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New York State Low-Level Radioactive Waste Status Report for 1997

June 1998

New York State
Energy Research and Development Authority

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INTRODUCTION

This report summarizes data on low-level radioactive waste (LLRW)[1] generated in New York State.[2] It is based on reports from generators that must be filed annually with the New York State Energy Research and Development Authority (NYSERDA) and on data from the U.S. Department of Energy (U.S. DOE).

The New York State Low-Level Radioactive Waste Management Act (State Act) requires LLRW generators in the State to submit annual reports detailing the classes and quantities of waste generated. This is the 12th year generators have been required to submit these reports to NYSERDA.

The data are summarized in a series of tables and figures. There are four sections in the report. Section 1 covers volume, activity, and other characteristics of waste shipped for disposal in 1997. (Activity is the measure of a material's radioactivity, or the number of radiation-emitting events occurring each second.) Section 2 summarizes volume, activity, and other characteristics of waste held for storage as of December 31, 1997. Section 3 shows historical LLRW generation and includes generators' projections for the next five years. Section 4 provides a list, by county, of all facilities from which 1997 LLRW reports were received.

Volume is presented in cubic meters and activity is presented in gigabecquerels (GBq) or megabecquerels (MBq). These units have been adopted for the 1997 Status Report to be consistent with U.S. Nuclear Regulatory Commission uniform national LLRW manifest requirements. The Conversions for Units table on page 49 and footnotes to the relevant tables provide information for converting the data to the previously used units of cubic feet and curies.

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[1] Low-level radioactive waste is one category of waste produced through processes that use radioactive materials. In the U.S., radioactive wastes are classified according to a number of different categories by federal law and U.S. Nuclear Regulatory Commission regulations.

[2] Waste generated by certain federal installations or programs, such as the Brookhaven National Laboratory, the Knolls Atomic Power Laboratory, and the West Valley Demonstration Project, are not included in this report or in the requirements for generator reporting to NYSERDA. Under the federal Low-Level Radioactive Waste Policy Act as amended in 1985 (Public Law 99-240), the federal government, not the states, is responsible for disposal of LLRW owned or generated by U.S. DOE, the U.S. Navy as a result of decommissioning vessels, or the federal government as a result of research, development, testing, or production of nuclear weapons.

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Section 1

LOW-LEVEL RADIOACTIVE WASTE SHIPPED FOR DISPOSAL BY NEW YORK STATE GENERATORS IN 1997

This section summarizes data reported by LLRW generators in New York State on waste transferred to licensed LLRW disposal facilities in Barnwell, South Carolina; Clive, Utah; and Richland, Washington, during 1997.

While the Barnwell facility will accept most types of LLRW, the Clive and Richland facilities are more restrictive. The Clive facility generally accepts only high-volume, low-activity LLRW, such as contaminated soil. It can also accept some mixed waste (*i.e.*, LLRW that also contains hazardous chemicals) that cannot be shipped to the other facilities. The Richland facility is authorized to accept limited volumes of LLRW containing small quantities of naturally occurring radioactive material (*e.g.*, uranium, thorium).

Volume is presented in cubic meters and activity is presented in gigabecquerels (GBq) or megabecquerels (MBq). These units have been adopted for the 1997 Status Report to be consistent with U.S. Nuclear Regulatory Commission uniform national LLRW manifest requirements. The Conversions for Units table on page 49 and footnotes to the relevant tables provide information for converting the data to the previously used units of cubic feet and curies.

In 1997, generators in New York State disposed of 1,503 cubic meters (53,071 cubic feet) of LLRW containing 28,331 GBq (766 curies) of radioactivity. About 81% of the volume of LLRW, containing less than 1% of the radioactivity, was shipped to the Clive, Utah, facility. The Barnwell, South Carolina, facility received only 19% of the volume, but more than 99% of the radioactivity.

Individual entries in the following tables have been rounded using standard procedures. Because the totals shown represent the sum of the rounded entries, they may vary slightly from one table to another and may not always equal 100%. Waste volumes have been rounded to the nearest 10th of a cubic meter. In most cases, activity has been rounded to the nearest 10,000th of a GBq. Percentages have been rounded to the nearest 10th of a percent in the tables and figures.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Table 1-1: Generators Reporting and Shipping Waste for Disposal[1]

Generator Type	Number Reporting	Number[2] Shipping
MEDICAL		
Government	21	3
Private	182	7
College	18	9
Other	9	0
Total Medical	**230**	**19**
INDUSTRIAL		
Manufacturing	11	6
Research & Development	18	9
Other	3	1
Total Industrial	**32**	**16**
ACADEMIC (non-medical)		
College or University	32	5
Other	4	1
Total Academic	**36**	**6**
GOVERNMENT (non-medical)		
New York State	1	0
Other	6	1
Total Government	**7**	**1**
TOTAL NON-POWER PLANT	**305**	**42**
NUCLEAR POWER PLANT	**6**	**6**
TOTAL	**311**	**48**

[1] In addition to shipping LLRW for disposal, other waste management methods include storage of LLRW pending disposal and storage for decay. Section 2 provides information on stored LLRW.

[2] Refers to the number of generators who reported transferring LLRW either directly or via a broker or processor to one of the available licensed LLRW disposal facilities.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Table 1-2: Volume and Activity of Waste Shipped for Disposal[1]

Generator Type	Volume (m^3)[2]	% of Total	Activity (GBq)[2]	% of Total
MEDICAL				
Government	0.7		2.7759	
Private	10.1		11.4773	
College	32.7		31.5631	
Total Medical	**43.5**	**2.9**	**45.8163**	**0.2**
INDUSTRIAL				
Manufacturing, Research & Development	98.2		133.1106	
Cintichem, Inc.[3]	1146.0		2.5080	
Total Industrial	**1244.2**	**82.8**	**135.6186**	**0.5**
ACADEMIC (non-medical)				
College or University	6.4		565.7164	
Other	0.3		0.0185	
Total Academic	**6.7**	**0.4**	**565.7349**	**2.0**
GOVERNMENT (non-medical)				
New York State	0.0		0.0000	
Other	0.4		0.1295	
Total Government	**0.4**	*	**0.1295**	*
TOTAL NON-POWER PLANT	**1,294.8**	**86.1**	**747.2993**	**2.7**
NUCLEAR POWER PLANT	**208.2**	**13.9**	**27,584.3116**	**97.3**
TOTAL	**1,503.0**	**100.0**	**28,331.6109**	**100.0**
	(53,071 ft^3)		**(766 curies)**	

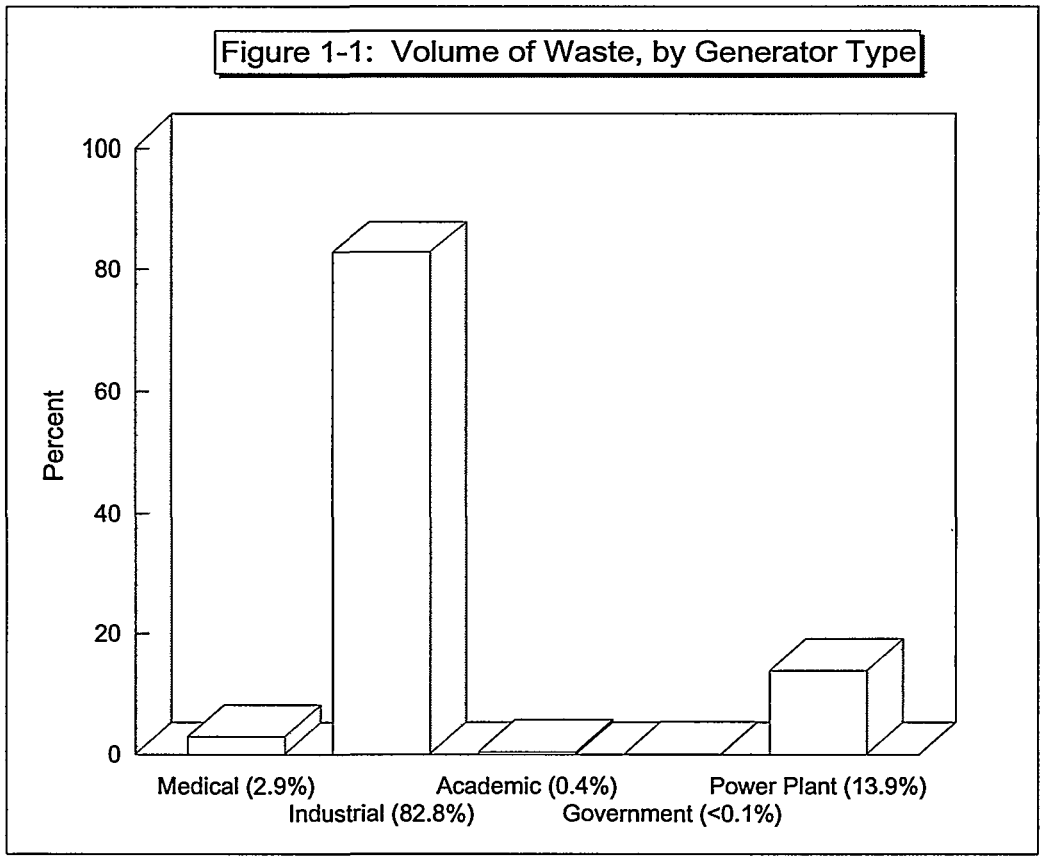
[1] Refers to LLRW transferred either directly or via a broker or processor to one of the available licensed LLRW disposal facilities.

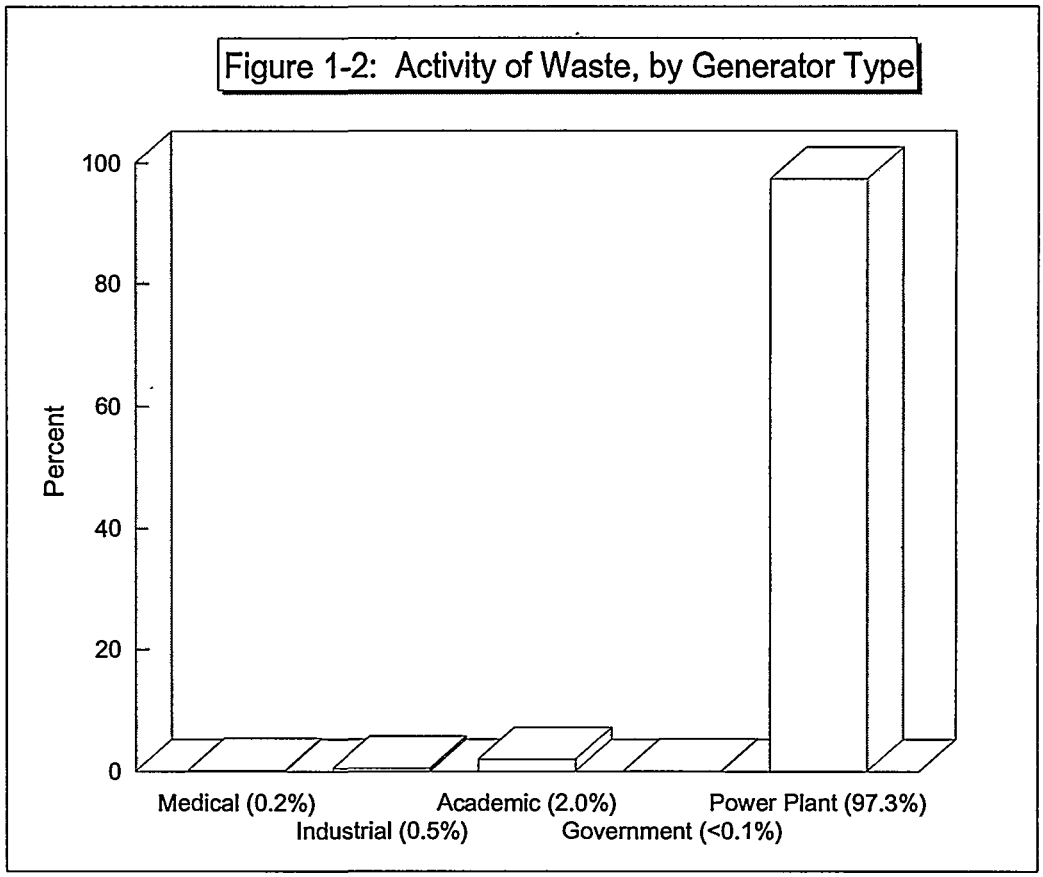
[2] To obtain volume in cubic feet, multiply the number of cubic meters by 35.31. To obtain activity in curies, divide the number of gigabecquerels (GBq) by 37.

[3] Cintichem, once a major supplier of radiopharmaceuticals, is completing the decommissioning of its former radionuclide-production facility.

