530R94039C

National Analysis

The Biennial RCRA Hazardous Waste Report (Based on 1991 Data)

CONTENTS

EXECUTIVE SUMMARY ES-1

1.0 WASTE GENERATION 1-1
Exhibit 1.1 Number and Percentage of RCRA Hazardous Waste Generators and Total RCRA Hazardous Waste Quantity Generated, by EPA Region, 1991 1-2
Exhibit 1.2 Number and Percentage of RCRA Hazardous Waste Generators and Total RCRA Hazardous Waste Quantity Generated in Each EPA Region, by Highest Quantity Generated, 1991 1-2
Exhibit 1.3 Number and Percentage of RCRA Hazardous Waste Generators and Total RCRA Hazardous Waste Quantity Generated in Each EPA Region, by Highest Number of Generators, 1991 1-3
Exhibit 1.4 Quantity of RCRA Hazardous Waste Generated, and Number of Hazardous Waste Generators, by State,1991 1-5
Exhibit 1.5 Rank Ordering of States Based on Quantity of RCRA Hazardous Waste Generated, and Number of Hazardous Waste Generators, 1991 1-6
Exhibit 1.6 Rank Ordering of States Based on Number of Hazardous Waste Generators, and Quantity of RCRA Hazardous Waste Generated, 1991 1-7
Exhibit 1.7 Fifty Largest RCRA Hazardous Waste Generators in the U.S., 1991 1-8
Exhibit 1.8 Most Large Quantity Generators Generate Between 1.1 and 113.2 Tons of Waste. 1-9
Exhibit 1.9 Percentages of National Generation Total That Were Characteristic, Listed, and Both Characteristic and Listed Wastes 1-14
Exhibit 1.10 Tons of Generated Wastes that were Only Characteristic Wastes, Only Listed Wastes, or Both Characteristic and Listed Wastes, 1991 1-14
Exhibit 1.11 Tons of Generated Wastes with Multiple Chararcteristics, that were Multiply Listed, or Both in 1991 1-15

2.0 WASTE MANAGEMENT 2-1
Exhibit 2.1 Number and Percentage of RCRA TSD Facilities and RCRA Hazardous Waste Quantity Managed, by EPA Region, 1991 . . . 2-2
Exhibit 2.2 Number and Percentage of RCRA TSD Facilities and RCRA Hazardous Waste Quantity Managed, by Management Quantity, 1991 2-2
Exhibit 2.3 Number and Percentage of RCRA TSD Facilities and RCRA Hazardous Waste Quantity Managed in Each EPA Region, by Highest Number of TSD Facilities, 1991 2-3
Exhibit 2.4 Quantity of RCRA Hazardous Waste Managed and Number of TSDs, by State, 1991 2-5
Exhibit 2.5 Rank Ordering of States Based on Quantity of RCRA Hazardous Waste Managed, and Number of TSDs, 1991 2-6
Exhibit 2.6 Rank Ordering of States Based on Number of TSD Facilities, and Quantity of Hazardous Waste Managed, 1991 2-7

Exhibit 2.7 Fifty Largest RCRA Hazardous Waste Managers in the U.S., 1991 2-8
Exhibit 2.8 Quantity and Percentage of RCRA Hazardous Wastewater and Non-Wastewater Management in 1991 2-9
Exhibit 2.9 Quantity of RCRA Hazardous Waste Managed, by Management Method, 1991 2-10
Exhibit 2.10 Management Method, by Quantity of RCRA Hazardous Waste Managed, 1991 2-11
Exhibit 2.11 Management Method and Quantity of RCRA Hazardous Waste Managed, by Number of Facilities, 1991 2-12
Exhibit 2.12 Quantity of RCRA Hazardous Waste Managed, by Management Method, Limited to Waste Received from Off Site, 1991 2-14
Exhibit 2.13 Management Method, by Quantity of RCRA Hazardous Waste Managed, Limited to Waste Received from Off Site, 1991 . . . 2-15
Exhibit 2.14 Management Method and Quantity of RCRA Hazardous Waste Managed, by Number of Facilities, Limited to Waste Received from Off Site, 1991 2-16

3.0 SHIPMENTS AND RECEIPTS 3-1
Exhibit 3.1 Number and Percentage of RCRA Hazardous Waste Shippers and Total RCRA Hazardous Waste Quantity Shipped, by EPA Region, 1991 3-2
Exhibit 3.2 Number and Percentage of RCRA Hazardous Waste Shippers and Quantity of Waste Shipped in Each Region, by the Total Quantity of Waste Shipped, 1991 3-2
Exhibit 3.3 Number and Percentage of RCRA Hazardous Waste Shippers and Quantity Shipped in Each Region, by Highest Number of Shippers, 1991 3-3
Exhibit 3.4 Number and Percentage of RCRA Hazardous Waste Receivers and Quantity Received, by EPA Region, 1991 3-3
Exhibit 3.5 Number and Percentage of RCRA Hazardous Waste Receivers and Quantity Received in Each Region, by the Quantity of RCRA Hazardous Waste Received, 1991 3-4
Exhibit 3.6 Number and Percentage of RCRA Hazardous Waste Receivers and Quantity Received in Each Region, by the Number of Receiving Facilities, 1991 3-4
Exhibit 3.7 Quantity of RCRA Hazardous Waste Shipped, and Number of Hazardous Waste Shippers, by State, 1991 3-6
Exhibit 3.8 Rank Ordering of States Based on Quantity of RCRA Hazardous Waste Shipped, and Number of Hazardous Waste Shippers, 1991 3-7
Exhibit 3.9 Rank Ordering of States Based on Number of Hazardous Waste Shippers, and Quantity of RCRA Hazardous Waste Shipped, 1991 3-8
Exhibit 3.10 Quantity of RCRA Hazardous Waste Received and Number of Receivers, by State, 1991 3-10
Exhibit 3.11 Rank Ordering of States Based on Quantity of RCRA Hazardous Waste Received and Number of Receivers, 1991 . . 3-11
Exhibit 3.12 Rank Ordering of States Based on Number of Receiving Facilities, and Quantity of RCRA Hazardous Waste Received,

1991 3-12
Exhibit 3.13 Fifty Largest RCRA Hazardous Waste Shippers in the U.S., 1991 3-13
Exhibit 3.14 Fifty Largest RCRA Hazardous Waste Receivers in the U.S., 1991 3-14

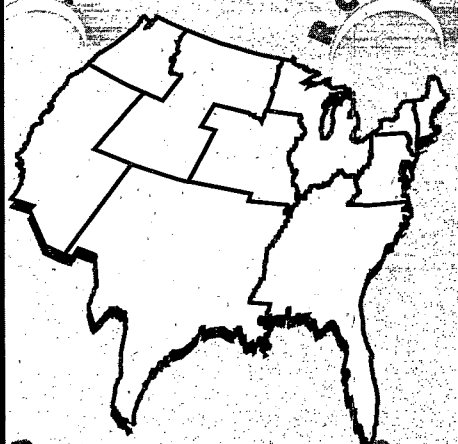
4.0 IMPORTS AND EXPORTS 4-1
Exhibit 4.1 RCRA Hazardous Waste Imports and Exports, by EPA Region, 1991 4-1
Exhibit 4.2 RCRA Hazardous Waste Imports, Exports, and Net difference between Imports and Exports by State, 1991 4-2

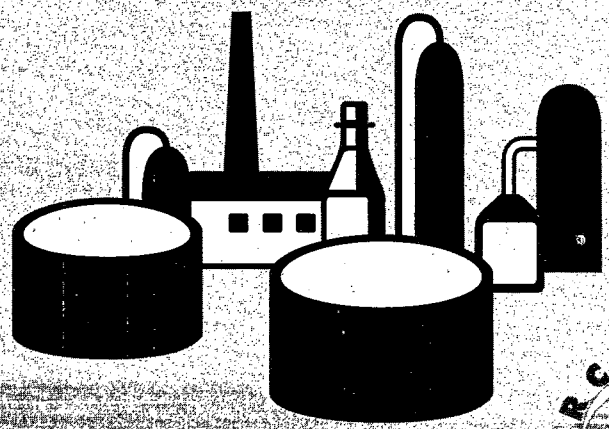
APPENDIX A SYSTEM TYPE CODES A-1

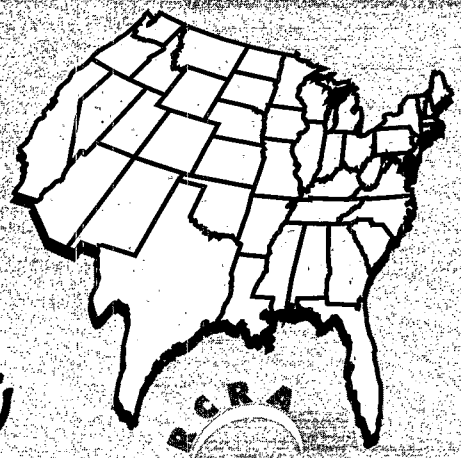
APPENDIX B EPA HAZARDOUS WASTE CODES B-1

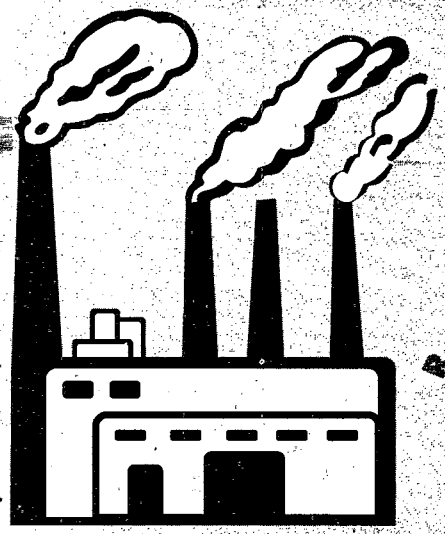
Executive Summary

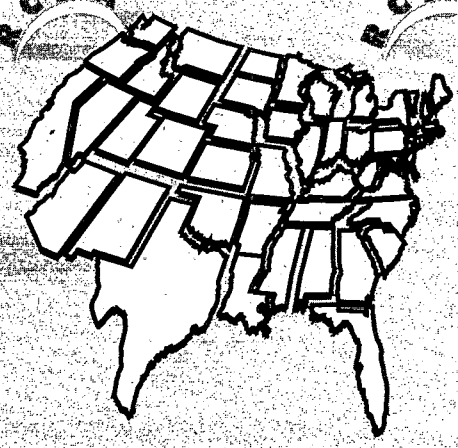
The Biennial RCRA Hazardous Waste Report (Based on 1991 Data)











EXECUTIVE SUMMARY

The United States Environmental Protection Agency (EPA), in cooperation with the States,[1] biennially collects information regarding the generation, management, and final disposition of hazardous wastes regulated under the Resource Conservation and Recovery Act of 1976 (RCRA), as amended. The purpose of this report is to communicate the findings of EPA's 1991 Biennial Reporting System (BRS) data collection efforts to the public, government agencies, and the regulated community.[2] The report consists of six documents:

- Executive Summary--an overview of national hazardous waste generation and management practices;
- National Analysis--a detailed look at waste handling practices in the EPA regions, the states and at the largest facilities in the nation, including quantities of generation, management, shipments and receipts, and interstate imports and exports, as well as counts of generators and managers;
- State Summary Analysis--two-page overviews of the generation and management practices of individual states;
- State Detail Analysis--a detailed look at each state's waste handling practices, including overall totals for generation, management, and shipments and receipts, as well as totals for the largest fifty facilities;
- List of Large Quantity Generators--identifies every hazardous waste generator in the United States that reported itself to be a large quantity generator in 1991; and
- List of Treatment, Storage and Disposal Facilities--identifies every hazardous waste manager in the United States that reported itself to be a treatment, storage or disposal facility in 1991.

[1]The term "state" includes the District of Columbia, Puerto Rico, Guam, the Trust Territories, and the Virgin Islands, in addition to the 50 United States.

[2]BRS respondents have submitted Confidential Business Information (CBI) pursuant to 40 CFR 260.2(b). While not included in any public BRS database, CBI has been incorporated into this report wherever possible. Where CBI has been omitted to preserve confidentiality, a footnote has been provided.

RCRA HAZARDOUS WASTE GENERATION

In 1991, 23,426 large quantity generators produced 306 million tons of hazardous wastes regulated by RCRA.[3] This is an increase of 3,000 generators and 108 million tons of waste compared to 1989. As identified in Exhibit 1, the largest hazardous waste generating states were Texas (104 million tons), Michigan (32 million tons), Louisiana (31 million tons), and New Jersey (29 million tons). Together, these states accounted for 64% of the national total.

In comparing 1991 and 1989 data, it is important to note that many new wastes were captured by RCRA in 1990 with the promulgation of the Toxicity Characteristic (TC) Rule. The TC Rule added 25 new hazardous waste codes (D018-D043) and required more stringent analytical tests for the presence of toxic constituents in waste. These codes captured, at a minimum, 137 million tons of previously unregulated wastes. An additional 25 million tons were described by D018-D043 mixed with other waste codes. This suggests that the new toxicity characteristic waste listings captured between 137 and 162 million tons of previously non-regulated wastes. Excluding these newly regulated wastes, the amount of hazardous waste generated in 1991 was between 29 and 54 million tons less than the 198 million tons reported in 1989.

Hazardous waste generators are included in the "National Biennial RCRA Hazardous Waste Report" if they identified themselves as large quantity generators. The following are the federal criteria for being a large quantity generator:

- The generator generated in any single month 1,000 kg (2,200 lbs. or 1.1 tons) or more of RCRA hazardous waste; or

- The generator generated in any single month, or accumulated at any time, 1 kg (2.2 lbs) of RCRA acute hazardous waste; or

- The generator generated or accumulated at any time more than 100 kg (220

[3]This quantity only includes waste managed in treatment units subject to RCRA permitting standards or transportation regulations. Hazardous waste managed in units exempt from RCRA permitting standards, such as treatment systems permitted by the National Pollutant Discharge Elimination System (NPDES), was not included in this report.

lbs) of spill cleanup material contaminated with RCRA acute hazardous waste.

According to these criteria, a generator that reports more than 13.2 tons (12 months x 1.1 tons) of annual hazardous waste generation must be a large quantity generator, because the generator must have generated at least 1.1 tons in at least one month. A generator that reports less than 13.2 tons in a year may not be a large quantity generator, because they may have generated less than 1.1 tons in every month. Of the 23,426 generators that identified themselves as large quantity generators, there are 14,190 generators that generated more than 13.2 tons in 1991, 8,086 that generated between 1.1 and 13.2 tons, and 1,150 that generated less than 1.1 tons.

It is important to note that the large quantity generators identified in this report have been included on the basis of the best available and most current information provided electronically to the EPA by the States. Both the EPA and the States have made significant efforts to ensure the accuracy of these data. However, the large quantity generator counts may include some generators that met lower, state-defined thresholds for large quantity generators. The EPA and the States endeavor to control for variation in state programs, but it is not always possible to distinguish generators that the federal threshold determines to be large quantity generators from generators that a state threshold determines to be large quantity generators. The EPA and the States also endeavor to ensure that only federally regulated wastes are counted in the determination of federal large quantity generators, but the large quantity generator counts may include generators that, when determining whether they were large quantity generators, counted wastes regulated only by their states or wastes that are exempt from federal regulation.

RCRA HAZARDOUS WASTE MANAGEMENT

In 1991, 3,862 treatment, storage, or disposal facilities (TSDs) subject to RCRA permitting standards managed 294 million tons of hazardous waste. This represents an 800 facility increase in the number of TSDs and a 98 million ton increase in the amount of waste managed as compared to 1989. As identified in Exhibit 2, the states managing the largest quantities of hazardous wastes were Texas (104 million tons), Michigan (32 million tons), Louisiana (32 million tons), and New Jersey (30 million tons). Together, these

states accounted for 67% of the national management total.

The majority (76%) of the national total was managed in aqueous treatment units. One hundred and thirty-two (132) million tons were managed in aqueous organic treatment units, 19 million tons in aqueous inorganic treatment units, and 74 million tons in both inorganic and organic aqueous treatment units.

Land disposal accounts for 9.0% of the management total. Nationwide, 23 million tons of hazardous wastes were disposed in underground injection wells, 1.7 million tons were disposed in landfills, 240 thousand tons were managed in surface impoundments, and 52 thousand tons were managed by land application (land farming).

Recovery operations account for 2.2% of the national management total. Facilities reported that 3.6 million tons were managed in solvent recovery units, 1.4 million tons were managed in fuel blending units, 1.0 million tons were managed in metals recovery units, and 480 thousand tons were recovered by other methods such as acid regeneration, waste oil recovery, and non-solvent organic recovery.

Thermal treatment accounts for 1.1% of the national management total. A total of 1.9 million tons were incinerated, while facilities reused 1.5 million tons as fuel in boilers or industrial furnaces.

RCRA HAZARDOUS WASTE SHIPMENTS AND RECEIPTS

In 1991, 24,000 facilities reported shipping a total of 13 million tons of waste, of which five million tons were shipped interstate. The states that shipped (in or out of state) the largest quantities of wastes were Texas, Connecticut and Michigan. The states that received the largest quantities of waste (from in or out of state) were California, Ohio and Michigan. The largest net importers (imports minus exports) were Ohio (150 thousand tons), South Carolina (127 thousand tons), and Kansas (110 thousand tons). The largest net exporters (exports minus imports) were Massachusetts (197 thousand tons), California (136 thousand tons), and Texas (131 thousand tons).

Exhibit 1 Quantity of RCRA Hazardous Waste Generated, and Number of Hazardous Waste Generators, by State, 1991

STATE	HAZARDOUS WASTE QUANTITY			HAZARDOUS WASTE GENERATORS		
	RANK	TONS GENERATED	PERCENTAGE	RANK	NUMBER OF GENERATORS	PERCENTAGE
ALABAMA	27	559,823	0.2	23	277	1.2
ALASKA	42	24,141	0.0	45	58	0.2
ARIZONA	34	158,279	0.1	26	249	1.1
ARKANSAS	23	748,018	0.2	34	149	0.6
CALIFORNIA	8	12,925,393	4.2	2	2,116	9.0
COLORADO	30	478,343	0.2	35	146	0.6
CONNECTICUT	15	2,062,163	0.7	15	483	2.1
DELAWARE	43	20,531	0.0	43	63	0.3
DISTRICT OF COLUMBIA	53	975	0.0	52	11	0.0
FLORIDA	28	508,839	0.2	18	399	1.7
GEORGIA	22	757,885	0.2	18	399	1.7
GUAM	55	346	0.0	53	8	0.0
HAWAII	51	2,032	0.0	48	35	0.1
IDAHO	12	4,350,064	1.4	47	40	0.2
ILLINOIS	7	13,086,020	4.3	7	1,229	5.2
INDIANA	19	1,633,861	0.5	11	671	2.9
IOWA	37	126,218	0.0	32	155	0.7
KANSAS	13	3,215,044	1.1	29	177	0.8
KENTUCKY	29	487,622	0.2	16	465	2.0
LOUISIANA	3	31,486,169	10.3	22	309	1.3
MAINE	46	11,657	0.0	32	155	0.7
MARYLAND	39	75,911	0.0	17	430	1.8
MASSACHUSETTS	32	274,985	0.1	14	552	2.4
MICHIGAN	2	31,862,518	10.4	9	755	3.2
MINNESOTA	11	5,662,647	1.9	24	276	1.2
MISSISSIPPI	9	8,050,831	2.6	28	178	0.8
MISSOURI	24	686,651	0.2	20	389	1.7
MONTANA	47	11,177	0.0	46	54	0.2
NEBRASKA	40	35,705	0.0	40	86	0.4
NEVADA	48	9,951	0.0	41	71	0.3
NEW HAMPSHIRE	44	17,309	0.0	30	166	0.7
NEW JERSEY	4	29,490,704	9.6	3	1,661	7.1
NEW MEXICO	35	155,943	0.1	42	68	0.3
NEW YORK	5	18,036,041	5.9	1	2,627	11.2
NORTH CAROLINA	31	281,849	0.1	13	582	2.5
NORTH DAKOTA	25	685,256	0.2	51	16	0.1
OHIO	16	1,809,547	0.6	4	1,542	6.6
OKLAHOMA	20	933,230	0.3	31	161	0.7
OREGON	36	132,297	0.0	27	191	0.8
PENNSYLVANIA	18	1,692,608	0.6	6	1,264	5.4
PUERTO RICO	14	3,120,686	1.0	39	97	0.4
RHODE ISLAND	45	14,653	0.0	37	107	0.5
SOUTH CAROLINA	26	604,456	0.2	21	337	1.4
SOUTH DAKOTA	52	979	0.0	50	21	0.1
TENNESSEE	17	1,697,402	0.6	10	683	2.9
TEXAS	1	104,079,270	34.0	5	1,394	6.0
TRUST TERRITORIES	49	2,835	0.0	54	3	0.0
UTAH	21	900,643	0.3	38	99	0.4
VERMONT	41	35,565	0.0	43	63	0.3
VIRGIN ISLANDS	54	811	0.0	55	1	0.0
VIRGINIA	38	96,169	0.0	25	264	1.1
WASHINGTON	6	14,726,588	4.8	8	939	4.0
WEST VIRGINIA	10	7,619,802	2.5	36	120	0.5
WISCONSIN	33	258,308	0.1	12	607	2.6
WYOMING	50	2,127	0.0	49	28	0.1
TOTAL		305,708,881	100.0		23,426	100.0

Note: Columns may not sum due to rounding.

