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National Analysis

The Preliminary Biennial RCRA Hazardous Waste Report (Based on 1993 Data)

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The Preliminary Biennial RCRA Hazardous Waste Report (Based on 1993 Data)

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The Preliminary Biennial RCRA Hazardous Waste Report (Based on 1993 Data)

EXECUTIVE SUMMARY

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 preliminary report is to communicate the findings of EPA's 1993 Biennial Reporting System (BRS) data collection efforts to the public, government agencies, and the regulated community,[2] as well as to allow an assessment of the quality and completeness of the data submissions on which the report is based. (For further discussion of data quality and completeness see page ES-7). The preliminary report consists of five documents (a "State Summary Analysis" will be included in the final report) :

- 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 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 1993; 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 1993.

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

[2]While BRS respondents have submitted Confidential Business Information (CBI) pursuant to 40 CFR 260.2(b), none of these data have been included in this preliminary report.

RCRA HAZARDOUS WASTE GENERATION

In 1993, 22,615 large quantity generators produced 235 million tons of hazardous wastes regulated by RCRA.[3] This is a decrease of 811 generators and 70 million tons of waste compared to 1991. As identified in Exhibit 1, the largest hazardous waste generating states were Texas (67 million tons), New York (45 million tons), Louisiana (32 million tons), and Michigan (21 million tons). Together, these states accounted for 70% of the national total.

In comparing 1993 data with those of earlier reports, 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, 76 million tons of wastes that were not regulated before 1990. An additional 41 million tons were described by D018-D043 mixed with other waste codes. This suggests that the new toxicity characteristic wastes captured between 76 and 117 million tons of wastes that were not included in the 1989 Biennial Report, but were included in the 1993 report.

Hazardous waste generators are included in "The Preliminary 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 lbs) of spill cleanup material contaminated with RCRA acute hazardous waste.

[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), is not included in this report.

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 22,615 generators that identified themselves as large quantity generators, there are 13,473 generators that generated more than 13.2 tons in 1993, 7,570 that generated between 1.1 and 13.2 tons, and 1,572 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 1993, 3,792 treatment, storage, or disposal facilities (TSDs) subject to RCRA permitting standards managed 211 million tons of hazardous waste. This represents a 70 facility decrease in the number of TSDs and an 84 million ton decrease in the amount of waste managed as compared to 1991. As identified in Exhibit 2, the states managing the largest quantities of hazardous wastes were Texas (58 million tons), New York (45 million tons), Louisiana (31 million tons), and Michigan (21 million tons). Together, these states accounted for 73% of the national management total.

The majority (69.7%) of the national total was managed in aqueous treatment units. Ninety-seven (97) million tons were managed in aqueous organic treatment units, 7 million tons in aqueous inorganic treatment units, and 43 million tons in both inorganic and organic aqueous treatment units.

Land disposal accounts for 12.6% of the management total. Nationwide, 24 million tons of hazardous wastes were disposed in underground injection wells, 1.6 million tons were disposed in landfills, 275 thousand tons were managed in surface impoundments, and 159 thousand tons were managed by land treatment (land farming).

Recovery operations account for 1.6% of the national management total. Facilities reported that 858 thousand tons were managed in solvent recovery units, 1.3 million tons were managed in fuel blending units, 756 thousand tons were managed in metals recovery units, and 501 thousand tons were recovered by other methods such as acid regeneration, waste oil recovery, and non-solvent organic recovery.

Thermal treatment accounts for 1.7% of the national management total. A total of 1.8 million tons were incinerated, while facilities reused 1.8 million tons as fuel in boilers or industrial furnaces.

RCRA HAZARDOUS WASTE SHIPMENTS AND RECEIPTS

In 1993, 22,665 shippers reported shipping a total of 20 million tons of hazardous waste, of which 7 million tons were shipped interstate. The states that shipped (in or out of state) the largest quantities of wastes were Michigan (4.2 million tons), Texas (4.1 million tons), and Utah (2.4 million tons). The states that received the largest quantities of waste (from in or out of state) were Texas (1.3 million tons), California (981 thousand tons), and Ohio (846 thousand tons). The largest importers were Pennsylvania (419 thousand tons), Ohio (418 thousand tons), and Indiana (340 thousand tons). The largest exporters were Michigan (1.5 million tons), California (1.2 million tons), and Texas (318 thousand tons).

Exhibit 1 Quantity of RCRA Hazardous Waste Generated, and Number of Hazardous Waste Generators, by State, 1993

STATE	HAZARDOUS WASTE QUANTITY			HAZARDOUS WASTE GENERATORS		
	RANK	TONS GENERATED	PERCENTAGE	RANK	NUMBER OF GENERATORS	PERCENTAGE
ALABAMA	26	672,333	0.3	25	292	1.3
ALASKA	49	5,520	0.0	41	76	0.3
ARIZONA	42	46,681	0.0	26	224	1.0
ARKANSAS	24	794,801	0.3	31	162	0.7
CALIFORNIA	6	7,995,598	3.4	3	1,784	7.9
COLORADO	35	358,220	0.2	34	130	0.6
CONNECTICUT	19	1,163,083	0.5	16	438	1.9
DELAWARE	43	25,075	0.0	42	71	0.3
DISTRICT OF COLUMBIA	50	4,626	0.0	50	15	0.1
FLORIDA	25	710,483	0.3	18	412	1.8
GEORGIA	21	921,076	0.4	16	438	1.9
GUAM		NO DATA	RECEIVED	FROM	STATE	
HAWAII	29	492,494	0.2	46	40	0.2
IDAHO	18	1,255,849	0.5	43	59	0.3
ILLINOIS	5	12,492,414	5.3	6	1,237	5.5
INDIANA	14	1,751,572	0.7	10	683	3.0
IOWA	39	158,908	0.1	27	196	0.9
KANSAS	10	3,144,665	1.3	24	297	1.3
KENTUCKY	32	398,258	0.2	15	472	2.1
LOUISIANA	3	31,683,346	13.5	22	347	1.5
MAINE	12	2,418,472	1.0	33	149	0.7
MARYLAND	33	386,618	0.2	12	559	2.5
MASSACHUSETTS	40	109,716	0.0	13	527	2.3
MICHIGAN	4	21,013,620	8.9	8	778	3.4
MINNESOTA	9	5,993,221	2.5	23	300	1.3
MISSISSIPPI	13	1,882,053	0.8	30	163	0.7
MISSOURI	28	528,458	0.2	19	399	1.8
MONTANA	44	11,271	0.0	43	59	0.3
NAVAJO NATION	53	245	0.0	51	9	0.0
NEBRASKA	41	90,471	0.0	37	96	0.4
NEVADA	45	10,759	0.0	38	82	0.4
NEW HAMPSHIRE	38	175,227	0.1	32	153	0.7
NEW JERSEY	22	856,310	0.4	1	2,468	10.9
NEW MEXICO	37	176,432	0.1	43	59	0.3
NEW YORK	2	45,471,076	19.3	2	2,033	9.0
NORTH CAROLINA	31	447,718	0.2	11	623	2.8
NORTH DAKOTA	27	594,815	0.3	49	16	0.1
OHIO	15	1,726,025	0.7	4	1,518	6.7
OKLAHOMA	20	1,145,722	0.5	28	192	0.8
OREGON	16	1,392,194	0.6	29	186	0.8
PENNSYLVANIA	7	7,065,761	3.0	7	1,139	5.0
PUERTO RICO	30	480,265	0.2	35	109	0.5
RHODE ISLAND	47	8,223	0.0	40	77	0.3
SOUTH CAROLINA	36	310,367	0.1	20	387	1.7
SOUTH DAKOTA	52	767	0.0	48	24	0.1
TENNESSEE	34	369,348	0.2	14	517	2.3
TEXAS	1	66,747,138	28.3	5	1,298	5.7
TRUST TERRITORY	48	6,045	0.0	52	3	0.0
UTAH	11	2,874,915	1.2	36	107	0.5
VERMONT	46	8,337	0.0	38	82	0.4
VIRGIN ISLANDS	51	2,049	0.0	53	2	0.0
VIRGINIA	23	851,848	0.4	21	379	1.7
WASHINGTON	8	6,926,406	2.9	9	723	3.2
WEST VIRGINIA		NO DATA	RECEIVED	FROM	STATE	
WISCONSIN	54	0	0.0	54	0	0.0
WYOMING	17	1,316,689	0.6	47	26	0.1
TOTAL		235,473,584	100.0		22,615	100.0

Note: Columns may not sum due to rounding.

Exhibit 2 Quantity of RCRA Hazardous Waste Managed and Number of TSDs, by State, 1993

STATE	RCRA HAZARDOUS WASTE QUANTITY[1]			TSD FACILITIES		
	RANK	TONS MANAGED	PERCENTAGE	RANK	NUMBER	PERCENTAGE
ALABAMA	24	349,005	0.2	20	50	1.3
ALASKA	51	56	0.0	39	12	0.3
ARIZONA	39	26,359	0.0	30	27	0.7
ARKANSAS	18	804,914	0.4	34	24	0.6
CALIFORNIA	8	6,242,406	3.0	4	244	6.4
COLORADO	26	306,727	0.1	29	28	0.7
CONNECTICUT	36	75,239	0.0	18	54	1.4
DELAWARE	43	1,861	0.0	45	8	0.2
DISTRICT OF COLUMBIA	52	0	0.0	52	1	0.0
FLORIDA	31	113,159	0.1	15	72	1.9
GEORGIA	17	825,522	0.4	17	58	1.5
GUAM		NO DATA	RECEIVED	FROM	STATE	
HAWAII	47	612	0.0	48	6	0.2
IDAHO	16	935,049	0.4	43	9	0.2
ILLINOIS	5	11,349,555	5.4	7	133	3.5
INDIANA	11	1,972,197	0.9	9	103	2.7
IOWA	29	130,002	0.1	26	34	0.9
KANSAS	10	3,202,245	1.5	18	54	1.4
KENTUCKY	27	222,471	0.1	23	42	1.1
LOUISIANA	3	31,452,957	14.9	16	67	1.8
MAINE	46	911	0.0	22	45	1.2
MARYLAND	38	31,791	0.0	3	285	7.5
MASSACHUSETTS	40	9,794	0.0	30	27	0.7
MICHIGAN	4	20,516,890	9.7	8	132	3.5
MINNESOTA	9	6,015,307	2.9	20	50	1.3
MISSISSIPPI	12	1,901,716	0.9	35	22	0.6
MISSOURI	22	516,407	0.2	10	88	2.3
MONTANA	44	1,695	0.0	43	9	0.2
NAVAJO NATION	52	0	0.0	54	0	0.0
NEBRASKA	37	45,458	0.0	36	19	0.5
NEVADA	34	82,601	0.0	47	7	0.2
NEW HAMPSHIRE	41	9,354	0.0	38	13	0.3
NEW JERSEY	19	657,728	0.3	2	397	10.5
NEW MEXICO	28	165,976	0.1	37	16	0.4
NEW YORK	2	44,510,329	21.1	11	81	2.1
NORTH CAROLINA	25	336,975	0.2	14	73	1.9
NORTH DAKOTA	20	593,349	0.3	45	8	0.2
OHIO	13	1,697,197	0.8	6	136	3.6
OKLAHOMA	14	1,156,392	0.5	25	40	1.1
OREGON	21	568,633	0.3	40	11	0.3
PENNSYLVANIA	6	7,280,356	3.5	11	81	2.1
PUERTO RICO	30	122,036	0.1	23	42	1.1
RHODE ISLAND	49	126	0.0	40	11	0.3
SOUTH CAROLINA	15	1,104,523	0.5	33	25	0.7
SOUTH DAKOTA	52	0	0.0	50	3	0.1
TENNESSEE	23	424,970	0.2	28	30	0.8
TEXAS	1	57,820,904	27.5	5	233	6.1
TRUST TERRITORY	42	5,808	0.0	51	2	0.1
UTAH	32	103,546	0.0	30	27	0.7
VERMONT	45	1,120	0.0	42	10	0.3
VIRGIN ISLANDS	50	90	0.0	52	1	0.0
VIRGINIA	35	81,625	0.0	13	74	2.0
WASHINGTON	7	6,770,554	3.2	1	731	19.3
WEST VIRGINIA		NO DATA	RECEIVED	FROM	STATE	
WISCONSIN	33	94,955	0.0	27	32	0.8
WYOMING	48	520	0.0	49	5	0.1
TOTAL		210,639,971	100.0		3,792	100.0

[1]Quantity managed only by storage is excluded.

Note: Columns may not sum due to rounding.

DATA QUALITY AND COMPLETENESS

The data presented in this report have been provided by States to their respective EPA regional offices. In some cases data were also collected by EPA Regional offices. When the data were transmitted to EPA Headquarters, the state or region that collected the data provided an indication of how complete the data were for each state that was being transmitted. Exhibit 3 lists the current level of completion for each state according to one of the four categories described below.

1. State believes data submission is complete.

   State has indicated that it provided all required data for all handlers that were required to file the 1993 Biennial Report, including all LQGs and TSDs in the state. (Please note that sites claiming confidential business information have been excluded from all volumes of this report.)

2. State believes data submission is incomplete.

   State has indicated that its data omitted handlers that were required to file the 1993 Biennial Report. Data for these states will probably change when a full submission is received for the state.

3. No data received from state.

   State has not provided any data to EPA.

4. Data translation error has occurred.

   The data submitted appear to contain a systematic data error.

Exhibit 3 **Status of State data submissions, 1993**

STATE	STATUS OF STATE DATA SUBMISSION
ALABAMA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
ALASKA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
ARIZONA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
ARKANSAS	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
CALIFORNIA	STATE BELIEVES DATA SUBMISSION IS INCOMPLETE.
COLORADO	STATE BELIEVES DATA SUBMISSION IS INCOMPLETE.
CONNECTICUT	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
DELAWARE	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
DISTRICT OF COLUMBIA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
FLORIDA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
GEORGIA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
GUAM	NO DATA RECEIVED FROM STATE.
HAWAII	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
IDAHO	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
ILLINOIS	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
INDIANA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
IOWA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
KANSAS	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
KENTUCKY	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
LOUISIANA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
MAINE	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
MARYLAND	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
MASSACHUSETTS	STATE BELIEVES DATA SUBMISSION IS INCOMPLETE.
MICHIGAN	STATE BELIEVES DATA SUBMISSION IS INCOMPLETE.
MINNESOTA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
MISSISSIPPI	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
MISSOURI	STATE BELIEVES DATA SUBMISSION IS INCOMPLETE.
MONTANA	STATE BELIEVES DATA SUBMISSION IS INCOMPLETE.
NAVAJO NATION	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
NEBRASKA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
NEVADA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
NEW HAMPSHIRE	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
NEW JERSEY	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
NEW MEXICO	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
NEW YORK	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
NORTH CAROLINA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
NORTH DAKOTA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
OHIO	STATE BELIEVES DATA SUBMISSION IS INCOMPLETE.
OKLAHOMA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
OREGON	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
PENNSYLVANIA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
PUERTO RICO	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
RHODE ISLAND	STATE BELIEVES DATA SUBMISSION IS INCOMPLETE.
SOUTH CAROLINA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
SOUTH DAKOTA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
TENNESSEE	STATE BELIEVES DATA SUBMISSION IS INCOMPLETE.
TEXAS	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
TRUST TERRITORY	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
UTAH	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
VERMONT	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
VIRGIN ISLANDS	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
VIRGINIA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
WASHINGTON	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
WEST VIRGINIA	NO DATA RECEIVED FROM STATE.
WISCONSIN	DATA TRANSLATION ERROR HAS OCCURRED.
WYOMING	STATE BELIEVES DATA SUBMISSION IS COMPLETE.

National Analysis

The Preliminary Biennial RCRA Hazardous Waste Report (Based on 1993 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 1993 Biennial Reporting System (BRS) data collection efforts to the public, government agencies, and the regulated community,[2] as well as to allow an assessment of the quality and completeness of the data submissions on which the report is based. (For further discussion of data quality and completeness see Appendix C.)

1.0 WASTE GENERATION

This section presents a series of exhibits describing RCRA hazardous waste generation in 1993. Nationwide, 22,615 large quantity generators (LQGs) produced 235 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 managed only in units 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 number of LQGs in each EPA region in 1993. Region 6 generated 101 million tons,

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

[2]While BRS respondents have submitted confidential business information (CBI) pursuant to 40 CFR 260.2(b), none of these data have been included in this preliminary report.

[3]2,000 pounds.

