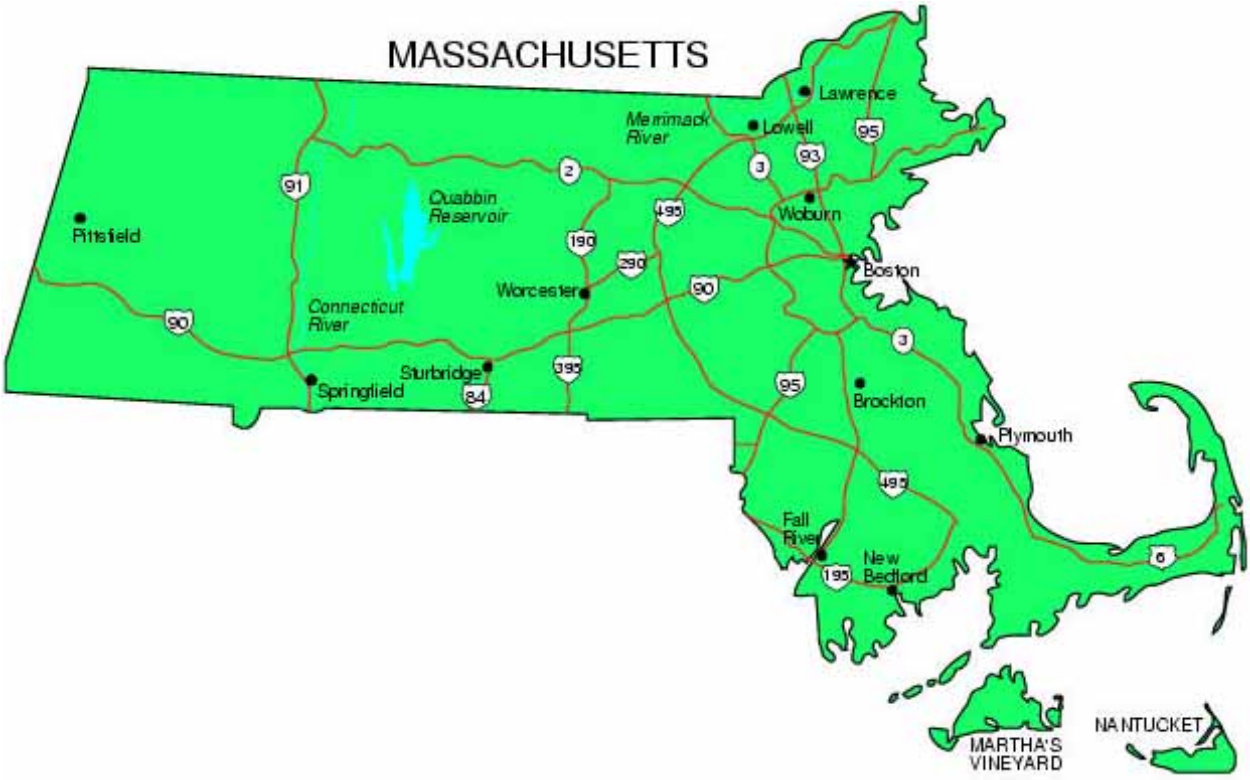
2008 MASSACHUSETTS LOW-LEVEL RADIOACTIVE WASTE SURVEY REPORT



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2008 MASSACHUSETTS LOW-LEVEL RADIOACTIVE WASTE SURVEY REPORT

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PREFACE

The Low-Level Radioactive Waste Management Board was established under the provisions of Chapter 111H, section two of the Massachusetts General Laws. The LLRW Management Board was responsible for planning and implementing the management of low-level radioactive waste (LLRW) in Massachusetts.

In 2002, the State Legislature abolished the LLRW Management Board and transferred its powers and duties to the Massachusetts Department of Public Health (MDPH). The function of the Board is now the responsibility of the MDPH per section 199 of the 2003 Legislative Conference Report in the fiscal year 2003 budget.

The Massachusetts Low-Level Radioactive Waste Management Act (Chapter 111H, Section 7) requires that licensees provide detailed information concerning the types, volumes, radioactivity, sources and characteristics of LLRW produced. The information provided must include:

- Current and projected LLRW management activities;
- Source minimization;
- Volume minimization and on-site storage; and,
- Treatment, packaging and transportation practices

The Department conducts an annual survey to determine the characteristics of LLRW generated, stored and transferred for out-of-state disposal. The 2008 survey differs from pre-1997 LLRW Management Board surveys because questions on management methods and characteristics, container and packing methods, storage off or on site, routine or non-routine waste, specific out-of-state disposal sites and future projections were eliminated. A copy of the 2008 survey is shown in Appendix A.

Low-level radioactive waste is shipped by the following methods: rail car, truck, or ship. The U.S. Department of Transportation (DOT) has strict packaging requirements for shipping LLRW. There are three types of containers which are classified as either: LSA, Type A, or Type B.

This report summarizes data compiled from the 2008 LLRW survey responses of radioactive material users' in Massachusetts. The annual survey is used in connection with the Department of Public Health's activities to arrange storage, treatment, and disposal solutions for LLRW generated, and to formulate LLRW policy in the Commonwealth. In addition, MDPH uses the annual survey to determine the following:

- How much volume and activity of LLRW with relatively short half-lives may be stored for natural radioactive decay?

- How much volume and activity, by radionuclide, by class, will require long term disposal?

- How much volume and activity, by radionuclide, by waste class may require special management procedures during the life of a disposal facility accepting LLRW in Massachusetts?

Tables and figures in this report present survey responses rounded by standard methods; thus, the totals may not equal 100%.

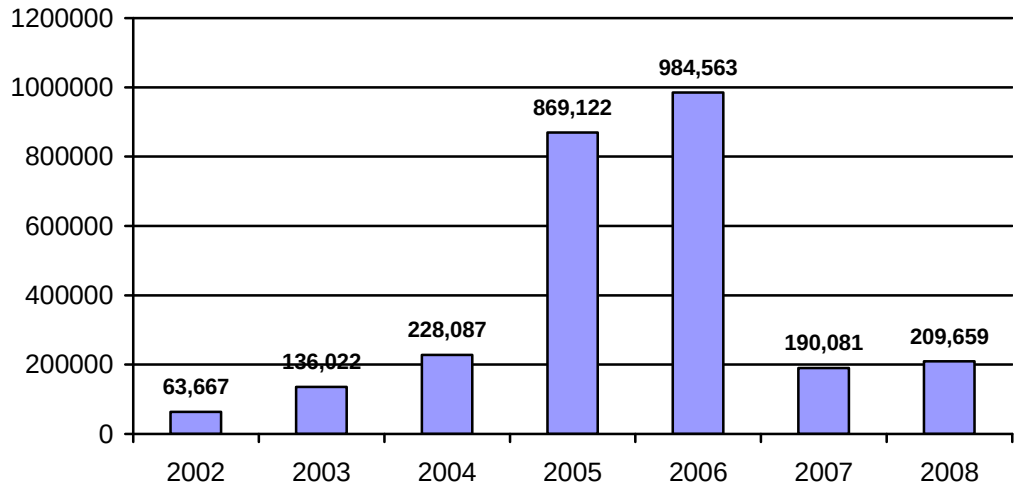
Chapter 1
Executive Summary

1.1 Survey Results Summary

Waste generators consist of State and Federal entities that would have to store waste in Massachusetts if shutoff from rest of the countries' waste facilities. The annual survey requested LLRW generators to summarize the amount (volume and activity) of waste generated (transferred and in-storage) by waste classification (Class A,B,C and HVLA), and the radioisotopes generated in each category.

Massachusetts licensees reported generating 209,659 **cubic feet** of low-level radioactive waste containing 43,262 **curies**. Of this volume and activity, 203,627 **cubic feet** containing 33,782 **curies** were transferred out of state, and 6,033 **cubic feet** containing 9,481 **curies** were stored in state, at the users' site, for further treatment and disposal. A total of 60 different isotopes were reported generated with Tritium (H-3) being the most common.

The volume totals have increased by 10% from the 2007 results, while the activity totals have more than tripled. The increase in volume totals can be attributed to the U.S. Army Corps of Engineers' environmental remediation work in Massachusetts, which resulted in 181,257 cubic feet of waste. The increase in activity totals is primarily due to Entergy Nuclear reporting transferring 22,100 curies of Class C waste.



Total volume generation peaked in 2006 at 984,563 cubic feet, which 83% of the volume is attributed to Yankee Atomic Electric Company's decommissioning project (AKA: Yankee Rowe). In 2007, the U.S. Army Corps of Engineers generated 86,770 cubic feet, or 46% of the total volume generated.

Since Massachusetts is an **unaffiliated state** and not a member of the national interstate compact,

generators in Massachusetts can transfer waste to any licensed facility that is willing to accept it. A national map showing the various compact memberships is shown in Appendix B.

According to the Manifest Information Management System, the following disposal sites received LLRW from Massachusetts in 2008:

Clive, UT: 176,033 cubic feet containing 122 curies;
Barnwell, SC: 513 cubic feet containing 33,416 curies; and,
Richland, WA: No Shipments

The highest level of activity was transferred to Barnwell; the highest level of volume was transferred to Clive (Source: Manifest Information Management System – http://mims.apps.em.doe.gov). MIMS is operated by the U.S. Department of Energy, and does not assure quality of information.

The totals reported do not agree exactly with Massachusetts annual LLRW survey results.

1.2 Low-Level Radioactive Waste Revenues for Calendar Year 2008

The Department received $101,834.00 in LLRW assessments for calendar year 2008. LLRW revenues are deposited into the Low Level Radioactive Waste Rebate Trust Fund.

LLRW revenue collections peaked at $519,542.00 in fiscal year 2005, which is mainly due to Entergy Nuclear and Yankee Atomic Electric Company generating 86% of the total volume.

1.3 Distribution of Large and Small Generators by Transfers

Out of 494 licensees surveyed, 15 facilities shipped more than 100 cubic feet of LLRW for disposal out of state. Sixty-two out of 494 licensees shipped 100 cubic feet or less, compared to 63 facilities in 2007 (100 cubic feet is equivalent to just over thirteen 55-gallon drums). Of the 494 licensees, 69 generators shipped one curie or less, compared to 79 generators in 2007; six generators reported shipping more than one curie of LLRW in 2008 verses 8 generators in 2007.