* Less than 0.1%.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.





Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Table 1-3: Waste Shipped[1] for Disposal, by Class[2] and Generator Type

	Class A		Class B		Class C	
Generator Type	Volume (m^3)[3]	Activity (GBq)[3]	Volume (m^3)[3]	Activity (GBq)[3]	Volume (m^3)[3]	Activity (GBq)[3]
MEDICAL	43.4	45.8155	0.0	0.0000	*	0.0007
INDUSTRIAL						
Manufacturing, Research & Development	98.3	133.0366	0.0	0.0000	0.0	0.0000
Cintichem[4]	1,146.0	2.5820	0.0	0.0000	0.0	0.0000
ACADEMIC	6.7	565.7349	0.0	0.0000	0.0	0.0000
GOVERNMENT	0.5	0.1295	0.0	0.0000	0.0	0.0000
NUCLEAR POWER PLANT	191.5	9,321.3390	16.5	18,262.9727	0.0	0.0000
TOTAL	**1,486.4**	**10,068.6375**	**16.5**	**18,262.9727**	*	**0.0007**
	(52,485 ft^3)	**(272 curies)**	**(583 ft^3)**	**(494 curies)**	(*)	(*)

[1] Refers to LLRW transferred either directly or via a broker or processor to one of the available licensed LLRW disposal facilities.

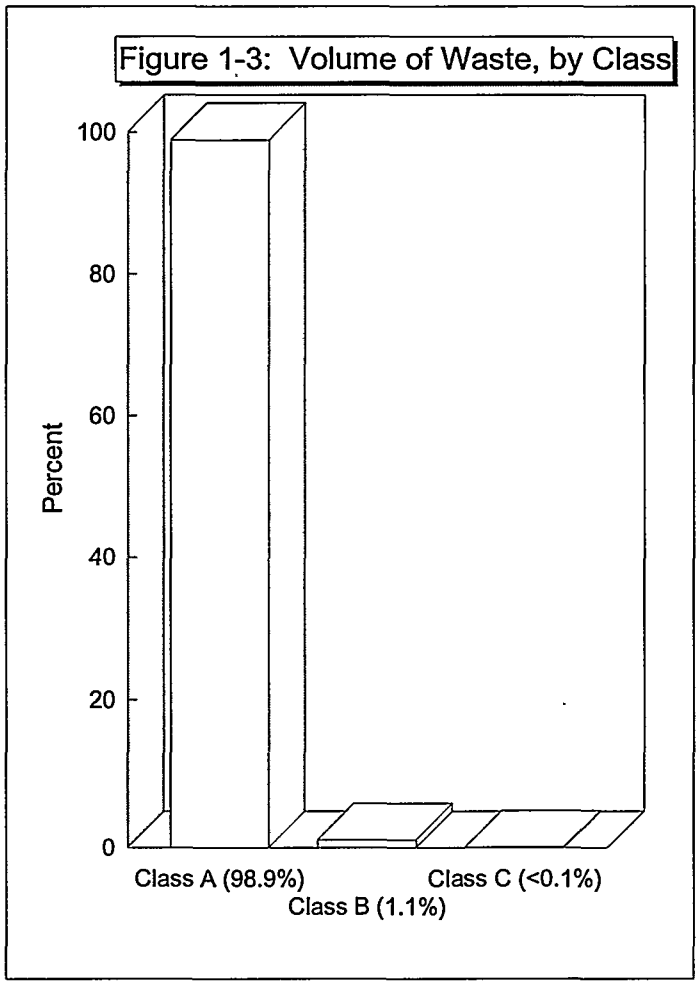
[2] Classes A, B, and C are waste-classification categories established by the U.S. Nuclear Regulatory Commission (NRC) in Title 10 of the Code of Federal Regulations, Part 61, "Licensing Requirements for Land Disposal of Radioactive Waste," and adopted by the New York State Department of Environmental Conservation in 6 NYCRR Part 382, "Regulations for Low-Level Radioactive Waste Disposal Facilities."

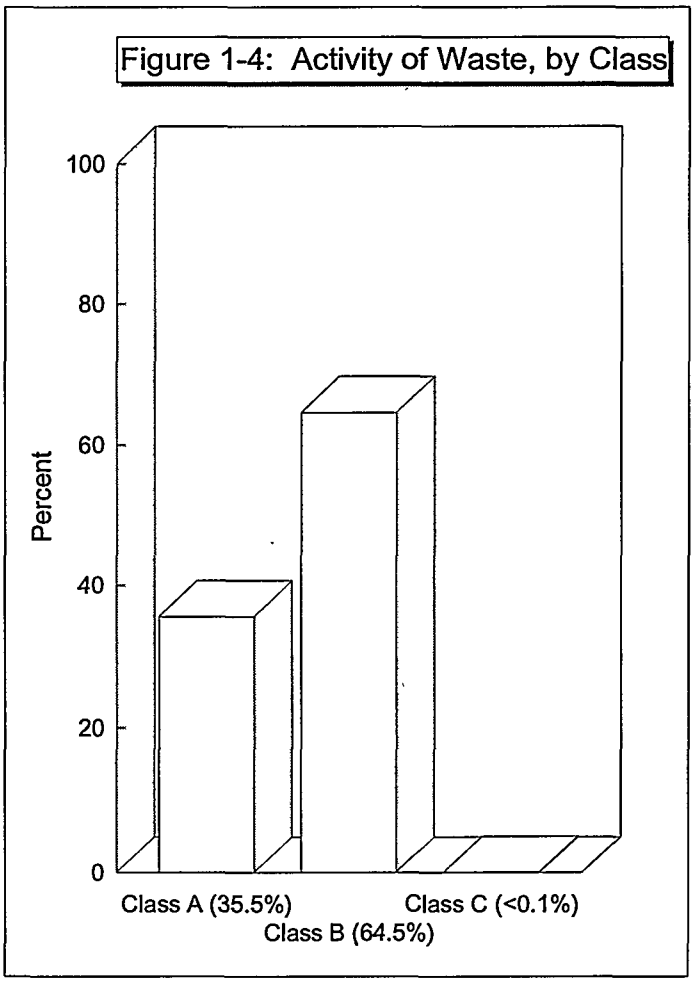
[3] To obtain volume in cubic feet, multiply the number of cubic meters by 35.31. To obtain activity in curies, divide the number of gigabecquerels (GBq) by 37.

[4] Cintichem, once a major supplier of radiopharmaceuticals, is completing the decommissioning of its former radionuclide-production facility.

* Less than 0.1 cubic meter or 0.1 curies.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.





Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Table 1-4: Distribution of Waste Among Disposal Facilities[1]

Disposal Facility	Volume (m^3)[2]	% of Total	Activity (GBq)[2]	% of Total
Barnwell, South Carolina	283.5	18.9	28,322.3461	99.9
Clive, Utah	1,219.0	81.1	9.2463	*
Richland, Washington	0.4	*	0.0185	*
TOTAL	**1,502.9 (53,067 ft^3)**	**100.0**	**28,331.6109 (766 curies)**	**100.0**

[1] Refers to LLRW transferred either directly or via a broker or processor to the respective disposal facility.

[2] To obtain volume in cubic feet, multiply the number of cubic meters by 35.31. To obtain activity in curies, divide the number of gigabecquerels (GBq) by 37.

* Less than 0.1%.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Table 1-5: Treatments[1] Reported for Waste Shipped for Disposal, by Generator Type

Generator Type	Number of Generators Shipping LLRW[2]	Number of Shipping Generators Reporting Waste Treatment and Predominant Treatments
MEDICAL	19	On Site: 11 • Compaction • Incineration • Macroencapsulation Off Site: 12 • Supercompaction • Incineration
INDUSTRIAL	16	On Site: 9 • Compaction • Sorting/Segregation • Solidification • Decontamination • Size Reduction Off Site: 11 • Supercompaction • Incineration
ACADEMIC	6	On Site: 3 • Compaction • Macroencapsulation Off Site: 4 • Supercompaction • Incineration
GOVERNMENT	1	On Site: None reported Off Site: None reported
NUCLEAR POWER PLANT	6	On Site: 1 • Sorting/Segregation Off Site: 5 • Supercompaction • Incineration • Decontamination • Surface Removal • Size Reduction • Catalytic Extraction Process

[1] Treatment refers to the processing of LLRW to reduce its volume or activity, or change its chemical or physical form, prior to transfer to a disposal facility. Some generators reported using both on-site and off-site waste treatment facilities.

[2] Refers to the number of generators who reported transferring LLRW either directly or via a broker or processor to one of the available licensed LLRW disposal facilities.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Table 1-6: Number of Facilities Shipping Various Waste Types for Disposal

Waste Type[1]	Medical	Industrial	Academic	Government	Nuclear Power Plants	Total
Activated Material	0	0	0	0	1	1
Aqueous Liquids	3	6	3	0	0	12
Biological Material (excluding animal carcasses)	2	1	0	0	0	3
Carcasses (animal)	4	1	0	0	0	5
Compacted Trash	16	9	6	0	6	37
Contaminated Equipment	0	2	1	0	3	6
Charcoal	0	1	0	0	2	3
Demolition Rubble	0	2	0	0	3	5
Evaporator Bottoms/Sludges	1	1	0	0	1	3
Filter Media	0	1	0	0	2	3
Filter (Mechanical)	0	3	0	0	3	6
Glassware/Labware	3	3	1	0	3	10
Ion Exchange Media	0	1	0	0	5	6
Incinerator Ash	0	1	0	0	5	6
Material to be Incinerated	1	2	0	0	0	3
Non-Compacted Trash	0	2	1	0	5	8
Oil	0	1	0	0	1	2
Organic Liquids (excluding oil)	0	1	2	0	1	4
Sealed Source/Device	2	1	1	0	0	4
Soil	0	1	0	0	0	1
Other[2]	4	3	1	1	1	10

[1] Waste types listed are as defined by the NRC Uniform Manifest.

[2] In certain cases, generators reported shipping waste that did not fit into any of the categories listed. Those data are reported here.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Table 1-7: Waste Shipped for Disposal, by County of Origin[1]

County	Number of Generators Reporting	Number of Generators Shipping LLRW[2]	Volume (m^3)[3]	% of Total	Activity (GBq)[3]	% of Total
Albany	11	3	2.5	0.2	0.6091	*
Allegany	1	0	0.0	0.0	0.0000	0.0
Bronx	7	1	*	*	0.0370	*
Broome	6	0	0.0	0.0	0.0000	0.0
Cattaraugus	0	0	0.0	0.0	0.0000	0.0
Cayuga	0	0	0.0	0.0	0.0000	0.0
Chautauqua	1	0	0.0	0.0	0.0000	0.0
Chemung	4	1	0.4	*	0.0104	*
Chenango	1	1	0.4	*	1.9110	*
Clinton	4	0	0.0	0.0	0.0000	0.0
Columbia	1	0	0.0	0.0	0.0000	0.0
Cortland	1	0	0.0	0.0	0.0000	0.0
Delaware	2	0	0.0	0.0	0.0000	0.0
Dutchess	4	1	0.4	*	1.4800	*
Erie	24	1	43.0	2.9	1.7953	*
Essex	2	1	1.9	0.1	0.0590	*
Franklin	2	0	0.0	0.0	0.0000	0.0
Fulton	0	0	0.0	0.0	0.0000	0.0
Genesee	1	0	0.0	0.0	0.0000	0.0
Greene	0	0	0.0	0.0	0.0000	0.0
Hamilton	0	0	0.0	0.0	0.0000	0.0
Herkimer	1	0	0.0	0.0	0.0000	0.0
Jefferson	1	0	0.0	0.0	0.0000	0.0
Kings	21	0	0.0	0.0	0.0000	0.0
Lewis	0	0	0.0	0.0	0.0000	0.0
Livingston	1	0	0.0	0.0	0.0000	0.0
Madison	2	0	0.0	0.0	0.0000	0.0
Monroe	12	5	15.2	1.0	0.9514	*
Montgomery	2	0	0.0	0.0	0.0000	0.0
Nassau	32	4	4.5	0.3	3.1119	*
New York	30	9	29.3	2.0	597.3513	2.1
Niagara	7	0	0.0	0.0	0.0000	0.0
Oneida	4	0	0.0	0.0	0.0000	0.0
Onondaga	8	3	7.6	0.5	3.6309	*

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Table 1-7: Waste Shipped for Disposal, by County of Origin[1] (continued)