Exhibit 2 Quantity of RCRA Hazardous Waste Managed and Number of TSDs, by State, 1991

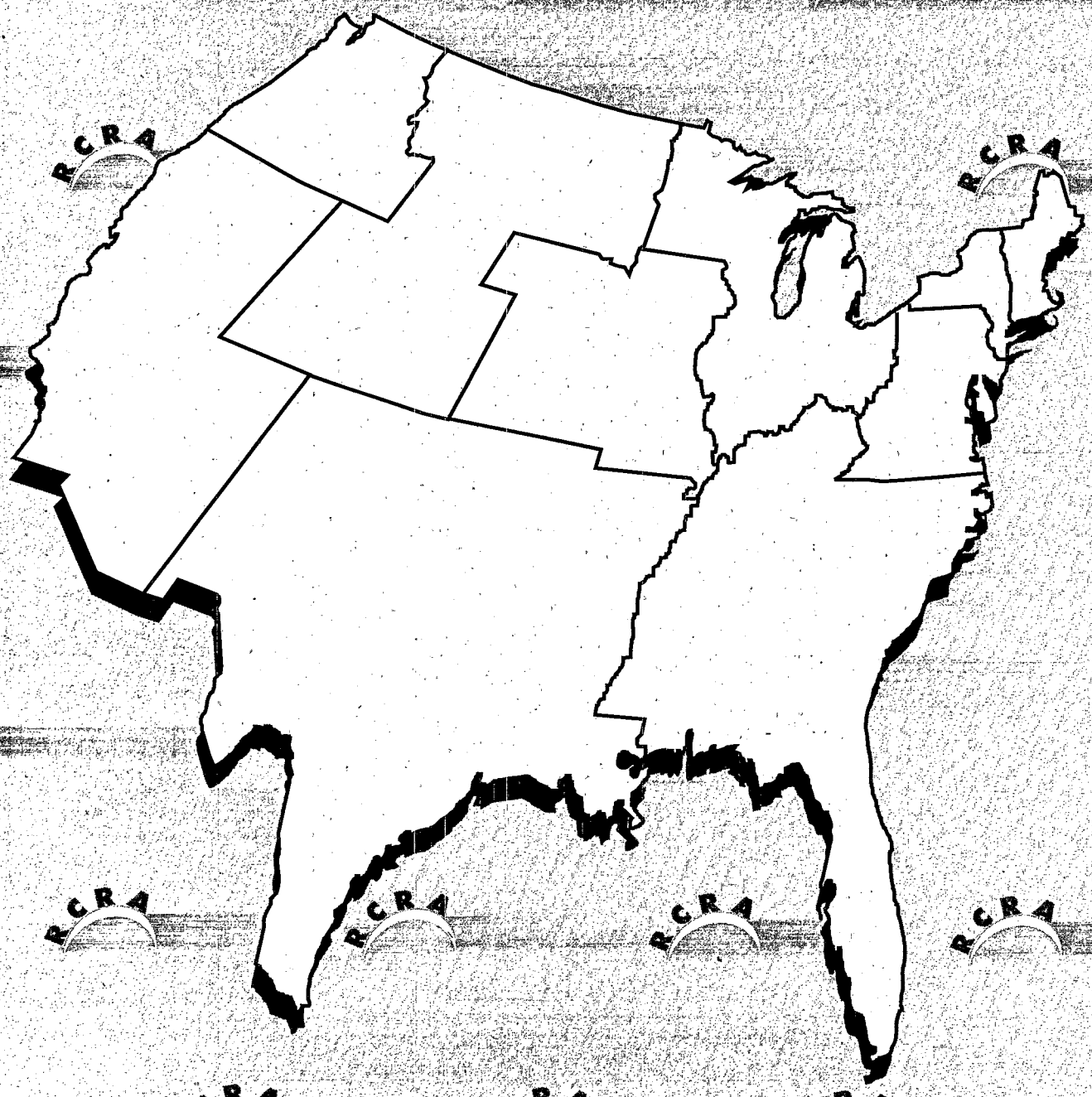
STATE	RCRA HAZARDOUS WASTE QUANTITY[1]			TSD FACILITIES		
	RANK	TONS MANAGED	PERCENTAGE	RANK	NUMBER	PERCENTAGE
ALABAMA	23	675,999	0.2	23	54	1.4
ALASKA	40	21,178	0.0	27	41	1.1
ARIZONA	36	122,891	0.0	31	33	0.9
ARKANSAS	21	757,956	0.3	37	24	0.6
CALIFORNIA	6	12,130,053	4.1	2	409	10.6
COLORADO	26	468,167	0.2	29	40	1.0
CONNECTICUT	27	371,208	0.1	13	77	2.0
DELAWARE	45	2,273	0.0	42	11	0.3
DISTRICT OF COLUMBIA	51	0	0.0	51	2	0.1
FLORIDA	32	195,490	0.1	15	72	1.9
GEORGIA	18	1,103,055	0.4	21	59	1.5
GUAM	51	0	0.0	51	2	0.1
HAWAII	46	1,428	0.0	44	9	0.2
IDAHO	13	3,178,455	1.1	42	11	0.3
ILLINOIS	7	12,083,019	4.1	3	217	5.6
INDIANA	16	1,405,359	0.5	8	102	2.6
IOWA	37	83,336	0.0	34	30	0.8
KANSAS	12	3,310,784	1.1	27	41	1.1
KENTUCKY	28	300,060	0.1	32	32	0.8
LOUISIANA	3	31,589,603	10.7	19	63	1.6
MAINE	47	1,054	0.0	24	52	1.3
MARYLAND	41	19,084	0.0	12	79	2.0
MASSACHUSETTS	42	9,433	0.0	26	43	1.1
MICHIGAN	2	31,922,898	10.8	6	152	3.9
MINNESOTA	11	5,565,626	1.9	20	60	1.6
MISSISSIPPI	9	8,013,068	2.7	22	56	1.5
MISSOURI	24	589,673	0.2	10	87	2.3
MONTANA	44	3,270	0.0	44	9	0.2
NEBRASKA	39	26,065	0.0	39	16	0.4
NEVADA	38	52,784	0.0	41	12	0.3
NEW HAMPSHIRE	51	0	0.0	51	2	0.1
NEW JERSEY	4	29,662,220	10.1	1	781	20.2
NEW MEXICO	33	148,932	0.1	38	20	0.5
NEW YORK	5	18,320,124	6.2	7	109	2.8
NORTH CAROLINA	30	252,993	0.1	14	74	1.9
NORTH DAKOTA	22	683,825	0.2	47	6	0.2
OHIO	15	1,870,654	0.6	5	185	4.8
OKLAHOMA	19	980,618	0.3	30	39	1.0
OREGON	34	133,021	0.0	44	9	0.2
PENNSYLVANIA	17	1,405,204	0.5	11	80	2.1
PUERTO RICO	14	3,051,006	1.0	32	32	0.8
RHODE ISLAND	43	8,642	0.0	40	15	0.4
SOUTH CAROLINA	25	528,458	0.2	18	64	1.7
SOUTH DAKOTA	51	0	0.0	50	3	0.1
TENNESSEE	20	778,652	0.3	9	100	2.6
TEXAS	1	103,946,014	35.3	4	206	5.3
TRUST TERRITORIES	48	887	0.0	51	2	0.1
UTAH	29	284,846	0.1	36	26	0.7
VERMONT	51	0	0.0	48	5	0.1
VIRGIN ISLANDS	49	219	0.0	51	2	0.1
VIRGINIA	35	126,998	0.0	16	66	1.7
WASHINGTON	8	10,477,204	3.6	16	66	1.7
WEST VIRGINIA	10	7,552,337	2.6	35	27	0.7
WISCONSIN	31	221,065	0.1	25	44	1.1
WYOMING	50	119	0.0	49	4	0.1
TOTAL		294,437,307	100.0		3,862	100.0

[1]Quantity managed only by storage is excluded.

Note: Columns may not sum due to rounding.

National Analysis

The Biennial RCRA Hazardous Waste Report (Based on 1991 Data)



National Biennial RCRA Hazardous Waste Report

The United States Environmental Protection Agency (EPA), in cooperation with individual States,[1] biennially collects information regarding the generation, management, and final disposition of hazardous wastes regulated under the Resource Conservation and Recovery Act of 1976 (RCRA), as amended. The purpose of this report is to communicate the initial findings of EPA's 1991 Biennial Reporting System (BRS) data collection efforts to the public, government agencies, and the regulated community.[2]

1.0 WASTE GENERATION

This section presents a series of exhibits describing RCRA hazardous waste generation in 1991. Nationwide, 23,426 large quantity generators (LQGs) produced 306 million tons[3] of hazardous waste subsequently regulated by RCRA.[4] Throughout this report, the term RCRA hazardous waste refers to solid waste assigned a federal hazardous waste code and regulated by RCRA, either because it was managed in a unit subject to RCRA permitting standards or because it was shipped and subject to RCRA transportation requirements. Individual states may choose to regulate additional wastes not identified as hazardous by EPA. Hazardous wastes assigned only a state hazardous waste code are not included in this report. Similarly, hazardous wastes managed only in units subject to state permitting requirements, or wastes that are exempt from RCRA permitting requirements, are not included in this report.

Exhibits 1.1, 1.2, and 1.3 present the quantity of RCRA hazardous waste generated and the number of LQGs in each EPA region in 1991. Three regions produced

[1]The term "State" includes the District of Columbia, Puerto Rico, Guam, the Trust Territories, and the Virgin Islands.

[2]BRS respondents have submitted confidential business information (CBI) pursuant to 40 CFR 260.2(b). While not included in any public BRS database, CBI has been incorporated into this report wherever possible. Where CBI has been omitted to preserve confidentiality, a footnote has been provided.

[3]English (short) tons.

[4]This quantity only includes waste managed in treatment units subject to RCRA permitting standards or subject to RCRA transportation regulations. Hazardous waste managed in units exempt from RCRA permitting standards, such as units permitted by the National Pollutant Discharge Elimination System (NPDES), were not included in this report.

Exhibit 1.1 **Number and Percentage of RCRA Hazardous Waste Generators and Total RCRA Hazardous Waste Quantity Generated, by EPA Region, 1991**

EPA REGION	HAZARDOUS WASTE QUANTITY		LARGE QUANTITY GENERATORS	
	TONS GENERATED	PERCENTAGE	NUMBER	PERCENTAGE
1	2,416,332	0.8	1,526	6.5
2	50,648,243	16.6	4,386	18.7
3	9,505,997	3.1	2,152	9.2
4	12,948,706	4.2	3,320	14.2
5	54,312,901	17.8	5,080	21.7
6	137,402,630	44.9	2,081	8.9
7	4,063,618	1.3	807	3.4
8	2,078,526	0.7	364	1.6
9	13,098,837	4.3	2,482	10.6
10	19,233,091	6.3	1,228	5.2
TOTAL	**305,708,881**	**100.0**	**23,426**	**100.0**

Exhibit 1.2 **Number and Percentage of RCRA Hazardous Waste Generators and Total RCRA Hazardous Waste Quantity Generated in Each EPA Region, by Highest Quantity Generated, 1991**

EPA REGION	HAZARDOUS WASTE QUANTITY		LARGE QUANTITY GENERATORS	
	TONS GENERATED	PERCENTAGE	NUMBER	PERCENTAGE
6	137,402,630	44.9	2,081	8.9
5	54,312,901	17.8	5,080	21.7
2	50,648,243	16.6	4,386	18.7
10	19,233,091	6.3	1,228	5.2
9	13,098,837	4.3	2,482	10.6
4	12,948,706	4.2	3,320	14.2
3	9,505,997	3.1	2,152	9.2
7	4,063,618	1.3	807	3.4
1	2,416,332	0.8	1,526	6.5
8	2,078,526	0.7	364	1.6
TOTAL	**305,708,881**	**100.0**	**23,426**	**100.0**

Note: Columns for these two exhibits may not sum due to rounding.

Exhibit 1.3 **Number and Percentage of RCRA Hazardous Waste Generators and Total RCRA Hazardous Waste Quantity Generated in Each EPA Region, by Highest Number of Generators, 1991**

EPA REGION	LARGE QUANTITY GENERATORS		HAZARDOUS WASTE QUANTITY	
	NUMBER	PERCENTAGE	TONS GENERATED	PERCENTAGE
5	5,080	21.7	54,312,901	17.8
2	4,386	18.7	50,648,243	16.6
4	3,320	14.2	12,948,706	4.2
9	2,482	10.6	13,098,837	4.3
3	2,152	9.2	9,505,997	3.1
6	2,081	8.9	137,402,630	44.9
1	1,526	6.5	2,416,332	0.8
10	1,228	5.2	19,233,091	6.3
7	807	3.4	4,063,618	1.3
8	364	1.6	2,078,526	0.7
TOTAL	**23,426**	**100.0**	**305,708,881**	**100.0**

Note: Columns may not sum due to rounding.

79% of the 306 million tons generated nationwide. Region 6 generated 137 million tons, Region 5 generated 54 million tons, and Region 2 generated 51 million tons.

Certain states within these regions account for these high volumes of waste. As shown in Exhibits 1.4, 1.5, and 1.6, the largest hazardous waste generating states were Texas (104 million tons), Michigan (32 million tons), Louisiana (31 million tons) and New Jersey (29 million tons). Together, these states account for 64% of the national total.

Large generators within these states account for the majority of these generation totals. As shown in Exhibit 1.7, the largest 50 generators account for 81% (249 million tons) of the national total. Of the 50 generators, 22 are located in Texas. These 22 facilities account for 93% of Texas's generation total. The one Michigan site, Dow Chemical Co., accounts for 95% of Michigan's generation. The five Louisiana facilities account for 90% of Louisiana's generation. And, the one New Jersey site, E.I. DuPont Chambers Works, accounts for 97% of New Jersey's generation.

In 1991, 23,426 facilities identified themselves as large quantity generators (LQGs).[5] The EPA regions with the largest numbers of LQGs were Region 5 (5,080), Region 2 (4,386), and Region 4 (3,320). These regions account for 55% of the total number of LQGs. See Exhibits 1.1, 1.2, and 1.3. The states with the most LQGs were New York (2,627), California (2,116), and New Jersey (1,661). See Exhibits 1.4, 1.5, and 1.6.

[5] EPA lists all reported large quantity generators in the "National Biennial RCRA Hazardous Waste Report: List of Large Quantity Generators in the United States." This document may be obtained through the RCRA Hotline by calling 1-800-424-9346.

Exhibit 1.4 **Quantity of RCRA Hazardous Waste Generated, and Number of Hazardous Waste Generators, by State, 1991**

STATE	HAZARDOUS WASTE QUANTITY			HAZARDOUS WASTE GENERATORS		
	RANK	TONS GENERATED	PERCENTAGE	RANK	NUMBER OF GENERATORS	PERCENTAGE
ALABAMA	27	559,823	0.2	23	277	1.2
ALASKA	42	24,141	0.0	45	58	0.2
ARIZONA	34	158,279	0.1	26	249	1.1
ARKANSAS	23	748,018	0.2	34	149	0.6
CALIFORNIA	8	12,925,393	4.2	2	2,116	9.0
COLORADO	30	478,343	0.2	35	146	0.6
CONNECTICUT	15	2,062,163	0.7	15	483	2.1
DELAWARE	43	20,531	0.0	43	63	0.3
DISTRICT OF COLUMBIA	53	975	0.0	52	11	0.0
FLORIDA	28	508,839	0.2	18	399	1.7
GEORGIA	22	757,885	0.2	18	399	1.7
GUAM	55	346	0.0	53	8	0.0
HAWAII	51	2,032	0.0	48	35	0.1
IDAHO	12	4,350,064	1.4	47	40	0.2
ILLINOIS	7	13,086,020	4.3	7	1,229	5.2
INDIANA	19	1,633,861	0.5	11	671	2.9
IOWA	37	126,218	0.0	32	155	0.7
KANSAS	13	3,215,044	1.1	29	177	0.8
KENTUCKY	29	487,622	0.2	16	465	2.0
LOUISIANA	3	31,486,169	10.3	22	309	1.3
MAINE	46	11,657	0.0	32	155	0.7
MARYLAND	39	75,911	0.0	17	430	1.8
MASSACHUSETTS	32	274,985	0.1	14	552	2.4
MICHIGAN	2	31,862,518	10.4	9	755	3.2
MINNESOTA	11	5,662,647	1.9	24	276	1.2
MISSISSIPPI	9	8,050,831	2.6	28	178	0.8
MISSOURI	24	686,651	0.2	20	389	1.7
MONTANA	47	11,177	0.0	46	54	0.2
NEBRASKA	40	35,705	0.0	40	86	0.4
NEVADA	48	9,951	0.0	41	71	0.3
NEW HAMPSHIRE	44	17,309	0.0	30	166	0.7
NEW JERSEY	4	29,490,704	9.6	3	1,661	7.1
NEW MEXICO	35	155,943	0.1	42	68	0.3
NEW YORK	5	18,036,041	5.9	1	2,627	11.2
NORTH CAROLINA	31	281,849	0.1	13	582	2.5
NORTH DAKOTA	25	685,256	0.2	51	16	0.1
OHIO	16	1,809,547	0.6	4	1,542	6.6
OKLAHOMA	20	933,230	0.3	31	161	0.7
OREGON	36	132,297	0.0	27	191	0.8
PENNSYLVANIA	18	1,692,608	0.6	6	1,264	5.4
PUERTO RICO	14	3,120,686	1.0	39	97	0.4
RHODE ISLAND	45	14,653	0.0	37	107	0.5
SOUTH CAROLINA	26	604,456	0.2	21	337	1.4
SOUTH DAKOTA	52	979	0.0	50	21	0.1
TENNESSEE	17	1,697,402	0.6	10	683	2.9
TEXAS	1	104,079,270	34.0	5	1,394	6.0
TRUST TERRITORIES	49	2,835	0.0	54	3	0.0
UTAH	21	900,643	0.3	38	99	0.4
VERMONT	41	35,565	0.0	43	63	0.3
VIRGIN ISLANDS	54	811	0.0	55	1	0.0
VIRGINIA	38	96,169	0.0	25	264	1.1
WASHINGTON	6	14,726,588	4.8	8	939	4.0
WEST VIRGINIA	10	7,619,802	2.5	36	120	0.5
WISCONSIN	33	258,308	0.1	12	607	2.6
WYOMING	50	2,127	0.0	49	28	0.1
TOTAL		305,708,881	100.0		23,426	100.0

Note: Columns may not sum due to rounding.

Exhibit 1.5 **Rank Ordering of States Based on Quantity of RCRA Hazardous Waste Generated, and Number of Hazardous Waste Generators, 1991**

STATE	HAZARDOUS WASTE QUANTITY			HAZARDOUS WASTE GENERATORS		
	RANK	TONS GENERATED	PERCENTAGE	RANK	NUMBER OF GENERATORS	PERCENTAGE
TEXAS	1	104,079,270	34.0	5	1,394	6.0
MICHIGAN	2	31,862,518	10.4	9	755	3.2
LOUISIANA	3	31,486,169	10.3	22	309	1.3
NEW JERSEY	4	29,490,704	9.6	3	1,661	7.1
NEW YORK	5	18,036,041	5.9	1	2,627	11.2
WASHINGTON	6	14,726,588	4.8	8	939	4.0
ILLINOIS	7	13,086,020	4.3	7	1,229	5.2
CALIFORNIA	8	12,925,393	4.2	2	2,116	9.0
MISSISSIPPI	9	8,050,831	2.6	28	178	0.8
WEST VIRGINIA	10	7,619,802	2.5	36	120	0.5
MINNESOTA	11	5,662,647	1.9	24	276	1.2
IDAHO	12	4,350,064	1.4	47	40	0.2
KANSAS	13	3,215,044	1.1	29	177	0.8
PUERTO RICO	14	3,120,686	1.0	39	97	0.4
CONNECTICUT	15	2,062,163	0.7	15	483	2.1
OHIO	16	1,809,547	0.6	4	1,542	6.6
TENNESSEE	17	1,697,402	0.6	10	683	2.9
PENNSYLVANIA	18	1,692,608	0.6	6	1,264	5.4
INDIANA	19	1,633,861	0.5	11	671	2.9
OKLAHOMA	20	933,230	0.3	31	161	0.7
UTAH	21	900,643	0.3	38	99	0.4
GEORGIA	22	757,885	0.2	18	399	1.7
ARKANSAS	23	748,018	0.2	34	149	0.6
MISSOURI	24	686,651	0.2	20	389	1.7
NORTH DAKOTA	25	685,256	0.2	51	16	0.1
SOUTH CAROLINA	26	604,456	0.2	21	337	1.4
ALABAMA	27	559,823	0.2	23	277	1.2
FLORIDA	28	508,839	0.2	18	399	1.7
KENTUCKY	29	487,622	0.2	16	465	2.0
COLORADO	30	478,343	0.2	35	146	0.6
NORTH CAROLINA	31	281,849	0.1	13	582	2.5
MASSACHUSETTS	32	274,985	0.1	14	552	2.4
WISCONSIN	33	258,308	0.1	12	607	2.6
ARIZONA	34	158,279	0.1	26	249	1.1
NEW MEXICO	35	155,943	0.1	42	68	0.3
OREGON	36	132,297	0.0	27	191	0.8
IOWA	37	126,218	0.0	32	155	0.7
VIRGINIA	38	96,169	0.0	25	264	1.1
MARYLAND	39	75,911	0.0	17	430	1.8
NEBRASKA	40	35,705	0.0	40	86	0.4
VERMONT	41	35,565	0.0	43	63	0.3
ALASKA	42	24,141	0.0	45	58	0.2
DELAWARE	43	20,531	0.0	43	63	0.3
NEW HAMPSHIRE	44	17,309	0.0	30	166	0.7
RHODE ISLAND	45	14,653	0.0	37	107	0.5
MAINE	46	11,657	0.0	32	155	0.7
MONTANA	47	11,177	0.0	46	54	0.2
NEVADA	48	9,951	0.0	41	71	0.3
TRUST TERRITORIES	49	2,835	0.0	54	3	0.0
WYOMING	50	2,127	0.0	49	28	0.1
HAWAII	51	2,032	0.0	48	35	0.1
SOUTH DAKOTA	52	979	0.0	50	21	0.1
DISTRICT OF COLUMBIA	53	975	0.0	52	11	0.0
VIRGIN ISLANDS	54	811	0.0	55	1	0.0
GUAM	55	346	0.0	53	8	0.0
TOTAL		305,708,881	100.0		23,426	100.0

Note: Columns may not sum due to rounding.

Exhibit 1.6 **Rank Ordering of States Based on Number of Hazardous Waste Generators, and Quantity of RCRA Hazardous Waste Generated, 1991**

STATE	HAZARDOUS WASTE GENERATORS			HAZARDOUS WASTE QUANTITY		
	RANK	NUMBER OF GENERATORS	PERCENTAGE	RANK	TONS GENERATED	PERCENTAGE
NEW YORK	1	2,627	11.2	5	18,036,041	5.9
CALIFORNIA	2	2,116	9.0	8	12,925,393	4.2
NEW JERSEY	3	1,661	7.1	4	29,490,704	9.6
OHIO	4	1,542	6.6	16	1,809,547	0.6
TEXAS	5	1,394	6.0	1	104,079,270	34.0
PENNSYLVANIA	6	1,264	5.4	18	1,692,608	0.6
ILLINOIS	7	1,229	5.2	7	13,086,020	4.3
WASHINGTON	8	939	4.0	6	14,726,588	4.8
MICHIGAN	9	755	3.2	2	31,862,518	10.4
TENNESSEE	10	683	2.9	17	1,697,402	0.6
INDIANA	11	671	2.9	19	1,633,861	0.5
WISCONSIN	12	607	2.6	33	258,308	0.1
NORTH CAROLINA	13	582	2.5	31	281,849	0.1
MASSACHUSETTS	14	552	2.4	32	274,985	0.1
CONNECTICUT	15	483	2.1	15	2,062,163	0.7
KENTUCKY	16	465	2.0	29	487,622	0.2
MARYLAND	17	430	1.8	39	75,911	0.0
FLORIDA	18	399	1.7	28	508,839	0.2
GEORGIA	18	399	1.7	22	757,885	0.2
MISSOURI	20	389	1.7	24	686,651	0.2
SOUTH CAROLINA	21	337	1.4	26	604,456	0.2
LOUISIANA	22	309	1.3	3	31,486,169	10.3
ALABAMA	23	277	1.2	27	559,823	0.2
MINNESOTA	24	276	1.2	11	5,662,647	1.9
VIRGINIA	25	264	1.1	38	96,169	0.0
ARIZONA	26	249	1.1	34	158,279	0.1
OREGON	27	191	0.8	36	132,297	0.0
MISSISSIPPI	28	178	0.8	9	8,050,831	2.6
KANSAS	29	177	0.8	13	3,215,044	1.1
NEW HAMPSHIRE	30	166	0.7	44	17,309	0.0
OKLAHOMA	31	161	0.7	20	933,230	0.3
MAINE	32	155	0.7	46	11,657	0.0
IOWA	32	155	0.7	37	126,218	0.0
ARKANSAS	34	149	0.6	23	748,018	0.2
COLORADO	35	146	0.6	30	478,343	0.2
WEST VIRGINIA	36	120	0.5	10	7,619,802	2.5
RHODE ISLAND	37	107	0.5	45	14,653	0.0
UTAH	38	99	0.4	21	900,643	0.3
PUERTO RICO	39	97	0.4	14	3,120,686	1.0
NEBRASKA	40	86	0.4	40	35,705	0.0
NEVADA	41	71	0.3	48	9,951	0.0
NEW MEXICO	42	68	0.3	35	155,943	0.1
DELAWARE	43	63	0.3	43	20,531	0.0
VERMONT	43	63	0.3	41	35,565	0.0
ALASKA	45	58	0.2	42	24,141	0.0
MONTANA	46	54	0.2	47	11,177	0.0
IDAHO	47	40	0.2	12	4,350,064	1.4
HAWAII	48	35	0.1	51	2,032	0.0
WYOMING	49	28	0.1	50	2,127	0.0
SOUTH DAKOTA	50	21	0.1	52	979	0.0
NORTH DAKOTA	51	16	0.1	25	685,256	0.2
DISTRICT OF COLUMBIA	52	11	0.0	53	975	0.0
GUAM	53	8	0.0	55	346	0.0
TRUST TERRITORIES	54	3	0.0	49	2,835	0.0
VIRGIN ISLANDS	55	1	0.0	54	811	0.0
TOTAL		23,426	100.0		305,708,881	100.0

Note: Columns may not sum due to rounding.