Organizations that transferred large amounts of volume and activity are shown in Tables 1 and 2. Because the volume of waste transferred does not necessarily correlate with the amount of activity within the transferred waste, the 62 small quantity shippers by volume are not all the same small activity shippers.

TABLE 1	
LIST OF GENERATORS THAT TRANSFERRED MORE THAN 100 CUBIC FEET OF LLRW IN 2008	
FACILITY NAME	**VOLUME IN CUBIC FEET**
1. Areva NP, Inc.	103
2. AstraZeneca Pharmaceuticals LP	123
3. Charles River Laboratories, Inc.	295
4. Dana-Farber Cancer Institute	302
5. Entergy Nuclear Generating Company	13,682
6. Genetics Institute, LLC	741
7. Lantheus Medical Imaging, Inc.	721
8. Mass. General Hospital	160
9. Millennium Pharmaceuticals, Inc.	201
10. Molecular Insight Pharmaceuticals, Inc.	201
11. New England Biolabs, Inc.	113
12. PerkinElmer Health Sciences, Inc.	2,066
13. Springborn Smithers Lab, Inc.	133
14. Unitech Services Group, Inc.	2,000
15. U.S. Army Corps of Engineers, Shpack Superfund / FUSRAP Site	181,257

One hundred cubic feet of waste per annum is a threshold in Chapter 111H, section 13. Licensees that generate at least 100 cubic feet must implement **a waste minimization plan**. More information is available in DPH Regulatory Guide No. 1.1 Revision 2.0 dated August 1995 and titled: Regulatory Guidance for Low-Level Radioactive Waste Minimization.

TABLE 2	
LIST OF GENERATORS THAT TRANSFERRED MORE THAN ONE CURIE OF LLRW IN 2008	
FACILITY NAME	**ACTIVITY IN CURIES**
1. Communications & Power Indust.	19
2. Entergy Nuclear Generating Company	22,223
3. Lantheus Medical Imaging, Inc.	1
4. PerkinElmer Health Sciences, Inc.	11,521
5. QSA Global, Inc.	6
6. Thermo Niton Analyzers, LLC	1.50
7. U.S. Army Corps of Engineers –Shpack Superfund / FUSRAP Site	7

1.4 Distribution of Large and Small Generators by Storage

Ninety-eight facilities reported in-state storage of LLRW, compared to 89 facilities in 2007. Of the 98 organizations, 92, or 94% stored **100 cubic feet or less**. The largest generators' storing more than 100 cubic feet of LLRW is shown in **Table 3**. Because the activity of waste in storage does not necessarily correlate with the amount of volume in storage, the 68 small activity in-state storage generators are not all the same small volume storage generators shippers.

Of the 98 in-state storage generators, 68, or 69% stored less than one curie and can be classified as small quantity storage generators by activity. The largest generators' storing more than one curie of waste is shown in **Table 4**.

TABLE 3

LIST OF GENERATORS THAT STORED MORE THAN 100 CUBIC FEET OF LLRW IN 2008	
FACILITY NAME	**VOLUME IN CUBIC FEET**
1. Areva NP, Inc.	104
2. Entergy Nuclear Generating Company	1,847
3. Genetics Institute, LLC	306
4. Genzyme Corporation	260
5. Lantheus Medical Imaging, Inc.	267
6. Unitech Services Group, Inc.	1,715

TABLE 4

LIST OF GENERATORS THAT STORED ONE CURIE OR MORE OF LLRW IN 2008	
FACILITY NAME	**ACTIVITY IN CURIES**
1. Entergy Nuclear Generating Company	114
2. PerkinElmer Health Sciences, Inc.	44
3. QSA Global, Inc.	9,313
4. Thermo Niton Analyzers LLC	1.28
5. University of Massachusetts – Boston/Dorchester	6

1.5 Distribution of Isotopes Generated for All Classes of Waste

Sixty different isotopes were reported generated by licensees, compared to 57 isotopes in 2007. The survey requested that licensees only report those isotopes with a half life greater than 120 days, and this excludes most medical isotopes – e.g. I-125 and P-32. However, all principal isotopes listed were grouped together with other isotopes on the survey report in terms of volume and activity.

The least reported isotopes were: Pb-210, Co-58, Cm-244, Eu-152, Eu-154, Eu-155, Cm-243, Cm-242, Gd-153, I-123, Ag-110m, Cf-252, Y-90, Ce-144, Co-56, Cd-109, U-235, U-234, Tc-99m, Ba-133, Sr-89, Np-237, Sb-125, Pa-233, Pu-241, Pu-240, Pu-239, Pu-238, Pm-147, In-111, Sm-153, Cr-51, Eu-156, Fe-59, I-131, Ir-192, Rb-86, Tc-99 and I-129.

Appendix C, figure 20 shows the total RAM reporting frequency for all classes of waste. Table 5 shows the most common isotopes reported transferred or stored in 2008.

TABLE 5

THE MOST COMMON ISOTOPES REPORTED TRANSFERRED OR STORED IN 2008

ISOTOPE	HALF LIFE	NUMBER OF FACILITIES
1. H-3	12.3 years	98
2. C-14	5,730 years	73
3. I-125	60.14 days	19
4. S-35	87.51 days	19
5. P-32	14.3 days	14
6. Cs-137	30.17 years	11

1.6 Distribution of Isotopes Transferred for All Classes of Waste

Fifty-seven different isotopes were reported transferred, compared to 46 isotopes in 2007. The totals transferred and stored do not necessarily add up to the totals generated, since some licensees transfer and store the same isotope, while others either store or transfer the same isotope, but not both.

The least reported isotopes transferred were: Co-58, In-111, Ag-110m, I-123, Gd-153, Eu-155, Eu-154, Y-90, Cr-51, Ir-192, Cm-244, Cm-243, Cm-242, Ce-144, Cd-109, Ba-133, Eu-152, Pu-239, U-235, U-234, Tc-99m, Sr-89, Sm-153, Sb-125, Rb-86, I-131, Pu-240, Na-22, Pu-238, Pm-147, Pb-210, Np-237, Pu-241, Eu-156, Fe-59, I-129, Tc-99 and P-32.

Table 6 shows the most common isotopes reported transferred in 2008.

TABLE 6
THE MOST COMMON ISOTOPES REPORTED TRANSFERRED IN 2008

ISOTOPE	HALF LIFE	NUMBER OF FACILITIES
1. H-3	12.3 years	65
2. C-14	5,730 years	53
3. I-125	60.14 days	9
4. Cs-137	30.17 years	9
5. Co-60	5.27 years	8
6. S-35	87.51 days	8
7. Fe-55	2.73 years	8

1.7 Isotopes In-Storage for All Classes of Waste

Fifty-one different isotopes were reported in storage or stored by licensees, compared to 42 isotopes in 2007. The totals transferred and stored do not necessarily add up to the totals generated, since some licensees transfer and store the same isotope, while others either store or transfer the same isotope, but not both.

The least reported isotopes were: Cm-244, Ag-110m, Eu-155, Eu-154, Eu-152, Cr-51, Fe-59, Co-56, Gd-153, Cm-243, Cm-242, Cf-252, Ce-144, Cd-109, Ba-133, Co-58, Pu-239, Tc-99, Sr-89, Sb-125, Rb-86, Ra-226, Eu-156, Pu-240, Pu-238, Pa-233, Np-237, I-131, I-129, Pu-241, U-238 and Ir-192.

Table 7 shows the most common isotopes reported stored in 2008.

TABLE 7

THE MOST COMMON ISOTOPES REPORTED STORED IN 2008		
ISOTOPE	**HALF LIFE**	**NUMBER OF FACILITIES**
1. H-3	12.3 years	73
2. C-14	5,730 years	54
3. I-125	60.14 days	16
4. S-35	87.51 days	15
5. P-32	14.3 days	13
6. P-33	25 days	8

1.8 Isotopes Generated for Class A Waste

Forty-three different isotopes were reported generated by licensees, compared to 54 isotopes in 2007.

The three most common isotopes reported were: H-3, C-14 and I-125. The least reported isotopes were P-33, Co-57, U-238, Cs-137, Co-60, Fe-55, Am-241, Ca-45, Cl-36, Zn-65, Mn-54, Na-22, Ni-63, Ra-226, Sr-90, Cs-134, I-129, Fe-59, Eu-156, Rb-86, Tc-99, Cr-51, I-131, In-111, Cd-109, Cf-252, Cm-243, Co-56, Eu-152, Eu-155, I-123, Ir-192, Pa-233, Pm-147, Pu-239, Pu-241, Sm-153 and Tc-99m.

1.9 Isotopes Generated for Class B Waste

Ten different isotopes were reported generated by licensees, compared to 5 in 2007. The most common isotope was Cs-137. The least reported isotopes were Zn-65, Sr-90, Ni-63, Mn-54, Ir-192, H-3, Fe-55, Cs-134 and Co-60.

1.10 Isotopes Generated for Class C Waste

Nine different isotopes were reported generated by licensees, compared to 6 isotopes in 2007. The most common reported isotopes were C-14, Co-60, Cs-134, Cs-137, Fe-55, H-3, Mn-54, Ni-63 and Zn-65.

1.11 Isotopes Generated for Class HVLA Waste

Nine different isotopes were reported generated by licensees, compared to 14 isotopes in 2007. The most common isotopes reported were H-3 and C-14.

Chapter 2
LLRW Management Data Summary

2.1 Sources and Types of LLRW

Low-level radioactive waste (LLRW) is radioactive material that (1) is neither high-level radioactive waste, nor spent fuel, nor uranium mill tailings; and, (2) is classified by the U.S. Nuclear Regulatory Commission (NRC) as LLRW. This does not include waste which remains a federal responsibility, such as that owned or generated by the U.S. Department of Energy, the U.S. Navy as a result of decommissioning Navy vessels, or by the federal government as a result of any research, development, testing, or production of any atomic weapon.