County	Number of Generators Reporting	Number of Generators Shipping LLRW[2]	Volume (m^3)[3]	% of Total	Activity (GBq)[3]	% of Total
Ontario	3	0	0.0	0.0	0.0000	0.0
Orange	9	1	1146.0	76.3	2.5080	*
Orleans	1	0	0.0	0.0	0.0000	0.0
Oswego	5	3	148.6	9.9	10,752.6168	38.0
Otsego	3	0	0.0	0.0	0.0000	0.0
Putnam	3	0	0.0	0.0	0.0000	0.0
Queens	11	1	0.4	*	0.1765	*
Rensselaer	6	2	5.1	0.3	0.0585	*
Richmond	4	0	0.0	0.0	0.0000	0.0
Rockland	9	4	34.4	2.3	125.3557	0.4
St. Lawrence	3	0	0.0	0.0	0.0000	0.0
Saratoga	3	0	0.0	0.0	0.0000	0.0
Schenectady	5	1	2.1	0.1	0.1790	*
Schoharie	0	0	0.0	0.0	0.0000	0.0
Schuyler	0	0	0.0	0.0	0.0000	0.0
Seneca	1	0	0.0	0.0	0.0000	0.0
Steuben	2	0	0.0	0.0	0.0000	0.0
Suffolk	22	0	0.0	0.0	0.0000	0.0
Sullivan	0	0	0.0	0.0	0.0000	0.0
Tioga	0	0	0.0	0.0	0.0000	0.0
Tompkins	3	1	1.1	0.1	3.6119	*
Ulster	3	0	0.0	0.0	0.0000	0.0
Warren	1	0	0.0	0.0	0.0000	0.0
Washington	0	0	0.0	0.0	0.0000	0.0
Wayne	2	1	0.4	*	1.5220	*
Westchester	19	4	59.7	4.0	16,834.6352	59.5
Wyoming	0	0	0.0	0.0	0.0000	0.0
Yates	0	0	0.0	0.0	0.0000	0.0
TOTALS	**311**	**48**	**1,503.0**	**100.0**	**28,331.6109**	**100.0**

[1] Section 4 of this report identifies the individual facilities reporting and shipping waste for disposal.
[2] Refers to the number of generators that reported transferring LLRW either directly or via a broker or processor to one of the available licensed LLRW disposal facilities.
[3] To obtain volume in cubic feet, multiply the number of cubic meters by 35.31. To obtain activity in curies, divide the number of gigabecquerels (GBq) by 37.
* Less than 0.1 cubic meter or 0.1%

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Table 1-8: Radionuclide Content of Waste[1] Shipped for Disposal (in MBq)[2]

Radionuclide	Half-Life[2,3]	Academic	Government	Industrial	Medical	Nuclear Power Plants	Total
Ag-110m	21.8 y			17.400	1.070	11,000.012	11,018.482
Am-241	432.7 y			643.400		399.143	1,042.543
Ba-133	10.5 y	12.876					12.876
C-14	5730 y	314.752		97,954.392	4,026.214	50,115.261	152,410.619
Ca-45	162.7 d	3.587			16.319		19.906
Cd-109	462.0 d	1.014				0.330	1.344
Ce-139	137.6 d					0.001	0.001
Ce-144	284.6 d			53.000		39,298.792	39,351.792
Cf-252	2.65 y				0.142		0.142
Cl-36	3.01 E5 y	1.850		1.851	3.700		7.401
Cm-242	162.8 d					318.234	318.234
Cm-243/244	29.1 y					222.889	222.889
Cm-244	18.1 y					126.000	126.000
Co-57	271.8 d	43.324		3,693.750	98.850	14.326	3,850.250
Co-58	70.9 d			9.700	3.700	38,046.990	38,060.390
Co-59	5 E8 y			0.020	0.085		0.105
Co-60	5.2 y	380.633		112.620		10,126,501.872	10,126,995.125
Cr-51	27.7 d			8.200	2,332.165	32,088.100	34,428.465
Cs-134	2.0 y				0.037	361,198.900	361,198.937
Cs-137	30.2 y	560,000.148		1,142.900	5.130	1,021,932.897	1,583,081.075
Fe-55	2.7 y	40.693		146.000	3.700	3,928,505.851	3,928,696.244
Fe-59	44.5 d	0.037		0.360	0.140	19,100.000	19,100.537
Gd-153	241.6 d				0.074		0.074
Ge-68	270.8 d				3.700		3.700
H-3	12.3 y	4,761.898		28,564.280	20,566.291	1,925,410.203	1,979,302.672
I-125	59.4 d	80.808		183.600	5,766.040		6,030.448
I-129	1.6 E7 y					115.115	115.115
I-131	8.0 d					0.035	0.035
In-111	2.8 d	0.037					0.037
Mn-54	312.2 d	48.604		23.100	3.826	747,510.240	747,585.770
Na-22	2.6 y	42.432			146.310		188.742
Nb-94	2.0 E4 y					7,372.777	7,372.777
Nb-95	35.0 d					11,919.040	11,919.040
Ni-59	7.6 E4 y					70,356.555	70,356.555
Ni-63	100 y			887.100		4,409,697.764	4,410,584.864
P-32	14.3 d			59.400	2,091.500		2,150.900
P-33	25.3 d			652.000	86.000		738.000

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Radionuclide	Half-Life[2,3]	Academic	Government	Industrial	Medical	Nuclear Power Plants	Total
Pb-210	138.4 d	0.037					0.037
Po-210	138.4 d			321.800			321.800
Pu-238	87.7 y					280.883	280.883
Pu-239	2.4 E4 y					107.730	107.730
Pu-240	6.56 E3 y					89.900	89.900
Pu-241	14.4 y					853.765	853.765
Ra-226	1.6 E3 y			18.500	0.590		19.090
Re-188	18.6 m				0.400		0.400
Ru-103	39.3 d					9.265	9.265
Ru-106	1 y			3.000			3.000
S-35	87.2 d	1.850		31.440	10,626.294		10,659.584
Sb-124	60.2 d			8.300		13,896.407	13,904.707
Sb-125	2.8 y					677,161.341	677,161.341
Sn-113	115.1 d	0.037				0.018	0.055
Sr-89	50.5 d					11.200	11.200
Sr-90	29.1 y	0.037		966.000		14,714.105	15,680.142
Tc-99	2.1 E5 y			47.014		286.990	334.004
Te-123m	119.7 d					22.422	22.422
Th-230	7.54 E4 y			1.600			1.600
Th-232	1.4 E10 y	0.074		2.511	3.890		6.475
U-235	7 E8 y			10.360			10.360
U-238	4.5 E9 y	0.148	129.500	11.220	11.442		152.310
Y-88	106.7 d					0.002	0.002
Zn-65	243.8 d			11.900	18.618	4,070,829.245	4,070,859.763
Zr-95	64 d			8.900		4,797.080	4,805.980
Others[4]				23.000			23.000
Total		**565,734.876**	**129.500**	**135,618.618**	**45,816.227**	**27,584,311.680**	**28,331,610.901**

[1] Some generator facilities have reported radionuclides with half-lives of less than 90 days in LLRW shipped for disposal. In the majority of these cases, the shorter-lived radionuclides reported cannot be separated readily from longer-lived radionuclides in the waste.

[2] To obtain activity in curies, divide the number of MBq by 37,000.

[2] Source: Chart of the Nuclides, General Electric Company under the direction of Naval Reactors, U.S. DOE; 15th edition, revised to 1996. NB: y=years, m=months, d=days.

[3] Where scientific notation is used, multiply the number by 10 to the specified power. Example: For Ra-226, 1.6 E3 = 1.6×10^3 = 1.6x10x10x10 = 1.6x1,000 = 1,600. For this table, the whole number to which 10 is raised is equal to the number of places the decimal is moved to the right.

[4] In certain cases, LLRW generators are permitted by manifest regulations to report a single activity for a group of radionuclides without assigning a value to each; those data are reported here.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Table 1-9: Waste Shipped from Various States for Disposal in 1997[1]

State	Cubic Meters of Waste[2]	State	Cubic Meters of Waste
Oregon	1,483.8	Missouri	74.9
Illinois	1,011.4	Mississippi	48.8
Washington	769.1	Minnesota	48.2
New Jersey	717.3	Maine	43.1
Tennessee	652.1	Kansas	35.3
Georgia	424.8	Hawaii	29.3
Michigan	411.5	Wisconsin	26.6
Pennsylvania	403.4	New Mexico	23.9
Massachusetts	299.3	Iowa	23.4
New York	**276.4**[3]	Arkansas	21.3
Virginia	237.8	Indiana	10.3
California	229.8	South Dakota	8.8
Alabama	202.3	Montana	5.1
Vermont	193.1	Oklahoma	4.2
Arizona	156.5	District of Columbia	2.9
South Carolina	155.2	New Hampshire	2.4
Texas	152.9	Kentucky	1.3
Colorado	139.9	Nevada	1.2
Connecticut	127.3	North Carolina	1.0
Utah	122.8	Idaho	0.8
Florida	122.5	Delaware	0.6
Ohio	113.8	Rhode Island	0.3
Louisiana	97.9	Wyoming	0.2
Nebraska	83.2	West Virginia	0.1
Maryland	80.1	Alaska	0.1
		TOTAL	**9,078.3 (320,555 ft³)**

[1] This information is obtained from the U.S. DOE Manifest Information Management System database, as of April 29, 1998. The data represent LLRW shipped to the Richland, Washington, and Barnwell, South Carolina, disposal facilities. States not listed did not ship LLRW in 1997. These totals do not include the high-volume, low-activity wastes shipped to the Clive, Utah, facility (1,219.0 cubic meters, or 43,535.7 cubic feet, from New York State).

[2] To obtain volume in cubic feet, multiply the number of cubic meters by 35.31.

[3] These data indicate a lower 1997 disposal volume for New York State than the rest of the report. The total does not include LLRW shipped to the Clive, Utah, facility. In addition, this difference may be caused, in part, by some generators reporting waste volumes measured before volume-reducing treatment.

Section 2

LOW-LEVEL RADIOACTIVE WASTE IN STORAGE (as of December 31, 1997)

This section provides information on LLRW being stored by generators.

Many generators store LLRW to allow its radioactivity to diminish to levels that permit disposal as non-radioactive waste (*i.e.*, **storage for decay**). In general, the cognizant regulatory agencies allow storage for decay only where the waste contains radionuclides with half-lives less than 90 days. LLRW in storage for decay is normally held for 10 half-lives, or until radioactivity has diminished to a level where it is indistinguishable from background radiation. Most generators hold LLRW in storage for decay at their own facilities, although approved off-site facilities can be used.

Generators regularly store waste pending transfer to a licensed LLRW disposal facility (*i.e.*, **storage pending disposal**). Storage pending disposal can occur for extended periods, as when the Barnwell LLRW disposal facility closed to generators in New York from June 30, 1994, until June 30, 1995. Such storage may also occur when the LLRW has a particular characteristic that makes it unacceptable at the available disposal facilities (*e.g.*, contains chemically hazardous components). For those cases where access to licensed disposal facilities is not available, most generators will store LLRW at their own facilities, although approved off-site storage facilities may be used. In addition, most generators routinely store LLRW at their facilities for short periods as a normal part of operation or staging while accumulating a sufficient quantity for transfer to a treatment or disposal facility.

Volume is presented in cubic meters and activity is presented in gigabecquerels (GBq) or megabecquerels (MBq). These units have been adopted for the 1997 Status Report to be consistent with NRC uniform national LLRW manifest requirements. The Conversions for Units table on page 49 and footnotes to the relevant tables provide information for converting the data to the previously used units of cubic feet and curies.

Individual entries in the following tables have been rounded using standard procedures. Because the totals shown represent the sum of the rounded entries, they may vary slightly from one table to another and may not always equal 100%. Waste volumes have been rounded to the nearest 10th of a cubic meter. In most cases, activity has been rounded to the nearest 10,000th of a GBq. Percentages have been rounded to the nearest 10th of a percent in the tables and figures.