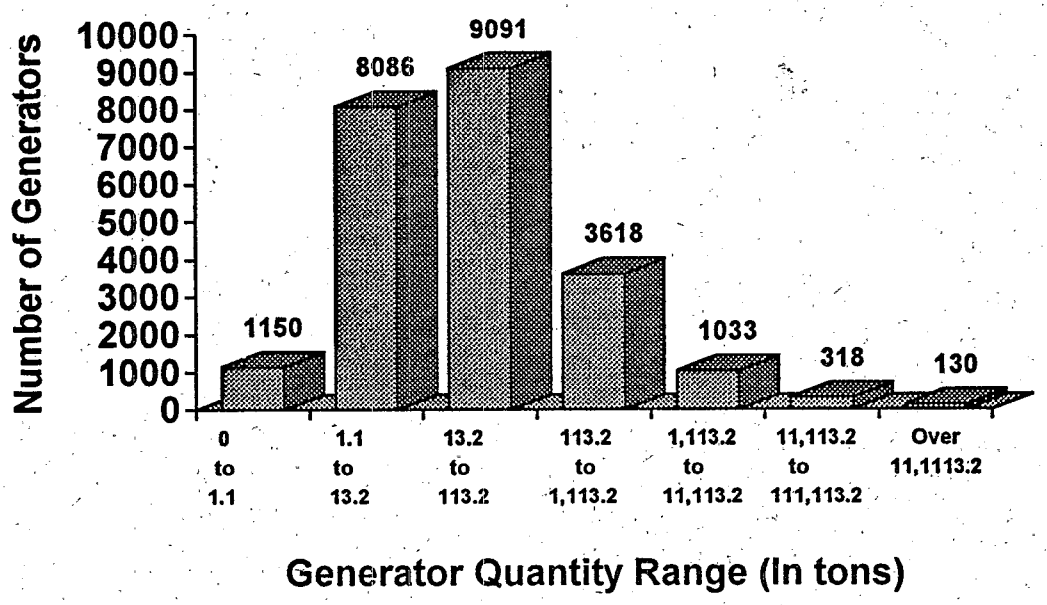
Exhibit 1.7 Fifty Largest RCRA Hazardous Waste Generators in the U.S., 1991

RANK	EPA ID	NAME	CITY	TONS GENERATED
1	MID000724724	THE DOW CHEMICAL COMPANY	MIDLAND,MI	30,149,025
2	TXD008080533	AMOCO OIL COMPANY REFINERY	TEXAS CITY,TX	29,482,014
3	NJD002385730	E.I. DUPONT-CHAMBERS WORKS	DEEPWATER,NJ	28,736,216
4	LAD008080350	CITGO PETROLEUM CORPORATION	LAKE CHARLES,LA	13,547,750
5	TXD067285973	SHELL OIL COMPANY	DEER PARK,TX	10,647,199
6	ILD080012305	SHELL OIL CO	ROXANA,IL	9,456,303
7	TXD050309012	AMOCO CHEMICAL COMPANY - CHOCOLATE BAYOU	ALVIN,TX	8,251,999
8	TXD048210645	PHILLIPS PETROLEUM SWEENY COMPLEX	OLD OCEAN,TX	7,514,714
9	CAD009164021	SHELL OIL CO/MARTINEZ MFG COMP	MARTINEZ,CA	7,303,645
10	WVD005005509	RHONE-POULENC AG COMPANY	INSTITUTE,WV	6,657,469
11	MSD054179403	CHEVRON	PASCAGOULA,MS	6,587,370
12	LAD041581422	UNION CARBIDE CHEMICALS & PLASTICS COMP.	TAFT,LA	6,512,541
13	TXD007330202	TEXAS EASTMAN DIVISION, EASTMAN CHEMICAL	LONGVIEW,TX	5,440,170
14	LAD056024391	BP OIL COMPANY - ALLIANCE REFINERY	BELLE CHASSE,LA	5,340,948
15	WAD069548154	ARCO PRODUCTS CO	FERNDALE,WA	5,110,410
16	TXD008123317	DUPONT DE NEMOURS & CO.	VICTORIA,TX	4,049,395
17	TXD000449694	MOBIL CHEMICAL CO O/A PLANT	BEAUMONT,TX	3,423,048
18	WAD009275082	SHELL OIL COMPANY	ANACORTES,WA	3,340,516
19	TXD008092793	DOW CHEMICAL U.S.A.	FREEPORT,TX	3,237,970
20	TXD051161990	CHAMPLIN REFINING AND CHEMICALS, INC.	CORPUS CHRISTI,TX	3,162,733
21	TXD058275769	LYONDELL PETROCHEMICAL COMPANY	CHANNELVIEW,TX	2,903,788
22	WAD009276197	TEXACO REFINING AND MARKETING	ANACORTES,WA	2,872,898
23	MND006172969	3M COMPANY	COTTAGE GROVE,MN	2,668,111
24	MND006162820	ASHLAND PETROLEUM COMPANY	ST. PAUL PARK,MN	2,618,665
25	TXD065096273	ROHM AND HAAS TEXAS, INC.	DEER PARK,TX	2,513,688
26	PRD090074071	PUERTO RICO SUN OIL CO.	YABUCOA,PR	2,510,110
27	ID4890008952	U.S. DOE IDAHO NATIONAL ENGINEERING LABO	SCOVILLE,ID	2,374,518
28	TXD001700806	MONSANTO COMPANY	ALVIN,TX	2,362,769
29	TXD008079527	STERLING CHEMICALS, INC.	TEXAS CITY,TX	1,920,754
30	TXD083472266	ARCO CHEMICAL COMPANY/CHANNELVIEW	CHANNELVIEW,TX	1,827,968
31	KSD087418695	TOTAL PETROLEUM INC	ARKANSAS CITY,KS	1,821,923
32	LAD008175390	AMERICAN CYANAMID	WAGGAMAN,LA	1,722,587
33	CAD041472986	NATIONAL SEMICONDUCTOR CORP	SANTA CLARA,CA	1,605,142
34	TXD000836486	ISK BIOTECH CORP./GREENS BAYOU PLANT	HOUSTON,TX	1,577,457
35	CTD990672081	PRATT & WHITNEY AIRCRAFT GROUP MD&CPD	EAST HARTFORD,CT	1,559,659
36	TXD059685339	MCKEE PLANTS/DIAMOND SHAMROCK	SUNRAY,TX	1,538,094
37	WAD009250366	BP OIL COMPANY FERNDALE REFINE	FERNDALE,WA	1,520,446
38	ILD005092572	NALCO CHEMICAL CO	BEDFORD PARK,IL	1,426,092
39	IDD070929518	FMC CORPORATION POCATELLO	POCATELLO,ID	1,286,725
40	TX6170022770	LTV AEROSPACE & DEFENSE CO.	DALLAS,TX	1,258,442
41	TXD980626014	REXENE PRODUCTS COMPANY	ODESSA,TX	1,223,866
42	TXD008079642	DU PONT SABINE RIVER WORKS	ORANGE,TX	1,218,643
43	KSD007482029	VULCAN MATERIALS COMPANY	WICHITA,KS	1,214,827
44	TXD008081101	E.I. DU PONT DE NEMOURS & CO., INC.	NEDERLAND,TX	1,195,572
45	WAD041337130	BOEING - AUBURN	AUBURN,WA	1,162,451
46	TXD005942438	AMOCO CHEMICAL COMPANY - PLANT B SITE	TEXAS CITY,TX	1,161,508
47	LAD008086506	PPG INDUSTRIES, INC.	WESTLAKE,LA	1,063,533
48	CAD008354052	MOBIL OIL CORP	TORRANCE,CA	890,150
49	TXD041515420	SEADRIFT/UNION CARBIDE CHEM & PLASTICS	N. SEADRIFT,TX	844,248
50	OKD000829440	ZINC CORPORATION OF AMERICA	BARTLESVILLE,OK	803,218
		TOTAL		248,619,287

Notes:

- Column may not sum due to rounding.
- CBI data are excluded from this exhibit.

Exhibit 1.8 **Most Large Quantity Generators Generate Between 1.1 and 113.2 Tons of Waste.**



A generator is a large quantity generator if it met the following federal criteria:

- The generator generated in any single month 1,000 kg (2,200 lbs. or 1.1 tons) or more RCRA hazardous waste; or

- The generator generated in any single month, or accumulated at any time, 1 kg (2.2 lbs) of RCRA acute hazardous waste; or

- The generator generated or accumulated at any time more than 100 kg (220 lbs) of spill cleanup material contaminated with RCRA acute hazardous.

According to these criteria, a generator that reports more than 13.2 tons (12 months x 1.1 tons) of annual hazardous waste generation must be a large quantity generator, because the generator must have generated at least 1.1 tons in at least one month. A generator that reports less than 13.2 tons in a year may not be a large quantity generator, because they may have generated less than 1.1 tons in every month. As shown in Exhibit 1.8, there are 14,190 generators that generated more than 13.2 tons in 1991, 8,086 that generated between 1.1 and 13.2 tons, and 1,150 that generated less than 1.1 tons. Most large quantity generators (9,091) generated between 13.2 and 113.2 tons, which is the range displayed in Exhibit 1.8 with the highest distribution. The range with the second highest distribution is that between 1.1 and 13.2 tons, with 8,086 generators. Together, these two ranges account for 73% of the total number of large quantity generators.

Hazardous waste is distinguished according to its designation as a characteristic or listed waste. Characteristic and listed wastes are specifically described in 40 CFR[6] 261, and a list of waste codes is provided as Appendix B of this report.

The term "characteristic waste" refers to any solid waste that exhibits a characteristic of ignitability (D001), corrosivity (D002), or reactivity (D003), or that contains toxic constituents in excess of federal standards (D004 - D045).

[6]Code of Federal Regulations.

An ignitable waste is a solid waste that exhibits any of the following properties:

- A liquid, except aqueous solutions containing less than 24 percent alcohol, that has a flash point less than 60 degrees Celsius (140 degrees Fahrenheit).
- A nonliquid capable, under normal conditions, of spontaneous and sustained combustion.
- An ignitable compressed gas per Department of Transportation (DOT) regulations.
- An oxidizer per DOT regulation.

A corrosive waste is a waste that exhibits the following properties:

- An aqueous material with pH less than or equal to 2 or greater than or equal to 12.5.
- A liquid that corrodes steel at a rate greater than 1/4 inch per year at a temperature of 55 degrees Celsius (130 degrees Fahrenheit).

A reactive waste is a waste that exhibits the following properties:

- Normally unstable and reacts violently without detonating.
- Reacts violently with water.
- Forms an explosive mixture with water.
- Contains cyanide or sulfide and generates toxic gases, vapors, or fumes at a pH of between 2 and 12.5.
- Capable of detonation if heated under confinement or subjected to strong initiating source.
- Capable of detonation at standard temperature and pressure.
- Listed by DOT as Class A or B explosive.

Wastes with the toxicity characteristic are identified through failure of the Toxicity Characteristic Leaching Procedure Test (TCLP). A solid waste exhibits the characteristic if, using the TCLP or an equivalent method, the extract from a representative sample of the waste contains any of the contaminants D005-D043 at a concentration equal to or greater than the value described in 40 CFR 261.24.

The term "listed waste" (F, K, P, and U codes) refers to waste that EPA has identified as

hazardous as a result of its investigations of particular industries or because EPA has specifically recognized a commercial chemical waste's toxicity. A solid waste is hazardous if it is named on one of three lists developed by EPA:

1) Non-specific source wastes ('F' wastes)--These are generic wastes, commonly produced by manufacturing and industrial processes. Examples from this list include spent halogenated solvents used in degreasing and wastewater treatment sludge from electroplating processes as well as dioxin wastes, most of which are acutely hazardous wastes due to the danger they present to human health and the environment.

2) Specific source wastes ('K' wastes)--This list consists of wastes from specifically identified industries such as wood preserving, petroleum refining, and organic chemical manufacturing. These wastes typically include sludges, still bottoms, wastewaters, spent catalysts, and residues, e.g., wastewater treatment sludge from pigment production.

3) Commercial chemical products ('P' and 'U' wastes)--The third list consists of specific commercial chemical products, or manufacturing chemical intermediates. This list includes chemicals such as chloroform and creosote, acids such as sulfuric acid and hydrochloric acid, and pesticides such as DDT and kepone. The 'U' wastes include toxic chemicals while 'P' waste listings are reserved for acutely toxic chemicals.

Exhibit 1.9 shows the overall portions of the national generation total of 306 million tons that were characteristic, listed, or a mixture of characteristic and listed wastes. Characteristic wastes account for 72.0% (220 million tons) of the national total, listed wastes account for 8.2% (25 million tons), and mixtures of the two account for 19.4% (59 million tons). The unknown category in Exhibit 1.9 represents hazardous waste reported as lab packs rather than with RCRA codes. In 1991, there were 187 million tons more characteristic waste than were generated in 1989 (33 million tons). This large increase in characteristic wastes in 1991 may be the result of the Toxicity Characteristic (TC) Rule promulgated in 1990. The TC Rule added 25 new characteristic waste codes (D018-D043) and required more stringent analytical tests for the presence of characteristic toxic constituents in waste.

As shown in Exhibit 1.10, 137 million tons of waste were identified by these 25 new waste codes, indicating that, at a minimum, the TC Rule captured 137 million tons of previously unregulated wastes. Exhibit 1.11 shows that an additional 17 million tons of waste were described with D018-D043 and other characteristic codes. Another 8 million tons were described by D018-D043 and other listed waste codes. While it is not possible to calculate exactly the amount of waste that was newly regulated by the TC Rule and how much was regulated prior to 1990, as much as 162 million tons may have been

captured by new toxicity characteristic waste listings.

In conclusion, the amount of hazardous waste generated in 1991 was between 144 and 169 million tons without these newly regulated wastes. This represents a decrease of 29 to 54 million tons from the amount of waste generated in 1989.

Exhibit 1.9 **Percentages of National Generation Total That Were Characteristic, Listed, and Characteristic and Listed Mixtures**

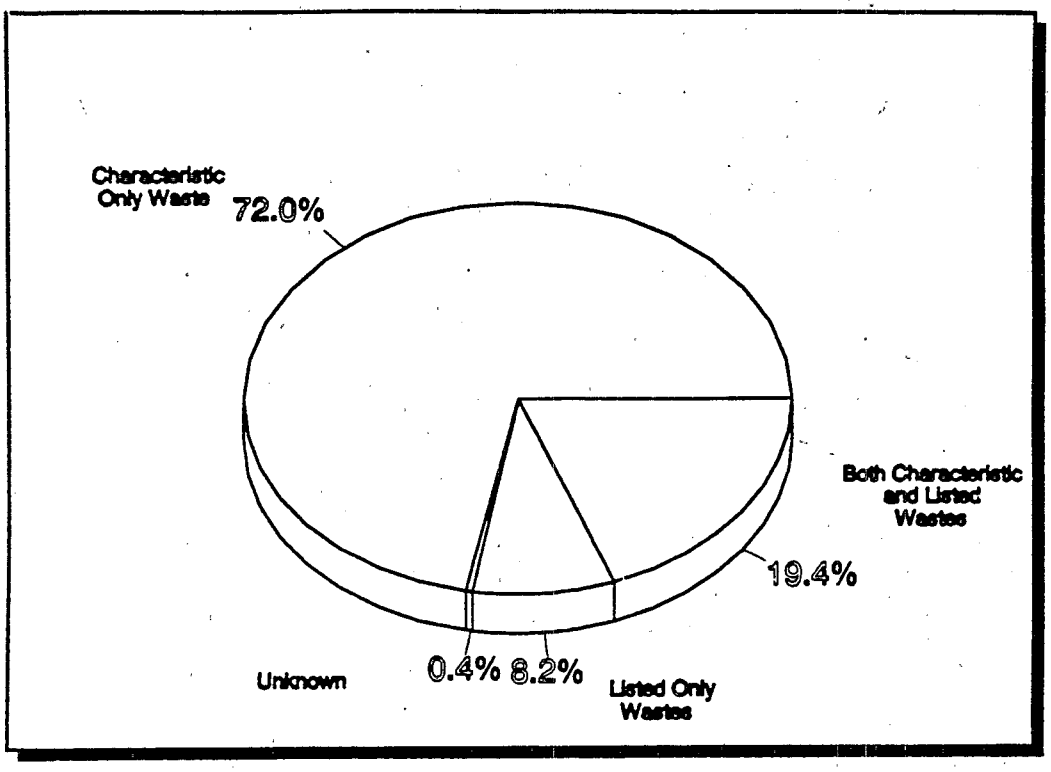


Exhibit 1.10 **Tons of Generated Wastes that were Only Characteristic Wastes, Only Listed Wastes, or Both Characteristic and Listed Wastes, 1991**

ONLY CHARACTERISTIC WASTES		ONLY LISTED WASTES		BOTH A CHARACTERISTIC AND A LISTED WASTE	
ONLY IGNITABLE	829,320	ONLY F WASTES	16,887,314		
ONLY CORROSIVE	33,455,163	ONLY K WASTES	4,455,917		
ONLY REACTIVE	3,430,789	ONLY P WASTES	27,937		
ONLY D004-17(TOXIC)	19,994,063	ONLY U WASTES	458,903		
ONLY D018-43(TOXIC)	137,310,192				
WASTES WITH MULTIPLE CHARACTERISTICS	25,161,951	WASTES MULITPLY LISTED	3,253,731		
TOTAL	220,181,478	TOTAL	25,083,803	TOTAL	59,418,636

Note: All quantities are in tons.

Exhibit 1.11 Tons of Generated Wastes with Multiple Chararcteristics, that were Multiply Listed, or Both in 1991

ONLY CHARACTERISTIC WASTES BUT WITH MULTIPLE CHARACTERISTICS		ONLY LISTED WASTES BUT MULTIPLY LISTED		BOTH CHARACTERISTIC AND LISTED WASTES[1]	
Ignitable	5,517,874			Any Listed Waste also Ignitable	7,521,185
Corrosive	20,070,179			Any Listed Waste also Corrosive	47,293,784
Reactive	6,135,790			Any Listed Waste also Reactive	2,629,854
D004-17 (Toxic)	11,223,254			Any Listed Waste also D004-17(Toxic)	38,682,794
D018-43 (Toxic)	16,894,666			Any Listed Waste also D018-43(Toxic)	7,820,153
		F Wastes	1,295,214	F Wastes with any Characteristic	52,258,320
		K Wastes	3,139,435	K Wastes with any Characteristic	42,157,050
		P Wastes	2,612,585	P Wastes with any Characteristic	4,719,595
		U Wastes	1,555,384	U Wastes with any Characteristic	8,196,331
TOTAL[2]	**25,161,951**	**TOTAL**	**3,253,731**	**TOTAL**	**59,418,636**

[1] Listed wastes with ignitable, corrosive, reactive, D004-17(Toxic), or D018-43(Toxic) characteristics respectively may have other characteristics as well. Similarly, characteristic wastes that are also F, K, P, or U listed wastes respectively may be other listed wastes as well.
[2] Columns do not sum to total because wastes may be included in more than one category.

Note: All quantities are in tons.

2.0 WASTE MANAGEMENT

This section presents a series of exhibits describing the management of RCRA hazardous waste. EPA collected hazardous waste management information from any facility that operated treatment, storage, or disposal (TSD) units subject to RCRA permitting standards in 1991. These facilities are referred to throughout this report as TSDs. Wastes managed in treatment systems exempt from RCRA permitting requirements, such as those subject to Clean Water Act or Safe Drinking Water Act permitting requirements, were not included in this report.

Exhibits 2.1, 2.2, and 2.3 present the quantity of RCRA hazardous waste managed and the number of TSDs in the United States and in each EPA region. Overall, a total of 3,862 facilities reported that they managed hazardous waste in TSD units subject to RCRA permitting standards. This represents an 800 facility increase in the number of TSDs in 1989. Storage facilities account for 2,659 of these facilities, leaving 1,203 facilities that actually treated or disposed of 294 million tons of hazardous waste; which is a 98 million ton increase over 1989 quantities.

Region 6 managed the largest amount of waste (137 million tons, or 47%), while ranking fifth in the number of TSDs (352). Region 2 had the highest number of TSDs (924) and ranked third in the amount of waste managed. Region 8 had the smallest number of TSDs and managed the least waste.

Exhibit 2.1 **Number and Percentage of RCRA TSD Facilities and RCRA Hazardous Waste Quantity Managed, by EPA Region, 1991**

EPA REGION	HAZARDOUS WASTE QUANTITY[1]		TSD FACILITIES	
	TONS MANAGED	PERCENTAGE	NUMBER	PERCENTAGE
1	390,337	0.1	194	5.0
2	51,033,570	17.3	924	23.9
3	9,105,896	3.1	265	6.9
4	11,847,776	4.0	511	13.2
5	53,068,621	18.0	760	19.7
6	137,423,123	46.7	352	9.1
7	4,009,857	1.4	174	4.5
8	1,440,228	0.5	88	2.3
9	12,308,044	4.2	467	12.1
10	13,809,857	4.7	127	3.3
TOTAL	**294,437,307**	**100.0**	**3,862**	**100.0**

Exhibit 2.2 **Number and Percentage of RCRA TSD Facilities and RCRA Hazardous Waste Quantity Managed, by Management Quantity, 1991**

EPA REGION	HAZARDOUS WASTE QUANTITY[1]		TSD FACILITIES	
	TONS MANAGED	PERCENTAGE	NUMBER	PERCENTAGE
6	137,423,123	46.7	352	9.1
5	53,068,621	18.0	760	19.7
2	51,033,570	17.3	924	23.9
10	13,809,857	4.7	127	3.3
9	12,308,044	4.2	467	12.1
4	11,847,776	4.0	511	13.2
3	9,105,896	3.1	265	6.9
7	4,009,857	1.4	174	4.5
8	1,440,228	0.5	88	2.3
1	390,337	0.1	194	5.0
TOTAL	**294,437,307**	**100.0**	**3,862**	**100.0**

[1]Quantity managed only by storage is excluded.

Note: Columns may not sum due to rounding.

Exhibit 2.3 Number and Percentage of RCRA TSD Facilities and RCRA Hazardous Waste Quantity Managed in Each EPA Region, by Highest Number of TSD Facilities, 1991

EPA REGION	TSD FACILITIES		HAZARDOUS WASTE QUANTITY[1]	
	NUMBER	PERCENTAGE	TONS MANAGED	PERCENTAGE
2	924	23.9	51,033,570	17.3
5	760	19.7	53,068,621	18.0
4	511	13.2	11,847,776	4.0
9	467	12.1	12,308,044	4.2
6	352	9.1	137,423,123	46.7
3	265	6.9	9,105,896	3.1
1	194	5.0	390,337	0.1
7	174	4.5	4,009,857	1.4
10	127	3.3	13,809,857	4.7
8	88	2.3	1,440,228	0.5
TOTAL	**3,862**	**100.0**	**294,437,307**	**100.0**

[1]Quantity managed only by storage is excluded.

Note: Columns may not sum due to rounding.

Exhibits 2.4, 2.5, and 2.6 present the quantity of RCRA hazardous waste managed and the number of TSDs in each state. Texas managed the largest amount of waste (104 million tons), followed by Michigan (32 million tons), Louisiana (32 million tons), and New Jersey (30 million tons). New Jersey reported the most TSDs (781), followed by California (409), Illinois (217), and Texas (206). There were no facilities in the District of Columbia, Guam, New Hampshire, South Dakota, and Vermont that reported treating or disposing waste in units subject to RCA permitting standards, although these states did have facilities that reported operating permitted storage facilities.

Exhibit 2.7 presents the 50 largest hazardous waste management facilities in the United States. Together, these TSDs accounted for more than 80% of the national management total. The Dow Chemical Company in Midland, Michigan was the largest TSD, managing 30 million tons of waste, followed by Dupont Chambers Works in Deepwater, New Jersey, and Amoco Oil Company Refinery in Texas City, Texas. A total of 22 of the 50 largest TSDs were in Texas.

Exhibit 2.8 shows that wastewater management[1] (i.e., management in aqueous treatment units, neutralization tanks, underground injection wells, or other wastewater treatment systems) accounts for 97% of the national management total. Because most management is wastewater management, it can be inferred that most waste is waste water.

[1]Wastewater management is the management method described by the following BRS system type codes: M071-079, M081-085, M089, M091-094, M099, M121-125, M129, and M134. See Appendix A for further information.