LLRW is generated as a by-product of various uses of isotopes. Typical applications include:

(1) The production of electricity by a nuclear power plant;

(2) The production and end-use of radiopharmaceuticals for medical procedures such as cancer and thyroid dysfunction diagnosis and treatment, radioimmunoassay, and diagnostic imaging examinations;

(3) Research and development in the life science and biotechnology industry for the treatment and prevention of various diseases and medical dysfunctions, and in the environmental field to study the effects of chemicals on plant and aquatic life, and for ocean studies;

(4) Commercial uses such as within instruments that measure level, thickness, and density or that are used in moisture analysis and quality control; sealed sources that are used for industrial radiography of pressure vessels and other structural welds; smoke detectors and exit signs in buildings and commercial aircraft; and,

(5) University education and research in medicine, material science and biotechnology.

2.2 Regulations Pertaining to Radioactive Materials Licensees

Massachusetts became an Agreement State with the U.S. Nuclear Regulatory Commission on March 21, 1997. Under the agreement the NRC transferred to the Commonwealth the responsibility for regulating the use of (1) radioactive materials produced as byproducts of the operation of nuclear reactors; (2) uranium and thorium source materials; and, (3) small quantities of fissionable materials. The Nuclear Regulatory Commission retains jurisdiction over regulation of nuclear reactors, federal agencies that use nuclear materials and companies that distribute certain materials (e.g. smoke detectors) to the public.

Massachusetts radioactive material licensees are regulated by the DPH Radiation Control Program under 105 Code of Massachusetts Regulations (CMR) 120.000: Massachusetts Regulations for the Control of Radiation; and 345 CMR Low-Level Radioactive Waste Management Board as amended. Licensees remaining under the jurisdiction of the NRC are regulated under Title 10 of the Code of Federal Regulations (CFR).

2.3 LLRW Generator Categories

Five hundred and twelve colleges, universities, hospitals, government agencies, biotechnology firms, and other businesses, including one nuclear power plant held radioactive material licenses**.** The number of licensees has remained stable since 2007.

The information in this report is grouped by waste generator category:

(1) **Academic** - universities, colleges and other research institutions;

(2) **Commercial** - organizations such as biotechnology, engineering, construction companies, testing laboratories, radiopharmaceutical manufacturers and suppliers, and companies using radioactive material for process, quality control, and analysis (also referred to as **industry** by Department of Energy (DOE);

(3) **Government** - local, state, and federal entities. (Federal does not include DOE, US Navy, or atomic weapon productions, and the state does not include universities and colleges);

(4) **Health** - hospitals, clinics, and physicians (also referred to as **medical** by DOE); and,

(5) **Utility** - companies that operate or are decommissioning nuclear power plants.

The categories listed above are convenient for data analysis, but there is an inherent interrelationship among them.

Appendix C, figures 10-17 shows the volume and activity results for the five waste generator categories, according to survey results. The Government category leads the group as top volume generator, while the Utility category is the top activity generator. In storage activity and storage volume, the Commercial category leads the group. In transferred activity, the Utility category leads the group, while the Government category is the leader in transferred volume.

2.4 Waste Classification System

Four classes of waste are defined by federal regulations 10 CFR 61 and the Massachusetts regulations 105 CMR 120.299, Appendix E.

Class A waste is characterized by its low concentrations of long lived isotopes and concentrations of short-lived isotopes that will decay to acceptable levels within a 100-year institutional control

period when a disposal facility is actively maintained after closure. These concentration limits have been calculated on the basis of dose limits to an individual who might inadvertently intrude, occupy the disposal site, and encounter waste after this time.

Class B waste is the next level of waste that could represent a potential hazard to an inadvertent intruder, without additional protective measures, since they contain higher concentrations of short-lived and long lived radionuclides. They must meet the NRC's minimum stability requirements so that the waste forms or containers can maintain gross physical properties and identity, over 300 years, thus, limiting the exposure to a potential intruder.

Class C waste is waste that, due to their greater concentrations of long-lived or short-lived radionuclides, must meet more stringent waste form requirements to ensure stability, and must be disposed of in such a way as to protect the inadvertent intruder for a longer period of time. These wastes must meet the stability requirements for form or container (300 years) and must be disposed of in a manner which protects against inadvertent intrusion for at least 500 years.

HVLA Waste are soils or demolition rubble that have average concentrations less than or equal to the concentrations set forth in 345 CMR 1.13, Table 1.13B and that have been accepted for disposal at a licensed LLRW disposal facility. HVLA is considered as Class A waste, but treated separately in Massachusetts so as to allow some licensees a reduced annual LLRW fee of 10% of the proportional assessment.

2.5 LLRW Survey Results

The 2008 Radioactive Waste Survey requested data on LLRW produced or retained in storage from previous years. The survey was mailed in January 2009 to 494 companies and institutions licensed by the U.S. NRC and the Massachusetts Department of Public Health. A total of 482, or 97.5% of licensees returned the 2008 survey, compared to a 99.3% return rate in 2007.

Licensees that did not return the form were evaluated by DPH to determine if they typically generated LLRW. Most non-respondents were identified as licensees that manage by storage for decay, or transfer sealed sources[1] to an authorized recipient, or did not generate any LLRW.

DPH is exploring the possibility of having licensees complete future annual radiation waste surveys on-line using a DPH assigned password. This would be optional. Comments regarding this proposal are encouraged**.**

Table 8 indicates that 117 licensees (24.2%) out of 482 reported producing LLRW for transfer or in storage. The remainder used sealed sources or did not generate any long lived (half-life greater than 120 days) LLRW during 2008.

Class	***No. submitted in the class***	***Activity (curies)***			***Volume (cu. ft.)***		
		In Storage	***Transferred***	***TOTAL***	***In Storage***	***Transferred***	***TOTAL***
A	113	19.43	323.91	343.31	5,705.76	21,849.66	27,554.51
B	5	9,401.47	11,287.49	20,688.97	196.18	223.02	419.20
C	2	52.11	22,163.19	22,215.30	37.50	257.00	294.50
HVLA	6	7.72	7.05	14.78	93.60	181,297.22	181,390.82
Totals:	126	9,480.74	33,781.64	43,262.35	6,033.04	203,626.90	209,659.03

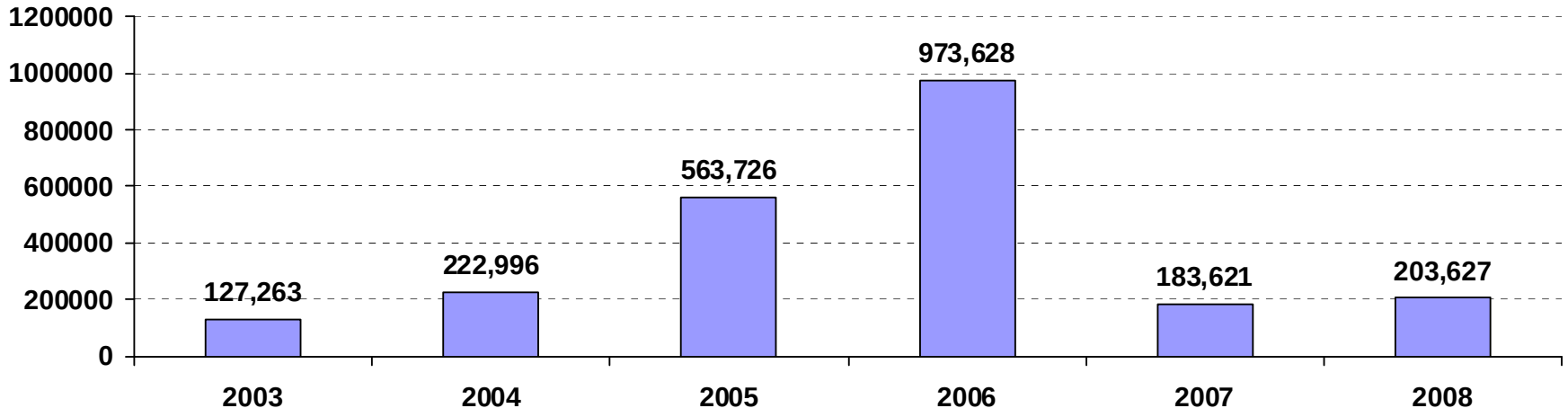
Total number of surveys submitted for 2008: 482
Number Without Any Waste Generation for 2008: 365
Number With Waste Generation for 2008: 117

Note: Some licensees generated more than one class; thus, totals may not equal 100%.

[1]Sealed sources are usually returned to the manufacturer for recycling or disposal. The most common sealed source is a lead paint detector containing the accelerator-produced radionuclide Cobalt 57 (Co-57).

2.6 MA Historic and Current Annual Transfer Disposal Rate Results

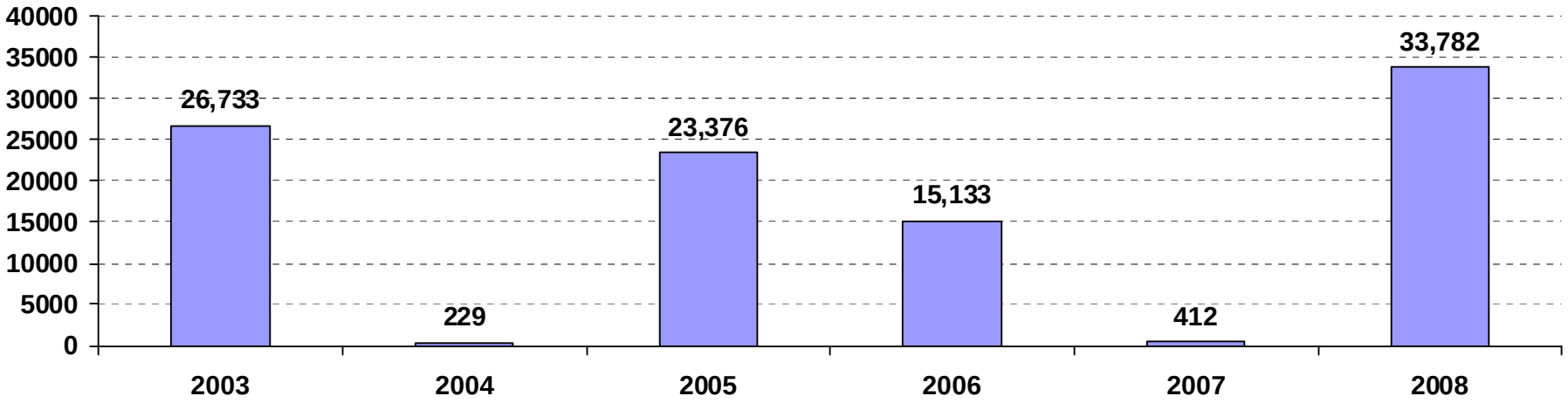
Total volume transferred:



Total volume transferred had peaked in 2005 and 2006 due to Yankee Rowe's decommissioning project. Yankee Rowe's website states, "Physical decommissioning of the former Yankee Rowe plant was completed in 2007. The U.S. Nuclear Regulatory Commission (NRC) notified Yankee in August 2007 that the former plant site had been fully decommissioned in accordance with NRC procedures and regulations and formally approved Yankee Atomic's Final Status Survey Reports in accordance with the License Termination Plan…….". Source: http://www.yankeerowe.com/.