[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, 1993**

EPA REGION	HAZARDOUS WASTE QUANTITY		LARGE QUANTITY GENERATORS	
	TONS GENERATED	PERCENTAGE	NUMBER	PERCENTAGE
1	3,883,058	1.6	1,426	6.3
2	46,809,701	19.9	4,612	20.4
3	8,333,928	3.5	2,163	9.6
4	5,711,636	2.4	3,304	14.6
5	42,976,851	18.3	4,516	20.0
6	100,547,440	42.7	2,058	9.1
7	3,922,502	1.7	988	4.4
8	5,156,677	2.2	362	1.6
9	8,551,822	3.6	2,142	9.5
10	9,579,969	4.1	1,044	4.6
TOTAL	235,473,584	100.0	22,615	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, 1993**

EPA REGION	HAZARDOUS WASTE QUANTITY		LARGE QUANTITY GENERATORS	
	TONS GENERATED	PERCENTAGE	NUMBER	PERCENTAGE
6	100,547,440	42.7	2,058	9.1
2	46,809,701	19.9	4,612	20.4
5	42,976,851	18.3	4,516	20.0
10	9,579,969	4.1	1,044	4.6
9	8,551,822	3.6	2,142	9.5
3	8,333,928	3.5	2,163	9.6
4	5,711,636	2.4	3,304	14.6
8	5,156,677	2.2	362	1.6
7	3,922,502	1.7	988	4.4
1	3,883,058	1.6	1,426	6.3
TOTAL	235,473,584	100.0	22,615	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, 1993**

EPA REGION	LARGE QUANTITY GENERATORS		HAZARDOUS WASTE QUANTITY	
	NUMBER	PERCENTAGE	TONS GENERATED	PERCENTAGE
2	4,612	20.4	46,809,701	19.9
5	4,516	20.0	42,976,851	18.3
4	3,304	14.6	5,711,636	2.4
3	2,163	9.6	8,333,928	3.5
9	2,142	9.5	8,551,822	3.6
6	2,058	9.1	100,547,440	42.7
1	1,426	6.3	3,883,058	1.6
10	1,044	4.6	9,579,969	4.1
7	988	4.4	3,922,502	1.7
8	362	1.6	5,156,677	2.2
TOTAL	22,615	100.0	235,473,584	100.0

Note: Columns may not sum due to rounding.

Region 2 generated 47 million tons, and Region 5 generated 43 million tons. As shown in Exhibits 1.4, 1.5, and 1.6, the largest hazardous waste generating states were Texas (67 million tons), New York (45 million tons), Louisiana (32 million tons) and Michigan (21 million tons). Together, these states account for 70% of the national total.

Exhibits 1.1 - 1.6 also present the number of large quantity generators in each of the states and regions. Overall, 22,615 facilities identified themselves as large quantity generators (LQGs)[5] in 1993. The EPA regions with the largest numbers of LQGs were Region 2 (4,612), Region 5 (4,516), and Region 4 (3,304). These regions account for 55% of the total number of LQGs. The states with the most LQGs were New Jersey (2,468), New York (2,033), and California (1,784). The largest 50 generators, which are listed in Exhibit 1.7, account for 81% of the waste generated in the country.

[5] EPA lists all reported large quantity generators in the "The Preliminary Biennial RCRA Hazardous Waste Report: List of Large Quantity Generators in the United States."

Exhibit 1.4 **Quantity of RCRA Hazardous Waste Generated, and Number of Hazardous Waste Generators, by State, 1993**

STATE	HAZARDOUS WASTE QUANTITY			HAZARDOUS WASTE GENERATORS		
	RANK	TONS GENERATED	PERCENTAGE	RANK	NUMBER OF GENERATORS	PERCENTAGE
ALABAMA	26	672,333	0.3	25	292	1.3
ALASKA	49	5,520	0.0	41	76	0.3
ARIZONA	42	46,681	0.0	26	224	1.0
ARKANSAS	24	794,801	0.3	31	162	0.7
CALIFORNIA	6	7,995,598	3.4	3	1,784	7.9
COLORADO	35	358,220	0.2	34	130	0.6
CONNECTICUT	19	1,163,083	0.5	16	438	1.9
DELAWARE	43	25,075	0.0	42	71	0.3
DISTRICT OF COLUMBIA	50	4,626	0.0	50	15	0.1
FLORIDA	25	710,483	0.3	18	412	1.8
GEORGIA	21	921,076	0.4	16	438	1.9
GUAM		NO DATA	RECEIVED	FROM	STATE	
HAWAII	29	492,494	0.2	46	40	0.2
IDAHO	18	1,255,849	0.5	43	59	0.3
ILLINOIS	5	12,492,414	5.3	6	1,237	5.5
INDIANA	14	1,751,572	0.7	10	683	3.0
IOWA	39	158,908	0.1	27	196	0.9
KANSAS	10	3,144,665	1.3	24	297	1.3
KENTUCKY	32	398,258	0.2	15	472	2.1
LOUISIANA	3	31,683,346	13.5	22	347	1.5
MAINE	12	2,418,472	1.0	33	149	0.7
MARYLAND	33	386,618	0.2	12	559	2.5
MASSACHUSETTS	40	109,716	0.0	13	527	2.3
MICHIGAN	4	21,013,620	8.9	8	778	3.4
MINNESOTA	9	5,993,221	2.5	23	300	1.3
MISSISSIPPI	13	1,882,053	0.8	30	163	0.7
MISSOURI	28	528,458	0.2	19	399	1.8
MONTANA	44	11,271	0.0	43	59	0.3
NAVAJO NATION	53	245	0.0	51	9	0.0
NEBRASKA	41	90,471	0.0	37	96	0.4
NEVADA	45	10,759	0.0	38	82	0.4
NEW HAMPSHIRE	38	175,227	0.1	32	153	0.7
NEW JERSEY	22	856,310	0.4	1	2,468	10.9
NEW MEXICO	37	176,432	0.1	43	59	0.3
NEW YORK	2	45,471,076	19.3	2	2,033	9.0
NORTH CAROLINA	31	447,718	0.2	11	623	2.8
NORTH DAKOTA	27	594,815	0.3	49	16	0.1
OHIO	15	1,726,025	0.7	4	1,518	6.7
OKLAHOMA	20	1,145,722	0.5	28	192	0.8
OREGON	16	1,392,194	0.6	29	186	0.8
PENNSYLVANIA	7	7,065,761	3.0	7	1,139	5.0
PUERTO RICO	30	480,265	0.2	35	109	0.5
RHODE ISLAND	47	8,223	0.0	40	77	0.3
SOUTH CAROLINA	36	310,367	0.1	20	387	1.7
SOUTH DAKOTA	52	767	0.0	48	24	0.1
TENNESSEE	34	369,348	0.2	14	517	2.3
TEXAS	1	66,747,138	28.3	5	1,298	5.7
TRUST TERRITORY	48	6,045	0.0	52	3	0.0
UTAH	11	2,874,915	1.2	36	107	0.5
VERMONT	46	8,337	0.0	38	82	0.4
VIRGIN ISLANDS	51	2,049	0.0	53	2	0.0
VIRGINIA	23	851,848	0.4	21	379	1.7
WASHINGTON	8	6,926,406	2.9	9	723	3.2
WEST VIRGINIA		NO DATA	RECEIVED	FROM	STATE	
WISCONSIN	54	0	0.0	54	0	0.0
WYOMING	17	1,316,689	0.6	47	26	0.1
TOTAL		235,473,584	100.0		22,615	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, 1993**

STATE	HAZARDOUS WASTE QUANTITY			HAZARDOUS WASTE GENERATORS		
	RANK	TONS GENERATED	PERCENTAGE	RANK	NUMBER OF GENERATORS	PERCENTAGE
TEXAS	1	66,747,138	28.3	5	1,298	5.7
NEW YORK	2	45,471,076	19.3	2	2,033	9.0
LOUISIANA	3	31,683,346	13.5	22	347	1.5
MICHIGAN	4	21,013,620	8.9	8	778	3.4
ILLINOIS	5	12,492,414	5.3	6	1,237	5.5
CALIFORNIA	6	7,995,598	3.4	3	1,784	7.9
PENNSYLVANIA	7	7,065,761	3.0	7	1,139	5.0
WASHINGTON	8	6,926,406	2.9	9	723	3.2
MINNESOTA	9	5,993,221	2.5	23	300	1.3
KANSAS	10	3,144,665	1.3	24	297	1.3
UTAH	11	2,874,915	1.2	36	107	0.5
MAINE	12	2,418,472	1.0	33	149	0.7
MISSISSIPPI	13	1,882,053	0.8	30	163	0.7
INDIANA	14	1,751,572	0.7	10	683	3.0
OHIO	15	1,726,025	0.7	4	1,518	6.7
OREGON	16	1,392,194	0.6	29	186	0.8
WYOMING	17	1,316,689	0.6	47	26	0.1
IDAHO	18	1,255,849	0.5	43	59	0.3
CONNECTICUT	19	1,163,083	0.5	16	438	1.9
OKLAHOMA	20	1,145,722	0.5	28	192	0.8
GEORGIA	21	921,076	0.4	16	438	1.9
NEW JERSEY	22	856,310	0.4	1	2,468	10.9
VIRGINIA	23	851,848	0.4	21	379	1.7
ARKANSAS	24	794,801	0.3	31	162	0.7
FLORIDA	25	710,483	0.3	18	412	1.8
ALABAMA	26	672,333	0.3	25	292	1.3
NORTH DAKOTA	27	594,815	0.3	49	16	0.1
MISSOURI	28	528,458	0.2	19	399	1.8
HAWAII	29	492,494	0.2	46	40	0.2
PUERTO RICO	30	480,265	0.2	35	109	0.5
NORTH CAROLINA	31	447,718	0.2	11	623	2.8
KENTUCKY	32	398,258	0.2	15	472	2.1
MARYLAND	33	386,618	0.2	12	559	2.5
TENNESSEE	34	369,348	0.2	14	517	2.3
COLORADO	35	358,220	0.2	34	130	0.6
SOUTH CAROLINA	36	310,367	0.1	20	387	1.7
NEW MEXICO	37	176,432	0.1	43	59	0.3
NEW HAMPSHIRE	38	175,227	0.1	32	153	0.7
IOWA	39	158,908	0.1	27	196	0.9
MASSACHUSETTS	40	109,716	0.0	13	527	2.3
NEBRASKA	41	90,471	0.0	37	96	0.4
ARIZONA	42	46,681	0.0	26	224	1.0
DELAWARE	43	25,075	0.0	42	71	0.3
MONTANA	44	11,271	0.0	43	59	0.3
NEVADA	45	10,759	0.0	38	82	0.4
VERMONT	46	8,337	0.0	38	82	0.4
RHODE ISLAND	47	8,223	0.0	40	77	0.3
TRUST TERRITORY	48	6,045	0.0	52	3	0.0
ALASKA	49	5,520	0.0	41	76	0.3
DISTRICT OF COLUMBIA	50	4,626	0.0	50	15	0.1
VIRGIN ISLANDS	51	2,049	0.0	53	2	0.0
SOUTH DAKOTA	52	767	0.0	48	24	0.1
NAVAJO NATION	53	245	0.0	51	9	0.0
WISCONSIN	54	0	0.0	54	0	0.0
GUAM		NO DATA	RECEIVED	FROM	STATE	
WEST VIRGINIA		NO DATA	RECEIVED	FROM	STATE	
TOTAL		235,473,584	100.0		22,615	100.0

Note: Column 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, 1993**

STATE	HAZARDOUS WASTE GENERATORS			HAZARDOUS WASTE QUANTITY		
	RANK	NUMBER OF GENERATORS	PERCENTAGE	RANK	TONS GENERATED	PERCENTAGE
NEW JERSEY	1	2,468	10.9	22	856,310	0.4
NEW YORK	2	2,033	9.0	2	45,471,076	19.3
CALIFORNIA	3	1,784	7.9	6	7,995,598	3.4
OHIO	4	1,518	6.7	15	1,726,025	0.7
TEXAS	5	1,298	5.7	1	66,747,138	28.3
ILLINOIS	6	1,237	5.5	5	12,492,414	5.3
PENNSYLVANIA	7	1,139	5.0	7	7,065,761	3.0
MICHIGAN	8	778	3.4	4	21,013,620	8.9
WASHINGTON	9	723	3.2	8	6,926,406	2.9
INDIANA	10	683	3.0	14	1,751,572	0.7
NORTH CAROLINA	11	623	2.8	31	447,718	0.2
MARYLAND	12	559	2.5	33	386,618	0.2
MASSACHUSETTS	13	527	2.3	40	109,716	0.0
TENNESSEE	14	517	2.3	34	369,348	0.2
KENTUCKY	15	472	2.1	32	398,258	0.2
CONNECTICUT	16	438	1.9	19	1,183,083	0.5
GEORGIA	16	438	1.9	21	921,076	0.4
FLORIDA	18	412	1.8	25	710,483	0.3
MISSOURI	19	399	1.8	28	528,458	0.2
SOUTH CAROLINA	20	387	1.7	36	310,367	0.1
VIRGINIA	21	379	1.7	23	851,848	0.4
LOUISIANA	22	347	1.5	3	31,683,346	13.5
MINNESOTA	23	300	1.3	9	5,993,221	2.5
KANSAS	24	297	1.3	10	3,144,665	1.3
ALABAMA	25	292	1.3	26	672,333	0.3
ARIZONA	26	224	1.0	42	46,681	0.0
IOWA	27	196	0.9	39	158,908	0.1
OKLAHOMA	28	192	0.8	20	1,145,722	0.5
OREGON	29	186	0.8	16	1,392,194	0.6
MISSISSIPPI	30	163	0.7	13	1,882,053	0.8
ARKANSAS	31	162	0.7	24	794,801	0.3
NEW HAMPSHIRE	32	153	0.7	38	175,227	0.1
MAINE	33	149	0.7	12	2,418,472	1.0
COLORADO	34	130	0.6	35	358,220	0.2
PUERTO RICO	35	109	0.5	30	480,265	0.2
UTAH	36	107	0.5	11	2,874,915	1.2
NEBRASKA	37	96	0.4	41	90,471	0.0
NEVADA	38	82	0.4	45	10,759	0.0
VERMONT	38	82	0.4	46	8,337	0.0
RHODE ISLAND	40	77	0.3	47	8,223	0.0
ALASKA	41	76	0.3	49	5,520	0.0
DELAWARE	42	71	0.3	43	25,075	0.0
IDAHO	43	59	0.3	18	1,255,849	0.5
MONTANA	43	59	0.3	44	11,271	0.0
NEW MEXICO	43	59	0.3	37	176,432	0.1
HAWAII	46	40	0.2	29	492,494	0.2
WYOMING	47	26	0.1	17	1,316,689	0.6
SOUTH DAKOTA	48	24	0.1	52	767	0.0
NORTH DAKOTA	49	16	0.1	27	594,815	0.3
DISTRICT OF COLUMBIA	50	15	0.1	50	4,626	0.0
NAVAJO NATION	51	9	0.0	53	245	0.0
TRUST TERRITORY	52	3	0.0	48	6,045	0.0
VIRGIN ISLANDS	53	2	0.0	51	2,049	0.0
WISCONSIN	54	0	0.0	54	0	0.0
GUAM		NO DATA	RECEIVED	FROM	STATE	
WEST VIRGINIA		NO DATA	RECEIVED	FROM	STATE	
TOTAL		22,615	100.0		235,473,584	100.0

Note: Column may not sum due to rounding.