Table 2-1: Generators Reporting Waste Stored Pending Disposal[1]

Generator Type	Number Reporting	Number Storing
MEDICAL		
Government	21	5
Private	182	6
College	18	3
Other	9	0
Total Medical	**230**	**14**
INDUSTRIAL		
Manufacturing	11	6
Research & Development	18	8
Other	3	2
Total Industrial	**32**	**16**
ACADEMIC (non-medical)		
College or University	32	13
Other	4	2
Total Academic	**36**	**15**
GOVERNMENT (non-medical)		
New York State	1	0
Other	6	3
Total Government	**7**	**3**
TOTAL NON-POWER PLANT	**305**	**48**
NUCLEAR POWER PLANT	**6**	**4**
TOTAL	**311**	**52**

[1] Includes LLRW in storage at generator sites or an approved off-site location pending transfer to a licensed LLRW facility, as of December 31, 1997. Does not include LLRW held in storage-for-decay.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Table 2-2: Volume and Activity of Waste Stored Pending Disposal[1]

Generator Type	Volume (m^3)[2]	% of Total	Activity (GBq)[2]	% of Total
MEDICAL				
Government	6.3		59.7903	
Private	5.6		7.3376	
College	27.3		145.4728	
Total Medical	**39.2**	**10.4**	**212.6007**	**0.3**
INDUSTRIAL				
Manufacturing, Research & Development	14.7		12.3833	
Cintichem	0.1		10.0710	
Other	0.2		0.0008	
Total Industrial	**15.0**	**3.9**	**22.4551**	*
ACADEMIC (non-medical)				
College or University	47.4		865.6757	
Other	0.8		0.7260	
Total Academic	**48.2**	**12.8**	**866.4017**	**1.1**
GOVERNMENT (non-medical)				
New York State	0.0		0.0000	
Other	3.9		0.1307	
Total Government	**3.9**	**1.0**	**0.1307**	*
TOTAL NON-POWER PLANT	**106.3**	**28.1**	**1,101.5882**	**1.4**
NUCLEAR POWER PLANT	**271.4**	**71.9**	**76,224.2574**	**98.6**
TOTAL	**377.7**	**100.0**	**77,325.8456**	**100.0**
	(13,337 ft^3)		**(2,090 curies)**	

[1] Includes LLRW in storage at generator sites or an approved off-site location pending transfer to a licensed LLRW facility, as of December 31, 1997. Does not include LLRW held in storage-for-decay.

[2] To obtain volume in cubic feet, multiply the number of cubic meters by 35.31. To obtain activity in curies, divide the number of gigabecquerels (GBq) by 37.

* Less than 0.1%.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Figure 2-1: Volume of Waste in Storage Pending Disposal, by Generator Type

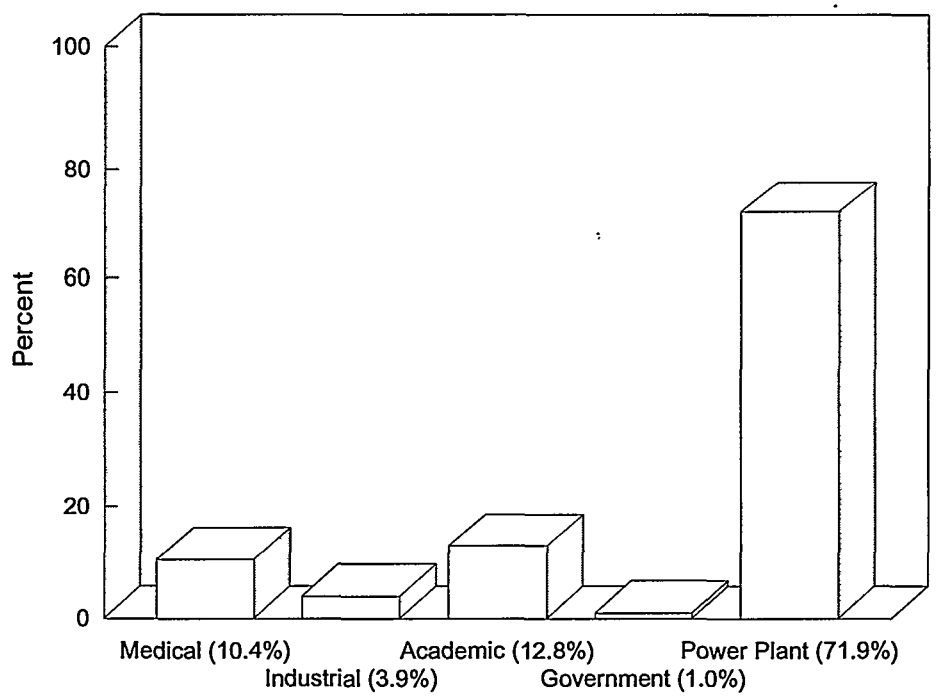
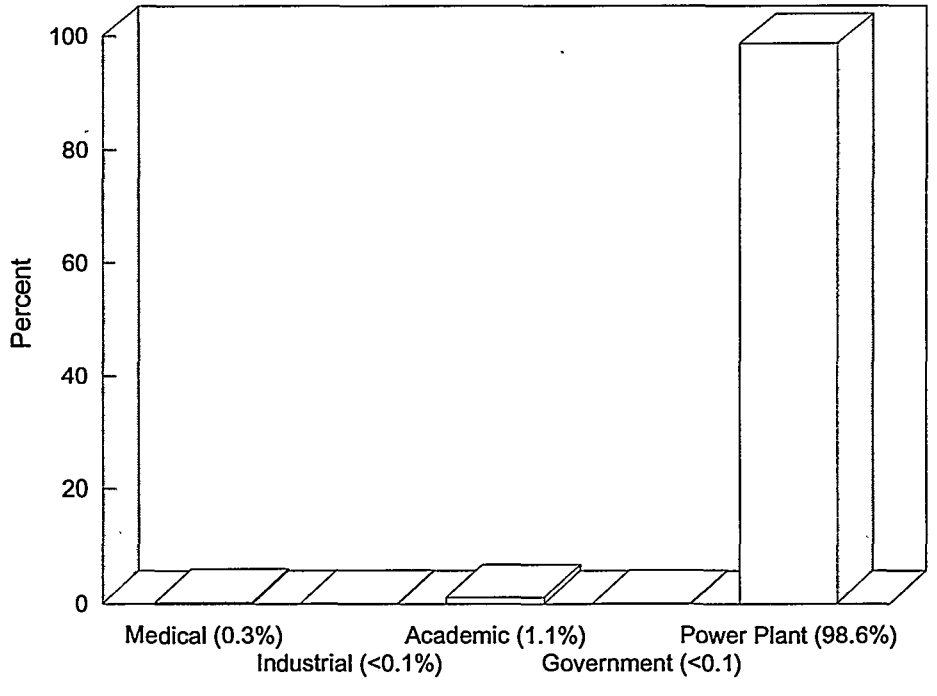


Figure 2-2: Activity of Waste in Storage Pending Disposal, by Generator Type



Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Table 2-3: Waste in Storage Pending Disposal, by Class[1] and Generator Type[2]

	Class A		Class B		Class C	
Generator Type	Volume (m^3)[3]	Activity (GBq)[3]	Volume (m^3)[3]	Activity (GBq)[3]	Volume (m^3)[3]	Activity (GBq)[3]
MEDICAL	39.2	182.1906	*	30.4100	0.0	0.0000
INDUSTRIAL	15.0	22.4552	0.0	0.0000	0.0	0.0000
ACADEMIC	48.2	829.4017	0.0	0.0000	*	37.0000
GOVERNMENT	3.9	0.1308	0.0	0.0000	0.0	0.0000
NUCLEAR POWER PLANT	254.6	63,972.3134	11.2	2,189.8000	5.6	10,062.1440
TOTAL	**360.9**	**65,006.4917**	**11.2**	**2,220.2100**	**5.6**	**10,099.1440**
	(12,743 ft^3)	**(1,757 curies)**	**(396 ft^3)**	**(60 curies)**	**(198 ft^3)**	**(273 curies)**

[1] Classes A, B, and C are waste-classification categories established by the NRC in Title 10 of the Code of Federal Regulations, Part 61, "Licensing Requirements for Land Disposal of Radioactive Waste," and adopted by the New York State Department of Environmental Conservation in 6 NYCRR Part 382, "Regulations for Low-Level Radioactive Waste Disposal Facilities."

[2] Refers to LLRW in storage at generator sites or an approved off-site location pending transfer to a licensed LLRW facility, as of December 31, 1997. Does not include LLRW held in storage-for-decay.

[3] To obtain volume in cubic feet, multiply the number of cubic meters by 35.31. To obtain activity in curies, divide the number of gigabecquerels (GBq) by 37.

* Less than 0.1 cubic meter.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Figure 2-3: Volume of Waste in Storage Pending Disposal, by Class

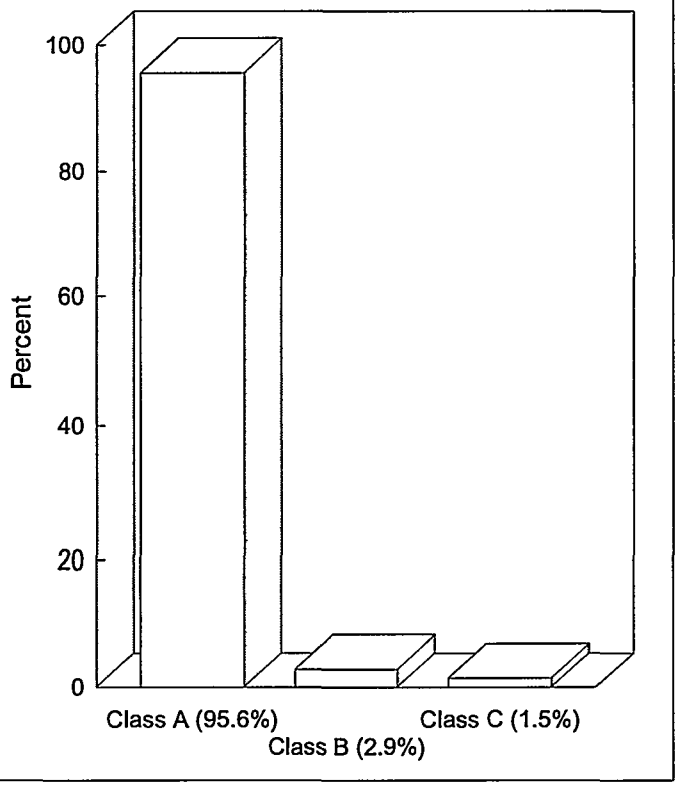
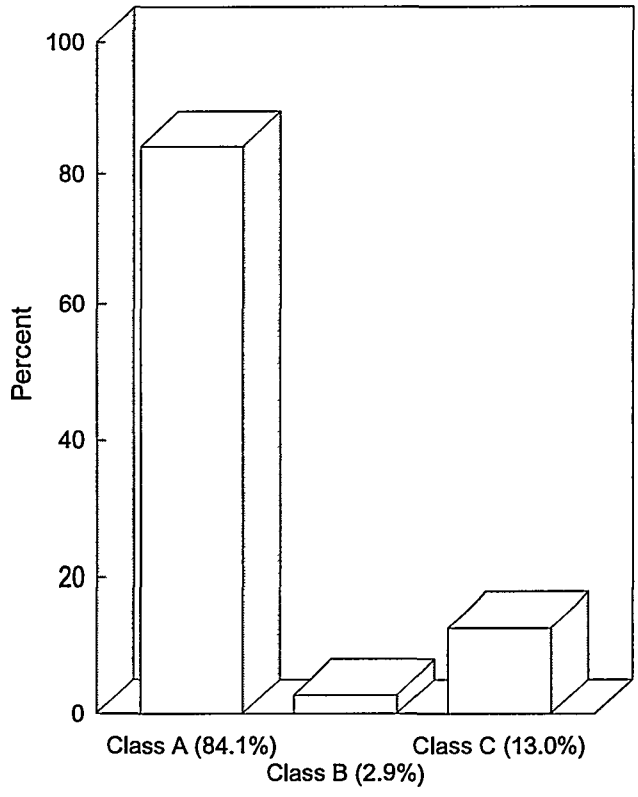


Figure 2-4: Activity of Waste in Storage Pending Disposal, by Class



Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Table 2-4: Number of Facilities Reporting Various Waste Types in Storage Pending Disposal

Waste Type[1]	Medical	Industrial	Academic	Government	Nuclear Power Plants	Total
Aqueous Liquids	3	5	3	0	0	11
Biological Material (excluding carcasses)	0	0	1	0	0	1
Charcoal	0	1	0	0	2	3
Compacted Trash	4	1	4	0	1	10
Contaminated Equipment	0	1	1	1	0	3
Evaporator Bottoms/Sludges	1	0	0	0	0	1
Glassware/Labware	3	2	1	0	0	6
Incinerator Ash	0	0	1	0	0	1
Mechanical Filter	0	0	0	0	1	1
Non-compacted Trash	0	1	1	0	0	2
Organic Liquids (excluding oil)	0	0	1	0	0	1
Sealed Source/Device	3	2	2	1	0	8
Soil	0	1	1	0	0	2
Other[2]	0	0	0	1	0	1

[1] Waste types listed are as defined by the NRC Uniform Manifest.