The present survey does not distinguish between **routine** and **non-routine** LLRW shipped for disposal. Routine refers to LLRW from process operations that are expected to be generated annually for the foreseeable future. Non-routine refers to LLRW from one time decommissioning or site remediation projects. A non-routine example is a decommissioning project at the former nuclear power plant operated by Yankee Atomic Electric Company in Rowe, MA, and one for site remediation is Starmet NMI (formerly Nuclear Metals, Inc.) in Concord, MA.

2.7 Total activity transferred:



Total activity transferred peaked in 2003 and 2008 due to PerkinElmer, Inc., Yankee Rowe and Entergy Nuclear transferring large amounts of waste. In 2003, PerkinElmer, Inc. reported transferring 25,930 curies; Yankee Rowe reported transferring 672 curies. In 2008, Entergy Nuclear had transferred 22,223 curies; PerkinElmer reported transferring 11,520 curies, according to LLRW survey results.

3.1 State-by-State Comparison

Table 9 shows how Massachusetts LLRW volume and activity shipped for disposal compare to other states in 2008, as reported by the Manifest Information Management System (MIMS). MIMS is operated by the U.S. Department of Energy, and does not assure quality of information. The totals reported do not agree exactly with LLRW survey results.

In terms of ranking Massachusetts with other states (no data from Alaska, Montana and Wyoming), California ranked **# 1** in terms of volume generated (Massachusetts was ranked at # 2); Pennsylvania was ranked # 1 for generating the most activity.

TABLE 9

2008 LLRW VOLUME AND ACTIVITY SUMMARY FROM ALL STATES FROM MIMS

Year Received	State	Volume (ft3)	Activity (curies)
2008	Alabama	34,964	2,232
2008	Alaska	ND	ND
2008	Arizona	53,204	190
2008	Arkansas	14,996	13
2008	California	549,679	2,892
2008	Colorado	1,444	0.40
2008	Connecticut	30,582	283
2008	Delaware	415	12.23
2008	District of Columbia	111	0.21
2008	Florida	58,285	1,478
2008	Georgia	30,189	1,308
2008	Hawaii	3,633	27
2008	Idaho	113	15
2008	Illinois	137,469	207,638
2008	Indiana	1,154	1.31
2008	Iowa	4,434	137
2008	Kansas	5,662	180
2008	Kentucky	101,520	12
2008	Louisiana	17,420	882
2008	Maine	115	19
2008	Maryland	6,702	2,182
2008	**Massachusetts**	**176,547**	**33,537**

2008	Michigan	31,136	27,540
2008	Minnesota	5,443	28,729
2008	Mississippi	4,979	777
2008	Missouri	110,157	616
2008	Montana	ND	ND
2008	Nebraska	19,136	1,573
2008	Nevada	208	0.06
2008	New Hampshire	5,978	440
2008	New Jersey	33,741	20,807
2008	New Mexico	187	1.38
2008	New York	32,389	92,978
2008	North Carolina	61,186	46,071
2008	North Dakota	6	0.00
2008	Ohio	71,864	6,082
2008	Oklahoma	13	1.53
2008	Oregon	85	3.04
2008	Pennsylvania	113,607	283,329
2008	Puerto Rico	15	0.00
2008	Rhode Island	9	1.80
2008	South Carolina	90,035	1,577
2008	South Dakota	0.67	0.00
2008	Tennessee	150,572	828
2008	Texas	34,262	1201
2008	Utah	89	0.12
2008	Vermont	6,678	466
2008	Virginia	43,516	532
2008	Washington	35,506	16,414
2008	West Virginia	132	0.13
2008	Wisconsin	5,767	158
2008	Wyoming	ND	ND
	Total:	**2,085,334.67**	**783,165.21**

ND = No Data Available

** Totals include high volume low activity (HVLA) waste shipped out-of-state

3.2 Manifest Information Management System (MIMS)

The Manifest Information Management System (MIMS)[1] provides information on waste shipments to three disposal facilities: Barnwell, SC, Clive, UT and Richland, WA. The Barnwell, SC site is operated by EnergySolutions; the Clive, UT site is operated by EnergySolutions; and, the Richland, WA site is operated by US Ecology, Inc. The Richland, WA facility is located within the Department of Energy's (USDOE) Hanford site.

According to MIMS, 30,517,399.54 million cubic feet containing 7,338,070.38 million curies of radioactivity was disposed from 1998 to 2008. During the same time period, Massachusetts licensees generated 2,201,037.06 million cubic feet containing 156,420.78 curies.

MIMS provides a comparison of the waste generated as reported by the three commercial waste disposal sites, including the LLRW survey results. However, there are discrepancies with the data reported by MIMS and the LLRW survey. Differences cannot be readily explained, but possible explanations are:

1. LLRW is shipped to the generator's home office out-of-state and is combined with LLRW from other sites. This total is then reported to MIMS;

2. LLRW undergoes a degree of compaction or volume reduction. One utility reports that its waste is shipped to a broker out-of-state where waste is segregated (free release) in order to reduce burial volume. The compaction method is by a glass melting process;

3. Generators estimating the volume of transferred LLRW. The actual volume is inflated by shipping container and packing which is later removed by broker;

4. Some waste held for convenience and deferred expenditures by broker or others, and sometimes for years;

5. Federal LLRW generators located in MA (example is US Food & Drug Administration) do not report to MDPH on waste activities, but are reported by the waste disposal sites; and,

6. Some waste may be reported shipped during the reporting year, but arrived at the disposal facility after December 31st, thus being counted for the following year by the disposal site. Actually the waste should be reported as disposed in the year that it arrives at the disposal site, not the year it was transferred or shipped.

1

1 Manifest Information Management System website: http://mims.apps.em.doe.gov

TABLE 10

COMPARISONS OF LLRW TRANSFERRED FROM MASSACHUSETTS FOR 2008

	Richland, WA (Hanford)	Barnwell, SC	Clive, UT	Total from MIMS Database	DPH Database as entered and shown in tables and graphs
Volume, CF	0.000	513.36	176,033	176,546.36	203,626.90
Activity, Curies	0.000	33,416.21	122	33,538.21	33,781.64

*Hanford last received LLRW from MA generators in 1992.

TABLE 11

MASSACHUSETTS 2008 WASTE GENERATOR CATEGORY RESULTS FROM MIMS

Generator Class	**Volume Transferred (Cubic Feet)**	**Activity Transferred (Curies)**
Academic	0.93	0.20
Government	168,930.37	30.28
Industry	6,779.78	11,284.45
Medical	0.81	0.01
Undefined	540.16	84.88
Utility	294.48	22,137.62
Totals	176,546.53	33,537.44

TABLE 12
MA WASTE CLASSIFICATION AND GENERATOR CLASS FOR 2008 FROM MIMS

Disposal Site	Year Received	Generator Class	Total Volume (cf)	Total Activity (curies)	Class A Volume (cf)	Class B Volume (cf)	Class C Volume (cf)
Barnwell, SC	2008	Academic	0.93	0.20	0.00	0.00	0.93
Barnwell, SC	2008	Government	1.36	0.00	0.00	0.00	1.36
Barnwell, SC	2008	Industry	215.93	11,277.86	0.00	214.20	1.73
Barnwell, SC	2008	Medical	0.81	0.01	0.00	0.00	0.81
Barnwell, SC	2008	Utility	294.48	22,137.62	0.00	0.00	294.48
Clive, UT	2008	Government	168,929.01	30.28	168,929.01	0.00	0.00
Clive, UT	2008	Industry	6,563.85	6.59	6,563.85	0.00	0.00
Clive, UT	2008	Undefined	540.16	84.88	540.16	0.00	0.00
		Total:	176,546.53	33,537.44	176,033.02	214.20	299.31

3.3 National Regulatory History for LLRW

1980s

In 1980, the United States Congress passed the Low-Level Radioactive Waste Policy Act (P.L. 96-573).

The Act established three major policies:

1. Each state is responsible for the LLRW generated within its boundaries;

2. States may form compacts (or groups of states) to facilitate managing LLRW generated within the boundaries of the compact states; and,

3. Compacts could not refuse waste from other states until U.S. Congress had ratified the compact.

On January 1, 1986, the Low Level Radioactive Waste Policy Amendments Act (P.L.99-240) was signed into law, making a generator's continued access to the three operating disposal sites contingent on its compact meeting specified milestones for new site development. The amended act clarified Congress's intent to require compacts (or individual states not within a compact) to provide disposal capacity for LLRW generated within its boundaries by January 1, 1993.

The chief mandate of these federal statues requires each state to provide for its LLRW disposal by January 1, 1996. If a state fails to do this by this date, it must assume ownership and liability for all LLRW produced within its borders after 1996.