Exhibit 2.4 Quantity of RCRA Hazardous Waste Managed and Number of TSDs, by State, 1991

STATE	RCRA HAZARDOUS WASTE QUANTITY[1]			TSD FACILITIES		
	RANK	TONS MANAGED	PERCENTAGE	RANK	NUMBER	PERCENTAGE
ALABAMA	23	675,999	0.2	23	54	1.4
ALASKA	40	21,178	0.0	27	41	1.1
ARIZONA	36	122,891	0.0	31	33	0.9
ARKANSAS	21	757,956	0.3	37	24	0.6
CALIFORNIA	6	12,130,053	4.1	2	409	10.6
COLORADO	26	468,167	0.2	29	40	1.0
CONNECTICUT	27	371,208	0.1	13	77	2.0
DELAWARE	45	2,273	0.0	42	11	0.3
DISTRICT OF COLUMBIA	51	0	0.0	51	2	0.1
FLORIDA	32	195,490	0.1	15	72	1.9
GEORGIA	18	1,103,055	0.4	21	59	1.5
GUAM	51	0	0.0	51	2	0.1
HAWAII	46	1,428	0.0	44	9	0.2
IDAHO	13	3,178,455	1.1	42	11	0.3
ILLINOIS	7	12,083,019	4.1	3	217	5.6
INDIANA	16	1,405,359	0.5	8	102	2.6
IOWA	37	83,336	0.0	34	30	0.8
KANSAS	12	3,310,784	1.1	27	41	1.1
KENTUCKY	28	300,060	0.1	32	32	0.8
LOUISIANA	3	31,589,603	10.7	19	63	1.6
MAINE	47	1,054	0.0	24	52	1.3
MARYLAND	41	19,084	0.0	12	79	2.0
MASSACHUSETTS	42	9,433	0.0	26	43	1.1
MICHIGAN	2	31,922,898	10.8	6	152	3.9
MINNESOTA	11	5,565,626	1.9	20	60	1.6
MISSISSIPPI	9	8,013,068	2.7	22	56	1.5
MISSOURI	24	589,673	0.2	10	87	2.3
MONTANA	44	3,270	0.0	44	9	0.2
NEBRASKA	39	26,065	0.0	39	16	0.4
NEVADA	38	52,784	0.0	41	12	0.3
NEW HAMPSHIRE	51	0	0.0	51	2	0.1
NEW JERSEY	4	29,662,220	10.1	1	781	20.2
NEW MEXICO	33	148,932	0.1	38	20	0.5
NEW YORK	5	18,320,124	6.2	7	109	2.8
NORTH CAROLINA	30	252,993	0.1	14	74	1.9
NORTH DAKOTA	22	683,825	0.2	47	6	0.2
OHIO	15	1,870,654	0.6	5	185	4.8
OKLAHOMA	19	980,618	0.3	30	39	1.0
OREGON	34	133,021	0.0	44	9	0.2
PENNSYLVANIA	17	1,405,204	0.5	11	80	2.1
PUERTO RICO	14	3,051,006	1.0	32	32	0.8
RHODE ISLAND	43	8,642	0.0	40	15	0.4
SOUTH CAROLINA	25	528,458	0.2	18	64	1.7
SOUTH DAKOTA	51	0	0.0	50	3	0.1
TENNESSEE	20	778,652	0.3	9	100	2.6
TEXAS	1	103,946,014	35.3	4	206	5.3
TRUST TERRITORIES	48	887	0.0	51	2	0.1
UTAH	29	284,846	0.1	36	26	0.7
VERMONT	51	0	0.0	48	5	0.1
VIRGIN ISLANDS	49	219	0.0	51	2	0.1
VIRGINIA	35	126,998	0.0	16	66	1.7
WASHINGTON	8	10,477,204	3.6	16	66	1.7
WEST VIRGINIA	10	7,552,337	2.6	35	27	0.7
WISCONSIN	31	221,065	0.1	25	44	1.1
WYOMING	50	119	0.0	49	4	0.1
TOTAL		294,437,307	100.0		3,862	100.0

[1]Quantity managed only by storage is excluded.

Note: Columns may not sum due to rounding.

Exhibit 2.5 **Rank Ordering of States Based on Quantity of RCRA Hazardous Waste Managed, and Number of TSDs, 1991**

STATE	RCRA HAZARDOUS WASTE QUANTITY[1]			TSD FACILITIES		
	RANK	TONS MANAGED	PERCENTAGE	RANK	NUMBER	PERCENTAGE
TEXAS	1	103,946,014	35.3	4	206	5.3
MICHIGAN	2	31,922,898	10.8	6	152	3.9
LOUISIANA	3	31,589,603	10.7	19	63	1.6
NEW JERSEY	4	29,662,220	10.1	1	781	20.2
NEW YORK	5	18,320,124	6.2	7	109	2.8
CALIFORNIA	6	12,130,053	4.1	2	409	10.6
ILLINOIS	7	12,083,019	4.1	3	217	5.6
WASHINGTON	8	10,477,204	3.6	16	66	1.7
MISSISSIPPI	9	8,013,068	2.7	22	56	1.5
WEST VIRGINIA	10	7,552,337	2.6	35	27	0.7
MINNESOTA	11	5,565,626	1.9	20	60	1.6
KANSAS	12	3,310,784	1.1	27	41	1.1
IDAHO	13	3,178,455	1.1	42	11	0.3
PUERTO RICO	14	3,051,006	1.0	32	32	0.8
OHIO	15	1,870,654	0.6	5	185	4.8
INDIANA	16	1,405,359	0.5	8	102	2.6
PENNSYLVANIA	17	1,405,204	0.5	11	80	2.1
GEORGIA	18	1,103,055	0.4	21	59	1.5
OKLAHOMA	19	980,618	0.3	30	39	1.0
TENNESSEE	20	778,652	0.3	9	100	2.6
ARKANSAS	21	757,956	0.3	37	24	0.6
NORTH DAKOTA	22	683,825	0.2	47	6	0.2
ALABAMA	23	675,999	0.2	23	54	1.4
MISSOURI	24	589,673	0.2	10	87	2.3
SOUTH CAROLINA	25	528,458	0.2	18	64	1.7
COLORADO	26	468,167	0.2	29	40	1.0
CONNECTICUT	27	371,208	0.1	13	77	2.0
KENTUCKY	28	300,060	0.1	32	32	0.8
UTAH	29	284,846	0.1	36	26	0.7
NORTH CAROLINA	30	252,993	0.1	14	74	1.9
WISCONSIN	31	221,065	0.1	25	44	1.1
FLORIDA	32	195,490	0.1	15	72	1.9
NEW MEXICO	33	148,932	0.1	38	20	0.5
OREGON	34	133,021	0.0	44	9	0.2
VIRGINIA	35	126,998	0.0	16	66	1.7
ARIZONA	36	122,891	0.0	31	33	0.9
IOWA	37	83,336	0.0	34	30	0.8
NEVADA	38	52,784	0.0	41	12	0.3
NEBRASKA	39	26,065	0.0	39	16	0.4
ALASKA	40	21,178	0.0	27	41	1.1
MARYLAND	41	19,084	0.0	12	79	2.0
MASSACHUSETTS	42	9,433	0.0	26	43	1.1
RHODE ISLAND	43	8,642	0.0	40	15	0.4
MONTANA	44	3,270	0.0	44	9	0.2
DELAWARE	45	2,273	0.0	42	11	0.3
HAWAII	46	1,428	0.0	44	9	0.2
MAINE	47	1,054	0.0	24	52	1.3
TRUST TERRITORIES	48	887	0.0	51	2	0.1
VIRGIN ISLANDS	49	219	0.0	51	2	0.1
WYOMING	50	119	0.0	49	4	0.1
DISTRICT OF COLUMBIA	51	0	0.0	51	2	0.1
GUAM	51	0	0.0	51	2	0.1
NEW HAMPSHIRE	51	0	0.0	51	2	0.1
SOUTH DAKOTA	51	0	0.0	50	3	0.1
VERMONT	51	0	0.0	48	5	0.1
TOTAL		294,437,307	100.0		3,862	100.0

[1]Quantity managed only by storage is excluded.

Note: Columns may not sum due to rounding.

Exhibit 2.6 **Rank Ordering of States Based on Number of TSD Facilities, and Quantity of Hazardous Waste Managed, 1991**

STATE	TSD FACILITIES			RCRA HAZARDOUS WASTE QUANTITY[1]		
	RANK	NUMBER	PERCENTAGE	RANK	TONS MANAGED	PERCENTAGE
NEW JERSEY	1	781	20.2	4	29,662,220	10.1
CALIFORNIA	2	409	10.6	6	12,130,053	4.1
ILLINOIS	3	217	5.6	7	12,083,019	4.1
TEXAS	4	206	5.3	1	103,946,014	35.3
OHIO	5	185	4.8	15	1,870,654	0.6
MICHIGAN	6	152	3.9	2	31,922,898	10.8
NEW YORK	7	109	2.8	5	18,320,124	6.2
INDIANA	8	102	2.6	16	1,405,359	0.5
TENNESSEE	9	100	2.6	20	778,652	0.3
MISSOURI	10	87	2.3	24	589,673	0.2
PENNSYLVANIA	11	80	2.1	17	1,405,204	0.5
MARYLAND	12	79	2.0	41	19,084	0.0
CONNECTICUT	13	77	2.0	27	371,208	0.1
NORTH CAROLINA	14	74	1.9	30	252,993	0.1
FLORIDA	15	72	1.9	32	195,490	0.1
VIRGINIA	16	66	1.7	35	126,998	0.0
WASHINGTON	16	66	1.7	8	10,477,204	3.6
SOUTH CAROLINA	18	64	1.7	25	528,458	0.2
LOUISIANA	19	63	1.6	3	31,589,603	10.7
MINNESOTA	20	60	1.6	11	5,565,626	1.9
GEORGIA	21	59	1.5	18	1,103,055	0.4
MISSISSIPPI	22	56	1.5	9	8,013,068	2.7
ALABAMA	23	54	1.4	23	675,999	0.2
MAINE	24	52	1.3	47	1,054	0.0
WISCONSIN	25	44	1.1	31	221,065	0.1
MASSACHUSETTS	26	43	1.1	42	9,433	0.0
ALASKA	27	41	1.1	40	21,178	0.0
KANSAS	27	41	1.1	12	3,310,784	1.1
COLORADO	29	40	1.0	26	468,167	0.2
OKLAHOMA	30	39	1.0	19	980,618	0.3
ARIZONA	31	33	0.9	36	122,891	0.0
KENTUCKY	32	32	0.8	28	300,060	0.1
PUERTO RICO	32	32	0.8	14	3,051,006	1.0
IOWA	34	30	0.8	37	83,336	0.0
WEST VIRGINIA	35	27	0.7	10	7,552,337	2.6
UTAH	36	26	0.7	29	284,846	0.1
ARKANSAS	37	24	0.6	21	757,956	0.3
NEW MEXICO	38	20	0.5	33	148,932	0.1
NEBRASKA	39	16	0.4	39	26,065	0.0
RHODE ISLAND	40	15	0.4	43	8,642	0.0
NEVADA	41	12	0.3	38	52,784	0.0
DELAWARE	42	11	0.3	45	2,273	0.0
IDAHO	42	11	0.3	13	3,178,455	1.1
HAWAII	44	9	0.2	46	1,428	0.0
MONTANA	44	9	0.2	44	3,270	0.0
OREGON	44	9	0.2	34	133,021	0.0
NORTH DAKOTA	47	6	0.2	22	683,825	0.2
VERMONT	48	5	0.1	51	0	0.0
WYOMING	49	4	0.1	50	119	0.0
SOUTH DAKOTA	50	3	0.1	51	0	0.0
DISTRICT OF COLUMBIA	51	2	0.1	51	0	0.0
GUAM	51	2	0.1	51	0	0.0
NEW HAMPSHIRE	51	2	0.1	51	0	0.0
TRUST TERRITORIES	51	2	0.1	48	887	0.0
VIRGIN ISLANDS	51	2	0.1	49	219	0.0
TOTAL		3,862	100.0		294,437,307	100.0

[1]Quantity managed only by storage is excluded.

Note: Columns may not sum due to rounding.

Exhibit 2.7 **Fifty Largest RCRA Hazardous Waste Managers in the U.S., 1991**

RANK	EPA ID	NAME	CITY	TONS MANAGED[1]
1	MID000724724	THE DOW CHEMICAL COMPANY	MIDLAND,MI	30,165,227
2	NJD002385730	E.I. DUPONT-CHAMBERS WORKS	DEEPWATER,NJ	29,457,126
3	TXD008080533	AMOCO OIL COMPANY REFINERY	TEXAS CITY,TX	28,677,233
4	LAD008080350	CITGO PETROLEUM CORPORATION	LAKE CHARLES,LA	13,546,246
5	TXD067285973	SHELL OIL COMPANY	DEER PARK,TX	10,603,805
6	ILD080012305	SHELL OIL CO	ROXANA,IL	9,449,079
7	TXD050309012	AMOCO CHEMICAL COMPANY - CHOCOLATE BAYOU	ALVIN,TX	8,243,359
8	TXD048210645	PHILLIPS PETROLEUM SWEENY COMPLEX	OLD OCEAN,TX	7,653,408
9	CAD009164021	SHELL OIL CO/MARTINEZ MFG COMP	MARTINEZ,CA	7,299,195
10	WVD005005509	RHONE-POULENC AG COMPANY	INSTITUTE,WV	6,655,087
11	MSD054179403	CHEVRON	PASCAGOULA,MS	6,586,654
12	LAD041581422	UNION CARBIDE CHEMICALS & PLASTICS COMP.	TAFT,LA	6,512,298
13	TXD007330202	TEXAS EASTMAN DIVISION, EASTMAN CHEMICAL	LONGVIEW,TX	5,439,874
14	LAD056024391	BP OIL COMPANY - ALLIANCE REFINERY	BELLE CHASSE,LA	5,340,881
15	TXD000836486	ISK BIOTECH CORP./GREENS BAYOU PLANT	HOUSTON,TX	5,265,451
16	WAD069548154	ARCO PRODUCTS CO	FERNDALE,WA	5,110,162
17	TXD008123317	DUPONT DE NEMOURS & CO.	VICTORIA,TX	4,052,584
18	WAD009275082	SHELL OIL COMPANY	ANACORTES,WA	3,340,005
19	TXD008092793	DOW CHEMICAL U.S.A.	FREEPORT,TX	3,232,841
20	TXD051161990	CHAMPLIN REFINING AND CHEMICALS, INC.	CORPUS CHRISTI,TX	3,151,965
21	TXD008079527	STERLING CHEMICALS, INC.	TEXAS CITY,TX	3,110,763
22	TXD066349770	TYLER PIPE INDUSTRIES, INC.	SWAN,TX	2,927,104
23	TXD058275769	LYONDELL PETROCHEMICAL COMPANY	CHENNELVIEW,TX	2,897,018
24	MND006172969	3M COMPANY	COTTAGE GROVE,MN	2,674,604
25	MND006162820	ASHLAND PETROLEUM COMPANY	ST. PAUL PARK,MN	2,618,232
26	PRD090074071	PUERTO RICO SUN OIL CO.	YABUCOA,PR	2,509,552
27	TXD065096273	ROHM AND HAAS TEXAS, INC.	DEER PARK,TX	2,508,332
28	ID4890008952	U.S. DOE IDAHO NATIONAL ENGINEERING LABO	SCOVILLE,ID	2,373,894
29	TXD001700806	MONSANTO COMPANY	ALVIN,TX	2,358,379
30	TXD083472266	ARCO CHEMICAL COMPANY/CHANNELVIEW	CHANNELVIEW,TX	1,957,889
31	KSD087418695	TOTAL PETROLEUM INC	ARKANSAS CITY,KS	1,821,350
32	LAD008175390	AMERICAN CYANAMID	WAGGAMAN,LA	1,722,482
33	CAD041472986	NATIONAL SEMICONDUCTOR CORP	SANTA CLARA,CA	1,604,446
34	TXD059685339	MCKEE PLANTS/DIAMOND SHAMROCK	SUNRAY,TX	1,536,794
35	WAD009250366	BP OIL COMPANY FERNDALE REFINE	FERNDALE,WA	1,520,400
36	ILD005092572	NALCO CHEMICAL CO	BEDFORD PARK,IL	1,426,007
37	KSD007482029	VULCAN MATERIALS COMPANY	WICHITA,KS	1,338,061
38	TX6170022770	LTV AEROSPACE & DEFENSE CO.	DALLAS,TX	1,258,518
39	TXD980626014	REXENE PRODUCTS COMPANY	ODESSA,TX	1,220,021
40	TXD008079642	DU PONT SABINE RIVER WORKS	ORANGE,TX	1,219,373
41	TXD008081101	E.I. DU PONT DE NEMOURS & CO., INC.	NEDERLAND,TX	1,192,495
42	LAD008086506	PPG INDUSTRIES, INC.	WESTLAKE,LA	1,048,664
43	TXD041515420	SEADRIFT/UNION CARBIDE CHEM & PLASTICS	N. SEADRIFT,TX	843,505
44	OKD000829440	ZINC CORPORATION OF AMERICA	BARTLESVILLE,OK	792,988
45	WVD004341491	AMERICAN CYANAMID COMPANY	WILLOW ISLAND,WV	759,970
46	OHD042157644	BP CHEMICALS INC.	LIMA,OH	756,343
47	TXD000751172	B.P. CHEMICALS AMERICA, INC.	GREEN LAKE,TX	744,036
48	LAD981149750	UNION TEXAS PRODUCTS CORP.	GEISMAR,LA	729,853
49	NDD006175467	AMOCO OIL COMPANY-MANDAN REFINERY	MANDAN,ND	683,544
50	MSD096046792	DUPONT DELISLE PLANT	PASS CHRISTIAN,MS	675,947
		TOTAL		248,613,044

[1]Quantity managed only by storage is excluded.

Note: Column may not sum due to rounding.

Exhibit 2.8 Quantity and Percentage of RCRA Hazardous Wastewater and Non-Wastewater Management in 1991

MANAGEMENT TYPE	TONS MANAGED[1]	PERCENTAGE
Wastewater	285,565,929	97.0
Non-Wastewater	8,871,379	3.0
TOTAL	**294,437,307**	**100.0**

[1]Quantity managed only by storage is excluded.

Note: Columns may not sum due to rounding.

Exhibits 2.9, 2.10, and 2.11 present the quantity of RCRA hazardous waste managed according to individual treatment categories. The majority (76.3%) of the national total was managed in aqueous treatment units. 132 million tons were managed in aqueous organic treatment units, 19 million tons in aqueous inorganic treatment units, and 74 million tons in both inorganic and organic aqueous treatment units. (The 97% total wastewater figure presented in Exhibit 2.8 includes wastewaters that were managed in ways other than aqueous treatment systems, including neutralization and underground injection).

Land disposal accounted for 8.6% of the management total. Nationwide, 23 million tons of hazardous waste were disposed in underground injection wells, 1.7 million tons were disposed in landfills, 240 thousand tons were managed in surface impoundments, and 52 thousand tons were managed by land application (land farming).

Recovery operations accounted for 2.2% of the national management total. Facilities reported that 3.6 million tons were managed in solvent recovery units, 1.4 million tons were managed in fuel blending units, 1 million tons were managed in metals recovery units, and 480 thousand tons were recovered by other methods such as acid regeneration, waste oil recovery, and non-solvent organic recovery.

Thermal treatment accounted for 1.1% of the national management total. A total of 1.9 million tons were incinerated, while facilities reused 1.4 million tons as fuel in boilers or industrial furnaces.

Exhibit 2.9 **Quantity of RCRA Hazardous Waste Managed, by Management Method, 1991**

MANAGEMENT METHOD	SYSTEM TYPE CODE	TONS MANAGED[1]	PERCENTAGE OF QUANTITY[2,3]	NUMBER OF FACILITIES	PERCENTAGE OF FACILITIES[3]
METALS RECOVERY (FOR REUSE)	M011-M019	1,003,818	0.3	87	4.6
SOLVENTS RECOVERY	M021-M029	3,663,567	1.2	283	15.0
OTHER RECOVERY	M031-M039	478,331	0.2	74	3.9
INCINERATION	M041-M049	1,867,641	0.6	192	10.2
ENERGY RECOVERY (REUSE AS FUEL)	M051-M059	1,456,008	0.5	143	7.6
FUEL BLENDING	M061	1,392,318	0.5	94	5.0
AQUEOUS INORGANIC TREATMENT	M071-M079	19,255,576	6.5	211	11.2
AQUEOUS ORGANIC TREATMENT	M081-M089	131,867,038	44.8	115	6.1
AQUEOUS ORG & INORG TREATMENT	M091-M099	73,565,485	25.0	36	1.9
SLUDGE TREATMENT	M101-M109	171,306	0.1	53	2.8
STABILIZATION	M111-M119	1,155,818	0.4	58	3.1
OTHER TREATMENT	M121-M129	31,975,553	10.9	338	17.9
LAND TREATMENT / FARMING	M131	52,239	0.0	26	1.4
LANDFILL	M132	1,696,634	0.6	52	2.8
SURFACE IMPOUNDMENT	M133	240,307	0.1	9	0.5
DEEPWELL / UNDERGROUND INJECTION	M134	23,317,692	7.9	47	2.5
OTHER DISPOSAL	M137	1,277,976	0.4	65	3.4
UNKNOWN SYSTEM DUE TO INVALID CODE	UNKNOWN--	1	0.0	2	0.1
TOTAL		294,437,307	100.0	1,203	100.0

[1]Quantity managed only by storage is excluded.
[2]Facilities with only storage units are excluded.
[3]Column may not sum because facilities may have multiple handling methods.

Note: Columns may not sum due to rounding.

Exhibit 2.10 **Management Method, by Quantity of RCRA Hazardous Waste Managed, 1991**

MANAGEMENT METHOD	SYSTEM TYPE CODE	TONS MANAGED[1]	PERCENTAGE OF QUANTITY	NUMBER OF FACILITIES[2,3]	PERCENTAGE OF FACILITIES[3]
AQUEOUS ORGANIC TREATMENT	M081-M089	131,867,038	44.8	115	6.1
AQUEOUS ORG. AND INORG. TRT	M091-M099	73,565,485	25.0	36	1.9
OTHER TREATMENT	M121-M129	31,975,553	10.9	338	17.9
DEEPWELL / UNDERGROUND INJECTION	M134	23,317,692	7.9	47	2.5
AQUEOUS INORGANIC TREATMENT	M071-M079	19,255,576	6.5	211	11.2
SOLVENTS RECOVERY	M021-M029	3,663,567	1.2	283	15.0
INCINERATION	M041-M049	1,867,641	0.6	192	10.2
LANDFILL	M132	1,696,634	0.6	52	2.8
ENERGY RECOVERY (REUSE AS FUEL)	M051-M059	1,456,008	0.5	143	7.6
FUEL BLENDING	M061	1,392,318	0.5	94	5.0
OTHER DISPOSAL	M137	1,277,976	0.4	65	3.4
STABILIZATION	M111-M119	1,155,818	0.4	58	3.1
METALS RECOVERY (FOR REUSE)	M011-M019	1,003,818	0.3	87	4.6
OTHER RECOVERY	M031-M039	478,331	0.2	74	3.9
SURFACE IMPOUNDMENT	M133	240,307	0.1	9	0.5
SLUDGE TREATMENT	M101-M109	171,306	0.1	53	2.8
LAND TREATMENT / FARMING	M131	52,239	0.0	26	1.4
UNKNOWN SYSTEM	UNKNOWN--	1	0.0	2	0.1
TOTAL		**294,437,307**	**100.0**	**1,203**	**100.0**

[1]Quantity managed only by storage is excluded.
[2]Facilities with only storage units are excluded.
[3]Column may not sum because facilities may have multiple handling methods.

Note: Columns may not sum due to rounding.

Exhibit 2.11 **Management Method and Quantity of RCRA Hazardous Waste Managed, by Number of Facilities, 1991**

MANAGEMENT METHOD	SYSTEM TYPE CODE	TONS MANAGED[1]	PERCENTAGE OF QUANTITY	NUMBER OF FACILITIES[2,3]	PERCENTAGE OF FACILITIES[3]
OTHER TREATMENT	M121-M129	31,975,553	10.9	338	17.9
SOLVENTS RECOVERY	M021-M029	3,663,567	1.2	283	15.0
AQUEOUS INORGANIC TREATMENT	M071-M079	19,255,576	6.5	211	11.2
INCINERATION	M041-M049	1,867,641	0.6	192	10.2
ENERGY RECOVERY (REUSE AS FUEL)	M051-M059	1,456,008	0.5	143	7.6
AQUEOUS ORGANIC TREATMENT	M081-M089	131,867,038	44.8	115	6.1
FUEL BLENDING	M061	1,392,318	0.5	94	5.0
METALS RECOVERY (FOR REUSE)	M011-M019	1,003,818	0.3	87	4.6
OTHER RECOVERY	M031-M039	478,331	0.2	74	3.9
OTHER DISPOSAL	M137	1,277,976	0.4	65	3.4
STABILIZATION	M111-M119	1,155,818	0.4	58	3.1
SLUDGE TREATMENT	M101-M109	171,306	0.1	53	2.8
LANDFILL	M132	1,696,634	0.6	52	2.8
DEEPWELL / UNDERGROUND INJECTION	M134	23,317,692	7.9	47	2.5
AQUEOUS ORG. AND INORG. TRT.	M091-M099	73,565,485	25.0	36	1.9
LAND TREATMENT / FARMING	M131	52,239	0.0	26	1.4
SURFACE IMPOUNDMENT	M133	240,307	0.1	9	0.5
UNKNOWN SYSTEM	UNKNOWN--	1	0.0	2	0.1
TOTAL		**294,437,307**	**100.0**	**1,203**	**100.0**

[1]Quantity managed only by storage is excluded.
[2]Facilities with only storage units are excluded.
[3]Column may not sum because facilities may have multiple handling methods.