[2] In certain cases, generators reported storage of waste that did not fit into any of the categories listed. Those data are reported here.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Table 2-5: Waste in Storage[1] Pending Disposal, by County of Origin[2]

County	Number of Generators Reporting	Number of Generators Storing LLRW[3]	Volume (m^3)[4]	% of Total	Activity (GBq)[4]	% of Total
Albany	11	3	2.3	0.6	0.5447	*
Allegany	1	1	21.0	5.6	185.4495	0.3
Bronx	7	0	0.0	0.0	0.0000	0.0
Broome	6	1	*	*	5.0300	*
Cattaraugus	0	0	0.0	0.0	0.0000	0.0
Cayuga	0	0	0.0	0.0	0.0000	0.0
Chautauqua	1	0	0.0	0.0	0.0000	0.0
Chemung	4	0	0.0	0.0	0.0000	0.0
Chenango	1	0	0.0	0.0	0.0000	0.0
Clinton	4	1	0.1	*	0.2520	*
Columbia	1	1	1.7	0.5	0.4070	*
Cortland	1	0	0.0	0.0	0.0000	0.0
Delaware	2	0	0.0	0.0	0.0000	0.0
Dutchess	4	0	0.0	0.0	0.0000	0.0
Erie	24	5	13.4	3.6	94.6819	0.1
Essex	2	2	0.6	0.2	0.7585	*
Franklin	2	0	0.0	0.0	0.0000	0.0
Fulton	0	0	0.0	0.0	0.0000	0.0
Genesee	1	0	0.0	0.0	0.0000	0.0
Greene	0	0	0.0	0.0	0.0000	0.0
Hamilton	0	0	0.0	0.0	0.0000	0.0
Herkimer	1	0	0.0	0.0	0.0000	0.0
Jefferson	1	0	0.0	0.0	0.0000	0.0
Kings	21	0	0.0	0.0	0.0000	0.0
Lewis	0	0	0.0	0.0	0.0000	0.0
Livingston	1	0	0.0	0.0	0.0000	0.0
Madison	2	0	0.0	0.0	0.0000	0.0
Monroe	12	3	5.9	1.6	124.1257	0.2
Montgomery	2	0	0.0	0.0	0.0000	0.0
Nassau	32	3	4.3	1.1	2.4424	*
New York	30	7	6.4	1.7	602.0035	0.8
Niagara	7	2	1.0	0.3	0.2382	*
Oneida	4	1	0.8	0.2	9.4123	*
Onondaga	8	0	0.0	0.0	0.0000	0.0

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Table 2-5: Waste in Storage[1] Pending Disposal, by County of Origin[2] (continued)

County	Number of Generators Reporting	Number of Generators Storing LLRW[3]	Volume (m^3)[4]	% of Total	Activity (GBq)[4]	% of Total
Ontario	3	0	0.0	0.0	0.0000	0.0
Orange	9	1	0.1	*	10.0710	*
Orleans	1	0	0.0	0.0	0.0000	0.0
Oswego	5	3	267.0	70.7	76,222.5274	98.6
Otsego	3	0	0.0	0.0	0.0000	0.0
Putnam	3	1	0.2	*	0.0659	*
Queens	11	2	0.9	0.3	0.2310	*
Rensselaer	6	3	16.5	4.4	3.6807	*
Richmond	4	1	0.2	*	0.1000	*
Rockland	9	1	2.7	0.7	0.2772	*
St. Lawrence	3	1	0.1	*	0.2080	*
Saratoga	3	0	0.0	0.0	0.0000	0.0
Schenectady	5	1	0.1	*	0.0113	*
Schoharie	0	0	0.0	0.0	0.0000	0.0
Schuyler	0	0	0.0	0.0	0.0000	0.0
Seneca	1	1	3.1	0.8	0.0007	*
Steuben	2	0	0.0	0.0	0.0000	0.0
Suffolk	22	2	24.1	6.4	24.0749	*
Sullivan	0	0	0.0	0.0	0.0000	0.0
Tioga	0	0	0.0	0.0	0.0000	0.0
Tompkins	3	1	0.3	*	0.3186	*
Ulster	3	1	*	*	37.0000	*
Warren	1	0	0.0	0.0	0.0000	0.0
Washington	0	0	0.0	0.0	0.0000	0.0
Wayne	2	1	4.4	1.2	1.7300	*
Westchester	19	2	0.5	0.1	0.2033	*
Wyoming	0	0	0.0	0.0	0.0000	0.0
Yates	0	0	0.0	0.0	0.0000	0.0
TOTALS	**311**	**52**	**377.7**	**100.0**	**77,325.8457**	**100.0**
			(13,337 ft^3)		**(2,090 curies)**	

[1] Includes LLRW in storage at generator sites or an approved off-site location pending transfer to a licensed LLRW facility, as of December 31, 1997. Does not include LLRW held in storage-for-decay.
[2] Section 4 of this report identifies the individual facilities reporting LLRW in storage pending disposal.
[3] Refers to the number of generators who reported LLRW in storage pending disposal as of December 31, 1997.
[4] To obtain volume in cubic feet, multiply the number of cubic meters by 35.31. To obtain activity in curies, divide the number of gigabecquerels (GBq) by 37.
* Less than 0.1 cubic meter or 0.1%.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Table 2-6: Radionuclide Content[1] of Waste in Storage Pending Disposal (in MBq)[2]

Radionuclide	Half-Life[3,4]	Academic	Government	Industrial	Medical	Nuclear Power Plants	Total
Ag-110m	21.8 y			148.000		24.220	172.220
Am-241	432.7 y		0.330	3,515.000	3,781.050	4,340.000	11,636.380
Ba-133	10.5 y	0.111			0.027		0.138
C-14	5730 y	17,577.070		975.060	10,074.610	349,433.200	378,059.940
Ca-45	162.7 d	0.010		0.755	37.004		37.769
Cd-109	462.0 d	2.560		2.778	37.000		42.338
Ce-141	32.5 d					0.343	0.343
Ce-144	284.6 d					636,006.920	636,006.920
Cf-252	2.65 y				0.054		0.054
Cl-36	3.01 E5 y	0.150					0.150
Cm-240	27 d					217.000	217.000
Cm-242	162.8 d					5.634	5.634
Cm-243	29.1 y					725.000	725.000
Cm-243/244	29.1 y					0.171	0.171
Cm-244	18.1 y			1,380.000	25.890		1,405.890
Co-57	271.8 d	6.150		148.168	231.390		385.708
Co-58	70.9 d				20.240	113,295.830	113,316.070
Co-60	5.2 y	555,116.251		370.000	11,268.000	18,989,478.870	19,556,233.121
Cr-51	27.7 d					1,340,000.000	1,340,000.000
Cs-134	2.0 y					270,000.000	270,000.000
Cs-137	30.2 y	396.560		1,635.370	71,435.696	1,662,648.073	1,736,115.699
Fe-55	2.7 y			2,775.000		3,633,706.889	3,636,481.889
Fe-59	44.5 d				1.600		1.600
Gd-153	241.6 d	2.280			118.990		121.270
Ge-68	270.8 d				1,021.860		1,021.860
H-3	12.3 y	68,346.450	0.040	2,897.305	103,794.126	31,911.154	206,949.075
I-125	59.4 d	0.010		137.300	3,336.890		3,474.200
I-129	1.6 E7 y					615.000	615.000
Kr-85	10.8 y			370.000			370.000
Mn-54	312.2 d	0.010				3,564,647.720	3,564,647.730
Na-22	2.6 y	3.670		33.980	69.110		106.760
Nb-94	2.0 E4 y					172,000.000	172,000.000
Ni-59	7.6 E4 y					143,403.235	143,403.235
Ni-63	100 y		0.555	483.960		409,999.420	410,483.935
P-32	14.3 d				1,850.000		1,850.000
P-33	25.3 d			1,260.000	370.000		1,630.000
Pb-210	138.4 d	0.037		2.902			2.939

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as ofApril 30, 1998.

Radionuclide	Half-Life[3,4]	Academic	Government	Industrial	Medical	Nuclear Power Plants	Total
Pm-147	2.6 y			221.571			221.571
Pu-238	87.7 y			1,110.000		36,200.000	37,310.000
Pu-239	2.4 E4 y	222,000.000				36,100.000	258,100.000
Pu-240	6.56 E3 y					3,420.000	3,420.000
Pu-241	14.4 y					562.184	562.184
Ra-226	1.6 E3 y	5.217	0.299	0.800	112.000		118.316
Rh-99	18 d	130.000					130.000
S-35	87.2 d	0.020		407.000			407.020
Sb-125	2.8 y					77.850	77.850
Sc-46	83.8 d	0.010					0.010
Se-75	119.8 d				0.023		0.023
Sn-113	115.1 d	0.110					0.110
Sr-89	50.5 d				185.740	4,490.000	4,675.740
Sr-90	29.1 y	1,850.050		3,931.104	3,700.000	6,241.076	15,722.230
Tc-99	2.1 E5 y			481.000		3,600.000	4,081.000
Tc-99m	6 h				1,110.000		1,110.000
Th-232	1.4 E10 y	94.737		9.250	19.300		123.287
Tl-204	3.78 y	0.037		36.057			36.094
U-238	4.5 E9 y	51.380	129.511	11.840			192.731
Zn-65	243.8 d	0.620				44,811,040.100	44,811,040.720
Zr-95	64 d					67.470	67.470
Others[5]		818.200		111.000			929.200
Total		**866,401.700**	**130.735**	**22,455.200**	**212,600.600**	**76,224,257.359**	**77,325,845.594**

[1] Some generator facilities have reported radionuclides with half-lives of less than 90 days in LLRW held for storage pending disposal. In the majority of these cases, the shorter-lived radionuclides reported cannot be separated readily from longer-lived radionuclides in the waste. Does not include LLRW in storage-for-decay.

[2] To obtain activity in curies, divide the number of MBq by 37,000.

[3] Source: Chart of the Nuclides, General Electric Company under the direction of Naval Reactors, U.S. DOE; 15th edition, revised to 1996. NB: y=years, d =days, h=hours.

[4] Where scientific notation is used, multiply the number by 10 to the specified power. Example: For Ra-226, 1.6 E3 = 1.6×10^3 = 1.6x10x10x10 = 1.6x1,000 = 1,600. For this table, the whole number to which 10 is raised is equal to the number of places the decimal is moved to the right.

[5] In certain cases, LLRW generators are permitted by manifest regulations to report a single activity for a group of radionuclides without assigning a value to each; those data are reported here.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Table 2-7: Waste Reported in Storage for Decay[1], by Generator Type

Generator Type	Number of Generators Reporting	Number of Generators Reporting Storage for Decay[2]	Number of Generators Reporting Only Storage for Decay	Estimated Maximum Volume in Storage for Decay at Any Time (m^3)[3]
MEDICAL	230	212	205	1,548
INDUSTRIAL	32	13	12	175
ACADEMIC	36	30	22	516
GOVERNMENT	7	3	3	40
NUCLEAR POWER PLANT	6	0	0	0
TOTAL	**311**	**258**	**242**	**2,279**
				(80,471 ft^3)

[1] Storage for decay means holding the LLRW until the level of radioactivity has diminished to the point where it can be disposed of as non-radioactive waste. Normally, such LLRW is held for 10 half-lives, or until the radioactivity has diminished to a level that is undetectable above background radiation.

Typical radionuclides held for decay, with their respective half-lives, include: Iodine-123 (13.1 hours), Iodine-125 (59.7 days), Iodine-131 (8.04 days), Technetium-99m (6.02 hours), Phosphorous-32 (14.3 days), Gallium-67 (3.26 days), and Sulfur-35 (89.9 days).

[2] Some generators who store for decay also may have transferred other LLRW to one of the licensed LLRW disposal facilities or may be storing LLRW pending disposal.

[3] To obtain volume in cubic feet, multiply the number of cubic meters by 35.31.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Section 3

HISTORIC DATA AND PROJECTIONS FOR LOW-LEVEL RADIOACTIVE WASTE GENERATION IN NEW YORK STATE

This section provides historical data on volume and activity of LLRW shipped for disposal, based on generator data reported to NYSERDA for calendar years 1989 through 1997.

This section also provides a summary, based on information supplied in the 1997 generator reports, of generator projections of the volume and activity of LLRW that will require disposal in a licensed LLRW facility for the years 1998 to 2002.