In response to the federal laws, Massachusetts enacted MGL Chapter 111H in 1987. This 48 section general law as amended in 2002 authorizes the Department of Public Health to regulate the management of low-level radioactive waste. Complete copies of the general law are available on the Commonwealth of Massachusetts' website:

http://www.mass.gov/legis/laws/mgl/gl-111h-toc.htm

Effective June 26, 1986, in response to the Low Level Radioactive Waste Policy Amendments Act, Rhode Island created the Rhode Island-Massachusetts Interstate Low-Level Radioactive Waste Management Compact. The compact is referred to as Title 23 Health and Safety Chapter 23-19.9 Low-Level Radioactive Waste Compact. However, it should be noted that neither Massachusetts nor any other state ever approved or joined the compact. More information is available at the following State of Rhode Island link:

http://www.rilin.state.ri.us/Statutes/TITLE23/23-19.9/INDEX.HTM

1990s

In early 1990s, the nine member Massachusetts Low Level Radioactive Waste Management Board was established to manage LLRW and to investigate whether a LLRW disposal site would be located in Massachusetts. In March 1996, the Board voted **not** to locate a LLRW disposal site in Massachusetts as three disposal sites (SC, WA and UT) were available to Massachusetts generators.

Present

In 2002, the Board was abolished by the Legislature and its powers and duties were transferred to the Department of Public Health. Massachusetts remains an unaffiliated state and is not a member of any of the ten state LLRW compacts. The other unaffiliated states are: District of Columbia, Maine, Michigan, Nebraska, New Hampshire, New York, North Carolina, Puerto Rico and Rhode Island.

Appendix B shows the Low-Level Radioactive Disposal Compact Membership, including the District of Columbia and Puerto Rico.

Massachusetts generators had access to three disposal facilities: Barnwell, South Carolina, Clive, Utah and Richland, Washington.

- Barnwell, SC (operated by Energy Solutions) accepts Classes A, B, and C, but no waste mixed with, or exhibiting characteristics of, toxic chemical hazardous material (called mixed waste);

- Clive, UT (operated by Energy Solutions) accepts Class A waste; and,

- Richland, WA (operated by U.S. Ecology) accepts Class A, B, and C. Richland facility accepts only Massachusetts waste from naturally-occurring or accelerator-produced radioactive material (NARM). These three disposal sites, however, are a temporary solution to LLRW management in Massachusetts.

Since the survey eliminated questions regarding the licensees' future projections, DPH estimates that total statewide future annual LLRW projections until 2012 will remain at 80,000 cubic feet and 20,000 curies. These numbers include both LLRW transferred and stored**.**

Future

Effective July 1, 2008, Barnwell accepts LLRW from Atlantic Compact members only (formerly the Northeast Compact): Connecticut, New Jersey and South Carolina. There is no immediate crisis to Massachusetts licensees as small amounts of Class B and C waste may be stored on site. However, a solution must be found for the disposal of these classes of waste. If Massachusetts were to join a compact, it would be required to become a host state.

Clive continues to accept Class A LLRW from all states. However, there are exceptions to this policy: members of the Northwest Compact are not permitted to dispose of waste at Clive. The Northwest Compact currently has access to the Richland (Hanford) site in the State of Washington.

Richland (Hanford) does not accept Class A, B, C, or HVLA from Massachusetts generators, but they will accept NARM and NORM waste from all 50 states. Richland only serves the Rocky Mountain and Northwest Compact members.

Texas had passed legislation to allow the creation of two privately run LLRW disposal facilities to be licensed as one site by the state. On December 29, 2003, Texas opened up the process to accept applications from July 8-August 6, 2004 from any interested parties. One site may dispose of federal facility waste and the other site may dispose of commercial low-level radioactive waste. Texas is a host state to the Texas Compact of which Vermont is a member.

The Executive Director of the Texas Commission on Environmental Quality (TCEQ) directed staff to conduct a Technical Review on the application submitted on August 4, 2004 by Waste Control Specialists, LLC (WCS) for license authorization for the near-surface disposal of low-level radioactive waste at the company's site in Andrews County, Texas, which is near the New Mexico border.

After the technical review of WCS' application is completed, a Notice of the Completion of Technical Review will be published and distributed. It was declared administratively complete as of February 18, 2005. It is available on the internet at:

http://www.wcstexas.com/

http://64.224.191.188/wcs/

Chapter 428 of the MA Acts of 1993 was approved on January 11, 1994 and states in part:

The state treasurer, upon request of the Governor, may issue and sell bonds up to $45 million for a maximum term of 20 years for the purpose of siting LLRW storage, treatment, or disposal facilities. This bond authorization which expires in 2018 could be used to join a compact.

New membership will cost a minimum of $25 million. Massachusetts is currently considering its options.

New generator fees called reimbursement surcharges would be needed to retire the Commonwealth’s bonds including interest charges.

The Low Level Radioactive Waste Bond Authorization was originally filed as House Bill no. 5655 in 1993 regular session. A complete copy of the Act is available at: Commonwealth of MA State Library, 442 State House, Boston, MA 02133, or by an e-mail request to: reference.department@state.ma.us.

3.4 INTERREGIONAL COOPERATION

The Department of Public Health is an active member with the Low-Level Radioactive Waste Forum, Inc (LLW Forum). The LLW Forum website is www.llwforum.org.

The LLW Forum is a national association of representatives of compacts[i], host states, unaffiliated states, and states with currently operating disposal facilities and established to facilitate the implementation of the 1985 Low-Level Radioactive Waste Policy Amendments Act. The LLW Forum provides an opportunity for states and compacts to share information and exchange views with officials of federal agencies and other interested parties. LLW Forum participants also serve as liaisons to other entities, including the Conference of Radiation Control Program Directors, the Conference of State Legislatures and the federal Facility Compliance Act Task Force. Massachusetts is represented on the LLW Forum by Robert Gallaghar and William Sellers, Jr.

Chapter 4
Financial Data

4.1 Financing LLRW Management

Funds to manage the requirements of MGL Chapter 111H (Massachusetts Low-Level Radioactive Waste Management Act), as amended, require the assessment of an annual fee. Pursuant to MGL Chapter 111H, section 4A, **"….the board shall annually assess each person licensed or registered to receive, possess, use, transfer or acquire radioactive materials in the Commonwealth, amounts sufficient to defray the costs annually incurred by the board for such purposes."** A total of 461 licensees were assessed $105,731.00 (using the same rates as the Board last used in 2001) for calendar year 2008. The number of licensees invoiced does not include terminated licensees or licensees that could not be located.

As of December 2009, DPH has collected $101,834.00 in LLRW assessments for calendar year 2008. The fees are deposited into the state LLRW rebate trust fund. Any unpaid assessments are charged interest at 12% annually on and after the due date, which is 90 days from the invoice date. After 180 days any outstanding fee users are issued a collection letter and subject to intercept of any state payments or tax refunds.

Cities and towns are exempt from the annual LLRW fees per MGL Chapter 29, section 27C, but must still submit the annual LLRW survey when requested. Eight municipal licensees are in this category.

The flat assessment charged to all licensees and registrants is $75.00 per year and remains unchanged. In addition, a proportional assessment of $1.96 per cubic foot of the weighted volume is calculated for some licensees or registrants pursuant to 345 CMR 4.03(2)(c)3 and an additional assessment of $0.20 per cubic foot of the weighted volume of high volume, low activity waste is calculated for some licensees or registrants pursuant to 345 CMR 4.03(2)(c)4.

The total LLRW annual fee charged is based on billing formula:

$ LLRW ANNUAL FEE = $75.00 + (CRF (PF) (CA + 3CB +5CC)) + ((HVLA (0.1) (PF))

PF is proportional fee or the proportional assessment currently set at $1.96 per cubic foot of waste. The PF figure formerly was much higher and has decreased over time. The PF amount and $75.00 minimum amount remain unchanged since 2001.

CRF is classification radioactivity factor varying between 1.0 - 1.3 as shown in **Table 13**.

CA = Class A LLRW waste volume in cubic feet

CB = Class B LLRW waste volume in cubic feet

CC = Class C LLRW waste volume in cubic feet

PF = Proportional assessment set at $1.96 per cubic feet of weighted volume of waste per DPH

HVLA = HVLA waste volume in cubic feet

Table 13	
Classification of Radioactivity Factor (CRF) 345 CMR Table 4.03 B	
Radioactivity of Waste Shipped for Disposal Off Site or Stored for Later Disposal	**Classification of Radioactivity Factor (CRF)**
less than 1.0 curie per year	1.0
1.0 curie per year or more, but less than 10.0 curies per year	1.1
10.0 curies per year or more, but less than 100.0 curies per year	1.2
100.0 curies per year or more	1.3

Summary: The billing invoice amount is a function of volume, class, and activity of waste generated per year (except cities and towns) with a $75.00 minimum LLRW fee. The higher the volume and activity and class of LLRW generated, the higher the annual fee payable.

4.2 U.S. DEPARTMENT OF ENERGY FUNDING

No funding from the U.S. Department of Energy (DOE) was received in 2008 pursuant to the federal Low-Level Radioactive Waste Policy Act, as amended (P.L. 99-240). These funds were collected by certain LLRW disposal sites as a surcharge to use these disposal sites. The funds are held by DOE, and rebated to various states based upon their success in meeting milestones outlined in federal law. Since Massachusetts ceased its disposal siting activities in 1996 and remains an unaffiliated disposal state, no funds were received in 2008.

APPENDIX A

Commonwealth of Massachusetts
DPH Radiation Control Program
Calendar Year 2008 Radioactive Waste Survey

Part One: General Information

Licensee Name	
Radiation Safety Officer	
Street Address	
City / State / Zip Code	/ /
E-Mail Address	
Radioactive Materials License Number	__ __ - __ __ __ __
Person Completing Survey / Title	/
Telephone / Telefax	/
Certifying Official / Title	/
Signature / Telephone	/
Date of Survey Completion	

	YES	NO
In 2008, did you generate any low level radioactive waste (LLRW) **with a half-life greater than 120 days**?		
In 2008, did you transfer any licensed material for disposal at a licensed low-level radioactive waste disposal facility?		
Did your organization have any long-lived radioactive waste requiring disposal in storage either on or off site on 12/31/08?		

If you answered YES to any of the above questions complete all applicable sections of Part Two. If you answered NO to all questions, STOP HERE and return this form.