Note: Columns may not sum due to rounding.

Exhibits 2.12, 2.13, and 2.14 present the quantity of RCRA hazardous waste managed in various treatment and disposal units, limited to waste received from off site in 1991. Unlike wastes managed on site, the majority of which were managed in aqueous treatment systems, the majority of wastes that were managed off site were managed by recovery, fuel blending, stabilization, and landfilling. Eight million tons of waste (3% of the national total) was managed at a different facility than the generating facility. Given that the amount of non-wastewater managed was also 3% of the national total, these exhibits suggest that non-wastewaters tend to be shipped to commercial facilities or other facilities, while wastewaters are managed on site.

Recovery operations accounted for the largest portion (31%) of the national management total of waste received from off site. 1 million tons were managed in fuel blending units, 693 thousand tons were managed in metals recovery units, facilities reported that 463 thousand tons were managed in solvent recovery units, and 199 thousand tons were recovered by other methods such as acid regeneration, waste oil recovery, and non-solvent organic recovery.

Land disposal accounts for 21.6% of the total amount received from off site and managed on site. Nationwide, 1.2 million tons of hazardous wastes were disposed in landfills, 426 thousand tons were disposed in underground injection wells, 8 thousand tons were managed in surface impoundments, and 600 tons were managed by land application (land farming).

Aqueous treatment accounts for 13.9% of the total amount received from off site and managed on site. 299 thousand tons were managed in aqueous organic treatment units, 475 thousand tons in aqueous inorganic treatment units, and 294 thousand tons in both inorganic and organic aqueous treatment units.

Thermal treatment accounts for 12.8% of the received/managed total. Facilities reused 534 thousand tons as fuel in boilers or industrial furnaces and 452 thousand tons were incinerated.

A comparison between the management profile for all wastes and those received from off site shows that wastes managed off site are managed differently. Most wastes were managed by aqueous treatment. Wastes that were received from off site were managed by recovery, fuel blending, stabilization, or landfilling.

Exhibit 2.12 **Quantity of RCRA Hazardous Waste Managed, by Management Method, Limited to Waste Received from Off Site, 1991**

MANAGEMENT METHOD	SYSTEM TYPE CODE	TONS MANAGED[1]	PERCENTAGE OF QUANTITY	NUMBER OF FACILITIES[2,3]	PERCENTAGE OF FACILITIES[3]
METALS RECOVERY (FOR REUSE)	M011-M019	692,778	9.0	42	6.1
SOLVENTS RECOVERY	M021-M029	463,447	6.0	95	13.7
OTHER RECOVERY	M031-M039	199,200	2.6	25	3.6
INCINERATION	M041-M049	452,235	5.9	71	10.2
ENERGY RECOVERY (REUSE AS FUEL)	M051-M059	533,868	6.9	46	6.6
FUEL BLENDING	M061	1,033,329	13.4	83	12.0
AQUEOUS INORGANIC TREATMENT	M071-M079	475,239	6.2	57	8.2
AQUEOUS ORGANIC TREATMENT	M081-M089	298,511	3.9	37	5.3
AQUEOUS ORG & INORG TREATMENT	M091-M099	293,922	3.8	21	3.0
SLUDGE TREATMENT	M101-M109	6,550	0.1	20	2.9
STABILIZATION	M111-M119	758,611	9.9	37	5.3
OTHER TREATMENT	M121-M129	783,440	10.2	94	13.5
LAND TREATMENT / FARMING	M131	642	0.0	3	0.4
LANDFILL	M132	1,228,710	16.0	28	4.0
SURFACE IMPOUNDMENT	M133	8,477	0.1	1	0.1
DEEPWELL / UNDERGROUND INJECTION	M134	425,720	5.5	14	2.0
OTHER DISPOSAL	M137	35,837	0.5	18	2.6
UNKNOWN SYSTEM DUE TO INVALID CODE	UNKNOWN--	1	0.0	2	0.3
TOTAL		**7,690,516**	**100.0**	**427**	**100.0**

[1]Quantity managed only by storage is excluded.
[2]Facilities with only storage units are excluded.
[3]Column may not sum because facilities may have multiple handling methods.

Note: Columns may not sum due to rounding.

Exhibit 2.13 Management Method, by Quantity of RCRA Hazardous Waste Managed, Limited to Waste Received from Off Site, 1991

MANAGEMENT METHOD	SYSTEM TYPE CODE	TONS MANAGED[1]	PERCENTAGE OF QUANTITY	NUMBER OF FACILITIES[2,3]	PERCENTAGE OF FACILITIES[3]
LANDFILL	M132	1,228,710	16.0	28	4.0
FUEL BLENDING	M061	1,033,329	13.4	83	12.0
OTHER TREATMENT	M121-M129	783,440	10.2	94	13.5
STABILIZATION	M111-M119	758,611	9.9	37	5.3
METALS RECOVERY (FOR REUSE)	M011-M019	692,778	9.0	42	6.1
ENERGY RECOVERY (REUSE AS FUEL)	M051-M059	533,868	6.9	46	6.6
AQUEOUS INORGANIC TREATMENT	M071-M079	475,239	6.2	57	8.2
SOLVENTS RECOVERY	M021-M029	463,447	6.0	95	13.7
INCINERATION	M041-M049	452,235	5.9	71	10.2
DEEPWELL / UNDERGROUND INJECTION	M134	425,720	5.5	14	2.0
AQUEOUS ORGANIC TREATMENT	M081-M089	298,511	3.9	37	5.3
AQUEOUS ORG & INORG TREATMENT	M091-M099	293,922	3.8	21	3.0
OTHER RECOVERY	M031-M039	199,200	2.6	25	3.6
OTHER DISPOSAL	M137	35,837	0.5	18	2.6
SURFACE IMPOUNDMENT	M133	8,477	0.1	1	0.1
SLUDGE TREATMENT	M101-M109	6,550	0.1	20	2.9
LAND TREATMENT / FARMING	M131	642	0.0	3	0.4
UNKNOWN SYSTEM DUE TO INVALID CODE	UNKNOWN--	1	0.0	2	0.3
TOTAL		**7,690,516**	**100.0**	**427**	**100.0**

[1]Quantity managed only by storage is excluded.
[2]Facilities with only storage units are excluded.
[3]Column may not sum because facilities may have multiple handling methods.

Note: Columns may not sum due to rounding.

Exhibit 2.14 **Management Method and Quantity of RCRA Hazardous Waste Managed, by Number of Facilities, Limited to Waste Received from Off Site, 1991**

MANAGEMENT METHOD	SYSTEM TYPE CODE	TONS MANAGED[1]	PERCENTAGE OF QUANTITY	NUMBER OF FACILITIES[2,3]	PERCENTAGE OF FACILITIES[3]
SOLVENTS RECOVERY	M021-M029	463,447	6.0	95	13.7
OTHER TREATMENT	M121-M129	783,440	10.2	94	13.5
FUEL BLENDING	M061	1,033,329	13.4	83	12.0
INCINERATION	M041-M049	452,235	5.9	71	10.2
AQUEOUS INORGANIC TREATMENT	M071-M079	475,239	6.2	57	8.2
ENERGY RECOVERY (REUSE AS FUEL)	M051-M059	533,868	6.9	46	6.6
METALS RECOVERY (FOR REUSE)	M011-M019	692,778	9.0	42	6.1
AQUEOUS ORGANIC TREATMENT	M081-M089	298,511	3.9	37	5.3
STABILIZATION	M111-M119	758,611	9.9	37	5.3
LANDFILL	M132	1,228,710	16.0	28	4.0
OTHER RECOVERY	M031-M039	199,200	2.6	25	3.6
AQUEOUS ORG & INORG TREATMENT	M091-M099	293,922	3.8	21	3.0
SLUDGE TREATMENT	M101-M109	6,550	0.1	20	2.9
OTHER DISPOSAL SPECIFIED IN COMMENTS	M137	35,837	0.5	18	2.6
DEEPWELL / UNDERGROUND INJECTION	M134	425,720	5.5	14	2.0
LAND TREATMENT / FARMING	M131	642	0.0	3	0.4
UNKNOWN SYSTEM DUE TO INVALID CODE	UNKNOWN--	1	0.0	2	0.3
SURFACE IMPOUNDMENT	M133	8,477	0.1	1	0.1
TOTAL		**7,690,516**	**100.0**	**427**	**100.0**

[1]Quantity managed only by storage is excluded.
[2]Facilities with only storage units are excluded.
[3]Column may not sum because facilities may have multiple handling methods.

Note: Columns may not sum due to rounding.

3.0 SHIPMENTS AND RECEIPTS

In 1991, 23,560 shippers[1] reported shipping 12.7 million tons of waste. Exhibits 3.1, 3.2, and 3.3 present the quantity of waste shipped and the number of shippers in each EPA region. Of the regions, Region 6 reported shipping the largest amount of waste (2.7 million tons), while Region 5 reported the largest number of shippers (5,104). Region 10 reported shipping the least amount of waste (244 thousand tons), while Region 8 reported the smallest number of shippers (359).

Exhibits 3.4, 3.5, and 3.6 present the quantity of waste received and the number of TSD facilities that received waste in each of the regions. Overall, 794 TSD facilities reported receiving 8.2 million tons of waste in 1991. Region 5 reported both the largest quantity of receipts (2.4 million tons) and the largest number of receivers (184). Region 4 was second in both total receipts (880 thousand tons) and number of receivers (67).

[1]The term "shipment" is intended to refer to the physical transfer of waste from one facility to another. In some cases, however, shipments occur between facilities that neighbor each other and are under the same corporate name. In these instances, EPA may have assigned unique EPA ID numbers to separate industrial sites within the same plant. The resulting shipments may merely be movement of wastes from one portion of the plant to another.

Exhibit 3.1 **Number and Percentage of RCRA Hazardous Waste Shippers and Total RCRA Hazardous Waste Quantity Shipped, by EPA Region, 1991**

EPA REGION	HAZARDOUS WASTE QUANTITY		SHIPPERS	
	TONS SHIPPED	PERCENTAGE	NUMBER	PERCENTAGE
1	2,157,298	17.0	1,559	6.6
2	1,369,716	10.8	4,909	20.8
3	842,069	6.7	2,183	9.3
4	1,251,835	9.9	3,145	13.3
5	2,668,277	21.1	5,104	21.7
6	2,718,814	21.5	1,805	7.7
7	338,842	2.7	796	3.4
8	444,523	3.5	359	1.5
9	617,538	4.9	2,536	10.8
10	244,074	1.9	1,164	4.9
TOTAL	**12,652,985**	**100.0**	**23,560**	**100.0**

Exhibit 3.2 **Number and Percentage of RCRA Hazardous Waste Shippers and Quantity of Waste Shipped in Each Region, by the Total Quantity of Waste Shipped, 1991**

EPA REGION	HAZARDOUS WASTE QUANTITY		SHIPPERS	
	TONS SHIPPED	PERCENTAGE	NUMBER	PERCENTAGE
6	2,718,814	21.5	1,805	7.7
5	2,668,277	21.1	5,104	21.7
1	2,157,298	17.0	1,559	6.6
2	1,369,716	10.8	4,909	20.8
4	1,251,835	9.9	3,145	13.3
3	842,069	6.7	2,183	9.3
9	617,538	4.9	2,536	10.8
8	444,523	3.5	359	1.5
7	338,842	2.7	796	3.4
10	244,074	1.9	1,164	4.9
TOTAL	**12,652,985**	**100.0**	**23,560**	**100.0**

Note: Columns for these two exhibits may not sum due to rounding.

Exhibit 3.3 Number and Percentage of RCRA Hazardous Waste Shippers and Quantity Shipped in Each Region, by Highest Number of Shippers, 1991

EPA REGION	SHIPPERS		HAZARDOUS WASTE QUANTITY	
	NUMBER	PERCENTAGE	TONS SHIPPED	PERCENTAGE
5	5,104	21.7	2,668,277	21.1
2	4,909	20.8	1,369,716	10.8
4	3,145	13.3	1,251,835	9.9
9	2,536	10.8	617,538	4.9
3	2,183	9.3	842,069	6.7
6	1,805	7.7	2,718,814	21.5
1	1,559	6.6	2,157,298	17.0
10	1,164	4.9	244,074	1.9
7	796	3.4	338,842	2.7
8	359	1.5	444,523	3.5
TOTAL	23,560	100.0	12,652,985	100.0

Exhibit 3.4 Number and Percentage of RCRA Hazardous Waste Receivers and Quantity Received, by EPA Region, 1991

EPA REGION	HAZARDOUS WASTE QUANTITY		RECEIVING FACILITIES	
	TONS RECEIVED	PERCENTAGE	NUMBER	PERCENTAGE
1	110,170	1.3	37	4.7
2	884,113	10.8	67	8.4
3	597,389	7.3	68	8.6
4	1,216,485	14.9	131	16.5
5	2,442,585	29.8	184	23.2
6	958,301	11.7	106	13.4
7	476,778	5.8	54	6.8
8	87,749	1.1	28	3.5
9	1,183,623	14.5	81	10.2
10	229,757	2.8	38	4.8
TOTAL	8,186,950	100.0	794	100.0

Note: Columns for these two exhibits may not sum due to rounding.

Exhibit 3.5 **Number and Percentage of RCRA Hazardous Waste Receivers and Quantity Received in Each Region, by the Quantity of RCRA Hazardous Waste Received, 1991**

EPA REGION	HAZARDOUS WASTE QUANTITY		RECEIVING FACILITIES	
	TONS RECEIVED	PERCENTAGE	NUMBER	PERCENTAGE
5	2,442,585	29.8	184	23.2
4	1,216,485	14.9	131	16.5
9	1,183,623	14.5	81	10.2
6	958,301	11.7	106	13.4
2	884,113	10.8	67	8.4
3	597,389	7.3	68	8.6
7	476,778	5.8	54	6.8
10	229,757	2.8	38	4.8
1	110,170	1.3	37	4.7
8	87,749	1.1	28	3.5
TOTAL	8,186,950	100.0	794	100.0

Exhibit 3.6 **Number and Percentage of RCRA Hazardous Waste Receivers and Quantity Received in Each Region, by the Number of Receiving Facilities, 1991**

EPA REGION	RECEIVING FACILITIES		HAZARDOUS WASTE QUANTITY	
	NUMBER	PERCENTAGE	TONS RECEIVED	PERCENTAGE
5	184	23.2	2,442,585	29.8
4	131	16.5	1,216,485	14.9
6	106	13.4	958,301	11.7
9	81	10.2	1,183,623	14.5
3	68	8.6	597,389	7.3
2	67	8.4	884,113	10.8
7	54	6.8	476,778	5.8
10	38	4.8	229,757	2.8
1	37	4.7	110,170	1.3
8	28	3.5	87,749	1.1
TOTAL	794	100.0	8,186,950	100.0

Note: Columns for these two exhibits may not sum due to rounding.

Exhibits 3.7, 3.8, and 3.9 present the quantity of waste shipped and the number of shippers in each state. Texas reported shipping the largest quantity of waste (2.2 million tons), followed by Connecticut (1.8 million tons) and Michigan (750 thousands tons). New York reported the largest number of shippers (2,638), followed by New Jersey (2,172) and California (2,172).

Exhibit 3.7 **Quantity of RCRA Hazardous Waste Shipped, and Number of Hazardous Waste Shippers, by State, 1991**

STATE	RCRA HAZARDOUS WASTE QUANTITY			NUMBER OF SHIPPERS		
	RANK	TONS SHIPPED	PERCENTAGE	RANK	NUMBER	PERCENTAGE
ALABAMA	14	290,979	2.3	23	280	1.2
ALASKA	49	2,761	0.0	45	60	0.3
ARIZONA	34	40,773	0.3	26	246	1.0
ARKANSAS	22	120,427	1.0	34	149	0.6
CALIFORNIA	9	560,577	4.4	2	2,172	9.2
COLORADO	33	48,906	0.4	35	146	0.6
CONNECTICUT	2	1,814,552	14.3	15	485	2.1
DELAWARE	38	18,873	0.1	44	62	0.3
DISTRICT OF COLUMBIA	53	934	0.0	52	12	0.1
FLORIDA	24	92,997	0.7	18	410	1.7
GEORGIA	23	105,899	0.8	19	398	1.7
GUAM	54	408	0.0	53	9	0.0
HAWAII	47	3,561	0.0	48	35	0.1
IDAHO	46	6,108	0.0	47	40	0.2
ILLINOIS	10	490,275	3.9	6	1,249	5.3
INDIANA	5	617,953	4.9	10	673	2.9
IOWA	37	26,306	0.2	33	157	0.7
KANSAS	19	160,303	1.3	30	172	0.7
KENTUCKY	17	162,947	1.3	17	446	1.9
LOUISIANA	13	291,011	2.3	22	308	1.3
MAINE	42	11,987	0.1	28	184	0.8
MARYLAND	28	82,389	0.7	16	462	2.0
MASSACHUSETTS	15	266,098	2.1	13	554	2.4
MICHIGAN	3	746,418	5.9	9	770	3.3
MINNESOTA	32	62,048	0.5	24	272	1.2
MISSISSIPPI	36	36,251	0.3	27	197	0.8
MISSOURI	21	136,674	1.1	20	387	1.6
MONTANA	45	8,733	0.1	46	51	0.2
NEBRASKA	40	15,559	0.1	40	80	0.3
NEVADA	44	10,197	0.1	41	71	0.3
NEW HAMPSHIRE	43	11,191	0.1	31	167	0.7
NEW JERSEY	7	607,963	4.8	2	2,172	9.2
NEW MEXICO	41	12,617	0.1	42	68	0.3
NEW YORK	4	672,526	5.3	1	2,638	11.2
NORTH CAROLINA	26	87,500	0.7	12	584	2.5
NORTH DAKOTA	48	3,454	0.0	51	16	0.1
OHIO	6	609,787	4.8	4	1,539	6.5
OKLAHOMA	27	85,164	0.7	32	159	0.7
OREGON	29	69,973	0.6	29	179	0.8
PENNSYLVANIA	8	606,682	4.8	5	1,263	5.4
PUERTO RICO	25	88,907	0.7	39	98	0.4
RHODE ISLAND	39	15,772	0.1	37	105	0.4
SOUTH CAROLINA	12	312,552	2.5	21	336	1.4
SOUTH DAKOTA	52	1,272	0.0	50	20	0.1
TENNESSEE	18	162,712	1.3	14	494	2.1
TEXAS	1	2,209,595	17.5	7	1,121	4.8
TRUST TERRITORIES	50	2,022	0.0	54	3	0.0
UTAH	11	380,517	3.0	38	101	0.4
VERMONT	35	37,697	0.3	43	64	0.3
VIRGIN ISLANDS	55	321	0.0	55	1	0.0
VIRGINIA	30	69,444	0.5	25	266	1.1
WASHINGTON	16	165,232	1.3	8	885	3.8
WEST VIRGINIA	31	63,747	0.5	36	118	0.5
WISCONSIN	20	141,796	1.1	11	601	2.6
WYOMING	51	1,642	0.0	49	25	0.1
TOTAL		12,652,985	100.0		23,560	100.0

Note: Columns may not sum due to rounding.

Exhibit 3.8 **Rank Ordering of States Based on Quantity of RCRA Hazardous Waste Shipped, and Number of Hazardous Waste Shippers, 1991**

STATE	RCRA HAZARDOUS WASTE QUANTITY			NUMBER OF SHIPPERS		
	RANK	TONS SHIPPED	PERCENTAGE	RANK	NUMBER	PERCENTAGE
TEXAS	1	2,209,595	17.5	7	1,121	4.8
CONNECTICUT	2	1,814,552	14.3	15	485	2.1
MICHIGAN	3	746,418	5.9	9	770	3.3
NEW YORK	4	672,526	5.3	1	2,638	11.2
INDIANA	5	617,953	4.9	10	673	2.9
OHIO	6	609,787	4.8	4	1,539	6.5
NEW JERSEY	7	607,963	4.8	2	2,172	9.2
PENNSYLVANIA	8	606,682	4.8	5	1,263	5.4
CALIFORNIA	9	560,577	4.4	2	2,172	9.2
ILLINOIS	10	490,275	3.9	6	1,249	5.3
UTAH	11	380,517	3.0	38	101	0.4
SOUTH CAROLINA	12	312,552	2.5	21	336	1.4
LOUISIANA	13	291,011	2.3	22	308	1.3
ALABAMA	14	290,979	2.3	23	280	1.2
MASSACHUSETTS	15	266,098	2.1	13	554	2.4
WASHINGTON	16	165,232	1.3	8	885	3.8
KENTUCKY	17	162,947	1.3	17	446	1.9
TENNESSEE	18	162,712	1.3	14	494	2.1
KANSAS	19	160,303	1.3	30	172	0.7
WISCONSIN	20	141,796	1.1	11	601	2.6
MISSOURI	21	136,674	1.1	20	387	1.6
ARKANSAS	22	120,427	1.0	34	149	0.6
GEORGIA	23	105,899	0.8	19	398	1.7
FLORIDA	24	92,997	0.7	18	410	1.7
PUERTO RICO	25	88,907	0.7	39	98	0.4
NORTH CAROLINA	26	87,500	0.7	12	584	2.5
OKLAHOMA	27	85,164	0.7	32	159	0.7
MARYLAND	28	82,389	0.7	16	462	2.0
OREGON	29	69,973	0.6	29	179	0.8
VIRGINIA	30	69,444	0.5	25	266	1.1
WEST VIRGINIA	31	63,747	0.5	36	118	0.5
MINNESOTA	32	62,048	0.5	24	272	1.2
COLORADO	33	48,906	0.4	35	146	0.6
ARIZONA	34	40,773	0.3	26	246	1.0
VERMONT	35	37,697	0.3	43	64	0.3
MISSISSIPPI	36	36,251	0.3	27	197	0.8
IOWA	37	26,306	0.2	33	157	0.7
DELAWARE	38	18,873	0.1	44	62	0.3
RHODE ISLAND	39	15,772	0.1	37	105	0.4
NEBRASKA	40	15,559	0.1	40	80	0.3
NEW MEXICO	41	12,617	0.1	42	68	0.3
MAINE	42	11,987	0.1	28	184	0.8
NEW HAMPSHIRE	43	11,191	0.1	31	167	0.7
NEVADA	44	10,197	0.1	41	71	0.3
MONTANA	45	8,733	0.1	46	51	0.2
IDAHO	46	6,108	0.0	47	40	0.2
HAWAII	47	3,561	0.0	48	35	0.1
NORTH DAKOTA	48	3,454	0.0	51	16	0.1
ALASKA	49	2,761	0.0	45	60	0.3
TRUST TERRITORIES	50	2,022	0.0	54	3	0.0
WYOMING	51	1,642	0.0	49	25	0.1
SOUTH DAKOTA	52	1,272	0.0	50	20	0.1
DISTRICT OF COLUMBIA	53	934	0.0	52	12	0.1
GUAM	54	408	0.0	53	9	0.0
VIRGIN ISLANDS	55	321	0.0	55	1	0.0
TOTAL		12,652,985	100.0		23,560	100.0

Note: Columns may not sum due to rounding.

