronic/Electrical Equipment	634,095	456,474	-177,621	-28.0	-154,633	-33.9	-29,042	-9.6	-183,675	-40.2
22	Textile Mill Products	926,200	337,608	-588,592	-63.5	9,915	2.9	-1,460	-0.4	8,455	2.5
31	Leather Products	23,888	13,500	-10,388	-43.5	-1,500	-11.1	0	0.0	-1,500	-11.1
23	Apparel and Other Textile Products	860	740	-120	-14.0	-450	-60.8	0	0.0	-450	-60.8
38	Measurement/Photographic Instr.	1,501	55	-1,446	-96.3	0	0.0	0	0.0	0	0.0
	Total	130,420,771	124,129,147	-6,291,624	-4.8	-3,882,030	-3.1	-5,774,988	-4.8	-9,657,018	-7.8

- One form projected 41,000,000 kilograms in error; the correct amount (used here) is 26,000 kilograms.
- 1995 data from 1995 reporting forms; 1996-1998 data from 1996 reporting forms.

Table 6-56		Actual and Projected Change in TRI Total Releases and Transfers, by Industry (Ordered by Total Releases and Transfers for 1996)									
M	1996	Total Releases and Transfers		Actual Change 1995-1996		Projected Change 1996-1997		Projected Change 1997-1998		Projected Change 1996-1998	
		1995 (kg)	1996 (kg)	kg	%	kg	%	kg	%	kg	%
28	Chemicals	398,692,818	373,138,151	-25,554,667	-6.4	-14,634,938	-3.9	-14,304,633	-4.0	-28,939,571	-7.8
33	Primary Metal Industries	241,483,708	269,175,378	27,691,670	11.5	7,559,443	2.8	-13,229,858	-4.8	-5,670,415	-2.1
26	Paper Products	123,202,084	118,341,324	-4,860,760	-3.9	-1,723,238	-1.5	-4,146,797	-3.6	-5,870,035	-5.0
	Multiple Codes 20-39	72,736,752	56,774,974	-15,961,778	-21.9	-605,059	-1.1	-2,294,386	-4.1	-2,899,445	-5.1
30	Rubber and Plastics Products	50,207,052	48,283,995	-1,923,057	-3.8	-3,684,052	-7.6	-3,418,546	-7.7	-7,102,598	-14.7
37	Transportation Equipment	48,703,902	44,350,596	-4,353,306	-8.9	-701,807	-1.6	-784,419	-1.8	-1,486,226	-3.4
34	Fabricated Metals Products	37,592,938	33,852,629	-3,740,309	-9.9	-3,120,308	-9.2	-613,701	-2.0	-3,734,009	-11.0
29	Petroleum and Coal Products	24,384,663	26,416,490	2,031,827	8.3	-1,675,341	-6.3	-179,538	-0.7	-1,854,879	-7.0
25	Furniture and Fixtures	20,666,821	18,733,851	-1,932,970	-9.4	-745,015	-4.0	-192,107	-1.1	-937,122	-5.0
36	Electronic/Electrical Equipment	19,577,946	17,392,842	-2,185,104	-11.2	-792,882	-4.6	-141,398	-0.9	-934,280	-5.4
32	Stone/Clay/Glass Products	11,708,445	15,110,516	3,402,071	29.1	-1,106,496	-7.3	-701,364	-5.0	-1,807,860	-12.0
20	Food Products	14,016,195	14,922,973	906,778	6.5	-95,659	-0.6	-42,431	-0.3	-138,090	-0.9
24	Lumber and Wood Products	13,113,388	11,854,327	-1,259,061	-9.6	-831,938	-7.0	-111,187	-1.0	-943,125	-8.0
27	Printing and Publishing	12,641,490	11,488,434	-1,153,056	-9.1	162,707	1.4	-215,940	-1.9	-53,233	-0.5
35	Industrial Machinery	10,413,932	9,740,297	-673,635	-6.5	-502,135	-5.2	-510,176	-5.5	-1,012,311	-10.4
22	Textile Mill Products	8,133,862	7,671,811	-462,051	-5.7	-1,542,138	-20.1	-1,154,196	-18.8	-2,696,334	-35.1
38	Measurement/Photographic Instruments	8,401,980	7,209,517	-1,192,463	-14.2	-565,814	-7.8	14,596	0.2	-551,218	-7.6
39	Misc. Manufacturing Industries	6,546,251	4,915,194	-1,631,057	-24.9	-319,804	-6.5	-73,232	-1.6	-393,036	-8.0
31	Leather Products	1,534,223	1,399,590	-134,633	-8.8	-80,288	-5.7	-17,191	-1.3	-97,479	-7.0
23	Apparel and Other Textile Products	480,540	689,054	208,514	43.4	-164,695	-23.9	-75,088	-14.3	-239,783	-34.8
21	Tobacco Products	469,580	596,194	126,614	27.0	1,459	0.2	9,451	1.6	10,910	1.8
	Total for All Matched TRI Industries	1,124,708,570	1,092,058,137	-32,650,433	-2.9	-25,167,998	-2.3	-42,182,141	-4.0	-67,350,139	-6.2

- Sections 8.1 plus 8.7 on TRI Form R.
- 1995 data from 1995 reporting forms; 1996-1998 data from 1996 reporting forms.