Exhibit 1.7 Fifty Largest RCRA Hazardous Waste Generators in the U.S., 1993

RANK	EPA ID	NAME	CITY	TONS GENERATED
1	NYD980592497	EASTMAN KODAK COMPANY	ROCHESTER, NY	43,028,933
2	MID000724724	DOW CHEMICAL COMPANY, MIDLAND PLANT SITE	MIDLAND, MI	15,990,731
3	LAD008080350	CITGO PETROLEUM CORP	LAKE CHARLES, LA	14,212,972
4	ILD080012305	SHELL OIL CO	ROXANA, IL	10,067,210
5	TXD048210645	SWEENY REFINERY & PETROCHEMICAL	OLD OCEAN, TX	7,011,407
6	TXD980626774	PHILLIPS 66 CO., BORGER COMPLEX REF/NGL	BORGER, TX	6,445,848
7	TXD050309012	AMOCO CHEMICAL COMPANY - CHOCOLATE BAYOU	ALVIN, TX	5,288,075
8	LAD056024391	BP OIL COMPANY-ALLIANCE REFINERY	BELLE CHASSE, LA	4,970,936
9	PAD071612683	BP OIL COMPANY - MARCUS HOOK REFINERY	MARCUS HOOK, PA	4,806,979
10	TXD065099160	FINA OIL AND CHEMICAL CO.	PORT ARTHUR, TX	4,367,410
11	TXD008123317	VICTORIA PLANT DU PONT DE NEMOURS & CO	VICTORIA, TX	3,999,721
12	WAD009275082	SHELL OIL COMPANY	ANACORTES, WA	3,800,519
13	LAD041581422	UNION CARBIDE C & P CO INC - TAFT PLANT	TAFT, LA	3,589,670
14	TXD000792937	HILL PETROLEUM CO	TEXAS CITY, TX	3,520,767
15	LAD008175390	CYTEC INDUSTRIES INC - FORTIER PLANT	WAGGAMAN, LA	3,509,819
16	MND006162820	ASHLAND PETROLEUM CO	ST. PAUL PARK, MN	3,423,107
17	TXD001700806	MONSANTO COMPANY - CHOCOLATE BAYOU	ALVIN, TX	3,365,531
18	TXD008091290	CROWN CENTRAL PETROLEUM CORP.	PASADENA, TX	3,137,360
19	TXD083472266	ARCO CHEMICAL- CHANNELVIEW	CHANNELVIEW, TX	2,757,137
20	MND006172969	3M COTTAGE GROVE (CHEMOLITE)	COTTAGE GROVE,MN	2,498,891
21	MED980671796	JAMES RIVER PAPER CO	OLD TOWN, ME	2,394,799
22	TXD008080533	AMOCO OIL COMPANY	TEXAS CITY, TX	2,363,959
23	UTD000826446	KENNECOTT UTAH COPPER - SMELTER	MAGNA, UT	2,209,270
24	TXD078432457	HOECHST CELANESE CHEMICAL GROUP, INC	PASADENA, TX	2,071,521
25	TXD058275769	LYONDELL PETROCHEMICAL COMPANY	CHANNELVIEW, TX	1,901,763
26	TXD000017756	DOW CHEMICAL COMPANY/LA PORTE SITE	LA PORTE, TX	1,879,166
27	TXD065096273	ROHM AND HAAS TEXAS INCORPORATED	DEER PARK, TX	1,756,870
28	KSD087418695	TOTAL PETROLEUM INCORPORATED	ARKANSAS CITY, KS	1,705,744
29	TXD980625966	EXXON CHEMICAL CO. BAYTOWN OLEFINS PLANT	BAYTOWN, TX	1,645,997
30	CAD041472986	NATIONAL SEMICONDUCTOR CORP	SANTA CLARA, CA	1,469,084
31	TXD008081101	E.I. DU PONT DE NEMOURS & CO., INC.	NEDERLAND, TX	1,422,701
32	CAT080029465	ELECTRON PLATING	GARDEN GROVE, CA	1,400,000
33	LAD008213191	RUBICON INC	GEISMAR, LA	1,378,280
34	MID005339460	CADON PLATING COMPANY	WYANDOTTE, MI	1,360,000
35	WYD079959185	SINCLAIR OIL CORP	SINCLAIR, WY	1,315,312
36	TXD005942438	AMOCO CHEMICAL COMPANY - PLANT B SITE	TEXAS CITY, TX	1,268,907
37	KSD007482029	VULCAN MATERIALS COMPANY	WICHITA, KS	1,215,917
38	WAD041337130	FABRICATION DIVISION AUBURN SITE	AUBURN, WA	1,215,396
39	TXD988064564	SONY MICROELECTRONICS	SAN ANTONIO, TX	1,201,432
40	TXD008079642	DU PONT DE NEMOURS & CO., E.I.	ORANGE, TX	1,070,717
41	LAD008187080	DOW CHEMICAL COMPANY	PLAQUEMINE, LA	1,024,489
42	CTD990672081	PRATT & WHITNEY AIRCRAFT GROUP MD&CPD	EAST HARTFORD, CT	968,070
43	MSD096046792	E.I. DUPONT DE NEMOURS & CO.	PASS CHRISTIAN, MS	939,723
44	MID005356795	GM - WILLOW RUN ASSEMBLY	YPSILANTI, MI	887,882
45	MID005358130	TOTAL PETROLEUM, INC., ALMA REFINERY	ALMA, MI	884,963
46	TXD000836486	GREENS BAYOU PLANT	HOUSTON, TX	875,047
47	CAD008371379	NORRIS PLUMBING FIXTURES	WALNUT, CA	870,912
48	OKD000829440	ZINC CORPORATION OF AMERICA	BARTLESVILLE, OK	858,931
49	ORD060591963	INTEL CORPORATION ALOHA CAMPUS	ALOHA, OR	834,175
50	OHD042157644	BP CHEMICALS INC	LIMA, OH	798,180
		TOTAL		190,982,227

Note:

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

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.

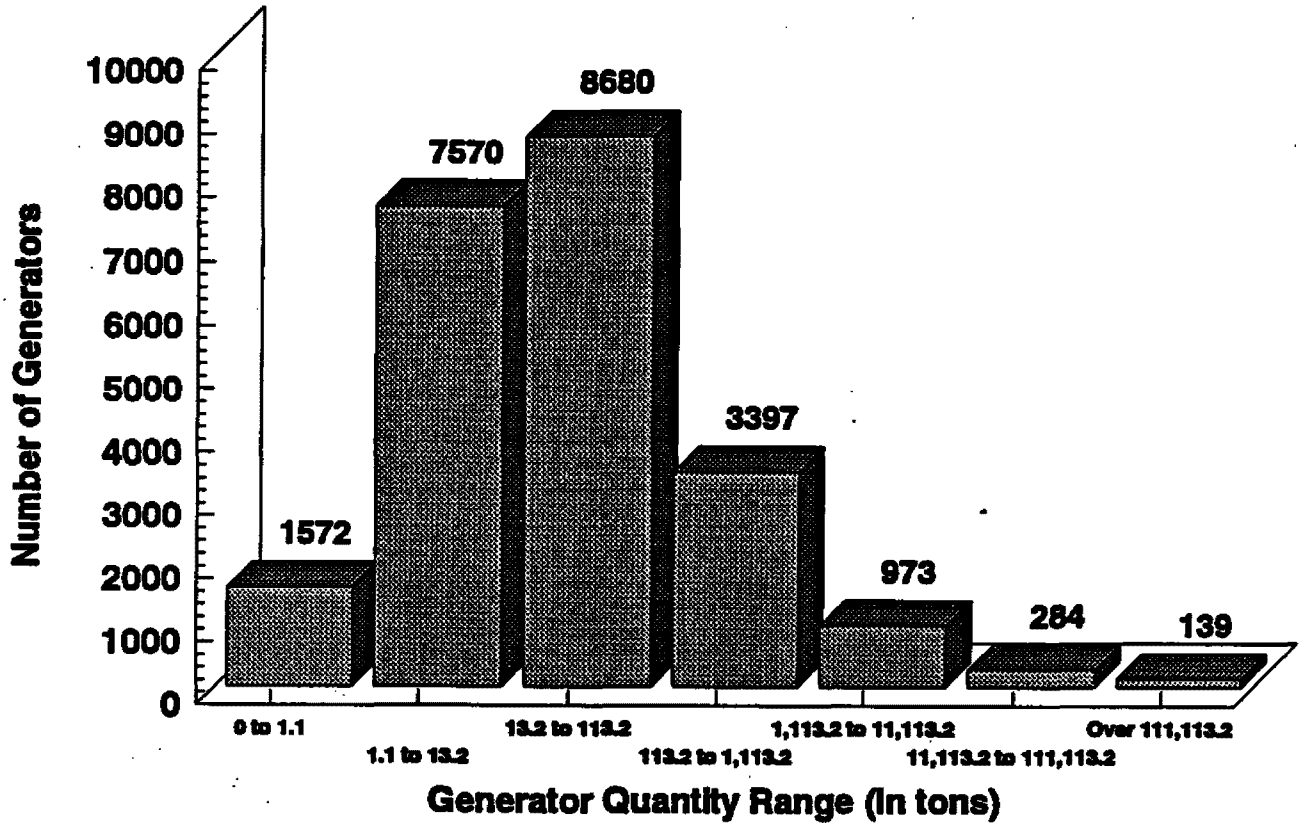
According to these criteria, a generator that reports more than 13.2 tons (12 months x 1.1 tons) of annual hazardous waste generation must be a large quantity generator, because the generator must have generated at least 1.1 tons in at least one month. A generator that reports less than 13.2 tons in 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 13,473 generators that generated more than 13.2 tons in 1993, 7,570 that generated between 1.1 and 13.2 tons, and 1,572 that generated less than 1.1 tons. Most large quantity generators (8,680) 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 7,570 generators. Together, these two ranges account for 72% 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 - D043).

[6]Code of Federal Regulations.

Exhibit 1.8 **Most Large Quantity Generators Generate Between 1.1 and 113.2 Tons of Waste, 1993**



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 D004-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, 1.10, and 1.11 show the portions of the national generation total of 235 million tons that were characteristic, listed, or a mixture of characteristic and listed wastes. Characteristic wastes account for 60% (140 million tons) of the national total, listed wastes account for 8% (20 million tons), and mixtures of the two account for 32% (76 million tons). These percentages are similar to those in 1991.

While it is too early to make any confident estimates in this preliminary report of overall changes from 1991, it is important to note changes with respect to the wastes that were newly regulated by the Toxicity Characteristic (TC) Rule promulgated in 1990. As shown in Exhibit 1.10, 76 million tons of waste were identified by these 25 new waste codes (D018 - D043), indicating that, at a minimum, the TC Rule captured 76 million tons of wastes that were not regulated prior to 1991. Exhibit 1.11 shows that an additional 15 million tons of waste were described with D018-D043 and other characteristic codes. Another 26 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 117 million tons may have been captured by new toxicity characteristic waste listings. This compares to 162 million in 1991.

In conclusion, the amount of hazardous waste generated in 1993 was between 119 and 159 million tons without these newly regulated TC wastes. This compares to a total of 198 million tons generated in 1989. The overall total has dropped from a total of 306 million tons in 1991 to 235 million tons in 1993.

Exhibit 1.9 **Percentages of National Generation Total that were Characteristic, Listed, or Both Characteristic and Listed Waste, 1993**

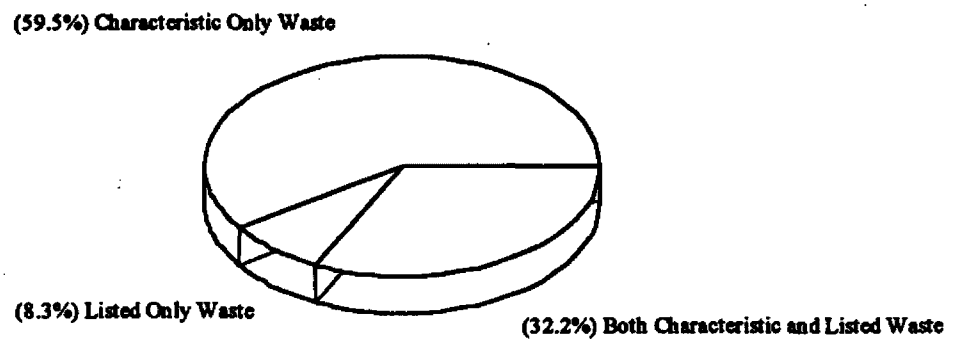


Exhibit 1.10 **Tons of Generated Waste that were Only Characteristic Waste, Only Listed Waste, or Both Characteristic and Listed Waste, 1993**

ONLY CHARACTERISTIC WASTES		ONLY LISTED WASTES		BOTH A CHARACTERISTIC AND A LISTED WASTE	
ONLY IGNITABLE	847,595	ONLY F WASTES	10,027,497		
ONLY CORROSIVE	27,309,354	ONLY K WASTES	3,195,946		
ONLY REACTIVE	2,271,886	ONLY P WASTES	20,597		
ONLY D004-17(TOXIC)	10,795,355	ONLY U WASTES	199,432		
ONLY D018-43(TOXIC)	76,029,376				
WASTES WITH MULTIPLE CHARACTERISTICS	22,858,137	WASTES MULTIPLY LISTED	6,068,001		
TOTAL	140,111,704	TOTAL	19,511,474	TOTAL	75,842,158

Note: All quantities are in tons.

Exhibit 1.11 **Tons of Generated Wastes with Multiple Characteristics, that were Multiply Listed, or Both, 1993**

ONLY CHARACTERISTIC WASTES BUT WITH MULTIPLE CHARACTERISTICS		ONLY LISTED WASTES BUT MULTIPLY LISTED		BOTH CHARACTERISTIC AND LISTED WASTES[1]	
IGNITABLE	7,513,646			ANY LISTED WASTE ALSO IGNITABLE	12,875,324
CORROSIVE	20,037,160			ANY LISTED WASTE ALSO CORROSIVE	17,834,834
REACTIVE	8,943,983			ANY LISTED WASTE ALSO REACTIVE	12,648,499
D004-17 (TOXIC)	9,362,256			ANY LISTED WASTE ALSO D004-17(TOXIC)	59,762,004
D018-43 (TOXIC)	15,046,609			ANY LISTED WASTE ALSO D018-43(TOXIC)	25,527,509
		F WASTES	3,890,774	F WASTES WITH ANY CHARACTERISTIC	66,863,608
		K WASTES	3,362,514	K WASTES WITH ANY CHARACTERISTIC	23,303,165
		P WASTES	2,906,427	P WASTES WITH ANY CHARACTERISTIC	45,435,330
		U WASTES	5,205,876	U WASTES WITH ANY CHARACTERISTIC	46,545,974
TOTAL[2]	22,858,137	TOTAL	6,068,001	TOTAL	75,842,158

[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 1993. 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 3,792 facilities reported that they managed hazardous waste in TSD units subject to RCRA permitting standards. This represents a 70 facility decrease in the number of TSDs from 1991. These facilities treated or disposed of 211 million tons of hazardous waste. This represents an 84 million ton decrease from 1991 quantities.

Region 6 managed the largest amount of waste (91 million tons, or 43%), while ranking 5th in the number of TSDs (380). Region 10 had the highest number of TSDs (763) and ranked 4th in the amount of waste managed (8.3 million tons, or 4%). Region 8 had the smallest number of TSDs (80) and Region 1 managed the least waste (97 thousand tons).

Exhibit 2.1 **Number and Percentage of RCRA TSD Facilities and RCRA Hazardous Waste Quantity Managed, by EPA Region, 1993**

EPA REGION	HAZARDOUS WASTE QUANTITY[1]		TSD FACILITIES	
	TONS MANAGED	PERCENTAGE	NUMBER	PERCENTAGE
1	96,543	0.0	160	4.2
2	45,290,184	21.5	521	13.7
3	7,395,633	3.5	449	11.8
4	5,278,341	2.5	372	9.8
5	41,646,102	19.8	586	15.5
6	91,401,142	43.4	380	10.0
7	3,894,112	1.8	195	5.1
8	1,005,837	0.5	80	2.1
9	6,357,787	3.0	286	7.5
10	8,274,292	3.9	763	20.1
TOTAL	210,639,971	100.0	3,792	100.0

Exhibit 2.2 **Number and Percentage of RCRA TSD Facilities and RCRA Hazardous Waste Quantity Managed, by Management Quantity, 1993**

EPA REGION	HAZARDOUS WASTE QUANTITY[1]		TSD FACILITIES	
	TONS MANAGED	PERCENTAGE	NUMBER	PERCENTAGE
6	91,401,142	43.4	380	10.0
2	45,290,184	21.5	521	13.7
5	41,646,102	19.8	586	15.5
10	8,274,292	3.9	763	20.1
3	7,395,633	3.5	449	11.8
9	6,357,787	3.0	286	7.5
4	5,278,341	2.5	372	9.8
7	3,894,112	1.8	195	5.1
8	1,005,837	0.5	80	2.1
1	96,543	0.0	160	4.2
TOTAL	210,639,971	100.0	3,792	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, 1993**

EPA REGION	TSD FACILITIES		HAZARDOUS WASTE QUANTITY[1]	
	NUMBER	PERCENTAGE	TONS MANAGED	PERCENTAGE
10	763	20.1	8,274,292	3.9
5	586	15.5	41,646,102	19.8
2	521	13.7	45,290,184	21.5
3	449	11.8	7,395,633	3.5
6	380	10.0	91,401,142	43.4
4	372	9.8	5,278,341	2.5
9	286	7.5	6,357,787	3.0
7	195	5.1	3,894,112	1.8
1	160	4.2	96,543	0.0
8	80	2.1	1,005,837	0.5
TOTAL	3,792	100.0	210,639,971	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 (58 million tons), followed by New York (45 million tons), Louisiana (31 million tons), and Michigan (21 million tons). Washington reported the most TSDs (731), followed by New Jersey (397), Maryland (285), and California (244). There were no facilities in the District of Columbia and South Dakota that reported treating or disposing waste in units subject to RCRA permitting standards, although these states did have facilities that reported operating permitted storage facilities. There were no facilities in the Navajo Nation that reported treating, disposing, or storing waste in units subject to RCRA permitting standards.