Volume is presented in cubic meters and activity is presented in GBq. These units have been adopted for the 1997 Status Report to be consistent with NRC uniform national LLRW manifest requirements. The Conversions for Units table on page 49 and footnotes to the relevant tables provide information for converting the data to the previously used units of cubic feet and curies. Volume projections have been rounded to the nearest 10th of a cubic meter, and activity projections to the nearest GBq.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Table 3-1: Historic Overview of Waste Disposal, by Volume[1] (in m^3)[2]

Generator Type	1989	1990	1991	1992	1993	1994	1995	1996	1997
CINTICHEM, INC.[3]	155	125	270	736	468	2,539	4,855	1,005	1,146
TOTAL NON-POWER PLANT	1,192	684	812	1,297	1,165	2,767	4,915	2,074	1,295
NUCLEAR POWER PLANT	1,822	1,441	2,315	1,048	804	667	273	428	208
TOTAL	**3,014**	**2,125**	**3,127**	**2,345**	**1,969**	**3,434**	**5,188**	**2,502**	**1,503**

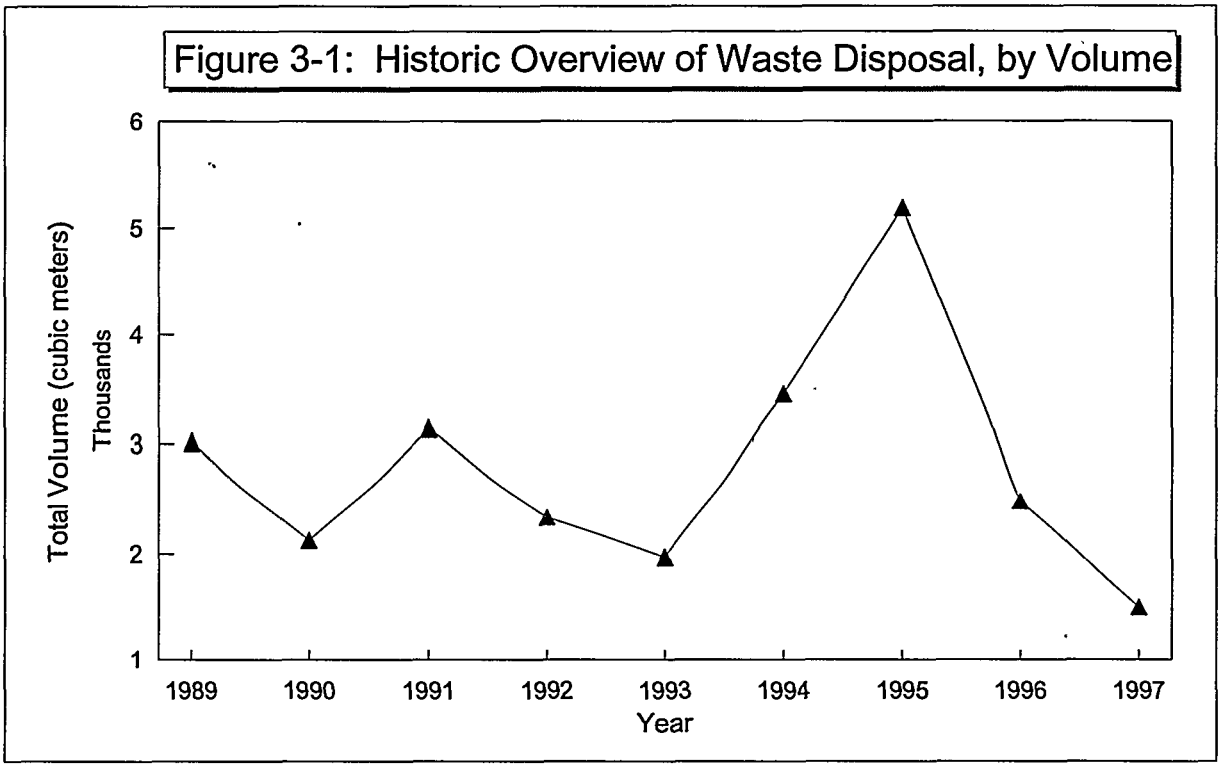
Table 3-2: Historic Overview of Waste Disposal, by Activity[1] (in GBq)[2]

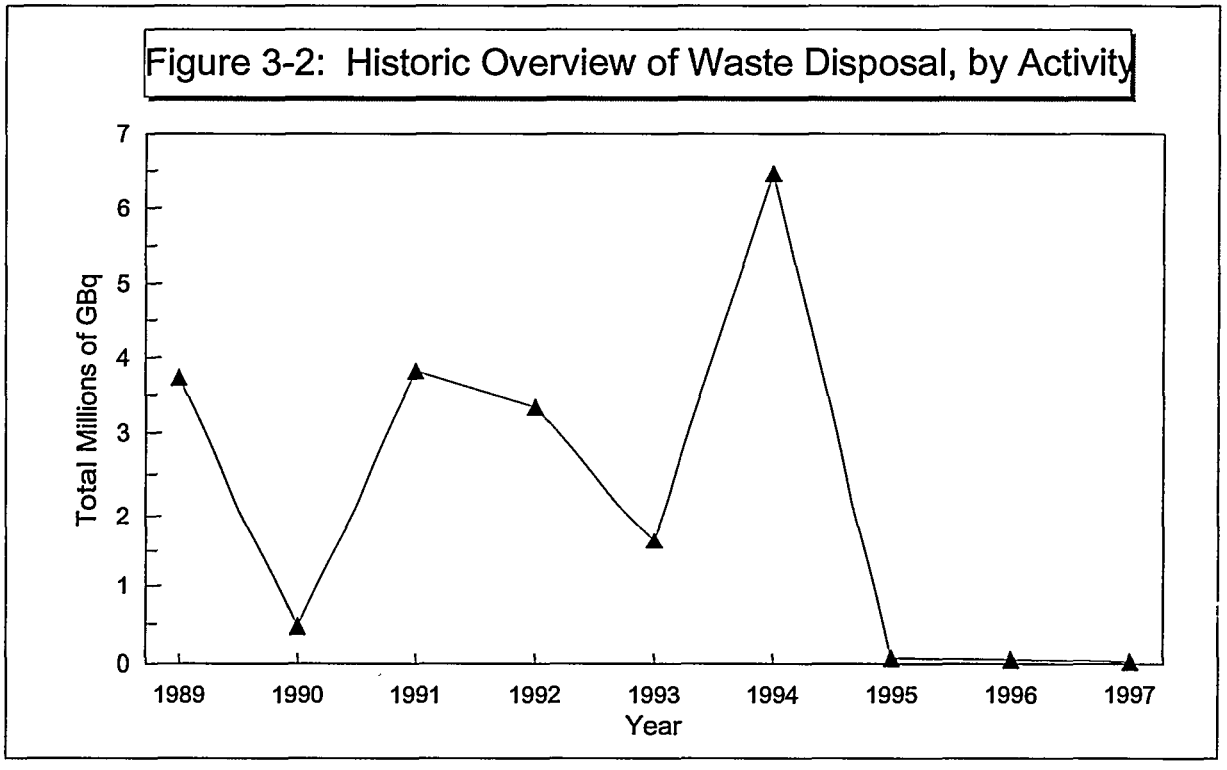
Generator Type	1989	1990	1991	1992	1993	1994	1995	1996	1997
CINTICHEM, INC.[3]	158,434	269,434	30,229	21,756	21,127	1,443	37	51	2
TOTAL NON-POWER PLANT	204,018	273,023	37,077	32,338	157,472	15,392	481	22,330	748
NUCLEAR POWER PLANT	3,527,987	190,883	3,782,103	3,310,723	1,483,515	6,444,142	72,187	28,392	27,584
TOTAL	**3,732,005**	**463,906**	**3,816,180**	**3,343,061**	**1,640,987**	**6,459,534**	**72,668**	**50,722**	**28,332**

[1] Data are based on reports that must be filed annually with NYSERDA.

[2] To obtain volume in cubic feet, multiply the number of cubic meters by 35.31. To obtain activity in curies, divide the number of gigabecquerels (GBq) by 37.

[3] Cintichem, once a major supplier of radiopharmaceuticals, is completing the decommissioning of its former radionuclide-production facility. Cintichem data also are included in the total for all non-utility sources.





Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Table 3-3: Generators' Five-Year Projections of Waste[1], by Volume (in m^3)[2]

Generator Type	1998	1999	2000	2001	2002
MEDICAL	62.7	66.4	45.6	45.8	46.1
INDUSTRIAL					
Manufacturing & Others	50.3	50.3	49.5	49.6	44.6
Cintichem, Inc.[3]	25.0	0.0	0.0	0.0	0.0
ACADEMIC	27.6	27.2	28.2	29.2	30.2
GOVERNMENT	*	*	0.1	0.1	0.1
TOTAL NON-POWER PLANT	**165.6**	**143.9**	**123.4**	**124.7**	**121.0**
NUCLEAR POWER PLANT	429.5	324.4	311.1	308.0	307.8
TOTAL	**595.1**	**468.3**	**434.5**	**432.7**	**428.8**

Table 3-4: Generators' Five-Year Projections of Waste[1], by Activity (in GBq)[2]

Generator Type	1998	1999	2000	2001	2002
MEDICAL	57.2	62.4	26.6	27.7	29.3
INDUSTRIAL					
Manufacturing & Others	339.9	339.9	338.5	38.3	336.5
Cintichem, Inc.[3]	*	0.0	0.0	0.0	0.0
ACADEMIC	3,650.3	24.1	24.7	21.5	21.7
GOVERNMENT	*	*	*	*	*
TOTAL NON-POWER PLANT	**4,047.4**	**426.4**	**389.8**	**387.5**	**387.5**
NUCLEAR POWER PLANT	1,522,793.5	33,044.2	25,003.5	29,421.9	32,248.5
TOTAL	**1,526,840.9**	**33,470.6**	**25,393.3**	**29,809.4**	**32,636.0**

[1] Refers to LLRW projected by generators to require disposal in a licensed LLRW facility.

[2] To obtain volume in cubic feet, multiply the number of cubic meters by 35.31. To obtain activity in curies, divide the number of gigabecquerels (GBq) by 37.

[3] Cintichem, once a major supplier of radiopharmaceuticals, is completing the decommissioning of its former radionuclide-production facility. Cintichem data also are included in the total for all non-utility sources.

* Less than 0.1 m^3 or 0.1 GBq.

Section 4

GENERATORS FILING REPORTS

This section identifies those facilities that filed LLRW reports with NYSERDA for calendar year 1997 in accordance with the New York State LLRW Management Act (Ch. 673, L. 1986) and NYSERDA regulations (21 NYCRR Part 502).

The table that follows lists the total volume and activity of LLRW reported by each generator as having been shipped to LLRW disposal facilities in 1997 and the total volume and activity of LLRW reported by each generator as being held in storage pending disposal as of December 31, 1997.

Generator estimates of total storage capacity and the time that LLRW can continue to be produced and stored on site, absent access to disposal facilities, also are included. The table indicates where storage capacity includes both storage pending transfer to a LLRW disposal facility and storage for decay. In some cases, generators provided non-quantitative estimates of storage capacity. Such estimates are presented as reported. The absence of data indicates that the generator reported no information in the particular category.

Volume is presented in cubic meters and activity is presented in gigabecquerels (GBq). These units have been adopted for the 1997 Status Report to be consistent with new NRC uniform national LLRW manifest requirements. The Conversions for Units table on page 49 and footnotes to the relevant tables provide information for converting the data to the previously used units of cubic feet and curies.

The individual entries in this section have been rounded using standard procedures. Waste volumes have been rounded to the nearest 10th of a cubic meter. Activity has been rounded to the nearest 10,000th of a gigabecquerel. An asterisk (*) indicates an activity of less than a 10,000th of a GBq or a volume of less than a 10th of a cubic meter.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

County	Facility & Location	Volume Disposed of (m^3)	Activity Disposed of (GBq)	Volume Stored (m^3)	Activity Stored (GBq)	Storage Capacity (m^3)†	Storage Time (months)
Albany	Albany Medical Center	0.25	0.4791			210-b	72
	Albany Memorial Hospital						
	East Hudson Community Care Physicians, Albany						
	Empire Isotopes, LLC, Albany						
	New York State Department of Health, Wadsworth Center, Albany						
	Samuel S. Stratton VA Medical Center, Albany			1.26	0.0202	10-b	120
	Siena College, Loudonville						
	St. Peter's Hospital (formerly Bender Hygienic Laboratory), Albany	1.78	0.0006				
	St. Peter's Hospital, Albany						
	University at Albany, State University of New York			0.21	0.395	2.7-b	55
	Watervliet Arsenal, Watervliet	0.43	0.1295	0.84	0.1295	31.5	60
Allegany	Alfred University			21.0	185.4495		
Bronx	Albert Einstein College of Medicine					573	24
	Fordham University					1000-b	60
	Lehman College - CUNY						
	Lincoln Hospital	0.04	0.037			10-b	12
	Our Lady of Mercy Medical Center						
	St. Barnabas Hospital						
	University Diagnostic Medical Imaging						
Broome	IBM Corporation, Endicott			1.02	5.03	*	60
	Oakdale Medical Center, Johnson City						

† The letter b following an entry in the Storage Capacity column indicates storage capacity that includes both storage pending disposal in a licensed LLRW disposal facility and storage for decay. The letter d indicates storage capacity used only for decay in storage.