Exhibit 3.9 **Rank Ordering of States Based on Number of Hazardous Waste Shippers, and Quantity of RCRA Hazardous Waste Shipped, 1991**

STATE	NUMBER OF SHIPPERS			RCRA HAZARDOUS WASTE QUANTITY		
	RANK	NUMBER	PERCENTAGE	RANK	TONS SHIPPED	PERCENTAGE
NEW YORK	1	2,638	11.2	4	672,526	5.3
NEW JERSEY	2	2,172	9.2	7	607,963	4.8
CALIFORNIA	2	2,172	9.2	9	560,577	4.4
OHIO	4	1,539	6.5	6	609,787	4.8
PENNSYLVANIA	5	1,263	5.4	8	606,682	4.8
ILLINOIS	6	1,249	5.3	10	490,275	3.9
TEXAS	7	1,121	4.8	1	2,209,595	17.5
WASHINGTON	8	885	3.8	16	165,232	1.3
MICHIGAN	9	770	3.3	3	746,418	5.9
INDIANA	10	673	2.9	5	617,953	4.9
WISCONSIN	11	601	2.6	20	141,796	1.1
NORTH CAROLINA	12	584	2.5	26	87,500	0.7
MASSACHUSETTS	13	554	2.4	15	266,098	2.1
TENNESSEE	14	494	2.1	18	162,712	1.3
CONNECTICUT	15	485	2.1	2	1,814,552	14.3
MARYLAND	16	462	2.0	28	82,389	0.7
KENTUCKY	17	446	1.9	17	162,947	1.3
FLORIDA	18	410	1.7	24	92,997	0.7
GEORGIA	19	398	1.7	23	105,899	0.8
MISSOURI	20	387	1.6	21	136,674	1.1
SOUTH CAROLINA	21	336	1.4	12	312,552	2.5
LOUISIANA	22	308	1.3	13	291,011	2.3
ALABAMA	23	280	1.2	14	290,979	2.3
MINNESOTA	24	272	1.2	32	62,048	0.5
VIRGINIA	25	266	1.1	30	69,444	0.5
ARIZONA	26	246	1.0	34	40,773	0.3
MISSISSIPPI	27	197	0.8	36	36,251	0.3
MAINE	28	184	0.8	42	11,987	0.1
OREGON	29	179	0.8	29	69,973	0.6
KANSAS	30	172	0.7	19	160,303	1.3
NEW HAMPSHIRE	31	167	0.7	43	11,191	0.1
OKLAHOMA	32	159	0.7	27	85,164	0.7
IOWA	33	157	0.7	37	26,306	0.2
ARKANSAS	34	149	0.6	22	120,427	1.0
COLORADO	35	146	0.6	33	48,906	0.4
WEST VIRGINIA	36	118	0.5	31	63,747	0.5
RHODE ISLAND	37	105	0.4	39	15,772	0.1
UTAH	38	101	0.4	11	380,517	3.0
PUERTO RICO	39	98	0.4	25	88,907	0.7
NEBRASKA	40	80	0.3	40	15,559	0.1
NEVADA	41	71	0.3	44	10,197	0.1
NEW MEXICO	42	68	0.3	41	12,617	0.1
VERMONT	43	64	0.3	35	37,697	0.3
DELAWARE	44	62	0.3	38	18,873	0.1
ALASKA	45	60	0.3	49	2,761	0.0
MONTANA	46	51	0.2	45	8,733	0.1
IDAHO	47	40	0.2	46	6,108	0.0
HAWAII	48	35	0.1	47	3,561	0.0
WYOMING	49	25	0.1	51	1,642	0.0
SOUTH DAKOTA	50	20	0.1	52	1,272	0.0
NORTH DAKOTA	51	16	0.1	48	3,454	0.0
DISTRICT OF COLUMBIA	52	12	0.1	53	934	0.0
GUAM	53	9	0.0	54	408	0.0
TRUST TERRITORIES	54	3	0.0	50	2,022	0.0
VIRGIN ISLANDS	55	1	0.0	55	321	0.0
TOTAL		23,560	100.0		12,652,985	100.0

Note: Columns may not sum due to rounding.

Exhibits 3.10, 3.11, and 3.12 present the quantity of waste received and the number of TSD facilities receiving waste in each of the states. California (1.1 million tons), Ohio (720 thousand tons), and Michigan (560 thousand tons) reported receiving the largest quantities of waste. Texas (64), California (63), and Ohio (49) had the largest number of TSD facilities receiving waste.

Overall, 794 receivers reported receiving 8.2 million tons of waste. This represents a 4.5 million difference between the amount of waste reported shipped and the amount reported received. One reason for the difference may be related to non-reporting by neighboring facilities under the same corporate name. For example, the largest two shippers in the U.S., as shown in Exhibit 3.13, reported shipping 2.8 tons of hazardous waste to neighboring facilities with the same corporate name. These receiving facilities did not report receiving the waste, suggesting that, while waste was transferred from one EPA ID to another, the management of this waste was more akin to on site treatment in an exempt wastewter treatment unit.

Exhibits 3.13 and 3.14 present listings of the 50 largest shippers and receivers, respectively, in the nation. The largest 50 shippers account for 48% of the total quantity shipped in the U.S. and the 50 largest receivers account for 59% of the total amount received.

Exhibit 3.10 **Quantity of RCRA Hazardous Waste Received and Number of Receivers, by State, 1991**

STATE	RCRA HAZARDOUS WASTE QUANTITY			NUMBER OF RECEIVERS		
	RANK	TONS RECEIVED	PERCENTAGE	RANK	NUMBER	PERCENTAGE
ALABAMA	11	352,568	4.3	18	17	2.1
ALASKA	49	231	0.0	42	3	0.4
ARIZONA	35	12,245	0.1	35	7	0.9
ARKANSAS	17	128,985	1.6	26	11	1.4
CALIFORNIA	1	1,115,706	13.6	2	63	7.9
COLORADO	37	10,896	0.1	26	11	1.4
CONNECTICUT	31	32,598	0.4	20	14	1.8
DELAWARE	45	653	0.0	45	2	0.3
DISTRICT OF COLUMBIA	51	0	0.0	51	0	0.0
FLORIDA	19	114,130	1.4	8	28	3.5
GEORGIA	26	60,657	0.7	13	20	2.5
GUAM	50	98	0.0	49	1	0.1
HAWAII	41	2,607	0.0	39	4	0.5
IDAHO	32	32,256	0.4	36	6	0.8
ILLINOIS	6	474,441	5.8	5	37	4.7
INDIANA	4	540,210	6.6	6	34	4.3
IOWA	38	6,095	0.1	34	8	1.0
KANSAS	13	278,299	3.4	24	12	1.5
KENTUCKY	18	126,721	1.5	22	13	1.6
LOUISIANA	10	392,715	4.8	18	17	2.1
MAINE	43	1,358	0.0	45	2	0.3
MARYLAND	33	18,296	0.2	32	9	1.1
MASSACHUSETTS	25	62,949	0.8	20	14	1.8
MICHIGAN	3	563,575	6.9	9	26	3.3
MINNESOTA	20	92,264	1.1	13	20	2.5
MISSISSIPPI	40	2,739	0.0	28	10	1.3
MISSOURI	14	177,147	2.2	11	25	3.1
MONTANA	48	298	0.0	49	1	0.1
NEBRASKA	34	15,237	0.2	32	9	1.1
NEVADA	28	52,967	0.6	36	6	0.8
NEW HAMPSHIRE	51	0	0.0	51	0	0.0
NEW JERSEY	7	442,884	5.4	12	24	3.0
NEW MEXICO	46	580	0.0	39	4	0.5
NEW YORK	9	402,005	4.9	4	38	4.8
NORTH CAROLINA	29	46,316	0.6	13	20	2.5
NORTH DAKOTA	44	790	0.0	45	2	0.3
OHIO	2	714,568	8.7	3	49	6.2
OKLAHOMA	15	149,345	1.8	28	10	1.3
OREGON	16	132,612	1.6	42	3	0.4
PENNSYLVANIA	5	505,520	6.2	7	29	3.7
PUERTO RICO	30	39,224	0.5	38	5	0.6
RHODE ISLAND	36	11,079	0.1	42	3	0.4
SOUTH CAROLINA	8	437,594	5.3	22	13	1.6
SOUTH DAKOTA	47	370	0.0	45	2	0.3
TENNESSEE	21	75,762	0.9	28	10	1.3
TEXAS	12	286,677	3.5	1	64	8.1
TRUST TERRITORIES	51	0	0.0	51	0	0.0
UTAH	22	75,397	0.9	24	12	1.5
VERMONT	42	2,185	0.0	39	4	0.5
VIRGINIA	23	68,031	0.8	16	18	2.3
VIRGIN ISLANDS	51	0	0.0	51	0	0.0
WASHINGTON	24	64,658	0.8	9	26	3.3
WEST VIRGINIA	39	4,889	0.1	28	10	1.3
WISCONSIN	27	57,527	0.7	16	18	2.3
WYOMING	51	0	0.0	51	0	0.0
TOTAL		8,186,950	100.0		794	100.0

Note: Columns may not sum due to rounding.

Exhibit 3.11 **Rank Ordering of States Based on Quantity of RCRA Hazardous Waste Received and Number of Receivers, 1991**

STATE	RCRA HAZARDOUS WASTE QUANTITY			NUMBER OF RECEIVERS		
	RANK	TONS RECEIVED	PERCENTAGE	RANK	NUMBER	PERCENTAGE
CALIFORNIA	1	1,115,706	13.6	2	63	7.9
OHIO	2	714,568	8.7	3	49	6.2
MICHIGAN	3	563,575	6.9	9	26	3.3
INDIANA	4	540,210	6.6	6	34	4.3
PENNSYLVANIA	5	505,520	6.2	7	29	3.7
ILLINOIS	6	474,441	5.8	5	37	4.7
NEW JERSEY	7	442,884	5.4	12	24	3.0
SOUTH CAROLINA	8	437,594	5.3	22	13	1.6
NEW YORK	9	402,005	4.9	4	38	4.8
LOUISIANA	10	392,715	4.8	18	17	2.1
ALABAMA	11	352,568	4.3	18	17	2.1
TEXAS	12	286,677	3.5	1	64	8.1
KANSAS	13	278,299	3.4	24	12	1.5
MISSOURI	14	177,147	2.2	11	25	3.1
OKLAHOMA	15	149,345	1.8	28	10	1.3
OREGON	16	132,612	1.6	42	3	0.4
ARKANSAS	17	128,985	1.6	26	11	1.4
KENTUCKY	18	126,721	1.5	22	13	1.6
FLORIDA	19	114,130	1.4	8	28	3.5
MINNESOTA	20	92,264	1.1	13	20	2.5
TENNESSEE	21	75,762	0.9	28	10	1.3
UTAH	22	75,397	0.9	24	12	1.5
VIRGINIA	23	68,031	0.8	16	18	2.3
WASHINGTON	24	64,658	0.8	9	26	3.3
MASSACHUSETTS	25	62,949	0.8	20	14	1.8
GEORGIA	26	60,657	0.7	13	20	2.5
WISCONSIN	27	57,527	0.7	16	18	2.3
NEVADA	28	52,967	0.6	36	6	0.8
NORTH CAROLINA	29	46,316	0.6	13	20	2.5
PUERTO RICO	30	39,224	0.5	38	5	0.6
CONNECTICUT	31	32,598	0.4	20	14	1.8
IDAHO	32	32,256	0.4	36	6	0.8
MARYLAND	33	18,296	0.2	32	9	1.1
NEBRASKA	34	15,237	0.2	32	9	1.1
ARIZONA	35	12,245	0.1	35	7	0.9
RHODE ISLAND	36	11,079	0.1	42	3	0.4
COLORADO	37	10,896	0.1	26	11	1.4
IOWA	38	6,095	0.1	34	8	1.0
WEST VIRGINIA	39	4,889	0.1	28	10	1.3
MISSISSIPPI	40	2,739	0.0	28	10	1.3
HAWAII	41	2,607	0.0	39	4	0.5
VERMONT	42	2,185	0.0	39	4	0.5
MAINE	43	1,358	0.0	45	2	0.3
NORTH DAKOTA	44	790	0.0	45	2	0.3
DELAWARE	45	653	0.0	45	2	0.3
NEW MEXICO	46	580	0.0	39	4	0.5
SOUTH DAKOTA	47	370	0.0	45	2	0.3
MONTANA	48	298	0.0	49	1	0.1
ALASKA	49	231	0.0	42	3	0.4
GUAM	50	98	0.0	49	1	0.1
DISTRICT OF COLUMBIA	51	0	0.0	51	0	0.0
NEW HAMPSHIRE	51	0	0.0	51	0	0.0
TRUST TERRITORIES	51	0	0.0	51	0	0.0
VIRGIN ISLANDS	51	0	0.0	51	0	0.0
WYOMING	51	0	0.0	51	0	0.0
TOTAL		8,186,950	100.0		794	100.0

Note: Columns may not sum due to rounding.

Exhibit 3.12 **Rank Ordering of States Based on Number of Receiving Facilities, and Quantity of RCRA Hazardous Waste Received, 1991**

STATE	NUMBER OF RECEIVERS			RCRA HAZARDOUS WASTE QUANTITY		
	RANK	NUMBER	PERCENTAGE	RANK	TONS RECEIVED	PERCENTAGE
TEXAS	1	64	8.1	12	286,677	3.5
CALIFORNIA	2	63	7.9	1	1,115,706	13.6
OHIO	3	49	6.2	2	714,568	8.7
NEW YORK	4	38	4.8	9	402,005	4.9
ILLINOIS	5	37	4.7	6	474,441	5.8
INDIANA	6	34	4.3	4	540,210	6.6
PENNSYLVANIA	7	29	3.7	5	505,520	6.2
FLORIDA	8	28	3.5	19	114,130	1.4
MICHIGAN	9	26	3.3	3	563,575	6.9
WASHINGTON	9	26	3.3	24	64,658	0.8
MISSOURI	11	25	3.1	14	177,147	2.2
NEW JERSEY	12	24	3.0	7	442,884	5.4
GEORGIA	13	20	2.5	26	60,657	0.7
MINNESOTA	13	20	2.5	20	92,264	1.1
NORTH CAROLINA	13	20	2.5	29	46,316	0.6
VIRGINIA	16	18	2.3	23	68,031	0.8
WISCONSIN	16	18	2.3	27	57,527	0.7
ALABAMA	18	17	2.1	11	352,568	4.3
LOUISIANA	18	17	2.1	10	392,715	4.8
CONNECTICUT	20	14	1.8	31	32,598	0.4
MASSACHUSETTS	20	14	1.8	25	62,949	0.8
KENTUCKY	22	13	1.6	18	126,721	1.5
SOUTH CAROLINA	22	13	1.6	8	437,594	5.3
KANSAS	24	12	1.5	13	278,299	3.4
UTAH	24	12	1.5	22	75,397	0.9
ARKANSAS	26	11	1.4	17	128,985	1.6
COLORADO	26	11	1.4	37	10,896	0.1
MISSISSIPPI	28	10	1.3	40	2,739	0.0
OKLAHOMA	28	10	1.3	15	149,345	1.8
TENNESSEE	28	10	1.3	21	75,762	0.9
WEST VIRGINIA	28	10	1.3	39	4,889	0.1
MARYLAND	32	9	1.1	33	18,296	0.2
NEBRASKA	32	9	1.1	34	15,237	0.2
IOWA	34	8	1.0	38	6,095	0.1
ARIZONA	35	7	0.9	35	12,245	0.1
IDAHO	36	6	0.8	32	32,256	0.4
NEVADA	36	6	0.8	28	52,967	0.6
PUERTO RICO	38	5	0.6	30	39,224	0.5
HAWAII	39	4	0.5	41	2,607	0.0
NEW MEXICO	39	4	0.5	46	580	0.0
VERMONT	39	4	0.5	42	2,185	0.0
ALASKA	42	3	0.4	49	231	0.0
OREGON	42	3	0.4	16	132,612	1.6
RHODE ISLAND	42	3	0.4	36	11,079	0.1
DELAWARE	45	2	0.3	45	653	0.0
MAINE	45	2	0.3	43	1,358	0.0
NORTH DAKOTA	45	2	0.3	44	790	0.0
SOUTH DAKOTA	45	2	0.3	47	370	0.0
GUAM	49	1	0.1	50	98	0.0
MONTANA	49	1	0.1	48	298	0.0
DISTRICT OF COLUMBIA	51	0	0.0	51	0	0.0
NEW HAMPSHIRE	51	0	0.0	51	0	0.0
TRUST TERRITORIES	51	0	0.0	51	0	0.0
VIRGIN ISLANDS	51	0	0.0	51	0	0.0
WYOMING	51	0	0.0	51	0	0.0
TOTAL		794	100.0		8,186,950	100.0

Note: Columns may not sum due to rounding.

Exhibit 3.13 **Fifty Largest RCRA Hazardous Waste Shippers in the U.S., 1991**

RANK	EPA ID	NAME	CITY	TONS SHIPPED
1	CTD990672081	PRATT & WHITNEY AIRCRAFT GROUP MD&CPD	EAST HARTFORD,CT	1,682,540
2	TXD005942438	AMOCO CHEMICAL COMPANY - PLANT B SITE	TEXAS CITY,TX	1,161,508
3	UTD000826446	KENNECOTT UTAH COPPER - SMELTER	MAGNA,UT	357,904
4	NYD002126852	GMC HARRISON DIVISION	LOCKPORT,NY	268,813
5	MID980568836	GMC TRUCK AND BUS DIV PONTIAC WEST	PONTIAC,MI	205,476
6	SCD042627448	MTM HARDWICK INC.	ELGIN,SC	176,838
7	MAD053452637	CLEAN HARBORS OF BRAINTREE	BRAINTREE,MA	150,064
8	KSD007249980	ELF ATOCHEM NORTH AMERICA, INC	WICHITA,KS	118,820
9	TXD073912974	INTERCONTINENTAL TERMINALS	DEER PARK,TX	106,482
10	MID000724831	MICHIGAN DISPOSAL, INC.	BELLEVILLE,MI	96,320
11	IND093219012	HERITAGE ENVIRONMENTAL SERVICES	INDIANAPOLIS,IN	96,013
12	ALD000622464	CHEMICAL WASTE MANAGEMENT INC	EMELLE,AL	83,001
13	LAD000777201	CHEMICAL WASTE MANAGEMENT	SULPHUR,LA	81,048
14	ALD981020894	FISHER INDUSTRIAL SERVICE, INC	GADSDEN,AL	80,071
15	TXD058265067	ARCO CHEMICAL COMPANY - BAYPORT	PASADENA,TX	65,744
16	IND005462601	LTV STEEL COMPANY	EAST CHICAGO,IN	64,654
17	TXD000742304	GIBRALTAR CHEMICAL RESOURCES	WINONA,TX	58,013
18	IND078911146	CHEMICAL WASTE MGMT OF INDIANA	FORT WAYNE,IN	56,631
19	NYD002069748	CIBA-GEIGY	QUEENSBURY,NY	52,825
20	NJD991291105	S & W WASTE, INC.	SOUTH KEARNY,NJ	51,841
21	ARD069748192	ENSCO INC	EL DORADO,AR	51,560
22	NYD980536288	E I DUPONT DE NEMOURS & CO	NIAGARA FALLS,NY	50,747
23	MID027637693	LAKESHORE ELECTRO-PLATE INC	BENTON HARBOR,MI	50,400
24	PRD980526180	ANTILLES ELECTROPLATING	BAYAMON,PR	45,717
25	KYD053348108	SAFETY-KLEEN CORP.	NEW CASTLE,KY	43,408
26	ILD005174404	TEEPAK INC	DANVILLE,IL	42,191
27	NJD002200046	CYCLE CHEM INC	ELIZABETH,NJ	41,457
28	ALD070513767	M & M CHEMICAL COMPANY	ATTALLA,AL	41,422
29	IND040289357	DANA CORPORATION PC PRODUCTS DIVISION	HAGERSTOWN,IN	38,280
30	NYD000688606	ANHEUSER-BUSCH INC	BALDWINSVILLE,NY	36,669
31	WID098547854	METRO RECYCLING AND DISPOSAL FACILITY	FRANKLIN,WI	36,333
32	NJD001700707	MONSANTO COMPANY	BRIDGEPORT,NJ	35,789
33	LAD079464095	LAIDLAW ENVIRONMENTAL SERVICES	CROWLEY,LA	35,220
34	OHD000724088	EAGLEBROOK OF OHIO INC.	CLEVELAND,OH	34,995
35	NJD002173946	EI DUPONT DENEMOURS & CO	POMPTON LAKES,NJ	34,928
36	PAD002375376	U.S. STEEL CORPORATION FAIRLESS WORKS	FAIRLESS HILLS,PA	34,223
37	TXD008080533	AMOCO OIL COMPANY REFINERY	TEXAS CITY,TX	32,577
38	OHD004218673	LTV STEEL CO., INC. (CLEVELAND-EAST)	CLEVELAND,OH	31,593
39	CA7170090016	NAVAL AIR STATION NORTH ISLAND	SAN DIEGO,CA	31,120
40	ORD991281460	BERGSOE METAL CORPORATION	ST. HELENS,OR	30,897
41	CAD981166002	SACRAMENTO GAS LOAD CENTER PACIFIC GAS A	SACRAMENTO,CA	30,329
42	PAD990753089	GENERAL BATTERY CORPORATION	READING,PA	29,547
43	NJD986577195	AMERICAN REF-FUEL CONSTRUCT	NEWARK,NJ	29,302
44	LAD000618298	CECOS INTERNATIONAL	LIVINGSTON,LA	28,795
45	MID006014666	LACKS INDUSTRIES INC	GRAND RAPIDS,MI	28,673
46	TXD066362559	CHAPARREL STEEL COMPANY	MIDLOTHIAN,TX	28,470
47	NJD002016103	ADVANCED FIBER TECHNOLOGIES	HACKENSACK,NJ	28,030
48	OHD046203774	LTV STEEL CO., INC. (CLEVELAND-WEST)	CLEVELAND,OH	27,739
49	IND006050967	ELI LILLY & CO.-TIPPECANOE LABORATORIES	SHADELAND,IN	27,503
50	NJD062037031	EXXON BAYWAY REFINERY	LINDEN,NJ	27,155
		TOTAL		6,079,670

Notes:

- Columns may not sum due to rounding.
- CBI data are excluded from this exhibit.

Exhibit 3.14 Fifty Largest RCRA Hazardous Waste Receivers in the U.S., 1991

RANK	EPA ID	NAME	CITY	TONS RECEIVED
1	CAD008274938	KAISER STEEL RESOURCES, INC.	FONTANA,CA	483,736
2	NJD002385730	E.I. DUPONT-CHAMBERS WORKS	DEEPWATER,NJ	227,712
3	PAD002395887	HORSEHEAD RESOURCE DEVELOPMENT CO INC	PALMERTON,PA	210,042
4	ALD000622464	CHEMICAL WASTE MANAGEMENT INC	EMELLE,AL	206,869
5	SCD991278607	MTM AMERICAS INC-HARDWICK DIVISION	LUGOFF,SC	175,413
6	NYD049836679	CWM CHEMICAL SERVICES, INC.	MODEL CITY,NY	174,090
7	IND078911146	CHEMICAL WASTE MGMT OF INDIANA	FORT WAYNE,IN	150,564
8	LAD000777201	CHEMICAL WASTE MANAGEMENT	SULPHUR,LA	147,684
9	MID000724831	MICHIGAN DISPOSAL, INC.	BELLEVILLE,MI	144,946
10	ORD089452353	CHEMICAL WASTE MANAGEMENT OF THE NW	ARLINGTON,OR	132,549
11	OKD065438376	U.S. POLLUTION CONTROL, INC.	WAYNOKA,OK	126,133
12	KSD007482029	VULCAN MATERIALS COMPANY	WICHITA,KS	123,295
13	CAT000646117	CHEMICAL WASTE MGMT INC/KETTLE	KETTLEMAN CITY,CA	122,674
14	MID048090633	WAYNE DISPOSAL, INC.	BELLEVILLE,MI	111,015
15	IND093219012	HERITAGE ENVIRONMENTAL SERVICES	INDIANAPOLIS,IN	92,211
16	SCD070375985	GSX SERVICES OF SC INC.	PINEWOOD,SC	90,821
17	ILD000805812	PEORIA DISPOSAL CO #1	PEORIA,IL	88,834
18	IND980503890	HERITAGE ENVIRONMENTAL SERVICES	ROACHDALE,IN	85,560
19	ILD010284248	CID RECYCLING & DISPOSAL FAC	CALUMET CITY,IL	82,904
20	MOD029729688	HOLNAM INC./SAFETY-KLEEN	CLARKSVILLE,MO	80,771
21	LAD981057706	MARINE SHALE PROCESSORS INC	AMELIA,LA	80,107
22	OHD000724088	EAGLEBROOK OF OHIO INC.	CLEVELAND,OH	77,648
23	MID980615298	PETRO-CHEM PROCESSING INC	DETROIT,MI	75,930
24	SCD003368891	HOLNAM INC/SAFETY KLEEN	HOLLY HILL,SC	74,892
25	CAT080011059	PETROLEUM RECYCLING CORPORATION	SIGNAL HILL,CA	73,062
26	KSD980633259	SYSTECH ENVIRONMENTAL	FREDONIA,KS	71,668
27	MID074259565	DYNECOL INC	DETROIT,MI	70,412
28	UTD991301748	U.S. POLLUTION CONTROL, INC. GRASSY MTN	KNOLLS,UT	69,613
29	ARD981512270	ASH GROVE CEMENT CO	FOREMAN,AR	69,569
30	KSD031203318	ASH GROVE CEMENT PLANT	CHANUTE,KS	67,588
31	NYD080336241	CECOS INTERNATIONAL INC	NIAGARA FALLS,NY	64,783
32	PAD004835146	MILL SERVICE, INC. - YUKON PLANT	YUKON,PA	63,482
33	MOD050232560	RIVER CEMENT CO.	FESTUS,MO	63,081
34	PAD010154045	ENVIRITE CORPORATION	YORK,PA	60,877
35	ILD000666206	ENVIRITE CORP	HARVEY,IL	60,059
36	MND006148092	GOPHER SMELTING & REFINING CO	EAGAN,MN	58,890
37	MAD053452637	CLEAN HARBORS OF BRAINTREE	BRAINTREE,MA	53,117
38	KYD053348108	SAFETY-KLEEN CORP.	NEW CASTLE,KY	50,815
39	NVT330010000	U.S. ECOLOGY	BEATTY,NV	48,939
40	NJD002182897	SAFETY KLEEN CORP	LINDEN,NJ	48,256
41	TXD083472266	ARCO CHEMICAL COMPANY/CHANNELVIEW	CHANNELVIEW,TX	47,982
42	ALD070513767	M & M CHEMICAL COMPANY	ATTALLA,AL	47,582
43	MID981200835	SYSTECH ENVIRONMENTAL/LAFARGE CORP.	ALPENA,MI	46,735
44	IND005081542	ESSROC MATERIALS, INC	LOGANSPORT,IN	46,668
45	WID000808824	HYDRITE CHEMICAL COMPANY-EAST	COTTAGE GROVE,WI	46,108
46	TXD000742304	GIBRALTAR CHEMICAL RESOURCES	WINONA,TX	45,053
47	ILD980613913	SAFETY KLEEN ENVIROSYSTEMS CO	DOLTON,IL	45,041
48	CAD008302903	OIL & SOLVENT PROCESS COMPANY	AZUSA,CA	43,963
49	IND006419212	LONE STAR INDUSTRIES INC	GREENCASTLE,IN	42,159
50	PAD002389559	KEYSTONE CEMENT COMPANY	BATH,PA	40,977
		TOTAL		4,812,877

Notes:

- Columns may not sum due to rounding.
- CBI data are excluded from this exhibit.