Exhibit 2.7 presents the 50 largest hazardous waste management facilities in the United States. Together, these TSDs accounted for more than 87% of the national management total. The Eastman Kodak Company in Rochester, NY was the largest TSD, managing 43 million tons of waste, followed by Dow Chemical Company, Midland Plant Site in Midland, Michigan, and Citgo Petroleum Corp in Lake Charles, LA. A total of 20 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 93% 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 RCRA TSD Facilities, by State, 1993**

STATE	RCRA HAZARDOUS WASTE QUANTITY[1]			TSD FACILITIES		
	RANK	TONS MANAGED	PERCENTAGE	RANK	NUMBER	PERCENTAGE
ALABAMA	24	349,005	0.2	20	50	1.3
ALASKA	51	56	0.0	39	12	0.3
ARIZONA	39	26,359	0.0	30	27	0.7
ARKANSAS	18	804,914	0.4	34	24	0.6
CALIFORNIA	8	6,242,406	3.0	4	244	6.4
COLORADO	26	306,727	0.1	29	28	0.7
CONNECTICUT	36	75,239	0.0	18	54	1.4
DELAWARE	43	1,861	0.0	45	8	0.2
DISTRICT OF COLUMBIA	52	0	0.0	52	1	0.0
FLORIDA	31	113,159	0.1	15	72	1.9
GEORGIA	17	825,522	0.4	17	58	1.5
GUAM		NO DATA	RECEIVED	FROM	STATE	
HAWAII	47	612	0.0	48	6	0.2
IDAHO	16	935,049	0.4	43	9	0.2
ILLINOIS	5	11,349,555	5.4	7	133	3.5
INDIANA	11	1,972,197	0.9	9	103	2.7
IOWA	29	130,002	0.1	26	34	0.9
KANSAS	10	3,202,245	1.5	18	54	1.4
KENTUCKY	27	222,471	0.1	23	42	1.1
LOUISIANA	3	31,452,957	14.9	16	67	1.8
MAINE	46	911	0.0	22	45	1.2
MARYLAND	38	31,791	0.0	3	285	7.5
MASSACHUSETTS	40	9,794	0.0	30	27	0.7
MICHIGAN	4	20,516,890	9.7	8	132	3.5
MINNESOTA	9	6,015,307	2.9	20	50	1.3
MISSISSIPPI	12	1,901,716	0.9	35	22	0.6
MISSOURI	22	516,407	0.2	10	88	2.3
MONTANA	44	1,695	0.0	43	9	0.2
NAVAJO NATION	52	0	0.0	54	0	0.0
NEBRASKA	37	45,458	0.0	36	19	0.5
NEVADA	34	82,601	0.0	47	7	0.2
NEW HAMPSHIRE	41	9,354	0.0	38	13	0.3
NEW JERSEY	19	657,728	0.3	2	397	10.5
NEW MEXICO	28	165,976	0.1	37	16	0.4
NEW YORK	2	44,510,329	21.1	11	81	2.1
NORTH CAROLINA	25	336,975	0.2	14	73	1.9
NORTH DAKOTA	20	593,349	0.3	45	8	0.2
OHIO	13	1,697,197	0.8	6	136	3.6
OKLAHOMA	14	1,156,392	0.5	25	40	1.1
OREGON	21	568,633	0.3	40	11	0.3
PENNSYLVANIA	6	7,280,356	3.5	11	81	2.1
PUERTO RICO	30	122,036	0.1	23	42	1.1
RHODE ISLAND	49	126	0.0	40	11	0.3
SOUTH CAROLINA	15	1,104,523	0.5	33	25	0.7
SOUTH DAKOTA	52	0	0.0	50	3	0.1
TENNESSEE	23	424,970	0.2	28	30	0.8
TEXAS	1	57,820,904	27.5	5	233	6.1
TRUST TERRITORY	42	5,808	0.0	51	2	0.1
UTAH	32	103,546	0.0	30	27	0.7
VERMONT	45	1,120	0.0	42	10	0.3
VIRGIN ISLANDS	50	90	0.0	52	1	0.0
VIRGINIA	35	81,625	0.0	13	74	2.0
WASHINGTON	7	6,770,554	3.2	1	731	19.3
WEST VIRGINIA		NO DATA	RECEIVED	FROM	STATE	
WISCONSIN	33	94,955	0.0	27	32	0.8
WYOMING	48	520	0.0	49	5	0.1
TOTAL		210,639,971	100.0		3,792	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 RCRA TSD Facilities, 1993**

STATE	RCRA HAZARDOUS WASTE QUANTITY[1]			TSD FACILITIES		
	RANK	TONS MANAGED	PERCENTAGE	RANK	NUMBER	PERCENTAGE
TEXAS	1	57,820,904	27.5	5	233	6.1
NEW YORK	2	44,510,329	21.1	11	81	2.1
LOUISIANA	3	31,452,957	14.9	16	67	1.8
MICHIGAN	4	20,516,890	9.7	8	132	3.5
ILLINOIS	5	11,349,555	5.4	7	133	3.5
PENNSYLVANIA	6	7,280,356	3.5	11	81	2.1
WASHINGTON	7	6,770,554	3.2	1	731	19.3
CALIFORNIA	8	6,242,406	3.0	4	244	6.4
MINNESOTA	9	6,015,307	2.9	20	50	1.3
KANSAS	10	3,202,245	1.5	18	54	1.4
INDIANA	11	1,972,197	0.9	9	103	2.7
MISSISSIPPI	12	1,901,716	0.9	35	22	0.6
OHIO	13	1,697,197	0.8	6	136	3.6
OKLAHOMA	14	1,156,392	0.5	25	40	1.1
SOUTH CAROLINA	15	1,104,523	0.5	33	25	0.7
IDAHO	16	935,049	0.4	43	9	0.2
GEORGIA	17	825,522	0.4	17	58	1.5
ARKANSAS	18	804,914	0.4	34	24	0.6
NEW JERSEY	19	657,728	0.3	2	397	10.5
NORTH DAKOTA	20	593,349	0.3	45	8	0.2
OREGON	21	568,633	0.3	40	11	0.3
MISSOURI	22	516,407	0.2	10	88	2.3
TENNESSEE	23	424,970	0.2	28	30	0.8
ALABAMA	24	349,005	0.2	20	50	1.3
NORTH CAROLINA	25	336,975	0.2	14	73	1.9
COLORADO	26	306,727	0.1	29	28	0.7
KENTUCKY	27	222,471	0.1	23	42	1.1
NEW MEXICO	28	165,976	0.1	37	16	0.4
IOWA	29	130,002	0.1	26	34	0.9
PUERTO RICO	30	122,036	0.1	23	42	1.1
FLORIDA	31	113,159	0.1	15	72	1.9
UTAH	32	103,546	0.0	30	27	0.7
WISCONSIN	33	94,955	0.0	27	32	0.8
NEVADA	34	82,601	0.0	47	7	0.2
VIRGINIA	35	81,625	0.0	13	74	2.0
CONNECTICUT	36	75,239	0.0	18	54	1.4
NEBRASKA	37	45,458	0.0	36	19	0.5
MARYLAND	38	31,791	0.0	3	285	7.5
ARIZONA	39	26,359	0.0	30	27	0.7
MASSACHUSETTS	40	9,794	0.0	30	27	0.7
NEW HAMPSHIRE	41	9,354	0.0	38	13	0.3
TRUST TERRITORY	42	5,808	0.0	51	2	0.1
DELAWARE	43	1,861	0.0	45	8	0.2
MONTANA	44	1,695	0.0	43	9	0.2
VERMONT	45	1,120	0.0	42	10	0.3
MAINE	46	911	0.0	22	45	1.2
HAWAII	47	612	0.0	48	6	0.2
WYOMING	48	520	0.0	49	5	0.1
RHODE ISLAND	49	126	0.0	40	11	0.3
VIRGIN ISLANDS	50	90	0.0	52	1	0.0
ALASKA	51	56	0.0	39	12	0.3
DISTRICT OF COLUMBIA	52	0	0.0	52	1	0.0
SOUTH DAKOTA	52	0	0.0	50	3	0.1
NAVAJO NATION	52	0	0.0	54	0	0.0
GUAM		NO DATA	RECEIVED	FROM	STATE	
WEST VIRGINIA		NO DATA	RECEIVED	FROM	STATE	
TOTAL		210,639,971	100.0		3,792	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 RCRA TSD Facilities, and Quantity of RCRA Hazardous Waste Managed, 1993**

STATE	TSD FACILITIES			RCRA HAZARDOUS WASTE QUANTITY[1]		
	RANK	NUMBER	PERCENTAGE	RANK	TONS MANAGED	PERCENTAGE
WASHINGTON	1	731	19.3	7	6,770,554	3.2
NEW JERSEY	2	397	10.5	19	657,728	0.3
MARYLAND	3	285	7.5	38	31,791	0.0
CALIFORNIA	4	244	6.4	8	6,242,406	3.0
TEXAS	5	233	6.1	1	57,820,904	27.5
OHIO	6	136	3.6	13	1,697,197	0.8
ILLINOIS	7	133	3.5	5	11,349,555	5.4
MICHIGAN	8	132	3.5	4	20,516,890	9.7
INDIANA	9	103	2.7	11	1,972,197	0.9
MISSOURI	10	88	2.3	22	516,407	0.2
NEW YORK	11	81	2.1	2	44,510,329	21.1
PENNSYLVANIA	11	81	2.1	6	7,280,356	3.5
VIRGINIA	13	74	2.0	35	81,625	0.0
NORTH CAROLINA	14	73	1.9	25	336,975	0.2
FLORIDA	15	72	1.9	31	113,159	0.1
LOUISIANA	16	67	1.8	3	31,452,957	14.9
GEORGIA	17	58	1.5	17	825,522	0.4
CONNECTICUT	18	54	1.4	36	75,239	0.0
KANSAS	18	54	1.4	10	3,202,245	1.5
ALABAMA	20	50	1.3	24	349,005	0.2
MINNESOTA	20	50	1.3	9	6,015,307	2.9
MAINE	22	45	1.2	46	911	0.0
KENTUCKY	23	42	1.1	27	222,471	0.1
PUERTO RICO	23	42	1.1	30	122,036	0.1
OKLAHOMA	25	40	1.1	14	1,156,392	0.5
IOWA	26	34	0.9	29	130,002	0.1
WISCONSIN	27	32	0.8	33	94,955	0.0
TENNESSEE	28	30	0.8	23	424,970	0.2
COLORADO	29	28	0.7	26	306,727	0.1
ARIZONA	30	27	0.7	39	26,359	0.0
MASSACHUSETTS	30	27	0.7	40	9,794	0.0
UTAH	30	27	0.7	32	103,546	0.0
SOUTH CAROLINA	33	25	0.7	15	1,104,523	0.5
ARKANSAS	34	24	0.6	18	804,914	0.4
MISSISSIPPI	35	22	0.6	12	1,901,716	0.9
NEBRASKA	36	19	0.5	37	45,458	0.0
NEW MEXICO	37	16	0.4	28	165,976	0.1
NEW HAMPSHIRE	38	13	0.3	41	9,354	0.0
ALASKA	39	12	0.3	51	56	0.0
OREGON	40	11	0.3	21	568,633	0.3
RHODE ISLAND	40	11	0.3	49	126	0.0
VERMONT	42	10	0.3	45	1,120	0.0
IDAHO	43	9	0.2	16	935,049	0.4
MONTANA	43	9	0.2	44	1,695	0.0
DELAWARE	45	8	0.2	43	1,861	0.0
NORTH DAKOTA	45	8	0.2	20	593,349	0.3
NEVADA	47	7	0.2	34	82,601	0.0
HAWAII	48	6	0.2	47	612	0.0
WYOMING	49	5	0.1	48	520	0.0
SOUTH DAKOTA	50	3	0.1	52	0	0.0
TRUST TERRITORY	51	2	0.1	42	5,808	0.0
DISTRICT OF COLUMBIA	52	1	0.0	0	0	0.0
VIRGIN ISLANDS	52	1	0.0	50	90	0.0
NAVAJO NATION	54	0	0.0	52	0	0.0
GUAM		NO DATA	RECEIVED	FROM	STATE	
WEST VIRGINIA		NO DATA	RECEIVED	FROM	STATE	
TOTAL		3,792	100.0		210,639,971	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., 1993

RANK	EPA ID	NAME	CITY	TONS MANAGED[1]
1	NYD980592497	EASTMAN KODAK COMPANY	ROCHESTER, NY	43,021,984
2	MID000724724	DOW CHEMICAL COMPANY, MIDLAND PLANT SITE	MIDLAND, MI	18,180,278
3	LAD008080350	CITGO PETROLEUM CORP	LAKE CHARLES, LA	14,211,097
4	ILD080012305	SHELL OIL CO	ROXANA, IL	10,064,651
5	TXD048210645	SWEENY REFINERY & PETROCHEMICAL	OLD OCEAN, TX	7,005,690
6	TXD980626774	PHILLIPS 66 CO., BORGER COMPLEX REF/NGL	BORGER, TX	6,711,382
7	TXD050309012	AMOCO CHEMICAL COMPANY - CHOCOLATE BAYOU	ALVIN, TX	5,287,948
8	LAD056024391	BP OIL COMPANY-ALLIANCE REFINERY	BELLE CHASSE, LA	4,971,172
9	PAD071612683	BP OIL COMPANY - MARCUS HOOK REFINERY	MARCUS HOOK, PA	4,805,140
10	TXD065099160	FINA OIL AND CHEMICAL CO.	PORT ARTHUR, TX	4,365,907
11	TXD008123317	VICTORIA PLANT DU PONT DE NEMOURS & CO	VICTORIA, TX	3,996,586
12	WAD009275082	SHELL OIL COMPANY	ANACORTES, WA	3,800,025
13	LAD041581422	UNION CARBIDE C & P CO INC - TAFT PLANT	TAFT, LA	3,588,881
14	LAD008175390	CYTEC INDUSTRIES INC - FORTIER PLANT	WAGGAMAN, LA	3,509,804
15	MND006162820	ASHLAND PETROLEUM CO	ST. PAUL PARK, MN	3,423,023
16	TXD001700806	MONSANTO COMPANY - CHOCOLATE BAYOU	ALVIN, TX	3,365,119
17	TXD008091290	CROWN CENTRAL PETROLEUM CORP.	PASADENA, TX	3,137,182
18	TXD083472266	ARCO CHEMICAL- CHANNELVIEW	CHANNELVIEW, TX	2,775,406
19	MND006172969	3M COTTAGE GROVE (CHEMOLITE)	COTTAGE GROVE,MN	2,510,370
20	TXD008080533	AMOCO OIL COMPANY	TEXAS CITY, TX	2,309,489
21	TXD078432457	HOECHST CELANESE CHEMICAL GROUP, INC	PASADENA, TX	2,143,226
22	TXD000017756	DOW CHEMICAL COMPANY/LA PORTE SITE	LA PORTE, TX	1,883,367
23	TXD058275769	LYONDELL PETROCHEMICAL COMPANY	CHANNELVIEW, TX	1,842,014
24	TXD065096273	ROHM AND HAAS TEXAS INCORPORATED	DEER PARK, TX	1,753,157
25	KSD087418695	TOTAL PETROLEUM INCORPORATED	ARKANSAS CITY, KS	1,704,754
26	CAD041472986	NATIONAL SEMICONDUCTOR CORP	SANTA CLARA, CA	1,467,593
27	TXD008081101	E.I. DU PONT DE NEMOURS & CO., INC.	NEDERLAND, TX	1,422,625
28	CAT080029465	ELECTRON PLATING	GARDEN GROVE, CA	1,400,000
29	LAD008213191	RUBICON INC	GEISMAR, LA	1,377,392
30	KSD007482029	VULCAN MATERIALS COMPANY	WICHITA, KS	1,340,028
31	WAD041337130	FABRICATION DIVISION AUBURN SITE	AUBURN, WA	1,212,285
32	TXD008079642	DU PONT DE NEMOURS & CO., E.I.	ORANGE, TX	1,073,823
33	LAD008187080	DOW CHEMICAL COMPANY	PLAQUEMINE, LA	1,024,139
34	MSD096046792	E.I. DUPONT DE NEMOURS & CO.	PASS CHRISTIAN, MS	939,650
35	MID005358130	TOTAL PETROLEUM, INC., ALMA REFINERY	ALMA, MI	884,921
36	SC1890008989	DOE/WSRC SAVANNAH RIVER SITE	AIKEN, SC	876,867
37	OKD000829440	ZINC CORPORATION OF AMERICA	BARTLESVILLE, OK	857,284
38	TXD000836486	GREENS BAYOU PLANT	HOUSTON, TX	853,984
39	TXD008079527	STERLING CHEMICALS, INC.	TEXAS CITY, TX	836,461
40	OHD042157644	BP CHEMICALS INC	LIMA, OH	798,043
41	TXD000461533	UNION CARBIDE CORPORATION, TEXAS CITY PL	TEXAS CITY, TX	790,965
42	LAD001890367	E. I. DUPONT DE NEMOURS - PONTCHARTRAIN	LAPLACE, LA	775,872
43	LAD001700756	MONSANTO	LULING, LA	770,730
44	PAD002334753	OCCIDENTAL CHEMICAL CORP	POTTSTOWN, PA	743,771
45	TXD000751172	BP CHEMICALS, INC.	PORT LAVACA, TX	693,386
46	ARD043195429	GREAT LAKES CHEMICAL CORPORATION	EL DORADO, AR	640,619
47	TXT490011293	FORMOSA PLASTICS	POINT COMFORT, TX	625,457
48	NDD006175467	AMOCO OIL COMPANY-MANDAN REFINERY	MANDAN, ND	593,348
49	CAD008274938	KAISER RESOURCES INC	FONTANA, CA	592,160
50	IND003913423	BETHLEHEM STEEL CORPORATION	CHESTERTON, IN	582,206
		TOTAL		183,541,261

[1]Quantity managed only by storage is excluded.