* Less than 0.1 cubic meter or 0.0001 GBq.

County	Facility & Location	Volume Disposed of (m^3)	Activity Disposed of (GBq)	Volume Stored (m^3)	Activity Stored (GBq)	Storage Capacity (m^3)†	Storage Time (months)
Broome	Our Lady of Lourdes Memorial Hospital, Binghamton						
	SUNY-Binghamton					1.9-b	>100
	United Health Services Hospitals, Binghamton General Hospital						
	United Health Services, Wilson Memorial Regional Hospital, Johnson City						
Chautauqua	SUNY-Fredonia					2-b	60
Chemung	Arnot Ogden Medical Center, Elmira						
	Guthrie Clinic, Big Flats Office, Horseheads						
	Imaging & Sensing Technology Corporation, Elmira	0.44	0.0104			17	48
	St. Joseph's Hospital, Elmira						
Chenango	Procter & Gamble Pharmaceuticals, Inc., Norwich	0.45	1.9110			8.4	48
Clinton	CVPH Medical Center, Plattsburgh						
	SUNY-Plattsburgh			0.11	0.252	14.2-b	200
	William H. Miner Agricultural Research Institute, Chazy						
	Wyeth-Ayerst Research, Chazy					2.5-b	60
Columbia	Norvartis Northeast Research Station, Hudson			1.68	0.407	6.3	24
Cortland	Commons Cardiac Evaluation Center, Cortland						
Delaware	Delaware Valley Hospital, Walton						
	The Hospital, Sidney						
Dutchess	Hudson Valley Heart Center, Poughkeepsie						
	Laboratory for Endocrine Metabolism, Poughkeepsie					0.5-d	20
	Rockefeller University Field Research Center, Millbrook	0.42	1.48			2.6-b	≥36

† The letter b following an entry in the Storage Capacity column indicates storage capacity that includes both storage pending disposal in a licensed LLRW disposal facility and storage for decay. The letter d indicates storage capacity used only for decay in storage.

* Less than 0.1 cubic meter or 0.0001 GBq.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

County	Facility & Location	Volume Disposed of (m^3)	Activity Disposed of (GBq)	Volume Stored (m^3)	Activity Stored (GBq)	Storage Capacity (m^3)†	Storage Time (months)
Dutchess	St. Francis Hospital, Poughkeepsie						
Erie	Bristol-Myers Squibb, Westwood Squibb, Buffalo			0.63	0.1322	12.6-b	60
	Buffalo Cardiology and Pulmonary Associates, Williamsville						
	Buffalo General Hospital						
	Buffalo Medical Group. P.C.						
	Buffalo Medical Group, Williamsville						
	Buffalo State College			0.42	30.13	1.3-b	36
	Canisius College, Buffalo						
	Cardiology Group of Western NY, P.C. Buffalo						
	Central Radiopharmaceutical Services, Inc., Buffalo						
	Children's Hospital of Buffalo						
	Erie County Medical Center, Buffalo			2.01	30.52	15-b	"indefinite"
	Kenmore Mercy Hospital, Kenmore						
	Lake Shore Health Care Center, Inc., Irving						
	Life Technologies, Grand Island						
	Millard Fillmore Hospital, Buffalo						
	Millard Fillmore Suburban Hospital, Williamsville						
	NRD, Inc., Grand Island	43.0	1.7953			100-b	36
	Roswell Park Cancer Institute, Buffalo						
	Sheehan Memorial Hospital, Buffalo						
	Sisters of Charity Hospital, Buffalo						
	St. Joseph's Hospital, Cheektowaga						

† The letter b following an entry in the Storage Capacity column indicates storage capacity that includes both storage pending disposal in a licensed LLRW disposal facility and storage for decay. The letter d indicates storage capacity used only for decay in storage.

* Less than 0.1 cubic meter or 0.0001 GBq.

County	Facility & Location	Volume Disposed of (m^3)	Activity Disposed of (GBq)	Volume Stored (m^3)	Activity Stored (GBq)	Storage Capacity (m^3)†	Storage Time (months)
Erie	SUNY-Buffalo			7.98	6.7024	238.7-b	24
	Syncor International Corporation, Cheektowaga						
	V.A. WNY Healthcare Systems, Buffalo			2.4	27.1973	7.5-b	42
Essex	Adirondack Biomedical Research Institute, Lake Placid	1.89	0.059	0.42	0.7400	38.9-b	120
	Upstate Biotechnology, Inc., Lake Placid			0.21	0.0185	22.8-b	120
Franklin	Adirondack Medical Center, Saranac Lake						
	Trudeau Institute, Inc., Saranac Lake						
Genesee	Genesee Memorial Hospital, Batavia						
Herkimer	Little Falls Hospital						5
Jefferson	Mirza Ashraf, M.D., Carthage						
Kings (Brooklyn)	Alexander Benenson, M.D.						
	Bay Imaging Center						
	Bay Ridge Nuclear Cardiac SPECT Imaging						
	Brookdale Hospital Medical Center						
	Brooklyn College - CUNY						
	Brooklyn Medical Imaging Center						
	Brooklyn Nuclear SPECT						
	Department of Veteran's Affairs Medical Center						
	Family Health Care & Cardiac Center						
	Interscience Diagnostic Laboratories						
	Long Island College Hospital						
	Maimonides Medical Center						

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

† The letter b following an entry in the Storage Capacity column indicates storage capacity that includes both storage pending disposal in a licensed LLRW disposal facility and storage for decay. The letter d indicates storage capacity used only for decay in storage.

* Less than 0.1 cubic meter or 0.0001 GBq.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

County	Facility & Location	Volume Disposed of (m^3)	Activity Disposed of (GBq)	Volume Stored (m^3)	Activity Stored (GBq)	Storage Capacity (m^3)†	Storage Time (months)
Kings (Brooklyn)	MED SPECT Nuclear Imaging, P.C.						
	New York Methodist Hospital						
	Radiology Associates, P.C.						
	Shiel Medical Laboratory						
	SUNY Health Science Center						
	Universal Diagnostic Laboratories, Inc.						
	U.S. FDA, Northeast Regional Laboratory						
	Woodhull Medical & Mental Health Center						
	Wyckoff Heights Medical Center						
Livingston	Nicholas H. Noyes Memorial Hospital, Dansville						
Madison	Colgate University, Hamilton						
	Oneida Healthcare Center, Oneida						
Monroe	Astra-Arcus USA, Rochester	0.18	0.2382			146.4-b	60
	Bausch & Lomb, Inc., Rochester	1.29	0.0370			2	48
	Eastman Kodak Company, Rochester	0.42	0.0185	0.44	1.998	4.2-b	approximately 48
	Monroe County Medical Examiners Office, Rochester						
	Park Ridge Hospital, Rochester						
	Rochester General Hospital	0.28	0.0925			7.1-b	24
	St. Mary's Hospital, Rochester						
	SUNY College at Brockport			0.42	0.15	0.8-b	24
	Syncor International Corporation, Rochester						
	University of Rochester	13.0	0.5652	5.00	121.9778	486-b	60

† The letter b following an entry in the Storage Capacity column indicates storage capacity that includes both storage pending disposal in a licensed LLRW disposal facility and storage for decay. The letter d indicates storage capacity used only for decay in storage.

* Less than 0.1 cubic meter or 0.0001 GBq.

County	Facility & Location	Volume Disposed of (m^3)	Activity Disposed of (GBq)	Volume Stored (m^3)	Activity Stored (GBq)	Storage Capacity (m^3)†	Storage Time (months)
Monroe	Veterinary Specialists of Rochester						
	Wyeth-Lederle Vaccines & Pediatrics, West Henrietta						
Montgomery	Amsterdam Memorial Hospital						
	St. Mary's Hospital, Amsterdam						
Nassau	Advanced Medical Imaging, Great Neck						
	Bethpage Medical Laboratory						
	Cardiovascular Medical Associates, Garden City						
	Cold Spring Harbor Laboratory	0.28	0.0185	0.14	0.2360	90-b	120
	E-Z EM, Inc., Westbury	0.02	0.0011	0.13	0.0137		
	Ear, Nose, & Throat Medical Center, Massapequa						
	Franklin Hospital Medical Center, Valley Stream						
	Grappell & Walker, M.D., Plainview						
	Great Neck Imaging						
	Hempstead General Hospital						
	Lakeville Nuclear Associates, New Hyde Park						
	Long Beach Medical Center						
	Long Island Cardiovascular Imaging Consultants, Great Neck						
	Long Island Heart Diagnostics, P.C., Plainview						
	Mallinckrodt Medical, Inc., Hicksville						
	Massapequa General Hospital, Seaford						
	Medi-Physics, Inc., Port Washington						
	Mercy Medical Center, Rockville Centre						

† The letter b following an entry in the Storage Capacity column indicates storage capacity that includes both storage pending disposal in a licensed LLRW disposal facility and storage for decay. The letter d indicates storage capacity used only for decay in storage.

* Less than 0.1 cubic meter or 0.0001 GBq.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

County	Facility & Location	Volume Disposed of (m^3)	Activity Disposed of (GBq)	Volume Stored (m^3)	Activity Stored (GBq)	Storage Capacity (m^3)†	Storage Time (months)
Nassau	Nassau County Medical Examiners Office, East Meadow						
	Nassau Radiologic Group, P.C., Garden City						
	Nassau Radiological Group, Manhasset						
	North Shore Diabetes & Endocrinology Associates, New Hyde Park						
	North Shore University Hospital at Plainview						
	North Shore University Hospital at Glen Cove						
	North Shore University Hospital at Syosset						
	North Shore University Hospital, Manhasset						
	OSI Pharmaceuticals, Inc., Uniondale						
	Sitron & Cilluffo, M.D., P.C., Bethpage						
	South Shore Diagnostic Heart Center, Massapequa						
	South Shore Nuclear Diagnostics, P.C., Rockville Centre						
	SUNY-College at Old Westbury						
	Winthrop University Hospital, Mineola						
New York	Aaron Diamond AIDS Research Center						
	Advanced Fertility Services, P.C.						
	Alleristics, Inc.						
	Bell Atlantic[1]						
	Beth Israel Medical Center			0.21	0.0008		
	Bloch & Schlossberg, M.D., P.C.						
	City College NY- CUNY	2.1	0.0600				48
	Columbia Presbyterian Medical Center	10.71	24.5375	0.88	1.48	56-b	4

† The letter b following an entry in the Storage Capacity column indicates storage capacity that includes both storage pending disposal in a licensed LLRW disposal facility and storage for decay. The letter d indicates storage capacity used only for decay in storage.

* Less than 0.1 cubic meter or 0.0001 GBq.

[1] The New York Office submits a single report reflecting the activities and volumes from all Bell Atlantic facilities located in the State.

County	Facility & Location	Volume Disposed of (m^3)	Activity Disposed of (GBq)	Volume Stored (m^3)	Activity Stored (GBq)	Storage Capacity (m^3)†	Storage Time (months)
New York	Columbia University	3.77	560.4374	0.42	592.00	20-b	48
	East Side Physicians, P.C.						
	Harlem Hospital Center						
	Haskins Laboratories of Pace University	0.7	0.0106			15.3-b	120
	Innovir Laboratories, Inc.			0.01	0.0037	5-b	24
	Malanski, Grunter, et.al., M.D., P.C.						
	Mattes and Bergman, M.D., P.C.						
	Memorial Sloan-Kettering Cancer Center	5.63	6.8581				6
	Metropolitan Hospital Center						
	Mt. Sinai Medical Center	1.05	0.8198			28-b	12
	New York Blood Center			4.04	6.179	6.3-b	30
	New York City Department of Health Bureau of Laboratories			0.21	1.850	63-b	14
	New York Hospital Cornell Medical Center	3.23	1.5444			77-b	6
	New York University						
	New York University Medical Center/ Bellevue Hospital	0.02	0.0006				
	Orentreich Medical Group, LLP						
	Park Avenue Radiologists, P.C.						
	Public Health Research Institute			0.63	0.490	8-b	200
	Rockefeller University	2.14	3.0828			58-b	≥ 60
	St. Luke's Roosevelt Hospital						
	St. Vincent's Hospital & Medical Center of New York						

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

† The letter b following an entry in the Storage Capacity column indicates storage capacity that includes both storage pending disposal in a licensed LLRW disposal facility and storage for decay. The letter d indicates storage capacity used only for decay in storage.

* Less than 0.1 cubic meter or 0.0001 GBq.