4.0 IMPORTS AND EXPORTS

Exhibits 4.1 and 4.2 present hazardous waste imports and exports, by region and by state, respectively. Only those quantities of waste that enter or leave the state are counted in this category. Exhibit 4.1 shows Region 5 is the largest net exporting region (1.1 million tons), followed by Region 4 (716 thousand tons). Region 5 is the largest net importing region (1.3 million tons), followed by Region 4 (716 thousand tons). Exhibit 4.2 shows New Jersey is the largest net exporting state (400 thousand tons), followed by Pennsylvania (355 thousand tons). Ohio, with 399 thousand tons, is the largest net importing state, followed by followed by New Jersey (287 thousand tons).

Exhibit 4.1 RCRA Hazardous Waste Imports and Exports, by EPA Region, 1991

EPA REGION	TOTAL IMPORTS (TONS)	TOTAL EXPORTS (TONS)	NET IMPORTS (IMPORTS-EXPORTS)
1	53,130	406,567	-353,437
2	460,413	654,241	-193,828
3	318,512	559,505	-240,993
4	716,441	743,601	-27,160
5	1,258,354	1,098,263	160,091
6	653,229	649,187	4,042
7	305,390	169,302	136,088
8	69,712	74,763	-5,050
9	82,505	210,594	-128,089
10	129,132	145,291	-16,159
TOTAL	**4,046,819**	**4,711,314**	**-664,496**

Note: Columns may not sum due to rounding.

Exhibit 4.2 **RCRA Hazardous Waste Imports, Exports, and Net difference between Imports and Exports by State, 1991**

STATE	IMPORTS (TONS)	EXPORTS (TONS)	NET (IMPORTS-EXPORTS)
ALABAMA	270,803	162,844	107,959
ALASKA	0	2,566	-2,566
ARIZONA	4,913	34,739	-29,826
ARKANSAS	112,703	106,225	6,478
CALIFORNIA	32,411	168,343	-135,932
COLORADO	2,340	42,874	-40,534
CONNECTICUT	15,312	107,054	-91,742
DELAWARE	400	18,513	-18,113
DISTRICT OF COLUMBIA	0	934	-934
FLORIDA	36,123	62,668	-26,545
GEORGIA	24,620	89,196	-64,575
GUAM	2	140	-138
HAWAII	345	1,960	-1,615
IDAHO	28,877	3,160	25,718
ILLINOIS	253,369	276,198	-22,829
INDIANA	286,458	235,226	51,231
IOWA	2,080	22,354	-20,273
KANSAS	144,488	34,577	109,911
KENTUCKY	106,362	145,420	-39,058
LOUISIANA	252,643	173,087	79,557
MAINE	380	11,685	-11,305
MARYLAND	8,353	72,737	-64,385
MASSACHUSETTS	27,114	224,449	-197,335
MICHIGAN	246,306	224,851	21,455
MINNESOTA	69,511	43,567	25,944
MISSISSIPPI	1,715	35,544	-33,829
MISSOURI	144,603	97,038	47,565
MONTANA	0	8,435	-8,435
NEBRASKA	14,219	15,333	-1,114
NEVADA	44,834	3,391	41,444
NEW HAMPSHIRE	0	11,130	-11,130
NEW JERSEY	287,386	399,733	-112,347
NEW MEXICO	32	12,588	-12,555
NEW YORK	172,770	192,148	-19,378
NORTH CAROLINA	27,575	75,682	-48,107
NORTH DAKOTA	272	3,415	-3,143
OHIO	398,718	245,565	153,153
OKLAHOMA	128,046	66,969	61,077
OREGON	80,677	18,366	62,311
PENNSYLVANIA	278,929	355,403	-76,475
PUERTO RICO	256	62,039	-61,782
RHODE ISLAND	9,020	14,780	-5,761
SOUTH CAROLINA	197,588	70,349	127,239
SOUTH DAKOTA	114	1,249	-1,135
TENNESSEE	51,654	101,897	-50,243
TEXAS	159,805	290,319	-130,514
TRUST TERRITORIES	0	2,022	-2,022
UTAH	66,986	17,148	49,839
VERMONT	1,305	37,470	-36,164
VIRGIN ISLANDS	0	321	-321
VIRGINIA	27,226	58,835	-31,609
WASHINGTON	19,577	121,199	-101,621
WEST VIRGINIA	3,604	53,083	-49,479
WISCONSIN	3,993	72,856	-68,863
WYOMING	0	1,642	-1,642
TOTAL	4,046,819	4,711,314	-664,496

Note: Columns may not sum due to rounding.

APPENDIX A

SYSTEM TYPE CODES

Code	System type
METALS RECOVERY (FOR REUSE)	
M011	High temperature metals recovery
M012	Retorting
M013	Secondary smelting
M014	Other metals recovery for reuse: e.g., ion exchange, reverse osmosis, acid leaching, etc. (Specify in Comments)
M019	Metals recovery - type unknown
SOLVENTS RECOVERY	
M021	Fractionation/distillation
M022	Thin film evaporation
M023	Solvent extraction
M024	Other solvent recovery (Specify in Comments)
M029	Solvents recovery - type unknown
OTHER RECOVERY	
M031	Acid regeneration
M032	Other recovery: e.g., waste oil recovery, nonsolvent organics recovery, etc. (Specify in Comments)
M039	Other recovery - type unknown
INCINERATION	
M041	Incineration - liquids
M042	Incineration - sludges
M043	Incineration - solids
M044	Incineration - gases
M049	Incineration - type unknown
ENERGY RECOVERY (REUSE AS FUEL)	
M051	Energy recovery - liquids
M052	Energy recovery - sludges
M053	Energy recovery - solids
M059	Energy recovery - type unknown
FUEL BLENDING	
M061	Fuel blending
AQUEOUS INORGANIC TREATMENT	
M071	Chrome reduction followed by chemical precipitation
M072	Cyanide destruction followed by chemical precipitation
M073	Cyanide destruction only
M074	Chemical oxidation followed by chemical precipitation
M075	Chemical oxidation only
M076	Wet air oxidation
M077	Chemical precipitation
M078	Other aqueous inorganic treatment: e.g., ion exchange, reverse osmosis, etc. (Specify in Comments)
M079	Aqueous inorganic treatment - type unknown
AQUEOUS ORGANIC TREATMENT	
M081	Biological treatment
M082	Carbon adsorption
M083	Air/steam stripping
M084	Wet air oxidation
M085	Other aqueous organic treatment (Specify in Comments)
M089	Aqueous organic treatment - type unknown
AQUEOUS ORGANIC AND INORGANIC TREATMENT	
M091	Chemical precipitation in combination with biological treatment
M092	Chemical precipitation in combination with carbon adsorption
M093	Wet air oxidation
M094	Other organic/inorganic treatment (Specify in Comments)
M099	Aqueous organic and inorganic treatment - type unknown
SLUDGE TREATMENT	
M101	Sludge dewatering
M102	Addition of excess lime
M103	Absorption/adsorption
M104	Solvent extraction
M109	Sludge treatment - type unknown
STABILIZATION	
M111	Stabilization/Chemical fixation using cementitious and/or pozzolanic materials
M112	Other stabilization (Specify in Comments)

SYSTEM TYPE CODES
(Continued)

Code	System type	Code	System type
M119	Stabilization - type unknown		
OTHER TREATMENT			
M121	Neutralization only		
M122	Evaporation only		
M123	Settling/clarification only		
M124	Phase separation (e.g., emulsion breaking, filtration) only		
M125	Other treatment (Specify in Comments)		
M129	Other treatment - type unknown		
DISPOSAL			
M131	Land treatment/application/farming		
M132	Landfill		
M133	Surface impoundment (to be closed as a landfill)		
M134	Deepwell/underground injection		
M135	Direct discharge to sewer/POTW (no prior treatment)		
M136	Direct discharge to surface water under NPDES (no prior treatment)		
M137	Other disposal (Specify in Comments)		
TRANSFER FACILITY STORAGE			
M141	Transfer facility storage, waste was shipped off site with no on-site TDR activity		

APPENDIX B

EPA HAZARDOUS WASTE CODES

Code	Waste description
D001	Ignitable waste
D002	Corrosive waste
D003	Reactive waste
D004	Arsenic
D005	Barium
D006	Cadmium
D007	Chromium
D008	Lead
D009	Mercury
D010	Selenium
D011	Silver
D012	Endrin(1,2,3,4,10,10-hexachloro-1,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4-endoendo-5,8-dimeth-ano-naphthalene)
D013	Lindane (1,2,3,4,5,6-hexa-chlorocyclohexane, gamma isomer)
D014	Methoxychlor (1,1,1-trichloro-2,2-bis[p-methoxyphenyl] ethane)
D015	Toxaphene ($C_{10}H_{10}Cl_8$, Technical chlorinated camphene, 67-69 percent chlorine)
D016	2,4-D (2,4-Dichlorophenoxyacetic acid)
D017	2,4,5-TP Silvex (2,4,5-Trichlorophenoxypropionic acid)
D018	Benzene
D019	Carbon tetrachloride
D020	Chlordane
D021	Chlorobenzene
D022	Chloroform
D023	o-Cresol
D024	m-Cresol
D025	p-Cresol
D026	Cresol
D027	1,4-Dichlorobenzene
D028	1,2-Dichloroethane
D029	1,1-Dichloroethylene
D030	2,4-Dinitrotoluene
D031	Heptachlor (and its epoxide)
D032	Hexachlorobenzene
D033	Hexachlorobutadiene
D034	Hexachloroethane
D035	Methyl ethyl ketone
D036	Nitrobenzene
D037	Pentachlorophenol
D038	Pyridine
D039	Tetrachloroethylene
D040	Trichlorethylene
D041	2,4,5-Trichlorophenol
D042	2,4,6-Trichlorophenol
D043	Vinyl chloride

EPA HAZARDOUS WASTE CODES
(Continued)

Code	Waste description

HAZARDOUS WASTE FROM NONSPECIFIC SOURCES

F001	The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichlorethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F002	The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2, trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F001, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F003	The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/ blends containing, before use, only the above spent nonhalogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above nonhalogenated solvents, and a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F004	The following spent nonhalogenated solvents: cresols, cresylic acid, and nitrobenzene; and the still bottoms from the recovery of these solvents; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above nonhalogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F005	The following spent nonhalogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above nonhalogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc, and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.
F007	Spent cyanide plating bath solutions from electroplating operations.
F008	Plating bath residues from the bottom of plating baths from electroplating operations in which cyanides are used in the process.
F009	Spent stripping and cleaning bath solutions from electroplating operations in which cyanides are used in the process.
F010	Quenching bath residues from oil baths

Code	Waste description
	from metal heat treating operations in which cyanides are used in the process.
F011	Spent cyanide solutions from slat bath pot cleaning from metal heat treating operations.
F012	Quenching wastewater treatment sludges from metal heat treating operations in which cyanides are used in the process.
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.
F020	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of hexachlorophene from highly purified 2,4,5-trichlorophenol.)
F021	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce derivatives.
F022	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.
F023	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating porcess) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of hexachlorophene from highly purified 2,4,5-trichlorophenol.)
F024	Process wastes including, but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludge, spent catalysts, and wastes listed in Sections 261.31.or 261.32)
F025	Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one, to and including five, with varying amounts and positions of chlorine substitution.
F026	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions.
F027	Discarded unused formulations containing

EPA HAZARDOUS WASTE CODES
(Continued)

Code	Waste description
	tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA hazardous waste nos. F020, F021, F022, F023, F026, and F027.
F032	Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use, or have previously used, chlorophenolic formulations [except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with Section 261.35 (i.e., the newly promulgated equipment cleaning or replacement standards), and where the generator does not not resume or initiate use of chlorophenolic formulations]. (This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.)
F034	Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.
F035	Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.
F037	Petroleum refinery primary oil/water/solids separation sludge - Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and storm water units receiving dry weather flow. Sludges generated in storm water units that do not receive dry weather flow, sludges generated in aggressive biological treatment units as defined in Section 261.31(b)(2)(including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units), and K051 wastes are exempted from this listing.

Code	Waste description
F038	Petroleum refinery secondary (emulsified) oil/water/solids separation sludge - Any sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in induced air flotation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated in aggressive biological treatment units as defined in Section 261.31(b)(2) (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units), and F037, K048, and K051 wastes are exempted from this listing.
F039	Leachate resulting from the treatment, storage, or disposal of wastes classified by more than one waste code under Subpart D, or from a mixture of wastes classified under Subparts C and D of this part. (Leachate resulting from the management of one or more of the following EPA Hazardous Wastes and no other hazardous wastes retains its hazardous waste code(s): F020, F021, F022, F023, F026, F027, and/or F028.)

HAZARDOUS WASTE FROM SPECIFIC SOURCES

Code	Waste description
K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.
K003	Wastewater treatment sludge from the production of molybdate orange pigments.
K004	Wastewater treatment sludge from the production of zinc yellow pigments.
K005	Wastewater treatment sludge from the production of chrome green pigments.
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).
K007	Wastewater treatment sludge from the production of iron blue pigments.
K008	Oven residue from the production of chrome oxide green pigments.
K009	Distillation bottoms from the production of acetaldehyde from ethylene.
K010	Distillation side cuts from the production of acetaldehyde from ethylene.
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile.
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile.
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile.
K015	Still bottoms from the distillation of benzyl chloride.
K016	Heavy ends or distillation residues from the production of carbon tetrachloride.
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.
K018	Heavy ends from the fractionation column in ethyl chloride production.
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.

EPA HAZARDOUS WASTE CODES
(Continued)

Code	Waste description
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.
K021	Aqueous spent antimony catalyst waste from fluoromethane production.
K022	Distillation bottom tars from the production of phenol/acetone from cumene.
K023	Distillation light ends from the production of phthalic anhydride from naphthalene.
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.
K026	Stripping still tails from the production of methyl ethyl pyridines.
K027	Centrifuge and distillation residues from toluene diisocyanate production.
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane.
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.
K031	By-product salts generated in the production of MSMA and cacodylic acid.
K032	Wastewater treatment sludge from the production of chlordane.
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.
K035	Wastewater treatment sludges generated in the production of creosote.
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton.
K037	Wastewater treatment sludges from the production of disulfoton.
K038	Wastewater from the washing and stripping of phorate production.
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate.
K040	Wastewater treatment sludge from the production of phorate.
K041	Wastewater treatment sludge from the production of toxaphene.
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.
K043	2,6-dichlorophenol waste from the production of 2,4-D.
K044	Wastewater treatment sludges from the manufacturing and processing of explosives.
K045	Spent carbon from the treatment of wastewater containing explosives.
K046	Wastewater treatment sludges from the manufacturing, formulation, and loading of lead-based initiating compounds.
K047	Pink/red water from TNT operations.
K048	Dissolved air flotation (DAF) float from the petroleum refining industry.

Code	Waste description
K049	Slop oil emulsion solids from the petroleum refining industry.
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.
K051	API separator sludge from the petroleum refining industry.
K052	Tank bottoms (leaded) from the petroleum refining industry.
K060	Ammonia still lime sludge from coking operations.
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.
K062	Spent pickle liquor from steel finishing operations of plants that produce iron or steel.
K064	Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production.
K065	Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities.
K066	Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production.
K069	Emission control dust/sludge from secondary lead smelting.
K071	Brine purification muds from the mercury cell process in chlorine production, in which separately prepurified brine is not used.
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.
K083	Distillation bottoms from aniline production.
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes.
K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.
K087	Decanter tank tar sludge from coking operations.
K088	Spent potliners from primary aluminum reduction.
K090	Emission control dust or sludge from ferrochromiumsilicon production.
K091	Emission control dust or sludge from ferrochromium production.
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene.
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.
K095	Distillation bottoms from the production of 1,1,1-trichloroethane.
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.

EPA HAZARDOUS WASTE CODES
(Continued)

Code	Waste description
K098	Untreated process wastewater from the production of toxaphene.
K099	Untreated wastewater from the production of 2,4-D.
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.
K103	Process residues from aniline extraction from the production of aniline.
K104	Combined wastewaters generated from nitrobenzene/aniline production.
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.
K106	Wastewater treatment sludge from the mercury cell process in chlorine production.
K107	Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.
K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine from carboxylic acid hydrazides.
K109	Spent filter cartridges from product purification from the product of 1,1-dimethylhydrazine from carboxylic acid hydrazides.
K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine from carboxylic acid hydrazides.
K111	Product washwaters from the production of dinitrotoluene via nitration of toluene.
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.
K113	Condensed liquid light ends from purification of toluenediamine in production of toluenediamine via hydrogenation of dinitrotoluene.
K114	Vicinals from the purification of toluenediamine in production of toluenediamine via hydrogenation of dinitrotoluene.
K115	Heavy ends from purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.
K118	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.
K123	Process wastewater (including supernates, filtrates, and washwaters) from the

Code	Waste description
	production of ethylenebisdithiocarbamic acid and its salts. Hazardous Code T.
K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts. Hazardous Code T.
K125	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts. Hazardous Code T and C.
K126	Baghouse dust and floor sweepings in milling and packaging operations from production or formulation of ethylenebisdithiocarbamic acid and its salts. Hazardous Code T.
K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide.
K132	Spent absorbent and wastewater separator solids from the production of methyl bromide.
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.
K141	Process residues from the recovery of coal tar, including, but not limited to, tar collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank sludge from coking operations).
K142	Tank storage residues from the production of coke from coal or from the recovery of coke by-products from coal.
K143	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal.
K144	Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal.
K145	Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal.
K147	Tar storage residues from coal tar refining.
K148	Residues from coal tar distillation, including, but not limited to, still bottoms.
K149	Distillation bottoms from the production of alpha (or methyl-) chlorinated tolunes, ring-chlorinated tolunes, benzol chlorides, and compounds with mixtures of these functional groups. [This waste does not include still bottoms from the distillation of benzol chloride]
K150	Organic residules excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha (or methyl-) chlorinated tolunes, benzol chlorides, and compounds with mixtures of these functional groups.
K151	Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha (or methyl-) chlorinated tolunes, benzol chlorides, and compounds with mixtures of these functional groups.

DISCARDED COMMERCIAL CHEMICAL PRODUCTS, OFF-SPECIFICATION SPECIES, CONTAINER RESIDUALS, AND SPILL RESIDUES THEREOF--ACUTEHAZARDOUS WASTE

(AN ALPHABETIZED LISTING CAN BE FOUND AT 40 CFR 261.33.)

EPA HAZARDOUS WASTE CODES
(Continued)

Code	Waste description
P001	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations greater than 0.3%
P001	Warfarin, & salts, when present at concentrations greater than 0.3%
P002	1-Acetyl-2-thiourea
P002	Acetamide, N-(aminothioxomethyl)-
P003	2-Propenal
P003	Acrolein
P004	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa-chloro-1,4,4a,5,8,8a,-hexahydro-, (1alpha, 4alpha, 4abeta, 5alpha, 8alpha, 8abeta)-
P004	Aldrin
P005	2-Propen-1-ol
P005	Allyl alcohol
P006	Aluminum phosphide (R,T)
P007	3(2H)-Isoxazolone, 5-(aminomethyl)-
P007	5-(Aminomethyl)-3-isoxazolol
P008	4-Aminopyridine
P008	4-Pyridinamine
P009	Ammonium picrate (R)
P009	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P010	Arsenic acid H_3AsO_4
P011	Arsenic oxide As_2O_5
P011	Arsenic pentoxide
P012	Arsenic oxide As_2O_3
P012	Arsenic trioxide
P013	Barium cyanide
P014	Benzenethiol
P014	Thiophenol
P015	Beryllium
P016	Dichloromethyl ether
P016	Methane, oxybis[chloro-
P017	2-Propanone, 1-bromo-
P017	Bromoacetone
P018	Brucine
P018	Strychnidin-10-one, 2,3-dimethoxy-
P020	Dinoseb
P020	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P021	Calcium cyanide
P021	Calcium cyanide $Ca(CN)_2$
P022	Carbon disulfide
P023	Acetaldehyde, chloro-
P023	Chloroacetaldehyde
P024	Benzenamine, 4-chloro-
P024	p-Chloraniline
P026	1-(o-Chlorophenyl)thiourea
P026	Thiourea, (2-chlorophenyl)-
P027	3-Chloropropionitrile
P027	Propanenitrile, 3-chloro-
P028	Benzene, (chloromethyl)-

Code	Waste description
P028	Benzyl chloride
P029	Copper cyanide
P029	Copper cyanide Cu(CN)
P030	Cyanides (soluble cyanide salts), not otherwise specified
P031	Cyanogen
P031	Ethanedinitrile
P033	Cyanogen chloride
P033	Cyanogen chloride (CN)Cl
P034	2-Cyclohexyl-4,6-dinitrophenol
P034	Phenol, 2-cyclohexyl-4,6-dinitro-
P036	Arsonous dichloride, phenyl-
P036	Dichlorophenylarsine
P037	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha, 2beta, 2aalpha, 3beta, 6beta, 6aalpha, 7beta, 7aalpha)-
P037	Dieldrin
P038	Arsine, diethyl-
P038	Diethylarsine
P039	Disulfoton
P039	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester
P040	O,O-Diethyl O-pyrazinyl phosphorothioate
P040	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P041	Diethyl-p-nitrophenyl phosphate
P041	Phosphoric acid, diethyl 4-nitrophenyl ester
P042	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-
P042	Epinephrine
P043	Diisopropylfluorophosphate (DFP)
P043	Phosphorofluoridic acid, bis(1-methylethyl) ester
P044	Dimethoate
P044	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester
P045	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[methylamino)carbonyl] oxime
P045	Thiofanox
P046	alpha,alpha-Dimethylphenethylamine
P046	Benzeneethanamine, alpha, alpha-dimethyl-
P047	4,6-Dinitro-o-cresol, & salts
P047	Phenol, 2-methyl-4,6-dinitro-, & salts
P048	2,4-Dinitrophenol
P048	Phenol, 2,4-dinitro-
P049	Dithiobiuret
P049	Thioimidodicarbonic diamide $[(H_2N)C(S)]_2NH$
P050	6,9-Methano-2,4,3-benzodioxathiepin,6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-,3-oxide
P050	Endosulfan
P051	2,7:3,6-Dimethanonaphth[2,3-b]oxirene,

EPA HAZARDOUS WASTE CODES
(Continued)