Return Address:

Department of Public Health
Radiation Control Program
529 Main St., Suite 1M2A
Charlestown, MA 02129
Fax: (617) 242-3457
ATT: William Sellers (617) 242-3035 x2052

License # __ __ - __ __ __ __

Commonwealth of Massachusetts DPH Radiation Control Program
CY 2008 Radioactive Waste Survey

Part Two : Waste Generation, Storage and Disposal Information

Section A : Radioactive Waste Generated in Calendar Year 2008

Class A (other than HVLA*)	Transferred for Disposal	In Storage	Total
Volume, ft3			
Activity, curies			
Principal Isotopes			

Class B (other than HVLA*)	Transferred for Disposal	In Storage	Total
Volume, ft3			
Activity, curies			
Principal Isotopes			

Class C (other than HVLA*)	Transferred for Disposal	In Storage	Total
Volume, ft3			
Activity, curies			
Principal Isotopes			

High Volume, Low Activity Waste	Transferred for Disposal	In Storage	Total
Volume, ft3			
Activity, curies			
Principal Isotopes			

License # ____-__ ____ __ __ __

Commonwealth of Massachusetts DPH Radiation Control Program
CY 2008 Radioactive Waste Survey

Part Two : Waste Generation, Storage and Disposal Information

Section B : Radioactive Waste Generated Prior to Calendar Year 2008
That Requires Disposal AND Was Not Reported on Previous Surveys

	Transferred for Disposal	In Storage	Total
Calendar Year(s) of Generation			
Class (A, B, C or HVLA)			
Volume, ft3			
Activity, curies			
Principal Isotopes			

Part Three : Waste Minimization Statement / Plan

Has your waste minimization statement or plan, which is on file with the Massachusetts DPH Radiation Control Program, changed since last year? If you answered YES, please include your updated statement and/or plan with this survey.	YES	NO

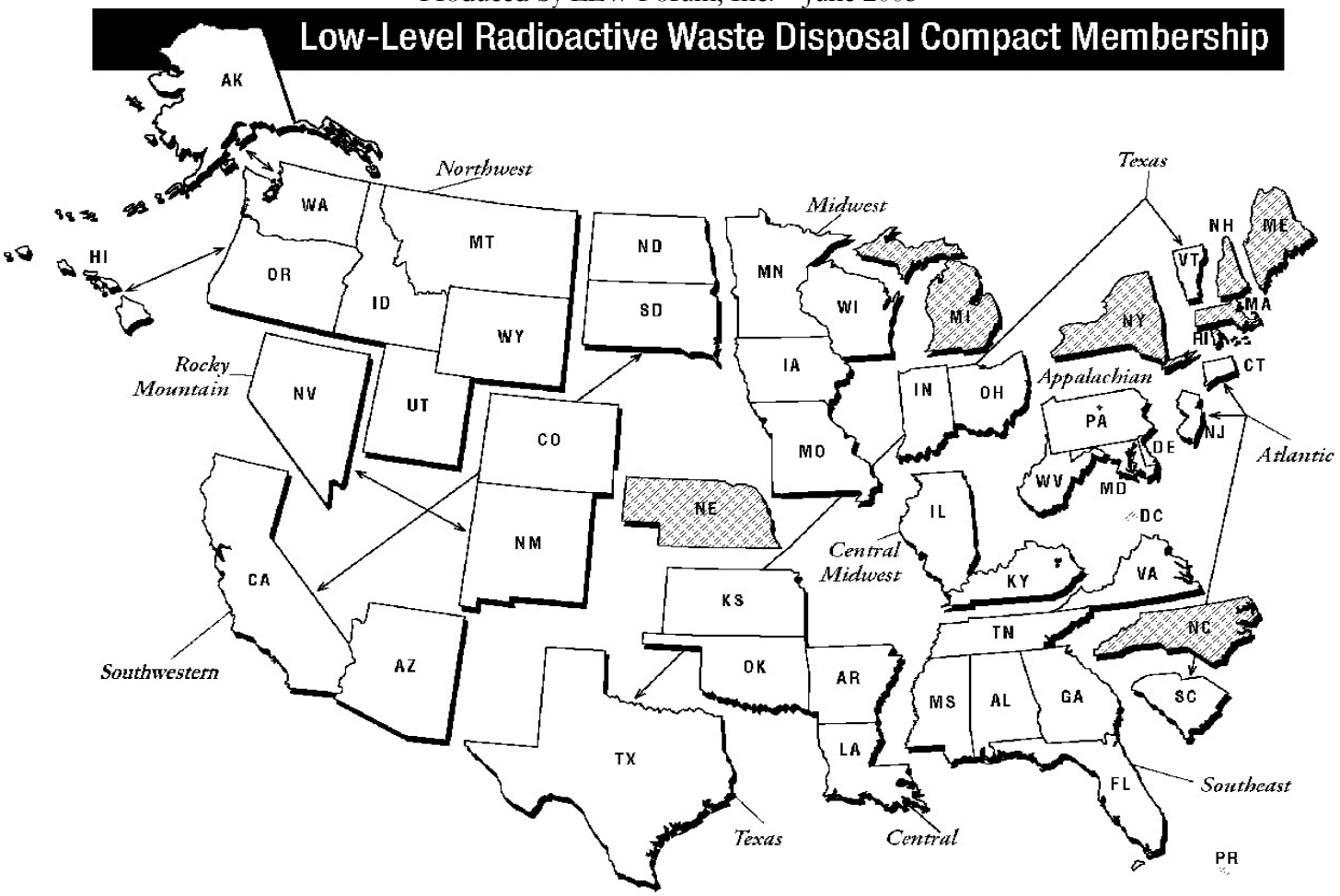
Many pertinent 105 CMR 120 regulations may be found on the Massachusetts DPH Radiation Control Program's web page at www.state.ma.us/dph/rcp including Class A, B, and C definitions in section 105 CMR 120.299.

High Volume, Low Activity Waste. Definition - Soils, demolition rubble or other LLRW that has average concentrations of radioactive material less than or equal to the concentrations set forth in 345 CMR 1.13, Table 1.13B, and has been or would be accepted by a licensed low-level radioactive waste disposal facility.

If you need assistance completing this survey, please contact the Radiation Control Program at (617) 242-3035, Att: William Sellers.

APPENDIX B

Produced by LLW Forum, Inc. – June 2005



Appalachian Compact
Delaware
Maryland
Pennsylvania
West Virginia

Atlantic Compact
Connecticut
New Jersey
South Carolina

Central Compact
Arkansas
Kansas
Louisiana
Oklahoma

Central Midwest Compact
Illinois
Kentucky

Northwest Compact
Alaska
Hawaii
Idaho
Montana
Oregon
Utah
Washington
Wyoming

Midwest Compact
Indiana
Iowa
Minnesota
Missouri
Ohio
Wisconsin

Rocky Mountain Compact
Colorado
Nevada
New Mexico

Nothwest accepts Rocky Mountain waste as agreed between compacts

Southeast Compact
Alabama
Florida
Georgia
Mississippi
Tennessee
Virginia

Southwestern Compact
Arizona
California
North Dakota
South Dakota

Texas Compact
Texas
Vermont

Unaffiliated States
District of Columbia
Maine
Massachusetts
Michigan
Nebraska
New Hampshire
New York
North Carolina
Puerto Rico
Rhode Island