County	Facility & Location	Volume Disposed of (m^3)	Activity Disposed of (GBq)	Volume Stored (m^3)	Activity Stored (GBq)	Storage Capacity (m^3)†	Storage Time (months)
New York	West End MRI Medical Associates, P.C.						
Niagara	ASOMA/Twin City, Inc. North Tonawanda			0.03	0.2382	0.4	36
	De Graff Memorial Hospital, North Tonawanda						
	Inter-Community Hospital, Irving						
	Lockport Memorial Hospital						
	Mount St. Mary's Hospital, Lewiston						
	Niagara University						
	Occidental Chemical Corporation, Niagara Falls			1.0	*	5000	> 1000
Oneida	Faxton Hospital, Utica						
	Hamilton College, Clinton			0.75	9.4123	34-b	500
	St. Elizabeth's Hospital, Utica						
	St. Luke's Hospital, Utica						
Onondaga	Bristol-Myers Squibb, East Syracuse	6.94	0.892			10.7-b	50
	Community General Hospital, Syracuse						
	Crouse Hospital, Syracuse						
	Nuclear Imaging Systems, Inc., East Syracuse						
	SUNY Health Science Center, Syracuse	0.21	2.736			135-b	60
	Syncor International Corporation, East Syracuse						
	Syracuse University					18-b	> 240
	V.A. Medical Center, Syracuse	0.42	0.0029			52.4-b	72
Ontario	Clifton Springs Hospital & Clinic						
	F.F. Thompson Hospital, Canandaigua						120

† The letter b following an entry in the Storage Capacity column indicates storage capacity that includes both storage pending disposal in a licensed LLRW disposal facility and storage for decay. The letter d indicates storage capacity used only for decay in storage.

* Less than 0.1 cubic meter or 0.0001 GBq.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

County	Facility & Location	Volume Disposed of (m^3)	Activity Disposed of (GBq)	Volume Stored (m^3)	Activity Stored (GBq)	Storage Capacity (m^3)†	Storage Time (months)
Ontario	Geneva General Hospital						
Orange	Arden Hill Hospital, Goshen						
	Cintichem, Inc., Tuxedo	1146.00	2.5080	0.1	10.0710	28	indefinite
	Mid-Hudson Cardiology, P.C., New Windsor						
	NYU Lanza Laboratory, Tuxedo						
	NYU Lemsip, Tuxedo						
	St. Luke's Hospital, Newburgh						
	Syncor International Corporation, Newburgh						
	The Cornwall Hospital, Cornwall						
	Wallkill Radiology Association, Middletown						
Orleans	Medina Memorial Hospital						
Oswego	A.L. Lee Memorial Hospital, Fulton						
	Advanced Medical Imaging of Oswego County, Fulton						
	James A. FitzPatrick Nuclear Power Plant, Lycoming	88.73	5783.3083	23.32	6027.2881	1204	65
	Nine Mile Point Nuclear Station, Unit 1, Scriba	40.00	714.2753	106.57	18121.9440	4360	236
	Nine Mile Point Nuclear Station, Unit 2, Scriba	19.90	4255.0333	137.10	52073.295	4360	236
Otsego	A.O. Fox Memorial Hospital, Oneonta						
	Bassett Healthcare, Cooperstown						
	Hartwick College, Oneonta						
Putnam	New England Equine Practice, P.C., Brewster						
	Northeast Radiology, Brewster						
	Orentreich Foundation, Cold Spring-on-Hudson			0.24	0.0659	5.5-b	24

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

† The letter b following an entry in the Storage Capacity column indicates storage capacity that includes both storage pending disposal in a licensed LLRW disposal facility and storage for decay. The letter d indicates storage capacity used only for decay in storage.

* Less than 0.1 cubic meter or 0.0001 GBq.

Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

County	Facility & Location	Volume Disposed of (m^3)	Activity Disposed of (GBq)	Volume Stored (m^3)	Activity Stored (GBq)	Storage Capacity (m^3)†	Storage Time (months)
Queens	DOSHI Diagnostic Imaging, Flushing						
	Elmhurst Hospital Center						
	EMA Medical Laboratory, Inc., Ridgewood						
	Forest Hills Nuclear						
	Hillcrest Radiology Associates, P.C., Jamaica						
	Long Island Jewish Medical Center, New Hyde Park			0.21	0.1850	14-b	120
	Meadows Nuclear Imaging, Flushing						
	Parkway Hospital, Forest Hills						
	Peninsula Hospital Center, Far Rockaway						
	Queens College-CUNY, Flushing	0.42	0.1765	0.65	0.0460	57.1-b	36
	Vascular Diagnostic Associates, P.C., Flushing						
Rensselaer	Coromed, Inc., Troy	0.01	0.0046	0.50	0.0676	11.2-b	120
	Regeneron Pharmaceuticals, Inc., Rensselaer						
	Rensselaer Polytechnic Institute, Troy			15.0	3.6120	1000-b	60
	Seton Health Systems, Troy						
	Syncor International Corporation, Troy						
	Virogenetics Corporation, Troy	5.11	0.0539	1.0	0.0011	13.6-b	60
Richmond (Staten Island)	Doctor's Hospital of Staten Island						
	New York State Institute for Basic Research in Developmental Disabilities						
	Regional Radiology						
	St. Vincent's Medical Center			0.22	0.1000	2.5-b	approximately 72
Rockland	Champion International Corporation, West Nyack	0.02	0.074				

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* Less than 0.1 cubic meter or 0.0001 GBq.

County	Facility & Location	Volume Disposed of (m^3)	Activity Disposed of (GBq)	Volume Stored (m^3)	Activity Stored (GBq)	Storage Capacity (m^3)†	Storage Time (months)
Rockland	ICN East, Inc., Diagnostics Division, Orangeburg	1.28	3.7822	2.73	0.2772	72.8-b	60
	Mid-Rockland Imaging Associates, New City						
	Nathan Kline Institute, Orangeburg					45-b	84
	Noah Weg, M.D., P.C., Suffern						
	Nyack Hospital						
	Rockland Nuclear SPECT, Suffern						
	Self-Powered Lighting, West Nyack	29.99	4.943			4.2	60
	Wyeth Ayerst Research, Pearl River	3.08	116.5665			340-b	24
Saratoga	Saratoga Cardiology Associates, P.C., Saratoga Springs						
	Saratoga Hospital, Saratoga Springs						
	Skidmore College, Saratoga Springs						
Schenectady	Cardiology Associates of Schenectady						
	Ellis Hospital, Schenectady						
	General Electric Corporate R&D, Niskayuna	2.11	0.179	0.10	0.0113	5	36
	St. Clare's Hospital, Schenectady						
	Union College, Schenectady						
Seneca	Seneca Army Depot, Romulus			3.09	0.0007	480	41
St. Lawrence	Cardiac Fitness, Inc. of New York, Gouverneur						
	Clarkson University, Potsdam			0.10	0.2080	10-b	120
	St. Lawrence University, Canton						
Steuben	Corning Hospital						
	St. James Mercy Hospital, Hornell						

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County	Facility & Location	Volume Disposed of (m^3)	Activity Disposed of (GBq)	Volume Stored (m^3)	Activity Stored (GBq)	Storage Capacity (m^3)†	Storage Time (months)
Suffolk	Amityville Heart Center						
	Brookhaven Memorial Hospital Medical Center, Patchogue						
	Brookhaven Radiologic Association, P.C., East Patchogue						
	Brunswick Hospital Medical Center, Amityville						
	Cardiac Care Center, Amityville						
	Central Suffolk Hospital, Riverhead						
	Department of Veterans Affairs Medical Center, Northport			2.66	2.0599	8.5-b	36
	East End Cardiology, Riverhead						
	Eastern Long Island Hospital, Greenport						
	Good Samaritan Hospital, West Islip						
	Huntington Medical Group, P.C., Huntington Station						
	North Shore Hematology/Oncology Associates, East Setauket						
	North Suffolk Cardiology Associates, P.C., Stony Brook						
	South Bay Cardiac Imaging, Bay Shore						
	Southampton Hospital						
	St. John's Episcopal Hospital, Smithtown						
	Stony Brook Medical Imaging						
	Suffolk Heart Group, Bay Shore						
	Sunrise Medical Laboratories, Hauppauge						
	SUNY-Stony Brook			21.45	22.0150	147-b	60

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County	Facility & Location	Volume Disposed of (m^3)	Activity Disposed of (GBq)	Volume Stored (m^3)	Activity Stored (GBq)	Storage Capacity (m^3)†	Storage Time (months)
Suffolk	UTC International, Farmingdale						
	United Biomedical, Inc., Hauppauge						
Tompkins	Cayuga Medical Center at Ithaca						
	Cornell University, Environmental Health & Safety, Ithaca	1.11	3.6119			41-b	28
	Ithaca College			0.30	0.3186	12-b	120
Ulster	Kingston Hospital						
	New York City Department of Environmental Protection Ben Nesin Laboratory, Shokan					0.1-b	12
	SUNY-New Paltz			*	37.000	1-b	60+
Warren	Glens Falls Hospital						
Wayne	Newark-Wayne Community Hospital, Newark						
	R.E. Ginna Nuclear Power Plant, Ontario	0.43	1.522	4.42	1.73	560	60
Westchester	AMBI, Inc., Tarrytown						
	American Health Foundation Naylor Dana Institute, Valhalla	0.13	3.815			5.2-b	< 6
	Consolidated Edison Co. of New York, Inc., Indian Point #2, Buchanan	48.34	16803.152			6000	60
	DOCS Physicians Affiliated with Beth Israel Hospital, Yonkers						
	Immunotherapy, Inc., Tarrytown						
	Mount Vernon Hospital						
	New York Hospital/Cornell Medical Center, White Plains						
	New York City DEP - Kensico Laboratory, Valhalla			*	0.0006	*	12
	New York Power Authority, Indian Point #3, Buchanan	10.8	27.0204			1699	360

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Unless otherwise noted, all data were derived from low-level radioactive waste generator reports received by NYSERDA as of April 30, 1998.

County	Facility & Location	Volume Disposed of (m^3)	Activity Disposed of (GBq)	Volume Stored (m^3)	Activity Stored (GBq)	Storage Capacity (m^3)†	Storage Time (months)
Westchester	Progenics Pharmaceuticals, Inc., Tarrytown						
	Regeneron Pharmaceuticals, Inc., Tarrytown	0.42	0.6475			29.9-b	80
	Sound Shore Medical Center, New Rochelle						
	St. Joseph's Hospital, Yonkers						
	The W.M. Burke Medical Research Institute, White Plains						
	Westchester County Department of Labs & Research, Valhalla						
	Westchester County Medical Center, Valhalla			0.46	0.2028	9-b	unlimited
	Westchester Nuclear SPECT Imaging, Tuckahoe						
	White Plains Hospital Center						
	Yonkers General Hospital						

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* Less than 0.1 cubic meter or 0.0001 GBq.

CONVERSIONS FOR UNITS

The standardized measurement units used in science and technology today are known as the metric system. These metric or SI system (Système International d'Unités) units have been incorporated in the NRC's Uniform Waste Manifest. This manifest has been adopted by the licensed LLRW disposal facility located in Barnwell, South Carolina. Use of the NRC Uniform Waste Manifest became mandatory on March 1, 1998.

Volume and activity are presented in cubic meters and gigabecquerels (GBq) or megabecquerels (Mbq). These units have been adopted for this report to be consistent with the uniform national LLRW manifest requirements. Some conversions for SI units to the previously used units of cubic feet and curies are in the following tables.

CONVERSIONS FOR UNITS

Quantity	SI Unit	Previously Used Unit	Value of Conventional Unit in SI Units	Conversion Factors
Activity	Gigabecquerel (GBq) Megabecquerel (MBq)	Curie (Ci)	1 Ci = 37 GBq 1 Ci = 37,000 MBq	Ci x 37 = GBq Ci x 37,000 = MBq GBq ÷ 37 = Ci MBq ÷ 37,000 = Ci
Volume	cubic meters (m^3)	cubic feet (ft^3)	1 ft^3 = 0.028 m^3	ft^3 x 0.028 = m^3 m^3 x 35.31 = ft^3

Activity Conversions

mCi	MBq	GBq
500	18,500	18.500
200	7,400	7.400
100	3,700	3.700
50	1,850	1.850
20	740	0.740
10	370	0.370
5	185	0.185
2	74	0.074
1	37	0.037

Volume Conversions

ft^3	m^3
11.9 (89 gal. drum)	0.33
11.1 (83 gal. drum)	0.31
7.5 (55 gal. drum)	0.21
4.01 (30 gal. drum)	0.11
0.67 (5 gal. pail)	0.019