Code	Waste description
	3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha, 2beta, 2abeta, 3alpha, 6alpha, 6abeta, 7beta, 7aalpha)- & metabolites
P051	Endrin
P051	Endrin, & metabolites
P054	Aziridine
P054	Ethyleneimine
P056	Fluorine
P057	Acetamide, 2-fluoro-
P057	Fluoroacetamide
P058	Acetic acid, fluoro-, sodium salt
P058	Fluoroacetic acid, sodium salt
P059	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-
P059	Heptachlor
P060	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa-chloro-1,4,4a,5,8,8a,-hexahydro-, (1alpha, 4alpha, 4abeta, 5beta, 8beta, 8abeta)-
P060	Isodrin
P062	Hexaethyl tetraphosphate
P062	Tetraphosphoric acid, hexaethyl ester
P063	Hydrocyanic acid
P063	Hydrogen cyanide
P064	Methane, isocyanato-
P064	Methyl isocyanate
P065	Fulminic acid, mercury(2+) salt (R,T)
P065	Mercury fulminate (R,T)
P066	Ethanimidothioic acid, N-[[(methylamino)carbonyl]oxy]-, methyl ester
P066	Methomyl
P067	1,2-Propylenimine
P067	Aziridine, 2-methyl-
P068	Hydrazine, methyl-
P068	Methyl hydrazine
P069	2-Methyllactonitrile
P069	Propanenitrile, 2-hydroxy-2-methyl-
P070	Aldicarb
P070	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
P071	Methyl parathion
P071	Phosphorothioic acid, O,O,-dimethyl O-(4-nitrophenyl) ester
P072	alpha-Naphthylthiourea
P072	Thiourea, 1-naphthalenyl-
P073	Nickel carbonyl
P073	Nickel carbonyl $Ni(CO)_4$, (T-4)-
P074	Nickel cyanide
P074	Nickel cyanide $Ni(CN)_2$
P075	Nicotine, & salts
P075	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-,(S)-, & salts
P076	Nitric oxide

Code	Waste description
P076	Nitrogen oxide NO
P077	Benzenamine, 4-nitro-
P077	p-Nitroaniline
P078	Nitrogen dioxide
P078	Nitrogen oxide NO_2
P081	1,2,3-Propanetriol, trinitrate (R)
P081	Nitroglycerine (R)
P082	Methanimine, N-methyl-N-nitroso-
P082	N-Nitrosodimethylamine
P084	N-Nitrosomethylvinylamine
P084	Vinylamine, N-methyl-N-nitroso-
P085	Diphosphoramide, octamethyl-
P085	Octamethylpyrophosphoramide
P087	Osmium oxide OsO_4 (T-4)-
P087	Osmium tetroxide
P088	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P088	Endothall
P089	Parathion
P089	Phosphorothioic acid, O,O-diethyl-O-(4-nitrophenyl) ester
P092	Mercury, (acetato-O)phenyl-
P092	Phenylmercury acetate
P093	Phenylthiourea
P093	Thiourea, phenyl-
P094	Phorate
P094	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester
P095	Carbonic dichloride
P095	Phosgene
P096	Hydrogen phosphide
P096	Phosphine
P097	Famphur
P097	Phosphorothioic acid O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester
P098	Potassium cyanide
P098	Potassium cyanide K(CN)
P099	Argentate (1-), bis(cyano-C)-, potassium
P099	Potassium silver cyanide
P101	Ethyl cyanide
P101	Propanenitrile
P102	2-Propyn-1-ol
P102	Propargyl alcohol
P103	Selenourea
P104	Silver cyanide
P104	Silver cyanide Ag(CN)
P105	Sodium azide
P106	Sodium cyanide
P106	Sodium cyanide Na(CN)
P107	Strontium sulfide SrS
P108	Strychnidin-10-one, & salts

EPA HAZARDOUS WASTE CODES
(Continued)

Code	Waste description
P108	Strychnine, & salts
P109	Tetraethyldithiopyrophosphate
P109	Thiodiphosphoric acid, tetraethyl ester
P110	Plumbane, tetraethyl-
P110	Tetraethyl lead
P111	Diphosphoric acid, tetraethyl ester
P111	Tetraethyl pyrophosphate
P112	Methane, tetranitro- (R)
P112	Tetranitromethane (R)
P113	Thallic oxide
P113	Thallium oxide Tl_2O_3
P114	Selenious acid, dithallium (1+) salt
P114	Thallium(I) selenite
P115	Sulfuric acid, dithallium (1+) salt
P115	Thallium(I) sulfate
P116	Hydrazinecarbothioamide
P116	Thiosemicarbazide
P118	Methanethiol, trichloro-
P118	Trichloromethanethiol
P119	Ammonium vanadate
P119	Vanadic acid, ammonium salt
P120	Vanadium oxide V_2O_5
P120	Vanadium pentoxide
P121	Zinc cyanide
P121	Zinc cyanide $Zn(CN)_2$
P122	Zinc phosphide Zn_3P_2, when present at concentrations greater than 10% (R,T)
P123	Toxaphene

DISCARDED COMMERCIAL CHEMICAL PRODUCTS, OFF-SPECIFICATION SPECIES, CONTAINER RESIDUES, AND SPILL RESIDUES THEREOF--TOXIC WASTES

(AN ALPHABETIZED LISTING CAN BE FOUND AT 40 CFR 261.33.)

	b	2,3,4,6-Tetrachlorophenol
	u	
	u	2,4,5-T
	u	
	u	2,4,5-Trichlorophenol
	u	
	u	2,4,6-Trichlorophenol
	u	
	u	Acetic acid, (2,4,5-trichlorophenoxy)-
	u	
	u	Pentachlorophenol
	u	
See	c	Phenol, 2,3,4,6-tetrachloro-
	u	
F027	u	Phenol, 2,4,5-trichloro-
	u	
	u	Phenol, 2,4,6-trichloro-
	u	
	u	Phenol, pentachloro-
	u	
	u	Propanoic acid, 2-(2,4,5-
	u	
	u	trichlorophenoxy)-
	u	
	d	Silvex (2,4,5-TP)

Code	Waste description
U001	Acetaldehyde (I)
U001	Ethanal (I)
U002	2-Propanone (I)
U002	Acetone (I)
U003	Acetonitrile (I,T)
U004	Acetophenone
U004	Ethanone, 1-phenyl-

Code	Waste description
U005	2-Acetylaminofluorene
U005	Acetamide, N-9H-fluoren-2-yl
U006	Acetyl chloride (C,R,T)
U007	2-Propenamide
U007	Acrylamide
U008	2-Propenoic acid (I)
U008	Acrylic acid (I)
U009	2-Propenenitrile
U009	Acrylonitrile
U010	Azirino [2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha, 8beta, 8aalpha, 8balpha)]-
U010	Mitomycin C
U011	1H-1,2,4-Triazol-3-amine
U011	Amitrole
U012	Aniline (I,T)
U012	Benzenamine (I,T)
U014	Auramine
U014	Benzenamine, 4,4'-carbonimidoylbis[N,N-dimethyl-
U015	Azaserine
U015	L-Serine, diazoacetate (ester)
U016	Benz[c]acridine
U017	Benzal chloride
U017	Benzene, (dichloromethyl)-
U018	Benz[a]anthracene
U019	Benzene (I,T)
U020	Benzenesulfonic acid chloride (C,R)
U020	Benzenesulfonyl chloride (C,R)
U021	[1,1'-Biphenyl]-4,4'-diamine
U021	Benzidine
U022	Benzo[a]pyrene
U023	Benzene, (trichloromethyl)-
U023	Benzotrichloride (C,R,T)
U024	Dichloromethoxy ethane
U024	Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-
U025	Dichloroethyl ether
U025	Ethane, 1,1'-oxybis[2-chloro-
U026	Chlornaphazin
U026	Naphthalenamine, N,N'-bis(2-chloroethyl)-
U027	Dichloroisopropyl ether
U027	Propane, 2,2'-oxybis[2-chloro-
U028	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U028	Diethylhexyl phthalate
U029	Methane, bromo-
U029	Methyl bromide
U030	4-Bromophenyl phenyl ether
U030	Benzene, 1-bromo-4-phenoxy-

EPA HAZARDOUS WASTE CODES
(Continued)

Code	Waste description
U031	1-Butanol (I)
U031	n-Butyl alcohol (I)
U032	Calcium chromate
U032	Chromic acid H_2CrO_4, calcium salt
U033	Carbon oxyfluoride (R,T)
U033	Carbonic difluoride
U034	Acetaldehyde, trichloro-
U034	Chloral
U035	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-
U035	Chlorambucil
U036	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-
U036	Chlordane, alpha & gamma isomers
U037	Benzene, chloro-
U037	Chlorobenzene
U038	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester
U038	Chlorobenzilate
U039	p-Chloro-m-cresol
U039	Phenol, 4-chloro-3-methyl-
U041	Epichlorohydrin
U041	Oxirane, (chloromethyl)-
U042	2-Chloroethyl vinyl ether
U042	Ethene, (2-chloroethoxy)-
U043	Ethene, chloro-
U043	Vinyl chloride
U044	Chloroform
U044	Methane, trichloro-
U045	Methane, chloro- (I,T)
U045	Methyl chloride (I,T)
U046	Chloromethyl methyl ether
U046	Methane, chloromethoxy-
U047	beta-Chloronaphthalene
U047	Naphthalene, 2-chloro-
U048	o-Chlorophenol
U048	Phenol, 2-chloro-
U049	4-Chloro-o-toluidine, hydrochloride
U049	Benzenamine, 4-chloro-2-methyl-, hydrochloride
U050	Chrysene
U051	Creosote
U052	Cresol (Cresylic acid)
U052	Phenol, methyl-
U053	2-Butenal
U053	Crotonaldehyde
U055	Benzene, (1-methylethyl)- (I)
U055	Cumene (I)
U056	Benzene, hexahydro- (I)
U056	Cyclohexane (I)
U057	Cyclohexanone (I)

Code	Waste description
U058	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide
U058	Cyclophosphamide
U059	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,(8S-cis)-
U059	Daunomycin
U060	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-
U060	DDD
U061	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-
U061	DDT
U062	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester
U062	Diallate
U063	Dibenz[a,h]anthracene
U064	Benzo[rst]pentaphene
U064	Dibenzo[a,i]pyrene
U066	1,2-Dibromo-3-chloropropane
U066	Propane, 1,2-dibromo-3-chloro-
U067	Ethane, 1,2-dibromo-
U067	Ethylene dibromide
U068	Methane, dibromo-
U068	Methylene bromide
U069	1,2-Benzenedicarboxylic acid, dibutyl ester
U069	Dibutyl phthalate
U070	Benzene, 1,2-dichloro-
U070	o-Dichlorobenzene
U071	Benzene, 1,3-dichloro-
U071	m-Dichlorobenzene
U072	Benzene, 1,4-dichloro-
U072	p-Dichlorobenzene
U073	[1,1'-Biphenyl]-4,4'-diamine,3,3'-dichloro-
U073	3,3'-Dichlorobenzidine
U074	1,4-Dichloro-2-butene (I,T)
U074	2-Butene, 1,4-dichloro- (I,T)
U075	Dichlorodifluoromethane
U075	Methane, dichlorodifluoro-
U076	Ethane, 1,1-dichloro-
U076	Ethylidene dichloride
U077	Ethane, 1,2-dichloro-
U077	Ethylene dichloride
U078	1,1-Dichloroethylene
U078	Ethene, 1,1-dichloro-
U079	1,2-Dichloroethylene
U079	Ethene, 1,2-dichloro-,(E)-
U080	Methane, dichloro-
U080	Methylene chloride
U081	2,4-Dichlorophenol
U081	Phenol, 2,4-dichloro-
U082	2,6-Dichlorophenol

EPA HAZARDOUS WASTE CODES
(Continued)

Code	Waste description
U082	Phenol, 2,6-dichloro-
U083	Propane, 1,2-dichloro-
U083	Propylene dichloride
U084	1,3-Dichloropropene
U084	1-Propene, 1,3-dichloro-
U085	1,2:3,4-Diepoxybutane (I,T)
U085	2,2'-Bioxirane
U086	Hydrazine, 1,2-diethyl-
U086	N,N'-Diethylhydrazine
U087	O,O-Diethyl S-methyl dithiophosphate
U087	Phosphorodithioic acid, O,O-diethyl S-methyl ester
U088	1,2-Benzenedicarboxylic acid, diethyl ester
U088	Diethyl phthalate
U089	Diethylstilbesterol
U089	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis, (E)-
U090	1,3-Benzodioxole, 5-propyl-
U090	Dihydrosafrole
U091	[1,1'-Biphenyl]-4,4'-diamine,3,3'-dimethoxy-
U091	3,3'-Dimethoxybenzidine
U092	Dimethylamine (I)
U092	Methanamine, N-methyl- (I)
U093	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U093	p-Dimethylaminoazobenzene
U094	7,12-Dimethylbenz[a]anthracene
U094	Benz[a]anthracene, 7,12-dimethyl-
U095	[1,1'-Biphenyl]-4,4'-diamine,3,3'-dimethyl-
U095	3,3'-Dimethylbenzidine
U096	alpha,alpha-Dimethylbenzylhydroperoxide (R)
U096	Hydroperoxide, 1-methyl-1-phenylethyl- (R)
U097	Carbamic chloride, dimethyl-
U097	Dimethylcarbamoyl chloride
U098	1,1-Dimethylhydrazine
U098	Hydrazine, 1,1-dimethyl-
U099	1,2-Dimethylhydrazine
U099	Hydrazine, 1,2-diphenyl-
U101	2,4-Dimethylphenol
U101	Phenol, 2,4-dimethyl-
U102	1,2-Benzenedicarboxylic acid, dimethyl ester
U102	Dimethyl phthalate
U103	Dimethyl sulfate
U103	Sulfuric acid, dimethyl ester
U105	2,4-Dinitrotoluene
U105	Benzene, 1-methyl-2,4-dinitro-
U106	2,6-Dinitrotoluene
U106	Benzene, 2-methyl-1,3-dinitro-
U107	1,2-Benzenedicarboxylic acid, dioctyl ester

Code	Waste description
U107	Di-n-octyl phthalate
U108	1,4-Diethyleneoxide
U108	1,4-Dioxane
U109	1,2-Diphenylhydrazine
U109	Hydrazine, 1,2-diphenyl-
U110	1-Propanimine, N-propyl-(I)
U110	Dipropylamine (I)
U111	1-Propanamine, N-nitroso-N-propyl-
U111	Di-n-propylnitrosamine
U112	Acetic acid, ethyl ester (I)
U112	Ethyl acetate (I)
U113	2-Propenoic acid, ethyl ester (I)
U113	Ethyl acrylate (I)
U114	Carbamodithioic acid, 1,2-ethanediylbis-, salts & esters
U114	Ethylenebisdithiocarbamic acid, salts & esters
U115	Ethylene oxide (I,T)
U115	Oxirane (I,T)
U116	2-Imidazolidinethione
U116	Ethylenethiourea
U117	Ethane, 1,1'-oxybis-(I)
U117	Ethyl ether (I)
U118	2-Propenoic acid, 2-methyl-, ethyl ester
U118	Ethyl methacrylate
U119	Ethyl methanesulfonate
U119	Methanesulfonic acid, ethyl ester
U120	Fluoranthene
U121	Methane, trichlorofluoro-
U121	Trichloromonofluoromethane
U122	Formaldehyde
U123	Formic acid (C,T)
U124	Furan (I)
U124	Furfuran (I)
U125	2-Furancarboxaldehyde (I)
U125	Furfural (I)
U126	Glycidylaldehyde
U126	Oxiranecarboxyaldehyde
U127	Benzene, hexachloro-
U127	Hexachlorobenzene
U128	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U128	Hexachlorobutadiene
U129	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha, 2alpha, 3beta, 4alpha, 5alpha, 6beta)-
U129	Lindane
U130	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U130	Hexachlorocyclopentadiene
U131	Ethane, hexachloro-
U131	Hexachloroethane
U132	Hexachlorophene

EPA HAZARDOUS WASTE CODES
(Continued)

Code	Waste description
U132	Phenol, 2,2'-methylenebis[3,4,6-trichloro-
U133	Hydrazine (R,T)
U134	Hydrofluoric acid (C,T)
U134	Hydrogen fluoride (C,T)
U135	Hydrogen sulfide
U135	Hydrogen sulfide H_2S
U136	Arsinic acid, dimethyl-
U136	Cacodylic acid
U137	Indeno[1,2,3-cd]pyrene
U138	Methane, iodo-
U138	Methyl iodide
U140	1-Propanol, 2-methyl- (I,T)
U140	Isobutyl alcohol (I,T)
U141	1,3-Benzodioxole, 5-(1-propenyl)-
U141	Isosafrole
U142	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-
U142	Kepone
U143	2-Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z), 7(2S*,3R*), 7aalpha]]-
U143	Lasiocarpine
U144	Acetic acid, lead(2+) salt
U144	Lead acetate
U145	Lead phosphate
U145	Phosphoric acid, lead(2+) salt (2:3)
U146	Lead subacetate
U146	Lead, bis(acetato-O)tetrahydroxytri-
U147	2,5-Furandione
U147	Maleic anhydride
U148	3,6-Pyridazinedione, 1,2-dihydro-
U148	Maleic hydrazide
U149	Malononitrile
U149	Propanedinitrile
U150	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-
U150	Melphalan
U151	Mercury
U152	2-Propenenitrile, 2-methyl- (I,T)
U152	Methacrylonitrile (I,T)
U153	Methanethiol (I,T)
U153	Thiomethanol (I,T)
U154	Methanol (I)
U154	Methyl alcohol (I)
U155	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-
U155	Methapyrilene
U156	Carbonochloridic acid, methyl ester, (I,T)
U156	Methyl chlorocarbonate (I,T)
U157	3-Methylcholanthrene
U157	Benz[j]aceanthrylene, 1,2-dihydro-3-

Code	Waste description
	methyl-
U158	4,4'-Methylenebis(2-chloroaniline)
U158	Benzenamine, 4,4'-methylenebis[2-chloro-
U159	2-Butanone (I,T)
U159	Methyl ethyl ketone (MEK) (I,T)
U160	2-Butanone, peroxide (R,T)
U160	Methyl ethyl ketone peroxide (R,T)
U161	4-Methyl-2-pentanone (I)
U161	Methyl isobutyl ketone (I)
U161	Pentanol, 4-methyl-
U162	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U162	Methyl methacrylate (I,T)
U163	Guanidine, N-methyl-N'-nitro-N-nitroso-
U163	MNNG
U164	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U164	Methylthiouracil
U165	Naphthalene
U166	1,4-Naphthalenedione
U166	1,4-Naphthoquinone
U167	1-Napthalenamine
U167	alpha-Naphthylamine
U168	2-Napthalenamine
U168	beta-Naphthylamine
U169	Benzene, nitro-
U169	Nitrobenzene (I,T)
U170	p-Nitrophenol (I,T)
U170	Phenol, 4-nitro-
U171	2-Nitropropane (I,T)
U171	Propane, 2-nitro- (I,T)
U172	1-Butanamine, N-butyl-N-nitroso-
U172	N-Nitrosodi-n-butylamine
U173	Ethanol, 2,2'-(nitrosoimino)bis-
U173	N-Nitrosodiethanolamine
U174	Ethanamine, N-ethyl-N-nitroso-
U174	N-Nitrosodiethylamine
U176	N-Nitroso-N-ethylurea
U176	Urea, N-ethyl-N-nitroso-
U177	N-Nitroso-N-methylurea
U177	Urea, N-methyl-N-nitroso-
U178	Carbamic acid, methylnitroso-, ethyl ester
U178	N-Nitroso-N-methylurethane
U179	N-Nitrosopiperidine
U179	Piperidine, 1-nitroso-
U180	N-Nitrosopyrrolidine
U180	Pyrrolidine, 1-nitroso-
U181	5-Nitro-o-toluidine
U181	Benzenamine, 2-methyl-5-nitro
U182	1,3,5-Trioxane,2,4,6-trimethyl-
U182	Paraldehyde

EPA HAZARDOUS WASTE CODES
(Continued)

Code	Waste description
U183	Benzene, pentachloro-
U183	Pentachlorobenzene
U184	Ethane, pentachloro-
U184	Pentachloroethane
U185	Benzene, pentachloronitro-
U185	Pentachloronitrobenzene (PCNB)
U186	1,3-Pentadiene (I)
U186	1-Methylbutadiene (I)
U187	Acetamide, N-(4-ethoxyphenyl)-
U187	Phenacetin
U188	Phenol
U189	Phosphorus sulfide (R)
U189	Sulfur phosphide (R)
U190	1,3-Isobenzofurandione
U190	Phthalic anhydride
U191	2-Picoline
U191	Pyridine, 2-methyl-
U192	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
U192	Pronamide
U193	1,2-Oxathiolane, 2,2-dioxide
U193	1,3-Propane sultone
U194	1-Propanamine (I,T)
U194	n-Propylamine (I,T)
U196	Pyridine
U197	2,5-Cyclohexadiene-1,4-dione
U197	p-Benzoquinone
U200	Reserpine
U200	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester, (3beta, 16beta, 17alpha, 18beta, 20alpha)-
U201	1,3-Benzenediol
U201	Resorcinol
U202	1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide, & salts
U202	Saccharin, & salts
U203	1,3-Benzodioxole, 5-(2-propenyl)-
U203	Safrole
U204	Selenious acid
U204	Selenium dioxide
U205	Selenium sulfide
U205	Selenium sulfide SeS_2 (R,T)
U206	D-Glucose, 2-deoxy-2-[[(methylnitrosoamino)-carbonyl]amino]-
U206	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-,D-
U206	Streptozotocin
U207	1,2,4,5-Tetrachlorobenzene
U207	Benzene, 1,2,4,5-tetrachloro-
U208	1,1,1,2-Tetrachloroethane
U208	Ethane, 1,1,1,2-tetrachloro-
U209	1,1,2,2-Tetrachloroethane

Code	Waste description
U209	Ethane, 1,1,2,2-tetrachloro-
U210	Ethene, tetrachloro-
U210	Tetrachloroethylene
U211	Carbon tetrachloride
U211	Methane, tetrachloro-
U213	Furan, tetrahydro-(I)
U213	Tetrahydrofuran (I)
U214	Acetic acid, thallium(1+) salt
U214	Thallium(I) acetate
U215	Carbonic acid, dithallium(1+) salt
U215	Thallium(I) carbonate
U216	Thallium chloride Tlcl
U216	Thallium(I) chloride
U217	Nitric acid, thallium(1+) salt
U217	Thallium(I) nitrate
U218	Ethanethioamide
U218	Thioacetamide
U219	Thiourea
U220	Benzene, methyl-
U220	Toluene
U221	Benzenediamine, ar-methyl-
U221	Toluenediamine
U222	Benzenamine, 2-methyl-, hydrochloride
U222	o-Toluidine hydrochloride
U223	Benzene, 1,3-diisocyanatomethyl- (R,T)
U223	Toluene diisocyanate (R,T)
U225	Bromoform
U225	Methane, tribromo-
U226	Ethane, 1,1,1-trichloro-
U226	Methyl chloroform
U227	1,1,2-Trichloroethane
U227	Ethane, 1,1,2-trichloro-
U228	Ethene, trichloro-
U228	Trichloroethylene
U234	1,3,5-Trinitrobenzene (R,T)
U234	Benzene, 1,3,5-trinitro-
U235	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U235	Tris(2,3,-dibromopropyl) phosphate
U236	2,7-Naphthalenedisulfonic acid,3,3'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)bis[5-amino-4-hydroxy]-, tetrasodium salt
U236	Trypan blue
U237	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-
U237	Uracil mustard
U238	Carbamic acid, ethyl ester
U238	Ethyl carbamate (urethane)
U239	Benzene, dimethyl- (I,T)
U239	Xylene (I)
U240	2,4-D, salts & esters
U240	Acetic acid, (2,4-dichlorophenoxy)-, salts

EPA HAZARDOUS WASTE CODES
(Continued)

Code	Waste description	Code	Waste description
	& esters		
U243	1-Propene, 1,1,2,3,3,3-hexachloro-		
U243	Hexachloropropene		
U244	Thioperoxydicarbonic diamide $[(H_2N)C(S)]_2S_2$ tetramethyl-		
U244	Thiram		
U246	Cyanogen bromide (CN)Br		
U247	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-		
U247	Methoxychlor		
U248	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, & salts, when present at concentrations of 0.3% or less		
U248	Warfarin, & salts, when present at concentrations of 0.3% or less		
U249	Zinc phosphide Zn_3P_2 when present at concentrations of 10% or less		
U328	Benzenamine, 2-methyl-		
U328	o-Toluidine		
U353	Benzenamine, 4-methyl-		
U353	p-Toluidine		
U359	Ethanol, 2-ethoxy-		
U359	Ethylene glycol monoethyl ether		