Note: Columns may not sum due to rounding.

Exhibit 2.8 Quantity and Percentage of RCRA Hazardous Wastewater and Non-Wastewater Management, 1993

MANAGEMENT TYPE	TONS MANAGED[1]	PERCENTAGE
Wastewater	194,763,082	92.5
Non-Wastewater	15,876,889	7.5
TOTAL	210,639,971	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 by various management methods. The majority (69.7%) of the national total was managed in aqueous treatment units. Ninety seven (97) million tons were managed in aqueous organic treatment units, 7 million tons in aqueous inorganic treatment units, and 43 million tons in both inorganic and organic aqueous treatment units. (The 93% 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 12.6% of the management total. Nationwide, 24 million tons of hazardous waste were disposed in underground injection wells, 1.6 million tons were disposed in landfills, 275 thousand tons were managed in surface impoundments, and 159 thousand tons were managed by land treatment (land farming).

Recovery operations accounted for 1.6% of the national management total. Facilities reported that 858 thousand tons were managed in solvent recovery units, 1.3 million tons were managed in fuel blending units, 756 thousand tons were managed in metals recovery units, and 501 thousand tons were recovered by other methods such as acid regeneration, waste oil recovery, and non-solvent organic recovery.

Thermal treatment accounted for 1.7% of the national management total. A total of 1.8 million tons were incinerated, while facilities reused 1.8 million tons as fuel in boilers or industrial furnaces.

Exhibit 2.9 **Quantity of RCRA Hazardous Waste Managed, by Management Method, 1993**

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	755,588	0.4	69	5.6
SOLVENTS RECOVERY	M021-M029	857,709	0.4	238	19.4
OTHER RECOVERY	M031-M039	501,101	0.2	76	6.2
INCINERATION	M041-M049	1,836,227	0.9	193	15.8
ENERGY RECOVERY (REUSE AS FUEL)	M051-M059	1,779,538	0.8	136	11.1
FUEL BLENDING	M061	1,299,628	0.6	84	6.9
AQUEOUS INORGANIC TREATMENT	M071-M079	6,940,775	3.3	157	12.8
AQUEOUS ORGANIC TREATMENT	M081-M089	96,973,670	46.0	93	7.6
AQUEOUS ORG & INORG TREATMENT	M091-M099	42,891,864	20.4	31	2.5
SLUDGE TREATMENT	M101-M109	207,615	0.1	31	2.5
STABILIZATION	M111-M119	752,041	0.4	65	5.3
OTHER TREATMENT	M121-M129	22,082,810	10.5	326	26.6
LAND TREATMENT / FARMING	M131	158,504	0.1	28	2.3
LANDFILL	M132	1,597,399	0.8	61	5.0
SURFACE IMPOUNDMENT	M133	275,263	0.1	5	0.4
DEEPWELL / UNDERGROUND INJECTION	M134	24,493,511	11.6	46	3.8
OTHER DISPOSAL	M137	532,610	0.3	52	4.2
UNKNOWN SYSTEM DUE TO INVALID CODE	UNKNOWN	6,704,118	3.2	192	15.7
TOTAL		210,639,971	100.0	1,225	

[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, 1993

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	96,973,670	46.0	93	7.6
AQUEOUS ORG & INORG TREATMENT	M091-M099	42,891,864	20.4	31	2.5
DEEPWELL / UNDERGROUND INJECTION	M134	24,493,511	11.6	46	3.8
OTHER TREATMENT	M121-M129	22,082,810	10.5	326	26.6
AQUEOUS INORGANIC TREATMENT	M071-M079	6,940,775	3.3	157	12.8
UNKNOWN SYSTEM DUE TO INVALID CODE	UNKNOWN	6,704,118	3.2	192	15.7
INCINERATION	M041-M049	1,836,227	0.9	193	15.8
ENERGY RECOVERY (REUSE AS FUEL)	M051-M059	1,779,538	0.8	136	11.1
LANDFILL	M132	1,597,399	0.8	61	5.0
FUEL BLENDING	M061	1,299,628	0.6	84	6.9
SOLVENTS RECOVERY	M021-M029	857,709	0.4	238	19.4
METALS RECOVERY (FOR REUSE)	M011-M019	755,588	0.4	69	5.6
STABILIZATION	M111-M119	752,041	0.4	65	5.3
OTHER DISPOSAL	M137	532,610	0.3	52	4.2
OTHER RECOVERY	M031-M039	501,101	0.2	76	6.2
SURFACE IMPOUNDMENT	M133	275,263	0.1	5	0.4
SLUDGE TREATMENT	M101-M109	207,615	0.1	31	2.5
LAND TREATMENT / FARMING	M131	158,504	0.1	28	2.3
TOTAL		210,639,971	100.0	1,225	

[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, 1993**

MANAGEMENT METHOD	SYSTEM TYPE CODE	TONS MANAGED[1]	PERCENTAGE OF QUANTITY	NUMBER OF FACILITIES[2,3]	PERCENTAGE OF FACILITIES[3]
OTHER TREATMENT	M121-M129	22,082,810	10.5	326	26.6
SOLVENTS RECOVERY	M021-M029	857,709	0.4	238	19.4
INCINERATION	M041-M049	1,836,227	0.9	193	15.8
UNKNOWN SYSTEM DUE TO INVALID CODE	UNKNOWN	6,704,118	3.2	192	15.7
AQUEOUS INORGANIC TREATMENT	M071-M079	6,940,775	3.3	157	12.8
ENERGY RECOVERY (REUSE AS FUEL)	M051-M059	1,779,538	0.8	136	11.1
AQUEOUS ORGANIC TREATMENT	M081-M089	96,973,670	46.0	93	7.6
FUEL BLENDING	M061	1,299,628	0.6	84	6.9
OTHER RECOVERY	M031-M039	501,101	0.2	76	6.2
METALS RECOVERY (FOR REUSE)	M011-M019	755,588	0.4	69	5.6
STABILIZATION	M111-M119	752,041	0.4	65	5.3
LANDFILL	M132	1,597,399	0.8	61	5.0
OTHER DISPOSAL	M137	532,610	0.3	52	4.2
DEEPWELL / UNDERGROUND INJECTION	M134	24,493,511	11.6	46	3.8
AQUEOUS ORG & INORG TREATMENT	M091-M099	42,891,864	20.4	31	2.5
SLUDGE TREATMENT	M101-M109	207,615	0.1	31	2.5
LAND TREATMENT / FARMING	M131	158,504	0.1	28	2.3
SURFACE IMPOUNDMENT	M133	275,263	0.1	5	0.4
TOTAL		210,639,971	100.0	1,225	

[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 1993. Unlike wastes managed on site, the predominant off-site management methods were landfill, fuel blending, energy recovery, and underground injection. Eight million tons of waste (4% of the national total) was managed at a different facility than the generating facility. Given that the amount of non-wastewater managed was 8% 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 (26%) of the national management total of waste received from off site. Eight hundred seventy eight (878) thousand tons were managed in fuel blending units, 673 thousand tons were managed in metals recovery units, 425 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 24% of the total amount received from off site and managed on site. Nationwide, 1.2 million tons of hazardous wastes were disposed in landfills, 701 thousand tons were disposed in underground injection wells, and 58 tons were managed by land treatment (land farming).

Aqueous treatment accounts for 12% of the total amount received from off site and managed on site. One hundred sixty (160) thousand tons were managed in aqueous organic treatment units, 569 thousand tons in aqueous inorganic treatment units, and 228 thousand tons in both inorganic and organic aqueous treatment units.

Thermal treatment accounts for 16% of the received/managed total. Facilities reused 786 thousand tons as fuel in boilers or industrial furnaces and 519 thousand tons were incinerated.

Exhibit 2.12 **Quantity of RCRA Hazardous Waste Managed, by Management Method, Limited to Waste Received from Off Site, 1993**

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	672,512	8.2	39	9.3
SOLVENTS RECOVERY	M021-M029	425,186	5.2	73	17.5
OTHER RECOVERY	M031-M039	199,330	2.4	26	6.2
INCINERATION	M041-M049	518,652	6.3	85	20.3
ENERGY RECOVERY (REUSE AS FUEL)	M051-M059	786,100	9.5	50	12.0
FUEL BLENDING	M061	878,010	10.6	78	18.7
AQUEOUS INORGANIC TREATMENT	M071-M079	569,032	6.9	50	12.0
AQUEOUS ORGANIC TREATMENT	M081-M089	159,955	1.9	23	5.5
AQUEOUS ORG & INORG TREATMENT	M091-M099	228,114	2.8	18	4.3
SLUDGE TREATMENT	M101-M109	5,935	0.1	17	4.1
STABILIZATION	M111-M119	463,475	5.6	35	8.4
OTHER TREATMENT	M121-M129	1,314,925	15.9	118	28.2
LAND TREATMENT / FARMING	M131	57,548	0.7	9	2.2
LANDFILL	M132	1,227,239	14.9	33	7.9
DEEPWELL / UNDERGROUND INJECTION	M134	701,341	8.5	15	3.[illegible]
OTHER DISPOSAL	M137	41,148	0.5	19	4.[illegible]
UNKNOWN SYSTEM DUE TO INVALID CODE	UNKNOWN	1,869	0.0	11	2.6
TOTAL		8,250,371	100.0	418	

[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, 1993**

MANAGEMENT METHOD	SYSTEM TYPE CODE	TONS MANAGED[1]	PERCENTAGE OF QUANTITY	NUMBER OF FACILITIES[2,3]	PERCENTAGE OF FACILITIES[3]
OTHER TREATMENT	M121-M129	1,314,925	15.9	118	28.2
LANDFILL	M132	1,227,239	14.9	33	7.9
FUEL BLENDING	M061	878,010	10.6	78	18.7
ENERGY RECOVERY (REUSE AS FUEL)	M051-M059	786,100	9.5	50	12.0
DEEPWELL / UNDERGROUND INJECTION	M134	701,341	8.5	15	3.6
METALS RECOVERY (FOR REUSE)	M011-M019	672,512	8.2	39	9.3
AQUEOUS INORGANIC TREATMENT	M071-M079	569,032	6.9	50	12.0
INCINERATION	M041-M049	518,652	6.3	85	20.3
STABILIZATION	M111-M119	463,475	5.6	35	8.4
SOLVENTS RECOVERY	M021-M029	425,186	5.2	73	17.5
AQUEOUS ORG & INORG TREATMENT	M091-M099	228,114	2.8	18	4.3
OTHER RECOVERY	M031-M039	199,330	2.4	26	6.2
AQUEOUS ORGANIC TREATMENT	M081-M089	159,955	1.9	23	5.5
LAND TREATMENT / FARMING	M131	57,548	0.7	9	2.2
OTHER DISPOSAL	M137	41,148	0.5	19	4.5
SLUDGE TREATMENT	M101-M109	5,935	0.1	17	4.1
UNKNOWN SYSTEM DUE TO INVALID CODE	UNKNOWN	1,869	0.0	11	2.6
TOTAL		8,250,371	100.0	418	

[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, 1993**

MANAGEMENT METHOD	SYSTEM TYPE CODE	TONS MANAGED[1]	PERCENTAGE OF QUANTITY	NUMBER OF FACILITIES[2,3]	PERCENTAGE OF FACILITIES[3]
OTHER TREATMENT	M121-M129	1,314,925	15.9	118	28.2
INCINERATION	M041-M049	518,652	6.3	85	20.3
FUEL BLENDING	M061	878,010	10.6	78	18.7
SOLVENTS RECOVERY	M021-M029	425,186	5.2	73	17.5
ENERGY RECOVERY (REUSE AS FUEL)	M051-M059	786,100	9.5	50	12.0
AQUEOUS INORGANIC TREATMENT	M071-M079	569,032	6.9	50	12.0
METALS RECOVERY (FOR REUSE)	M011-M019	672,512	8.2	39	9.3
STABILIZATION	M111-M119	463,475	5.6	35	8.4
LANDFILL	M132	1,227,239	14.9	33	7.9
OTHER RECOVERY	M031-M039	199,330	2.4	26	6.2
AQUEOUS ORGANIC TREATMENT	M081-M089	159,955	1.9	23	5.5
OTHER DISPOSAL	M137	41,148	0.5	19	4.5
AQUEOUS ORG & INORG TREATMENT	M091-M099	228,114	2.8	18	4.3
SLUDGE TREATMENT	M101-M109	5,935	0.1	17	4.1
DEEPWELL / UNDERGROUND INJECTION	M134	701,341	8.5	15	3.[illegible]
UNKNOWN SYSTEM DUE TO INVALID CODE	UNKNOWN	1,869	0.0	11	2[illegible]
LAND TREATMENT / FARMING	M131	57,548	0.7	9	2.2
TOTAL		8,250,371	100.0	418	

[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 1993, 22,665 shippers[1] reported shipping 20.3 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 5 reported shipping the largest amount of waste (6.1 million tons), while Region 2 reported the largest number of shippers (4,624). Region 10 reported shipping the least amount of waste (242 thousand tons), while Region 8 reported the smallest number of shippers (349).

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, 708 TSD facilities reported receiving 9.0 million tons of waste in 1993. Region 5 reported both the largest quantity of receipts (2.5 million tons) and the largest number of receivers (158). Region 6 was second in total receipts (2.0 million tons) and Region 4 was second in number of receivers (121).

