



HAZARDOUS WASTE

Hazardous wastes are solid wastes known to be harmful to human health and the environment when not managed properly. Hazardous wastes, as described in the federal Resource Conservation and Recovery Act (RCRA) can be one of two types: listed wastes or characteristic wastes. Listed wastes are those solid wastes contained in one of the four lists published in the Code of Federal Regulations (40 CFR Part 261). Currently, more than 500 wastes are listed as hazardous wastes. Characteristic wastes do not appear in one of the hazardous waste lists, but exhibit one or more of the following characteristics: ignitability, corrosivity, reactivity, or toxicity. In addition, a number of states have listed certain waste as hazardous.

Because of the nature of hazardous wastes, they are managed by a number of methods to ensure protection of human health and the environment including: reclamation and recovery (e.g., metals and solvent recovery, energy recovery); destruction or treatment prior to disposal at another site (e.g., incineration, chemical reduction, biological treatment, neutralization); and disposal (land treatment, landfills, surface impoundments, deep well injection). There were 2,479 hazardous waste treatment, storage, and disposal facilities (TSDFs) in the United States in 2001. Only one state, New Hampshire, did not have a TSDF within its jurisdiction.

In 2001, the amount of RCRA hazardous waste generated was 40.82 million tons (Table 1). Texas generated almost 19 percent of the total followed by Louisiana (9.5%), New York (8.7%) and Kentucky (6.6%). South Dakota generated the least amount of hazardous waste of any state at 950 tons.

Of the total hazardous waste generated, 4.15 million tons were shipped to another state or jurisdiction for treatment and disposal. This represents 10.2 percent of the hazardous waste generated. More than half (55%) of the hazardous waste exported to another state for treatment or disposal came from nine states (Alabama, Arizona, California, Illinois, Indiana, Michigan, New Jersey, Ohio, and Texas). California exported the largest quantity at 422,670 tons (10.7%), while the remaining eight states exported less than 300,000 tons, but more than 200,000 tons each. All 50 states, Guam, the Navajo Nation, and the Trust Territories exported some portion of the hazardous waste they generated.

Imports of hazardous waste were slightly less than exports at 4.01 million tons. This represents slightly less than 10 percent of the hazardous waste generated. Some 56 percent of the hazardous waste imported went to eight states including Illinois, Indiana, Michigan, Missouri, Ohio, Pennsylvania, South Carolina, and Texas. Five of these states (Illinois, Indiana, Michigan, Ohio, and Texas) were also the highest exporters. Ohio imported the largest amount of hazardous waste at 508,836 tons (12.7%) and Michigan was the second largest importer at 394,064 tons (9.8%). Ten states or territories (Alaska, District of Columbia, Guam, Hawaii, Montana, Navajo Nation, New Hampshire, Trust Territories, Virgin Islands, and Wyoming) did not import hazardous waste for treatment or disposal.

Nationally, states and U.S. territories export more hazardous waste than they import. Explanations of where the unaccounted 0.14 million tons of exported hazardous waste was treated or disposed of was not provided. This hazardous waste was probably sent out of the country (e.g., Canada) for treatment or disposal.

Three states had net exports (exports minus imports) greater than 100,000 tons. California was the largest net exporter shipping 417,990 tons, followed by Alabama (135,522 tons) and Kentucky (116,206 tons). Conversely, four states had net imports (imports minus exports) greater than 100,000 tons. Ohio was the largest net importer accepting 210,914 tons, followed by Michigan (193,965 tons), Missouri (160,906 tons), and South Carolina (104,679 tons).

The data show that all states imported and/or exported RCRA hazardous wastes to ensure proper treatment and disposal. The facilities that managed hazardous waste were fewer than in the past and may not be located in the states where the waste was generated. Therefore, hazardous wastes like municipal solid waste must travel longer distances and across state lines to ensure environmentally protective management. As the data shows, the management of hazardous waste is intrinsically connected to the national and state economies and like other goods and services should not be restricted by federal or state laws.