APPENDIX C

FIGURE 2

PERCENT OF TOTAL ACTIVITY BY WASTE CLASS FOR 2008

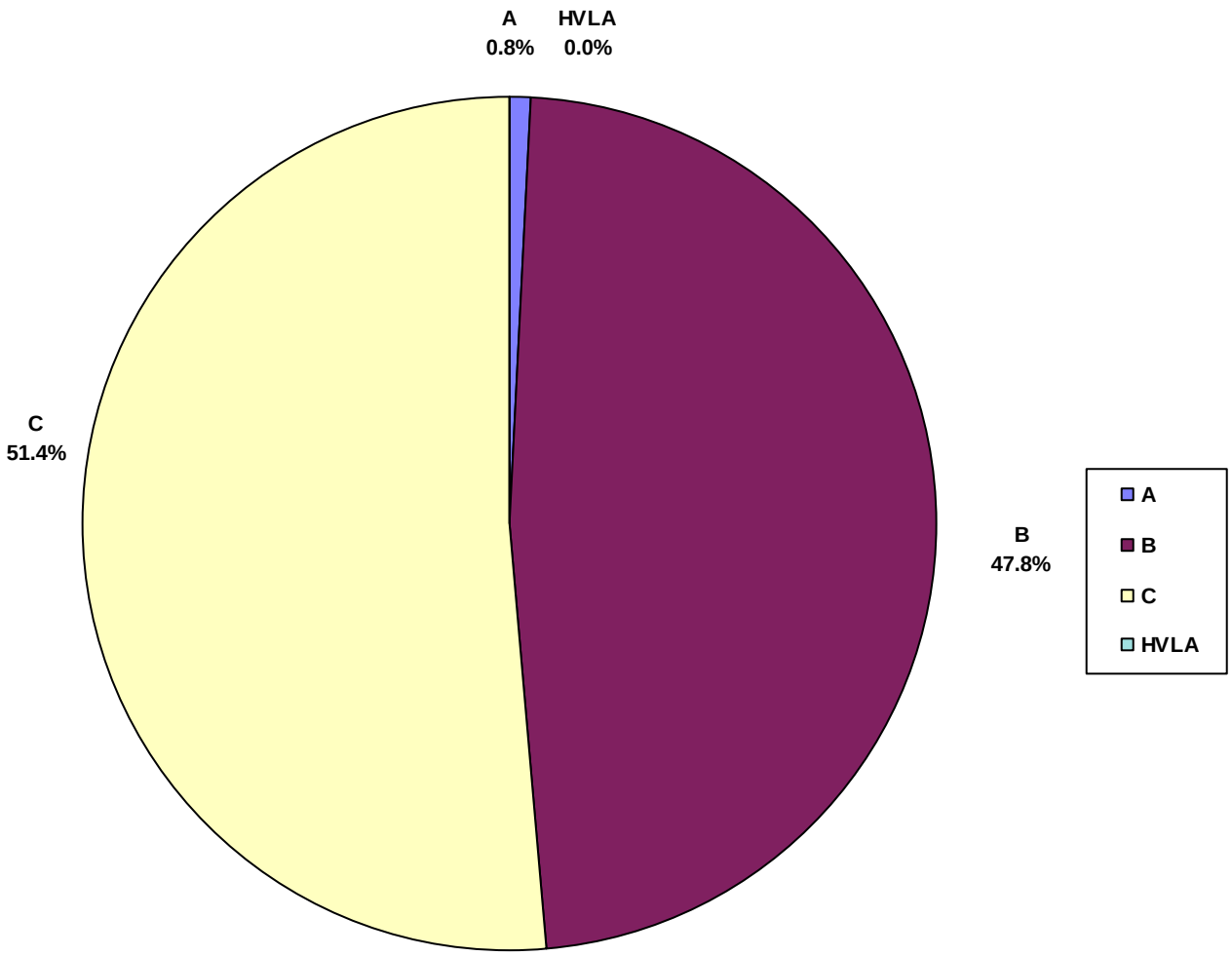


FIGURE 3

PERCENT OF ACTIVITY PLACED IN STORAGE BY WASTE CLASS FOR 2008

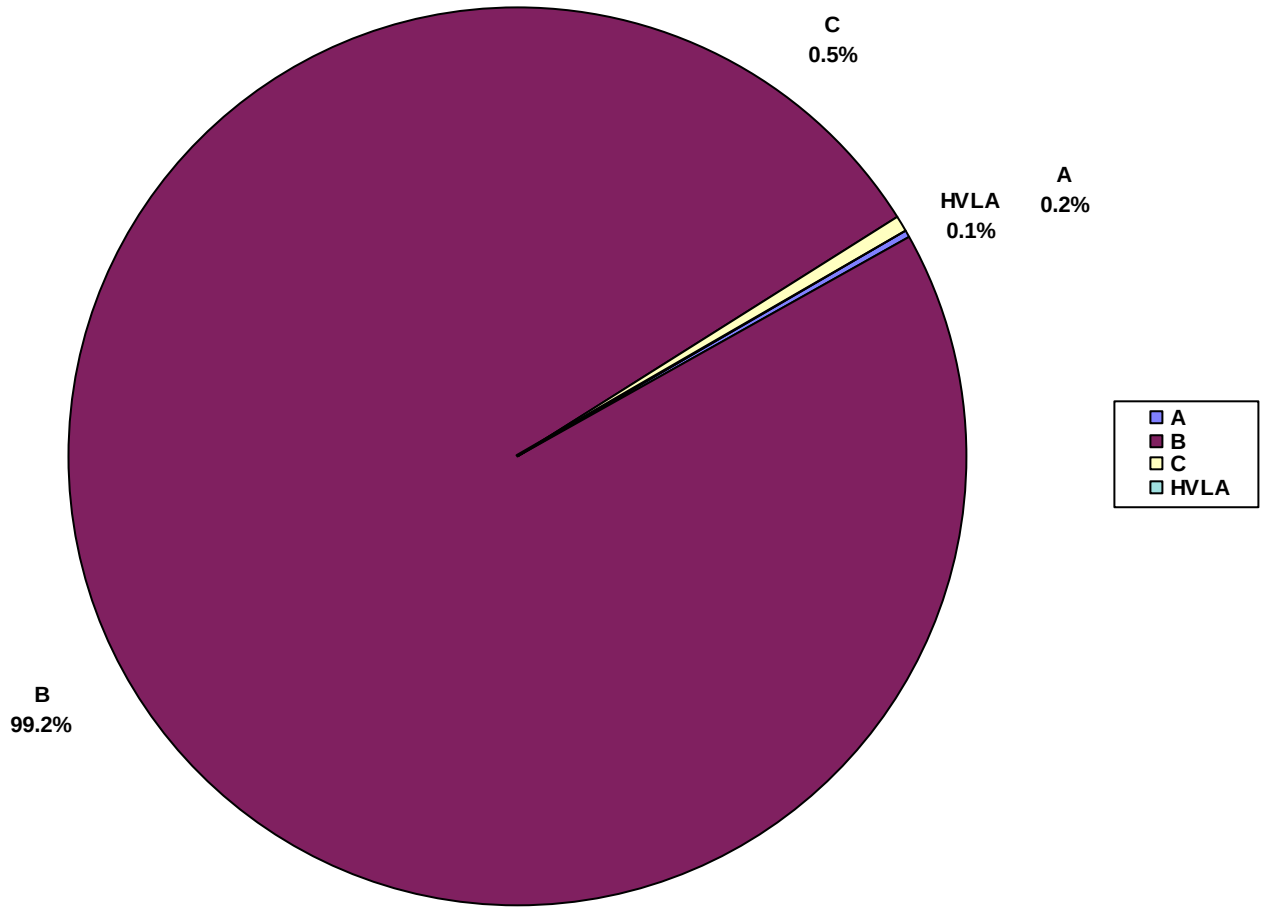


FIGURE 4

PERCENT OF ACTIVITY TRANSFERRED BY WASTE CLASS FOR 2008

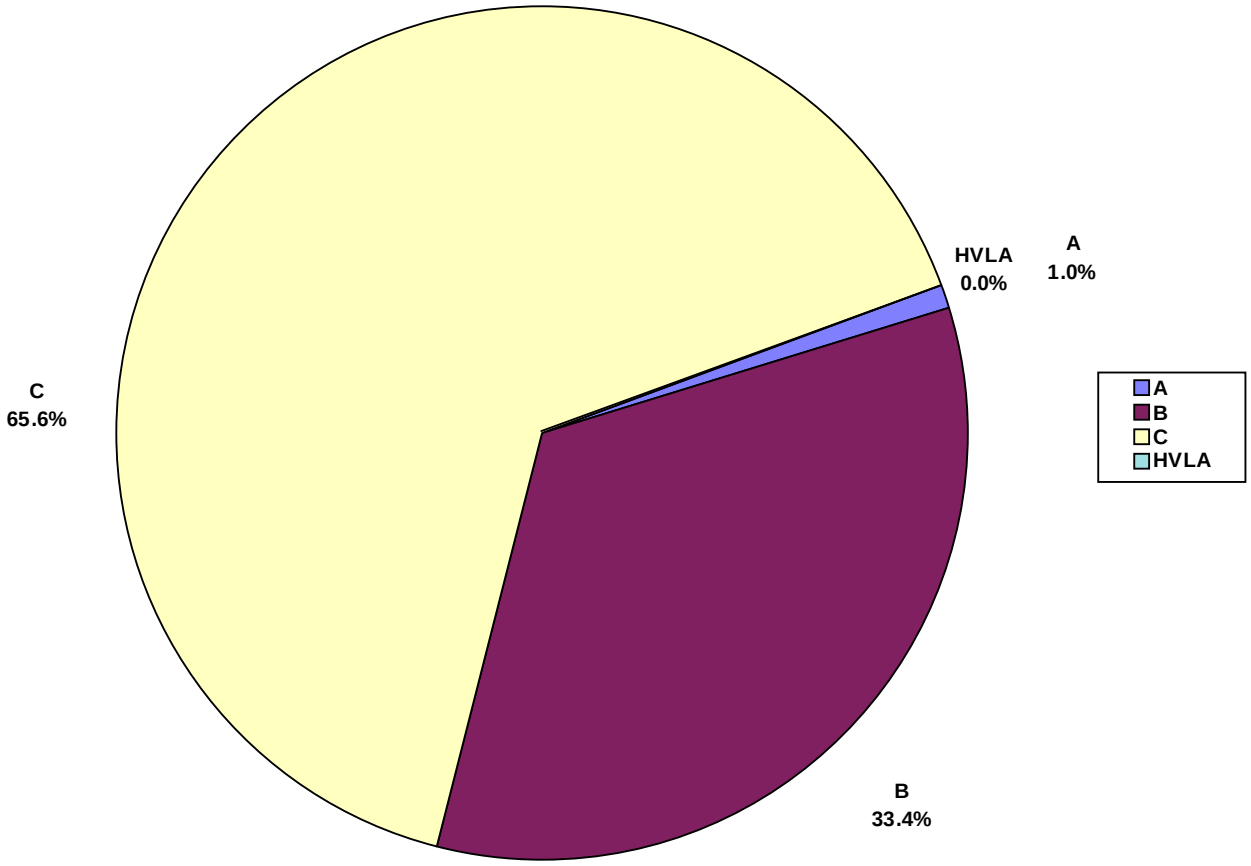