[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 Hazardous Waste Shippers and Total RCRA Hazardous Waste Quantity Shipped, by EPA Region, 1993**

EPA REGION	HAZARDOUS WASTE QUANTITY		SHIPPERS	
	TONS SHIPPED	PERCENTAGE	NUMBER	PERCENTAGE
1	1,146,874	5.7	1,439	6.3
2	1,523,889	7.5	4,624	20.4
3	744,587	3.7	2,306	10.2
4	1,224,285	6.0	3,257	14.4
5	6,147,212	30.4	4,541	20.0
6	4,615,776	22.8	2,033	9.0
7	378,004	1.9	972	4.3
8	2,482,497	12.3	349	1.5
9	1,746,245	8.6	2,132	9.4
10	241,731	1.2	1,012	4.5
TOTAL	20,251,099	100.0	22,665	100.0

Exhibit 3.2 **Number and Percentage of Hazardous Waste Shippers and Total Quantity of RCRA Hazardous Waste Shipped in Each Region, by the Total Quantity of Waste Shipped, 1993**

EPA REGION	HAZARDOUS WASTE QUANTITY		SHIPPERS	
	TONS SHIPPED	PERCENTAGE	NUMBER	PERCENTAGE
5	6,147,212	30.4	4,541	20.0
6	4,615,776	22.8	2,033	9.0
8	2,482,497	12.3	349	1.5
9	1,746,245	8.6	2,132	9.4
2	1,523,889	7.5	4,624	20.4
4	1,224,285	6.0	3,257	14.4
1	1,146,874	5.7	1,439	6.3
3	744,587	3.7	2,306	10.2
7	378,004	1.9	972	4.3
10	241,731	1.2	1,012	4.5
TOTAL	20,251,099	100.0	22,665	100.0

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

Exhibit 3.3 Number and Percentage of Hazardous Waste Shippers and Total Quantity of RCRA Hazardous Waste Shipped in Each Region, by Highest Number of Shippers, 1993

EPA REGION	SHIPPERS		HAZARDOUS WASTE QUANTITY	
	NUMBER	PERCENTAGE	TONS SHIPPED	PERCENTAGE
2	4,624	20.4	1,523,889	7.5
5	4,541	20.0	6,147,212	30.4
4	3,257	14.4	1,224,285	6.0
3	2,306	10.2	744,587	3.7
9	2,132	9.4	1,746,245	8.6
6	2,033	9.0	4,615,776	22.8
1	1,439	6.3	1,146,874	5.7
10	1,012	4.5	241,731	1.2
7	972	4.3	378,004	1.9
8	349	1.5	2,482,497	12.3
TOTAL	22,665	100.0	20,251,099	100.0

Exhibit 3.4 Number and Percentage of Hazardous Waste Receivers and Total Quantity of RCRA Hazardous Waste Received, by EPA Region, 1993

EPA REGION	HAZARDOUS WASTE QUANTITY		RECEIVING FACILITIES	
	TONS RECEIVED	PERCENTAGE	NUMBER	PERCENTAGE
1	45,563	0.5	22	3.1
2	751,235	8.3	58	8.2
3	756,957	8.4	60	8.5
4	997,611	11.0	121	17.1
5	2,487,649	27.5	158	22.3
6	2,046,407	22.6	107	15.1
7	560,236	6.2	50	7.1
8	67,872	0.8	28	4.0
9	1,066,767	11.8	67	9.5
10	260,824	2.9	37	5.2
TOTAL	9,041,120	100.0	708	100.0

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

Exhibit 3.5 **Number and Percentage of Hazardous Waste Receivers and Total Quantity of RCRA Hazardous Waste Received in Each Region, by the Total Quantity of Waste Received, 1993**

EPA REGION	HAZARDOUS WASTE QUANTITY		RECEIVING FACILITIES	
	TONS RECEIVED	PERCENTAGE	NUMBER	PERCENTAGE
5	2,487,649	27.5	158	22.3
6	2,046,407	22.6	107	15.1
9	1,066,767	11.8	67	9.5
4	997,611	11.0	121	17.1
3	756,957	8.4	60	8.5
2	751,235	8.3	58	8.2
7	560,236	6.2	50	7.1
10	260,824	2.9	37	5.2
8	67,872	0.8	28	4.0
1	45,563	0.5	22	3.1
TOTAL	9,041,120	100.0	708	100.0

Exhibit 3.6 **Number and Percentage of Hazardous Waste Receivers and Total Quantity of RCRA Hazardous Waste Received in Each Region, by the Number of Receiving Facilities, 1993**

EPA REGION	RECEIVING FACILITIES		HAZARDOUS WASTE QUANTITY	
	NUMBER	PERCENTAGE	TONS RECEIVED	PERCENTAGE
5	158	22.3	2,487,649	27.5
4	121	17.1	997,611	11.0
6	107	15.1	2,046,407	22.6
9	67	9.5	1,066,767	11.8
3	60	8.5	756,957	8.4
2	58	8.2	751,235	8.3
7	50	7.1	560,236	6.2
10	37	5.2	260,824	2.9
8	28	4.0	67,872	0.8
1	22	3.1	45,563	0.5
TOTAL	708	100.0	9,041,120	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. Michigan reported shipping the largest quantity of waste (4.2 million tons), followed by Texas (4.1 million tons) and Utah (2.4 million tons). New Jersey reported the largest number of shippers (2,465), followed by New York (2,039) and California (1,777).

Exhibit 3.7 **Quantity of RCRA Hazardous Waste Shipped, and Number of Hazardous Waste Shippers, by State, 1993**

STATE	RCRA HAZARDOUS WASTE QUANTITY			NUMBER OF SHIPPERS		
	RANK	TONS SHIPPED	PERCENTAGE	RANK	NUMBER	PERCENTAGE
ALABAMA	15	243,372	1.2	24	291	1.3
ALASKA	46	5,304	0.0	41	73	0.3
ARIZONA	36	18,440	0.1	26	221	1.0
ARKANSAS	20	129,236	0.6	31	162	0.7
CALIFORNIA	4	1,717,253	8.5	3	1,777	7.8
COLORADO	26	85,786	0.4	34	130	0.6
CONNECTICUT	5	1,059,205	5.2	16	442	2.0
DELAWARE	35	23,501	0.1	42	72	0.3
DISTRICT OF COLUMBIA	47	4,626	0.0	51	15	0.1
FLORIDA	27	85,157	0.4	18	415	1.8
GEORGIA	19	150,248	0.7	17	435	1.9
GUAM		NO DATA	RECEIVED	FROM	STATE	
HAWAII	49	2,504	0.0	46	40	0.2
IDAHO	37	12,292	0.1	44	54	0.2
ILLINOIS	11	495,843	2.4	6	1,228	5.4
INDIANA	10	516,139	2.5	11	678	3.0
IOWA	32	43,606	0.2	27	196	0.9
KANSAS	16	204,170	1.0	25	290	1.3
KENTUCKY	17	184,139	0.9	15	461	2.0
LOUISIANA	14	251,320	1.2	22	346	1.5
MAINE	43	7,736	0.0	30	169	0.7
MARYLAND	24	95,882	0.5	9	709	3.1
MASSACHUSETTS	31	50,874	0.3	13	514	2.3
MICHIGAN	1	4,177,578	20.6	8	784	3.5
MINNESOTA	29	62,838	0.3	23	299	1.3
MISSISSIPPI	34	37,393	0.2	32	160	0.7
MISSOURI	21	121,752	0.6	19	394	1.7
MONTANA	39	9,493	0.0	45	47	0.2
NAVAJO NATION	53	236	0.0	52	9	0.0
NEBRASKA	41	8,477	0.0	37	92	0.4
NEVADA	44	7,678	0.0	39	82	0.4
NEW HAMPSHIRE	38	11,757	0.1	33	154	0.7
NEW JERSEY	9	516,946	2.6	1	2,465	10.9
NEW MEXICO	45	6,820	0.0	43	61	0.3
NEW YORK	7	638,022	3.2	2	2,039	9.0
NORTH CAROLINA	22	117,764	0.6	12	617	2.7
NORTH DAKOTA	48	2,532	0.0	50	17	0.1
OHIO	6	841,677	4.2	4	1,521	6.7
OKLAHOMA	28	81,473	0.4	28	193	0.9
OREGON	33	42,114	0.2	29	181	0.8
PENNSYLVANIA	8	521,148	2.6	7	1,134	5.0
PUERTO RICO	12	366,750	1.8	35	119	0.5
RHODE ISLAND	42	8,038	0.0	40	77	0.3
SOUTH CAROLINA	13	319,187	1.6	21	373	1.6
SOUTH DAKOTA	52	1,506	0.0	49	23	0.1
TENNESSEE	25	87,026	0.4	14	505	2.2
TEXAS	2	4,146,927	20.5	5	1,271	5.6
TRUST TERRITORY	54	135	0.0	53	3	0.0
UTAH	3	2,381,530	11.8	36	108	0.5
VERMONT	40	9,264	0.0	38	83	0.4
VIRGIN ISLANDS	50	2,171	0.0	54	1	0.0
VIRGINIA	23	99,430	0.5	20	376	1.7
WASHINGTON	18	182,021	0.9	10	704	3.1
WEST VIRGINIA		NO DATA	RECEIVED	FROM	STATE	
WISCONSIN	30	53,136	0.3	47	31	0.1
WYOMING	51	1,651	0.0	48	24	0.1
TOTAL		20,251,099	100.0		22,665	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, 1993**

STATE	RCRA HAZARDOUS WASTE QUANTITY			NUMBER OF SHIPPERS		
	RANK	TONS SHIPPED	PERCENTAGE	RANK	NUMBER	PERCENTAGE
MICHIGAN	1	4,177,578	20.6	8	784	3.5
TEXAS	2	4,146,927	20.5	5	1,271	5.6
UTAH	3	2,381,530	11.8	36	108	0.5
CALIFORNIA	4	1,717,253	8.5	3	1,777	7.8
CONNECTICUT	5	1,059,205	5.2	16	442	2.0
OHIO	6	841,677	4.2	4	1,521	6.7
NEW YORK	7	638,022	3.2	2	2,039	9.0
PENNSYLVANIA	8	521,148	2.6	7	1,134	5.0
NEW JERSEY	9	516,946	2.6	1	2,465	10.9
INDIANA	10	516,139	2.5	11	678	3.0
ILLINOIS	11	495,843	2.4	6	1,228	5.4
PUERTO RICO	12	366,750	1.8	35	119	0.5
SOUTH CAROLINA	13	319,187	1.6	21	373	1.6
LOUISIANA	14	251,320	1.2	22	346	1.5
ALABAMA	15	243,372	1.2	24	291	1.3
KANSAS	16	204,170	1.0	25	290	1.3
KENTUCKY	17	184,139	0.9	15	461	2.0
WASHINGTON	18	182,021	0.9	10	704	3.1
GEORGIA	19	150,248	0.7	17	435	1.9
ARKANSAS	20	129,236	0.6	31	162	0.7
MISSOURI	21	121,752	0.6	19	394	1.7
NORTH CAROLINA	22	117,764	0.6	12	617	2.7
VIRGINIA	23	99,430	0.5	20	376	1.7
MARYLAND	24	95,882	0.5	9	709	3.1
TENNESSEE	25	87,026	0.4	14	505	2.2
COLORADO	26	85,786	0.4	34	130	0.6
FLORIDA	27	85,157	0.4	18	415	1.8
OKLAHOMA	28	81,473	0.4	28	193	0.9
MINNESOTA	29	62,838	0.3	23	299	1.3
WISCONSIN	30	53,136	0.3	47	31	0.1
MASSACHUSETTS	31	50,874	0.3	13	514	2.3
IOWA	32	43,606	0.2	27	196	0.9
OREGON	33	42,114	0.2	29	181	0.8
MISSISSIPPI	34	37,393	0.2	32	160	0.7
DELAWARE	35	23,501	0.1	42	72	0.3
ARIZONA	36	18,440	0.1	26	221	1.0
IDAHO	37	12,292	0.1	44	54	0.2
NEW HAMPSHIRE	38	11,757	0.1	33	154	0.7
MONTANA	39	9,493	0.0	45	47	0.2
VERMONT	40	9,264	0.0	38	83	0.4
NEBRASKA	41	8,477	0.0	37	92	0.4
RHODE ISLAND	42	8,038	0.0	40	77	0.3
MAINE	43	7,736	0.0	30	169	0.7
NEVADA	44	7,678	0.0	39	82	0.4
NEW MEXICO	45	6,820	0.0	43	61	0.3
ALASKA	46	5,304	0.0	41	73	0.3
DISTRICT OF COLUMBIA	47	4,626	0.0	51	15	0.1
NORTH DAKOTA	48	2,532	0.0	50	17	0.1
HAWAII	49	2,504	0.0	46	40	0.2
VIRGIN ISLANDS	50	2,171	0.0	54	1	0.0
WYOMING	51	1,651	0.0	48	24	0.1
SOUTH DAKOTA	52	1,506	0.0	49	23	0.1
NAVAJO NATION	53	236	0.0	52	9	0.0
TRUST TERRITORY	54	135	0.0	53	3	0.0
GUAM		NO DATA	RECEIVED	FROM	STATE	
WEST VIRGINIA		NO DATA	RECEIVED	FROM	STATE	
TOTAL		20,251,099	100.0		22,665	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, 1993**

STATE	NUMBER OF SHIPPERS			RCRA HAZARDOUS WASTE QUANTITY		
	RANK	NUMBER	PERCENTAGE	RANK	TONS SHIPPED	PERCENTAGE
NEW JERSEY	1	2,465	10.9	9	516,946	2.6
NEW YORK	2	2,039	9.0	7	638,022	3.2
CALIFORNIA	3	1,777	7.8	4	1,717,253	8.5
OHIO	4	1,521	6.7	6	841,677	4.2
TEXAS	5	1,271	5.6	2	4,146,927	20.5
ILLINOIS	6	1,228	5.4	11	495,843	2.4
PENNSYLVANIA	7	1,134	5.0	8	521,148	2.6
MICHIGAN	8	784	3.5	1	4,177,578	20.6
MARYLAND	9	709	3.1	24	95,882	0.5
WASHINGTON	10	704	3.1	18	182,021	0.9
INDIANA	11	678	3.0	10	516,139	2.5
NORTH CAROLINA	12	617	2.7	22	117,764	0.6
MASSACHUSETTS	13	514	2.3	31	50,874	0.3
TENNESSEE	14	505	2.2	25	87,026	0.4
KENTUCKY	15	461	2.0	17	184,139	0.9
CONNECTICUT	16	442	2.0	5	1,059,205	5.2
GEORGIA	17	435	1.9	19	150,248	0.7
FLORIDA	18	415	1.8	27	85,157	0.4
MISSOURI	19	394	1.7	21	121,752	0.6
VIRGINIA	20	376	1.7	23	99,430	0.5
SOUTH CAROLINA	21	373	1.6	13	319,187	1.6
LOUISIANA	22	346	1.5	14	251,320	1.2
MINNESOTA	23	299	1.3	29	62,838	0.3
ALABAMA	24	291	1.3	15	243,372	1.2
KANSAS	25	290	1.3	16	204,170	1.0
ARIZONA	26	221	1.0	36	18,440	0.1
IOWA	27	196	0.9	32	43,606	0.2
OKLAHOMA	28	193	0.9	28	81,473	0.4
OREGON	29	181	0.8	33	42,114	0.2
MAINE	30	169	0.7	43	7,736	0.0
ARKANSAS	31	162	0.7	20	129,236	0.6
MISSISSIPPI	32	160	0.7	34	37,393	0.2
NEW HAMPSHIRE	33	154	0.7	38	11,757	0.1
COLORADO	34	130	0.6	26	85,786	0.4
PUERTO RICO	35	119	0.5	12	366,750	1.8
UTAH	36	108	0.5	3	2,381,530	11.8
NEBRASKA	37	92	0.4	41	8,477	0.0
VERMONT	38	83	0.4	40	9,264	0.0
NEVADA	39	82	0.4	44	7,678	0.0
RHODE ISLAND	40	77	0.3	42	8,038	0.0
ALASKA	41	73	0.3	46	5,304	0.0
DELAWARE	42	72	0.3	35	23,501	0.1
NEW MEXICO	43	61	0.3	45	6,820	0.0
IDAHO	44	54	0.2	37	12,292	0.1
MONTANA	45	47	0.2	39	9,493	0.0
HAWAII	46	40	0.2	49	2,504	0.0
WISCONSIN	47	31	0.1	30	53,136	0.3
WYOMING	48	24	0.1	51	1,651	0.0
SOUTH DAKOTA	49	23	0.1	52	1,506	0.0
NORTH DAKOTA	50	17	0.1	48	2,532	0.0
DISTRICT OF COLUMBIA	51	15	0.1	47	4,626	0.0
NAVAJO NATION	52	9	0.0	53	236	0.0
TRUST TERRITORY	53	3	0.0	54	135	0.0
VIRGIN ISLANDS	54	1	0.0	50	2,171	0.0
GUAM		NO DATA	RECEIVED	FROM	STATE	
WEST VIRGINIA		NO DATA	RECEIVED	FROM	STATE	
TOTAL		22,665	100.0		20,251,099	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. Texas (1.3 million tons), California (981 thousand tons), and Ohio (846 thousand tons) reported receiving the largest quantity of waste. Texas (64), California (53), and Ohio (41) had the largest number of TSD facilities receiving waste.

Overall, 708 receivers reported receiving 9.0 million tons of waste. This represents an 11.2 million tons difference between the amount of waste reported shipped and the amount reported received.

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 69% of the total quantity shipped in the U.S. and the 50 largest receivers account for 64% of the total amount received.