Table 1. 2001 Interstate Hazardous Waste Shipments (tons)

State	Hazardous Waste Generated	Exported	Largest Quantity Exported To	Imported	Largest Quantity Imported From	Net (E-I)
AL	1,569,675	251,866	MO (40%)	116,344	GA (27%)	135,522
AK	5,094	3,979	WA (66%)	0	---	3,979
AZ	96,544	26,501	CA (29%)	26,303	CA (75%)	198
AR	857,910	237,892	IL (16%)	194,250	TX (23%)	43,642
CA	807,297	442,670	NV (66%)	24,680	OR (35%)	417,990
CO	66,791	22,355	NE (19%)	3,969	ID (23%)	18,386
CT	62,524	64,073	NY (24%)	18,716	MA (49%)	45,357
DE	17,512	16,729	PA (38%)	3,109	NJ (76%)	13,620
DC	2,113	2,111	PA (77%)	0	---	2,111
FL	400,107	54,992	TN (28%)	4,040	PR (22%)	50,952
GA	760,043	106,512	AL (30%)	12,663	FL (33%)	93,849
Guam	412	331	WA (51%)	0	---	331
HI	464,857	656	FL (20%)	0	---	656
ID	214,409	2,990	UT (23%)	88,159	OR (27%)	-85,169
IL	1,412,100	226,966	IN (24%)	213,804	IA (14%)	13,162
IN	1,127,542	220,788	OH (46%)	244,748	OH (24%)	-23,960
IA	47,147	44,625	IL (72%)	215	IL (100%)	44,410
KS	1,571,587	42,643	OK (59%)	19,846	AR (27%)	22,797
KY	2,686,583	159,565	IL (23%)	43,359	TX (12%)	116,206
LA	3,883,563	96,818	TX (63%)	168,484	TX (51%)	-71,666
ME	6,168	5,171	MA (36%)	568	MA (74%)	4,603
MD	17,577	10,499	NJ (77%)	49,885	PR (25%)	-39,386
MA	1,121,752	32,524	NJ (34%)	13,282	NH (17%)	19,242
MI	649,207	200,099	OH (41%)	394,064	OH (39%)	-193,965
MN	1,662,632	45,415	IL (38%)	117,638	IL (60%)	-72,223
MS	2,165,734	35,905	TX (26%)	67,090	AL (47%)	-31,185
MO	101,782	45,525	IL (21%)	206,431	IL (22%)	-160,906
MT	6,877	6,437	IL (27%)	0	---	6,437
Navajo Nation	188	186	UT (100%)	0	---	186
NE	31,382	25,774	ID (55%)	123,018	CA (31%)	-97,244
NV	277,258	4,433	CA (24%)	49,862	CA (59%)	-45,429
NH	12,269	12,273	NJ (22%)	0	---	12,273
NJ	586,210	220,698	PA (45%)	189,772	NY (29%)	30,926
NM	962,808	7,029	TX (63%)	824	ID (79%)	6,205
NY	3,534,261	118,471	NJ (45%)	113,706	NJ (28%)	4,765
NC	329,721	79,607	SC (39%)	14,611	SC (44%)	64,996
ND	574,614	3,221	TX (46%)	220	MT (42%)	3,001
OH	1,889,067	297,922	MI (35%)	508,836	IN (16%)	-210,914
OK	887,643	25,303	TX (39%)	60,801	KS (27%)	-35,498
OR	49,945	40,430	ID (56%)	33,822	WA (94%)	6,608
PA	398,403	193,473	OH (39%)	250,273	NJ (36%)	-56,800
PR	176,555	69,973	SC (40%)	81	FL (59%)	69,892
RI	9,435	8,275	PA (35%)	4,700	MA (56%)	3,575
SC	142,510	101,542	OH (47%)	206,221	PR (15%)	-104,679
SD	950	1,254	MN (27%)	86	MN (56%)	1,168
TN	629,834	35,588	AR (24%)	29,993	AL (10%)	5,595
TX	7,555,402	200,953	LA (35%)	220,000	LA (30%)	-19,047
Trust Territories	8,999	418	CA (99%)	0	---	418
UT	88,664	36,515	ID (42%)	35,677	CA (42%)	838
VT	4,099	4,334	NJ (26%)	122	NH (64%)	4,212
VI	1,971	1,990	TX (74%)	0	---	1,990
VA	209,447	44,299	NJ (26%)	28,188	NJ (33%)	16,111
WA	240,795	54,770	OR (51%)	12,817	OR (28%)	41,953
WV	101,195	42,451	OH (47%)	7,474	TX (69%)	34,977
WI	294,754	106,914	IL (34%)	84,999	IL (47%)	21,915
WY	37,566	1,836	UT (34%)	0	---	1,836
Totals	40,821,484	4,146,569		4,007,750		138,819