Exhibit 3.10 **Quantity of RCRA Hazardous Waste Received and Number of Receivers, by State, 1993**

STATE	RCRA HAZARDOUS WASTE QUANTITY			NUMBER OF RECEIVERS		
	RANK	TONS RECEIVED	PERCENTAGE	RANK	NUMBER	PERCENTAGE
ALABAMA	18	131,043	1.4	25	11	1.6
ALASKA	44	521	0.0	46	1	0.1
ARIZONA	43	646	0.0	30	7	1.0
ARKANSAS	15	152,484	1.7	20	12	1.7
CALIFORNIA	2	980,821	10.8	2	53	7.5
COLORADO	42	675	0.0	36	5	0.7
CONNECTICUT	30	39,743	0.4	28	10	1.4
DELAWARE	41	679	0.0	46	1	0.1
DISTRICT OF COLUMBIA	49	0	0.0	49	0	0.0
FLORIDA	26	51,369	0.6	10	23	3.2
GEORGIA	27	45,565	0.5	14	19	2.7
GUAM		NO DATA	RECEIVED	FROM	STATE	
HAWAII	37	2,135	0.0	40	2	0.3
IDAHO	23	69,479	0.8	32	6	0.8
ILLINOIS	10	385,632	4.3	7	28	4.0
INDIANA	4	720,646	8.0	5	32	4.5
IOWA	33	17,416	0.2	29	8	1.1
KANSAS	13	257,850	2.9	20	12	1.7
KENTUCKY	17	133,033	1.5	18	15	2.1
LOUISIANA	7	462,058	5.1	17	17	2.4
MAINE	39	1,530	0.0	40	2	0.3
MARYLAND	31	39,074	0.4	25	11	1.6
MASSACHUSETTS	36	2,155	0.0	32	6	0.8
MICHIGAN	8	413,634	4.6	9	25	3.5
MINNESOTA	20	100,694	1.1	12	21	3.0
MISSISSIPPI	34	8,600	0.1	32	6	0.8
MISSOURI	12	276,775	3.1	10	23	3.2
MONTANA	48	31	0.0	40	2	0.3
NAVAJO NATION	49	0	0.0	49	0	0.0
NEBRASKA	35	8,195	0.1	30	7	1.0
NEVADA	22	83,164	0.9	36	5	0.7
NEW HAMPSHIRE	49	0	0.0	49	0	0.0
NEW JERSEY	9	400,902	4.4	15	18	2.5
NEW MEXICO	47	104	0.0	40	2	0.3
NEW YORK	11	309,964	3.4	4	35	4.9
NORTH CAROLINA	28	43,522	0.5	13	20	2.8
NORTH DAKOTA	40	1,080	0.0	32	6	0.8
OHIO	3	846,029	9.4	3	41	5.8
OKLAHOMA	14	172,674	1.9	20	12	1.7
OREGON	16	134,130	1.5	40	2	0.3
PENNSYLVANIA	5	629,067	7.0	6	30	4.2
PUERTO RICO	29	40,369	0.4	36	5	0.7
RHODE ISLAND	49	0	0.0	49	0	0.0
SOUTH CAROLINA	6	476,423	5.3	20	12	1.7
SOUTH DAKOTA	46	316	0.0	40	2	0.3
TENNESSEE	19	108,057	1.2	18	15	2.1
TEXAS	1	1,259,086	13.9	1	64	9.0
TRUST TERRITORY	49	0	0.0	49	0	0.0
UTAH	24	65,388	0.7	20	12	1.7
VERMONT	38	2,135	0.0	39	4	0.6
VIRGIN ISLANDS	49	0	0.0	49	0	0.0
VIRGINIA	21	88,137	1.0	15	18	2.5
WASHINGTON	25	56,694	0.6	7	28	4.0
WEST VIRGINIA		NO DATA	RECEIVED	FROM	STATE	
WISCONSIN	32	21,015	0.2	25	11	1.6
WYOMING	45	381	0.0	46	1	0.1
TOTAL		9,041,120	100.0		708	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, 1993**

STATE	RCRA HAZARDOUS WASTE QUANTITY			NUMBER OF RECEIVERS		
	RANK	TONS RECEIVED	PERCENTAGE	RANK	NUMBER	PERCENTAGE
TEXAS	1	1,259,086	13.9	1	64	9.0
CALIFORNIA	2	980,821	10.8	2	53	7.5
OHIO	3	846,029	9.4	3	41	5.8
INDIANA	4	720,646	8.0	5	32	4.5
PENNSYLVANIA	5	629,067	7.0	6	30	4.2
SOUTH CAROLINA	6	476,423	5.3	20	12	1.7
LOUISIANA	7	462,058	5.1	17	17	2.4
MICHIGAN	8	413,634	4.6	9	25	3.5
NEW JERSEY	9	400,902	4.4	15	18	2.5
ILLINOIS	10	385,632	4.3	7	28	4.0
NEW YORK	11	309,964	3.4	4	35	4.9
MISSOURI	12	276,775	3.1	10	23	3.2
KANSAS	13	257,850	2.9	20	12	1.7
OKLAHOMA	14	172,674	1.9	20	12	1.7
ARKANSAS	15	152,484	1.7	20	12	1.7
OREGON	16	134,130	1.5	40	2	0.3
KENTUCKY	17	133,033	1.5	18	15	2.1
ALABAMA	18	131,043	1.4	25	11	1.6
TENNESSEE	19	108,057	1.2	18	15	2.1
MINNESOTA	20	100,694	1.1	12	21	3.0
VIRGINIA	21	88,137	1.0	15	18	2.5
NEVADA	22	83,164	0.9	36	5	0.7
IDAHO	23	69,479	0.8	32	6	0.8
UTAH	24	65,388	0.7	20	12	1.7
WASHINGTON	25	56,694	0.6	7	28	4.0
FLORIDA	26	51,369	0.6	10	23	3.2
GEORGIA	27	45,565	0.5	14	19	2.7
NORTH CAROLINA	28	43,522	0.5	13	20	2.8
PUERTO RICO	29	40,369	0.4	36	5	0.7
CONNECTICUT	30	39,743	0.4	28	10	1.4
MARYLAND	31	39,074	0.4	25	11	1.6
WISCONSIN	32	21,015	0.2	25	11	1.6
IOWA	33	17,416	0.2	29	8	1.1
MISSISSIPPI	34	8,600	0.1	32	6	0.8
NEBRASKA	35	8,195	0.1	30	7	1.0
MASSACHUSETTS	36	2,155	0.0	32	6	0.8
HAWAII	37	2,135	0.0	40	2	0.3
VERMONT	38	2,135	0.0	39	4	0.6
MAINE	39	1,530	0.0	40	2	0.3
NORTH DAKOTA	40	1,080	0.0	32	6	0.8
DELAWARE	41	679	0.0	46	1	0.1
COLORADO	42	675	0.0	36	5	0.7
ARIZONA	43	646	0.0	30	7	1.0
ALASKA	44	521	0.0	46	1	0.1
WYOMING	45	381	0.0	46	1	0.1
SOUTH DAKOTA	46	316	0.0	40	2	0.3
NEW MEXICO	47	104	0.0	40	2	0.3
MONTANA	48	31	0.0	40	2	0.3
DISTRICT OF COLUMBIA	49	0	0.0	49	0	0.0
NAVAJO NATION	49	0	0.0	49	0	0.0
NEW HAMPSHIRE	49	0	0.0	49	0	0.0
RHODE ISLAND	49	0	0.0	49	0	0.0
TRUST TERRITORY	49	0	0.0	49	0	0.0
VIRGIN ISLANDS	49	0	0.0	49	0	0.0
GUAM		NO DATA	RECEIVED	FROM	STATE	
WEST VIRGINIA		NO DATA	RECEIVED	FROM	STATE	
TOTAL		9,041,120	100.0		708	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, 1993**

STATE	NUMBER OF RECEIVERS			RCRA HAZARDOUS WASTE QUANTITY		
	RANK	NUMBER	PERCENTAGE	RANK	TONS RECEIVED	PERCENTAGE
TEXAS	1	64	9.0	1	1,259,086	13.9
CALIFORNIA	2	53	7.5	2	980,821	10.8
OHIO	3	41	5.8	3	846,029	9.4
NEW YORK	4	35	4.9	11	309,964	3.4
INDIANA	5	32	4.5	4	720,646	8.0
PENNSYLVANIA	6	30	4.2	5	629,067	7.0
ILLINOIS	7	28	4.0	10	385,632	4.3
WASHINGTON	7	28	4.0	25	56,694	0.6
MICHIGAN	9	25	3.5	8	413,634	4.6
MISSOURI	10	23	3.2	12	276,775	3.1
FLORIDA	10	23	3.2	26	51,369	0.6
MINNESOTA	12	21	3.0	20	100,694	1.1
NORTH CAROLINA	13	20	2.8	28	43,522	0.5
GEORGIA	14	19	2.7	27	45,565	0.5
NEW JERSEY	15	18	2.5	9	400,902	4.4
VIRGINIA	15	18	2.5	21	88,137	1.0
LOUISIANA	17	17	2.4	7	462,058	5.1
KENTUCKY	18	15	2.1	17	133,033	1.5
TENNESSEE	18	15	2.1	19	108,057	1.2
SOUTH CAROLINA	20	12	1.7	6	476,423	5.3
KANSAS	20	12	1.7	13	257,850	2.9
OKLAHOMA	20	12	1.7	14	172,674	1.9
ARKANSAS	20	12	1.7	15	152,484	1.7
UTAH	20	12	1.7	24	65,388	0.7
ALABAMA	25	11	1.6	18	131,043	1.4
MARYLAND	25	11	1.6	31	39,074	0.4
WISCONSIN	25	11	1.6	32	21,015	0.2
CONNECTICUT	28	10	1.4	30	39,743	0.4
IOWA	29	8	1.1	33	17,416	0.2
NEBRASKA	30	7	1.0	35	8,195	0.1
ARIZONA	30	7	1.0	43	646	0.0
IDAHO	32	6	0.8	23	69,479	0.8
MISSISSIPPI	32	6	0.8	34	8,600	0.1
MASSACHUSETTS	32	6	0.8	36	2,155	0.0
NORTH DAKOTA	32	6	0.8	40	1,080	0.0
NEVADA	36	5	0.7	22	83,164	0.9
PUERTO RICO	36	5	0.7	29	40,369	0.4
COLORADO	36	5	0.7	42	675	0.0
VERMONT	39	4	0.6	38	2,135	0.0
OREGON	40	2	0.3	16	134,130	1.5
HAWAII	40	2	0.3	37	2,135	0.0
MAINE	40	2	0.3	39	1,530	0.0
SOUTH DAKOTA	40	2	0.3	46	316	0.0
NEW MEXICO	40	2	0.3	47	104	0.0
MONTANA	40	2	0.3	48	31	0.0
DELAWARE	46	1	0.1	41	679	0.0
ALASKA	46	1	0.1	44	521	0.0
WYOMING	46	1	0.1	45	381	0.0
DISTRICT OF COLUMBIA	49	0	0.0	49	0	0.0
NAVAJO NATION	49	0	0.0	49	0	0.0
NEW HAMPSHIRE	49	0	0.0	49	0	0.0
RHODE ISLAND	49	0	0.0	49	0	0.0
TRUST TERRITORY	49	0	0.0	49	0	0.0
VIRGIN ISLANDS	49	0	0.0	49	0	0.0
GUAM		NO DATA	RECEIVED	FROM	STATE	
WEST VIRGINIA		NO DATA	RECEIVED	FROM	STATE	
TOTAL		708	100.0		9,041,120	100.0

Note: Columns may not sum due to rounding.

Exhibit 3.13 Fifty Largest RCRA Hazardous Waste Shippers in the U.S., 1993

RANK	EPA ID	NAME	CITY	TONS SHIPPED
1	UTD000826446	KENNECOTT UTAH COPPER - SMELTER	MAGNA, UT	2,209,270
2	TXD980625966	EXXON CHEMICAL CO. BAYTOWN OLEFINS PLANT	BAYTOWN, TX	1,646,453
3	TXD981911209	OCCIDENTAL CHEMICAL VCM	DEER PARK, TX	1,547,145
4	MID005339460	CADON PLATING COMPANY	WYANDOTTE, MI	1,360,000
5	CTD990672081	PRATT & WHITNEY AIRCRAFT GROUP MD&CPD	EAST HARTFORD, CT	968,184
6	MID052033479	MOLD-TECH MI	WARREN, MI	904,141
7	MID005356795	GM - WILLOW RUN ASSEMBLY	YPSILANTI, MI	887,882
8	CAD008371379	NORRIS PLUMBING FIXTURES	WALNUT, CA	870,912
9	MID981197254	AMERICAN BUMPER & MANUFACTURING COMPANY	IONIA, MI	365,572
10	NYD002126852	GMC HARRISON DIVISION	LOCKPORT, NY	329,154
11	PRD991291949	STERLING PHARMACEUTICALS INC.	BARCELONETA, PR	300,748
12	SCD042627448	HARDWICKE CHEMICAL COMPANY	ELGIN, SC	165,994
13	MID980568836	GMC, NAPT-PONTIAC WEST ASSEMBLY	PONTIAC, MI	157,208
14	UTD000826412	KENNECOTT UTAH COPPER - REFINERY	MAGNA, UT	141,733
15	KSD007249980	ELF ATOCHEM NORTH AMERICA INC	WICHITA, KS	128,523
16	NJD981133150	REPUBLIC ENVIRONMENTAL RECYCLING INC	CLAYTON, NJ	128,289
17	OHD076741149	SCM CHEMICALS, INC. ASHTABULA PLANT I	ASHTABULA, OH	118,070
18	IND093219012	HERITAGE ENVIRONMENTAL SERVICES, INC	INDIANAPOLIS, IN	87,864
19	LAD000777201	CHEMICAL WASTE MANAGEMENT	SULPHUR, LA	76,968
20	CAD981172554	SOUTHWEST MARINE, INC.	SAN DIEGO, CA	76,137
21	CAD983608027	PARK CENTRAL BUILDING	LOS ANGELES, CA	73,150
22	KYD053348108	SAFETY-KLEEN CORP.	NEW CASTLE, KY	72,555
23	NYD002069748	CIBA GEIGY	QUEENSBURY, NY	71,212
24	IND005462601	LTV STEEL COMPANY	EAST CHICAGO, IN	70,311
25	MID980615298	PETRO-CHEM PROCESSING GRP. OF NORTRU INC	DETROIT, MI	67,626
26	TXD058265067	ARCO CHEMICAL COMPANY - BAYPORT	PASADENA, TX	64,989
27	TXD008080533	AMOCO OIL COMPANY	TEXAS CITY, TX	62,507
28	TXD000792937	HILL PETROLEUM CO	TEXAS CITY, TX	59,724
29	TXD058275769	LYONDELL PETROCHEMICAL COMPANY	CHANNELVIEW, TX	59,547
30	OHD005048947	SYSTECH ENVIRONMENTAL CORPORATION	PAULDING, OH	54,840
31	CAD044405603	INTERNATIONAL EXTRUSION CORP	ALHAMBRA, CA	53,790
32	ALD000622464	CHEMICAL WASTE MANAGEMENT	EMELLE, AL	51,613
33	CAD982361404	TAMCO	RANCHO CYCANIBG, CA	47,945
34	WAD988466942	WEYERHAEUSER - DUPONT	DUPONT, WA	47,457
35	CAD009452657	ROMIC ENV TECH CORP	EAST PALO ALTO, CA	47,046
36	CAD045256187	LOCKHEED ENVIR SYS & TECH	BURBANK, CA	46,372
37	ARD069748192	ENSCO INC	EL DORADO, AR	46,082
38	ILD980613913	SAFETY KLEEN ENVIROSYSTEMS CO	DOLTON, IL	42,663
39	MID000724831	ENVOTECH MANAGEMENT SERVICES, INC	BELLEVILLE, MI	40,473
40	TXD077603371	SAFETY-KLEEN CORPORATION DENTON RC	DENTON, TX	38,686
41	ILD041889023	CLARK OIL & REFINING CO	HARTFORD, IL	37,719
42	ARD981057870	RINECO	HASKELL-BENTON, AR	37,378
43	CAD043237486	CHEVRON CHEMICAL CO	RICHMOND, CA	35,769
44	ALD070513767	M & M CHEMICAL & EQUIPMENT COMPANY, INC.	ATTALLA, AL	35,371
45	IND181157009	NUCOR STEEL	CRAWFORDSVILLE, IN	34,642
46	MID017422304	MCLOUTH STEEL, TRENTON PLANT	TRENTON, MI	32,431
47	OHD004228003	REPUBLIC ENGR ED STEELS CANTON PLANT	CANTON, OH	30,974
48	NYD980536288	DUPONT COMPANY	NIAGARA FALLS, NY	30,901
49	NJD002182897	SAFETY-KLEEN CORP.	LINDEN, NJ	29,592
50	COD007057995	SUNDSTRAND AEROSPACE	DENVER, CO	29,446
		TOTAL		13,923,060

Note:

- 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., 1993

RANK	EPA ID	NAME	CITY	TONS RECEIVED
1	CAD008274938	KAISER RESOURCES INC	FONTANA, CA	592,160
2	TXD000747394	SAFETY-KLEEN CORP.	EL PASO, TX	400,352
3	LAD000777201	CHEMICAL WASTE MANAGEMENT	SULPHUR, LA	238,697
4	NJD002385730	E.I. DUPONT - CHAMBERS WORKS	DEEPWATER, NJ	238,441
5	PAD002395887	HORSEHEAD RESOURCE DEVELOPMENT CO INC	PALMERTON, PA	222,510
6	OHD045243706	ENVIROSAFE SERVICES OF OHIO INC	OREGON, OH	182,151
7	SCD991278607	MTM AMERICAS INC HARDWICKE DIV	LUGOFF, SC	165,240
8	IND000199653	QUEMETCO, INC.	INDIANAPOLIS, IN	148,552
9	CAD097030993	NORRIS INDUSTRIES, INC.	VERNON, CA	145,929
10	OKD065438376	U.S. POLL. CONTROL, INC.-LONE MOUNTAIN	WAYNOKA, OK	142,913
11	OHD020273819	CHEMICAL WASTE MANAGEMENT INC	VICKERY, OH	141,389
12	OHD980793384	RESERVE ENVIRONMENTAL SERVICES INC	ASHTABULA, OH	132,901
13	ORD089452353	CHEMICAL WASTE MANAGEMENT OF THE NW	ARLINGTON, OR	131,494
14	KSD007482029	VULCAN MATERIALS COMPANY	WICHITA, KS	124,382
15	IND078911146	CHEMICAL WASTE MANAGEMENT OF INDIANA INC	FORT WAYNE, IN	120,147
16	TXD000838896	CHEMICAL WASTE MANAGEMENT INC.	PORT ARTHUR, TX	117,693
17	NYD030485288	REVERE SMELTING & REFINING CORPORATION	MIDDLETOWN, NY	110,523
18	NYD049836679	CWM CHEMICAL SERVICES, INC.	MODEL CITY, NY	109,261
19	TXD000719518	DISPOSAL SYSTEMS, INC.	DEER PARK, TX	102,390
20	ILD000805812	PEORIA DISPOSAL CO INC	PEORIA, IL	100,670
21	SCD070375985	LAIDLAW ENV SVS OF SC INC	PINEWOOD, SC	99,904
22	MOD029729688	HOLNAM INCORPORATED SAFETY-KLEEN	CLARKSVILLE, MO	93,604
23	LAD981057706	MARINE SHALE PROCESSORS	AMELIA, LA	91,658
24	IND093219012	HERITAGE ENVIRONMENTAL SERVICES, INC	INDIANAPOLIS, IN	88,330
25	PAD980707087	ENVIROTROL INC	BEAVER FALLS, PA	85,413
26	MID980615298	PETRO-CHEM PROCESSING GRP. OF NORTRU INC	DETROIT, MI	83,701
27	MID048090633	WAYNE DISPOSAL INCORPORATED	BELLEVILLE, MI	82,062
28	SCD003351699	GIANT CEMENT COMPANY	HARLEYVILLE, SC	79,725
29	ILD980613913	SAFETY KLEEN ENVIROSYSTEMS CO	DOLTON, IL	78,429
30	IND980503890	HERITAGE ENVIROMENTAL SERVICES, INC.	ROACHDALE, IN	78,274
31	NVT330010000	US ECOLOGY INC	LATHROP WELLS, NV	76,863
32	IND005081542	ESSROC MATERIALS, INC	LOGANSPORT, IN	75,956
33	TXD000761254	CHEMICAL WASTE MANAGEMENT INC.	CORPUS CHRISTI, TX	75,539
34	MOD054018288	CONTINENTAL CEMENT COMPANY	HANNIBAL, MO	74,952
35	KSD980633259	SYSTECH ENVIRONMENTAL	FREDONIA, KS	74,299
36	PAD004835146	MILL SERVICE INC - YUKON	YUKON, PA	74,085
37	ILD000666206	ENVIRITE CORP	HARVEY, IL	70,258
38	IDD073114654	ENVIROSAFE SERVICES OF IDAHO, INC	GRAND VIEW, ID	69,153
39	IND077042034	SAFETY-KLEEN OIL RECOVERY CO.	EAST CHICAGO, IN	65,570
40	TXD097673149	EMPAK INC.	DEER PARK, TX	65,495
41	TXD055141378	ROLLINS ENVIRONMENTAL SERVICES (TX) INC.	DEER PARK, TX	63,287
42	MID060975844	MICHIGAN RECOVERY SYSTEMS INCORPORATED	ROMULUS, MI	63,227
43	MND006148092	GOPHER SMELTING & REFINING COMPANY	EAGAN, MN	61,357
44	KYD053348108	SAFETY-KLEEN CORP.	NEW CASTLE, KY	58,880
45	TXD007349327	TEXAS INDUSTRIES MIDLOTHIAN CEMENT PLANT	MIDLOTHIAN, TX	56,171
46	ARD981512270	ASH GROVE CEMENT FOREMAN	FOREMAN, AR	55,895
47	PAD010154045	ENVIRITE CORPORATION	YORK, PA	55,465
48	OHD980587364	SAFETY KLEEN CORPORATION	HEBRON, OH	55,136
49	CAD980883177	GIBSON ENVIRONMENTAL	BAKERSFIELD, CA	55,025
50	OHD987048733	LAFARGE CORPORATION	PAULDING, OH	54,831
		TOTAL		5,830,340

Note:

- 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 exporting region (2.3 million tons), followed by Region 9 (1.2 million tons). Region 5 is also the largest importing region (1.2 million tons), followed by Region 6 (943 thousand tons). Exhibit 4.2 shows Michigan is the largest exporting state (1.5 million tons), followed by California (1.2 million tons). Pennsylvania, with 419 thousand tons, is the largest importing state, followed by followed by Ohio (418 thousand tons).

Exhibit 4.1 RCRA Hazardous Waste Imports and Exports, by EPA Region, 1993

EPA REGION	TOTAL IMPORTS (TONS)	TOTAL EXPORTS (TONS)	IMPORTS-EXPORTS (TONS)
1	27,948	139,219	-111,271
2	368,629	691,809	-323,179
3	473,836	476,853	-3,017
4	630,185	835,038	-204,853
5	1,170,031	2,319,717	-1,149,686
6	943,381	668,827	274,554
7	388,302	207,812	180,490
8	34,431	113,005	-78,574
9	114,269	1,216,851	-1,102,581
10	208,039	195,379	12,660
TOTAL	4,359,051	6,864,510	-2,505,459

Note: Columns may not sum due to rounding.

Exhibit 4.2 **RCRA Hazardous Waste Imports, Exports, and difference between Imports and Exports by State, 1993**

STATE	IMPORTS (TONS)	EXPORTS (TONS)	IMPORTS-EXPORTS (TONS)
ALABAMA	105,891	165,984	-60,093
ALASKA	0	4,444	-4,444
ARIZONA	87	12,820	-12,733
ARKANSAS	133,134	109,612	23,523
CALIFORNIA	32,062	1,195,983	-1,163,921
COLORADO	6	79,530	-79,524
CONNECTICUT	25,835	71,842	-46,007
DELAWARE	463	23,161	-22,698
DISTRICT OF COLUMBIA	0	4,626	-4,626
FLORIDA	19,950	66,071	-46,121
GEORGIA	27,501	137,189	-109,688
GUAM	NO DATA	RECEIVED FROM	STATE
HAWAII	983	1,964	-981
IDAHO	67,714	9,418	58,297
ILLINOIS	183,358	263,510	-80,152
INDIANA	340,284	200,877	139,407
IOWA	2,545	29,162	-26,618
KANSAS	120,624	65,984	54,640
KENTUCKY	113,139	161,830	-48,692
LOUISIANA	325,665	168,476	157,189
MAINE	91	7,430	-7,339
MARYLAND	26,977	80,021	-53,044
MASSACHUSETTS	945	32,782	-31,836
MICHIGAN	157,263	1,483,471	-1,326,208
MINNESOTA	60,212	40,839	19,373
MISSISSIPPI	7,492	36,920	-29,428
MISSOURI	258,537	104,541	153,996
MONTANA	0	9,311	-9,311
NAVAJO NATION	0	236	-236
NEBRASKA	6,596	8,124	-1,528
NEVADA	81,138	5,713	75,425
NEW HAMPSHIRE	0	11,172	-11,172
NEW JERSEY	250,583	256,858	-6,275
NEW MEXICO	23	6,774	-6,751
NEW YORK	118,046	148,462	-30,416
NORTH CAROLINA	25,525	102,299	-76,774
NORTH DAKOTA	468	2,460	-1,992
OHIO	418,399	285,494	132,905
OKLAHOMA	153,779	65,520	88,259
OREGON	115,068	26,779	88,289
PENNSYLVANIA	418,702	312,191	106,511
PUERTO RICO	0	284,318	-284,318
RHODE ISLAND	0	7,007	-7,007
SOUTH CAROLINA	248,456	95,923	152,533
SOUTH DAKOTA	126	1,503	-1,378
TENNESSEE	82,230	68,823	13,408
TEXAS	330,781	318,447	12,334
TRUST TERRITORY	0	135	-135
UTAH	33,832	18,552	15,280
VERMONT	1,077	8,988	-7,911
VIRGIN ISLANDS	0	2,171	-2,171
VIRGINIA	27,694	56,854	-29,160
WASHINGTON	25,257	154,739	-129,482
WEST VIRGINIA	NO DATA	RECEIVED FROM	STATE
WISCONSIN	10,516	45,526	-35,010
WYOMING	0	1,650	-1,650
TOTAL	4,359,051	6,864,510	-2,505,459

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

SYSTEM TYPE CODES
(Continued)

Code	System type	Code	System type

STABILIZATION

M111	Stabilization/Chemical fixation using cementitious and/or pozzolanic materials
M112	Other stabilization (Specify in Comments)
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-endo, endo-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.

Code	Waste description
F010	Quenching bath residues from oil baths 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.

EPA HAZARDOUS WASTE CODES
(Continued)

Code	Waste description
F027	Discarded unused formulations containing 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.
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

Code	Waste description
	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	
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.
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.

EPA HAZARDOUS WASTE CODES
(Continued)

Code	Waste description
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.
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.

Code	Waste description
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.
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.

EPA HAZARDOUS WASTE CODES
(Continued)

Code	Waste description
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 production of ethylenebisdithiocarbamic acid and its salts.
K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.
K125	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts.

Code	Waste description
K126	Baghouse dust and floor sweepings in milling and packaging operations from production or formulation of ethylenebisdithiocarbamic acid and its salts.
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, benzoyl chlorides, and compounds with mixtures of these functional groups. [This waste does not include still bottoms from the distillation of benzoyl 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, benzoyl 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, benzoyl chlorides, and compounds with mixtures of these functional groups.

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

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

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)-

EPA HAZARDOUS WASTE CODES
(Continued)

Code	Waste description
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

Code	Waste description
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)-
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

EPA HAZARDOUS WASTE CODES
(Continued)

Code	Waste description
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, 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

Code	Waste description
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
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

EPA HAZARDOUS WASTE CODES
(Continued)

Code	Waste description
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
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

Code	Waste description
	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.)
	2,3,4,6-Tetrachlorophenol
	2,4,5-T
	2,4,5-Trichlorophenol
	2,4,6-Trichlorophenol
	Acetic acid, (2,4,5-trichlorophenoxy)-
	Pentachlorophenol
See	Phenol, 2,3,4,6-tetrachloro-
F027	Phenol, 2,4,5-trichloro-
	Phenol, 2,4,6-trichloro-
	Phenol, pentachloro-
	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
	Silvex (2,4,5-TP)
U001	Acetaldehyde (I)
U001	Ethanal (I)
U002	2-Propanone (I)
U002	Acetone (I)
U003	Acetonitrile (I,T)
U004	Acetophenone
U004	Ethanone, 1-phenyl-
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

EPA HAZARDOUS WASTE CODES
(Continued)

Code	Waste description
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-
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)-

Code	Waste description
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)
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

EPA HAZARDOUS WASTE CODES
(Continued)

Code	Waste description
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
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)

Code	Waste description
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
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)

EPA HAZARDOUS WASTE CODES
(Continued)

Code	Waste description
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
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

Code	Waste description
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-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

EPA HAZARDOUS WASTE CODES
(Continued)

Code	Waste description	Code	Waste description
U165	Naphthalene	U178	N-Nitroso-N-methylurethane
U166	1,4-Naphthalenedione	U179	N-Nitrosopiperidine
U166	1,4-Naphthoquinone	U179	Piperidine, 1-nitroso-
U167	1-Napthalenamine	U180	N-Nitrosopyrrolidine
U167	alpha-Naphthylamine	U180	Pyrrolidine, 1-nitroso-
U168	2-Napthalenamine	U181	5-Nitro-o-toluidine
U168	beta-Naphthylamine	U181	Benzenamine, 2-methyl-5-nitro
U169	Benzene, nitro-	U182	1,3,5-Trioxane, 2,4,6-trimethyl-
U169	Nitrobenzene (I,T)	U182	Paraldehyde
U170	p-Nitrophenol (I,T)	U183	Benzene, pentachloro-
U170	Phenol, 4-nitro-	U183	Pentachlorobenzene
U171	2-Nitropropane (I,T)	U184	Ethane, pentachloro-
U171	Propane, 2-nitro- (I,T)	U184	Pentachloroethane
U172	1-Butanamine, N-butyl-N-nitroso-	U185	Benzene, pentachloronitro-
U172	N-Nitrosodi-n-butylamine	U185	Pentachloronitrobenzene (PCNB)
U173	Ethanol, 2,2'-(nitrosoimino)bis-	U186	1,3-Pentadiene (I)
U173	N-Nitrosodiethanolamine	U186	1-Methylbutadiene (I)
U174	Ethanamine, N-ethyl-N-nitroso-	U187	Acetamide, N-(4-ethoxyphenyl)-
U174	N-Nitrosodiethylamine	U187	Phenacetin
U176	N-Nitroso-N-ethylurea	U188	Phenol
U176	Urea, N-ethyl-N-nitroso-	U189	Phosphorus sulfide (R)
U177	N-Nitroso-N-methylurea	U189	Sulfur phosphide (R)
U177	Urea, N-methyl-N-nitroso-	U190	1,3-Isobenzofurandione
U178	Carbamic acid, methylnitroso-, ethyl ester	U190	Phthalic anhydride

Code	Waste description
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
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

EPA HAZARDOUS WASTE CODES
(Continued)

Code	Waste description
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 & 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

Code	Waste description	Code	Waste description
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		

APPENDIX C

DATA QUALITY AND COMPLETENESS

The data presented in this report have been provided by States to their respective EPA regional offices. In some cases data were also collected by EPA Regional offices. When the data were transmitted to EPA Headquarters, the state or region that collected the data provided an indication of how complete the data were for each state that was being transmitted. The following exhibit lists the current level of completion for each state according to one of the four categories described below.

1. State believes data submission is complete.

   State has indicated that it provided all required data for all handlers that were required to file the 1993 Biennial Report, including all LQGs and TSDs in the state. (Please note that sites claiming confidential business information have been excluded from all volumes of this report.)

2. State believes data submission is incomplete.

   State has indicated that its data omitted handlers that were required to file the 1993 Biennial Report. Data for these states will probably change when a full submission is received for the state.

3. No data received from state.

   State has not provided any data to EPA.

4. Data translation error has occurred.

   The data submitted appear to contain a systematic data error.

Exhibit: **Status of State data submissions, 1993**

STATE	STATUS OF STATE DATA SUBMISSION
ALABAMA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
ALASKA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
ARIZONA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
ARKANSAS	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
CALIFORNIA	STATE BELIEVES DATA SUBMISSION IS INCOMPLETE.
COLORADO	STATE BELIEVES DATA SUBMISSION IS INCOMPLETE.
CONNECTICUT	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
DELAWARE	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
DISTRICT OF COLUMBIA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
FLORIDA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
GEORGIA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
GUAM	NO DATA RECEIVED FROM STATE.
HAWAII	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
IDAHO	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
ILLINOIS	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
INDIANA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
IOWA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
KANSAS	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
KENTUCKY	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
LOUISIANA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
MAINE	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
MARYLAND	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
MASSACHUSETTS	STATE BELIEVES DATA SUBMISSION IS INCOMPLETE.
MICHIGAN	STATE BELIEVES DATA SUBMISSION IS INCOMPLETE.
MINNESOTA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
MISSISSIPPI	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
MISSOURI	STATE BELIEVES DATA SUBMISSION IS INCOMPLETE.
MONTANA	STATE BELIEVES DATA SUBMISSION IS INCOMPLETE.
NAVAJO NATION	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
NEBRASKA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
NEVADA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
NEW HAMPSHIRE	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
NEW JERSEY	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
NEW MEXICO	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
NEW YORK	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
NORTH CAROLINA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
NORTH DAKOTA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
OHIO	STATE BELIEVES DATA SUBMISSION IS INCOMPLETE.
OKLAHOMA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
OREGON	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
PENNSYLVANIA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
PUERTO RICO	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
RHODE ISLAND	STATE BELIEVES DATA SUBMISSION IS INCOMPLETE.
SOUTH CAROLINA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
SOUTH DAKOTA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
TENNESSEE	STATE BELIEVES DATA SUBMISSION IS INCOMPLETE.
TEXAS	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
TRUST TERRITORY	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
UTAH	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
VERMONT	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
VIRGIN ISLANDS	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
VIRGINIA	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
WASHINGTON	STATE BELIEVES DATA SUBMISSION IS COMPLETE.
WEST VIRGINIA	NO DATA RECEIVED FROM STATE.
WISCONSIN	DATA TRANSLATION ERROR HAS OCCURRED.
WYOMING	STATE BELIEVES DATA SUBMISSION IS COMPLETE.