FIGURE 5

PERCENT OF TOTAL VOLUME BY WASTE CLASS FOR 2008

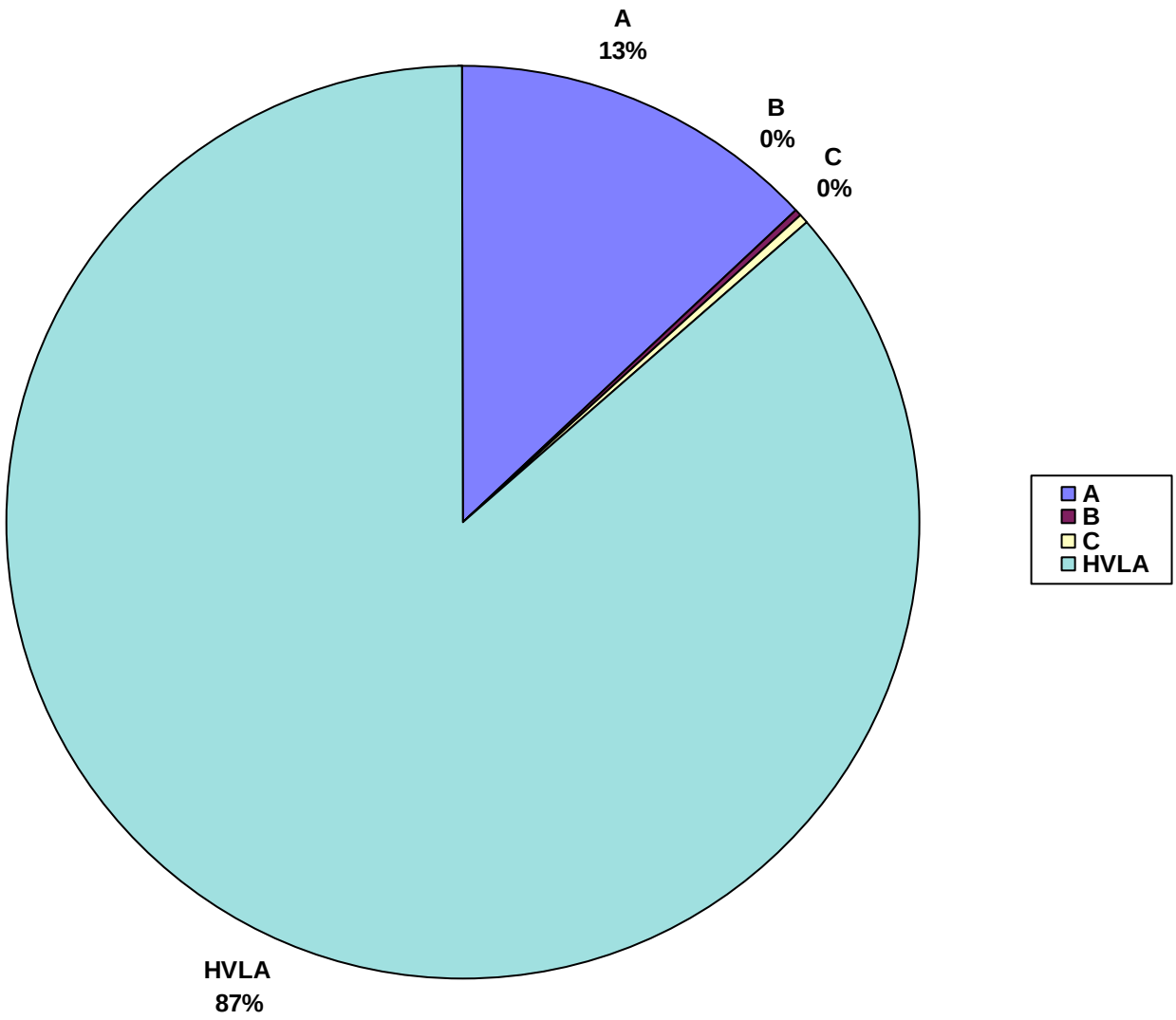


FIGURE 6

PERCENT OF VOLUME IN STORAGE BY WASTE CLASS FOR 2008

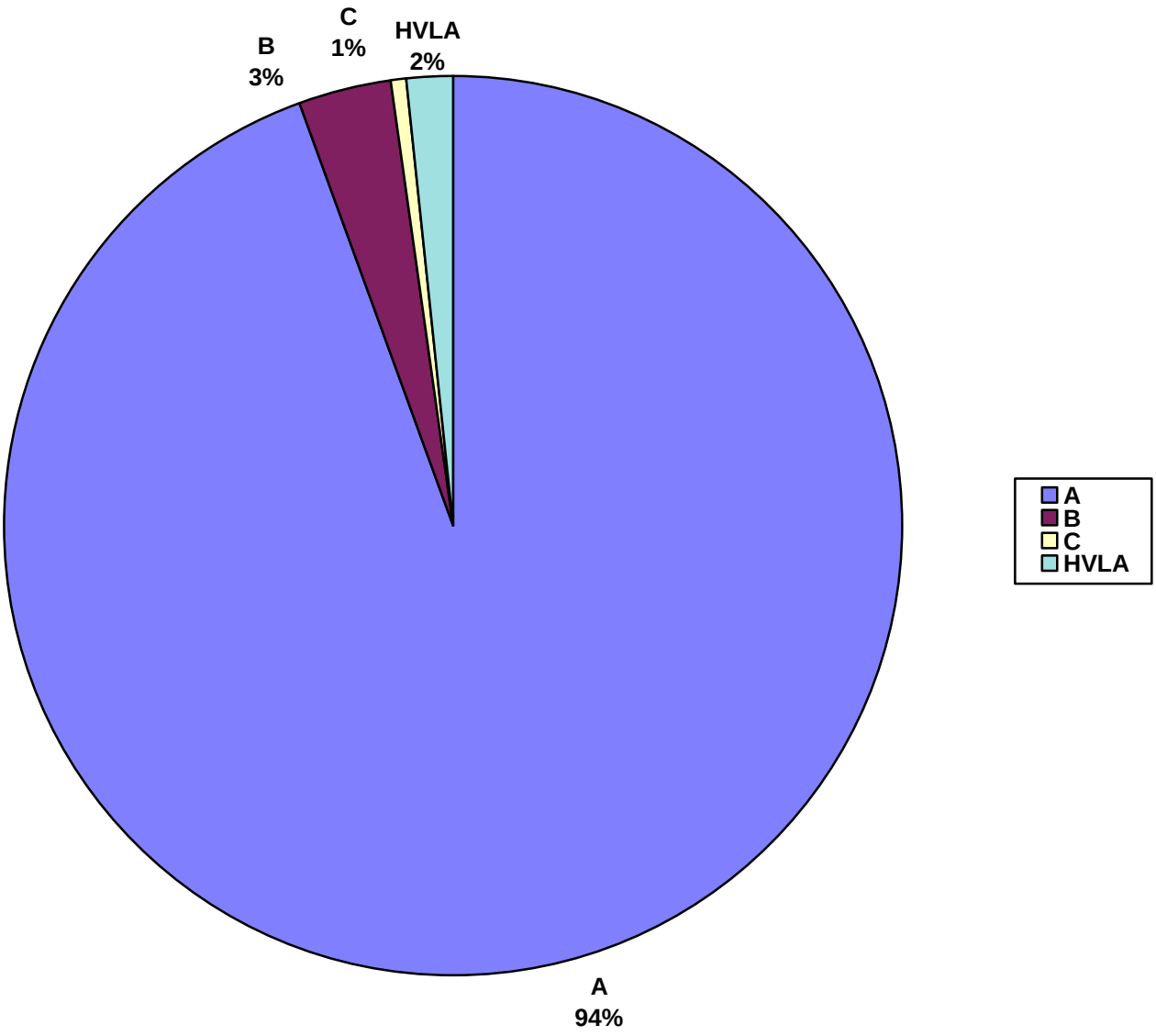


FIGURE 7

PERCENT OF VOLUME SHIPPED BY WASTE CLASS FOR 2008

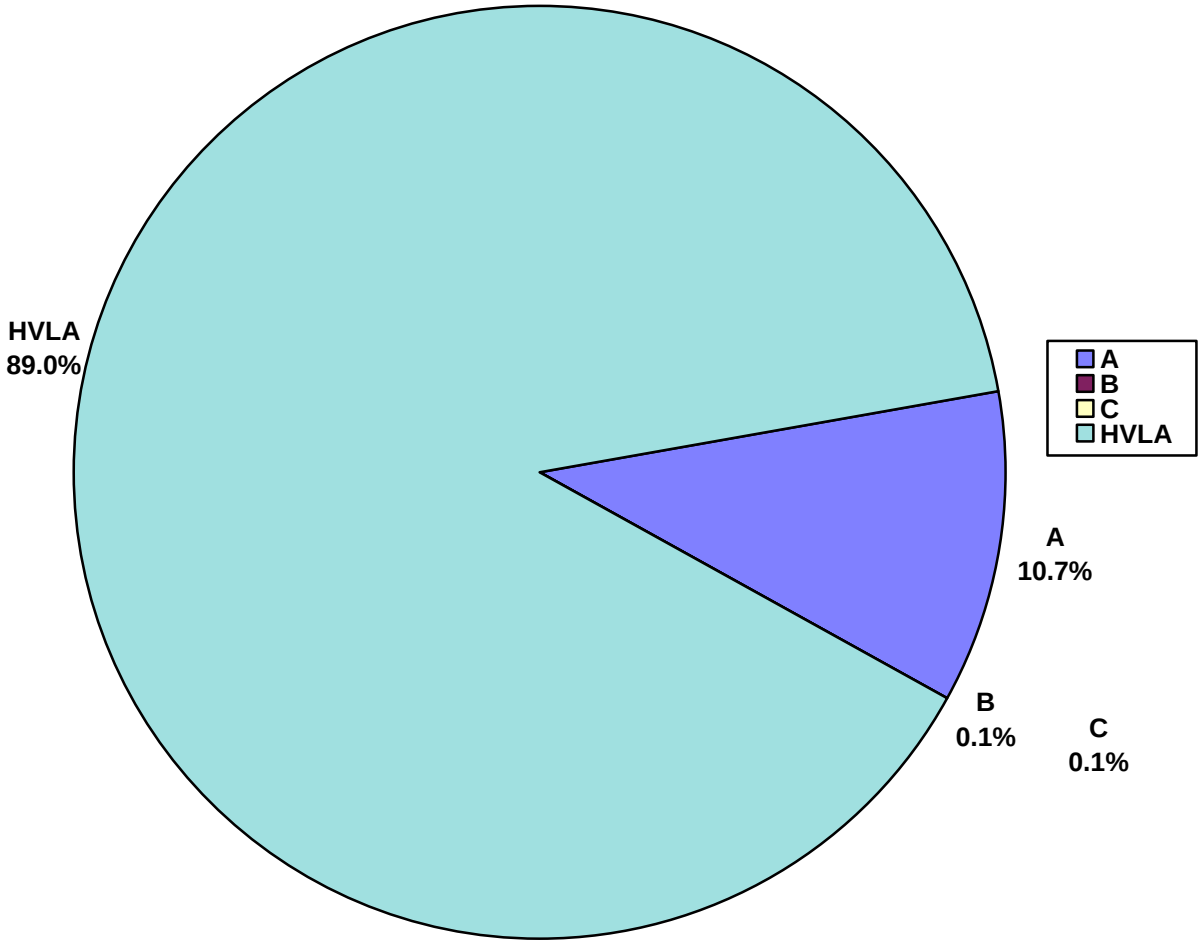
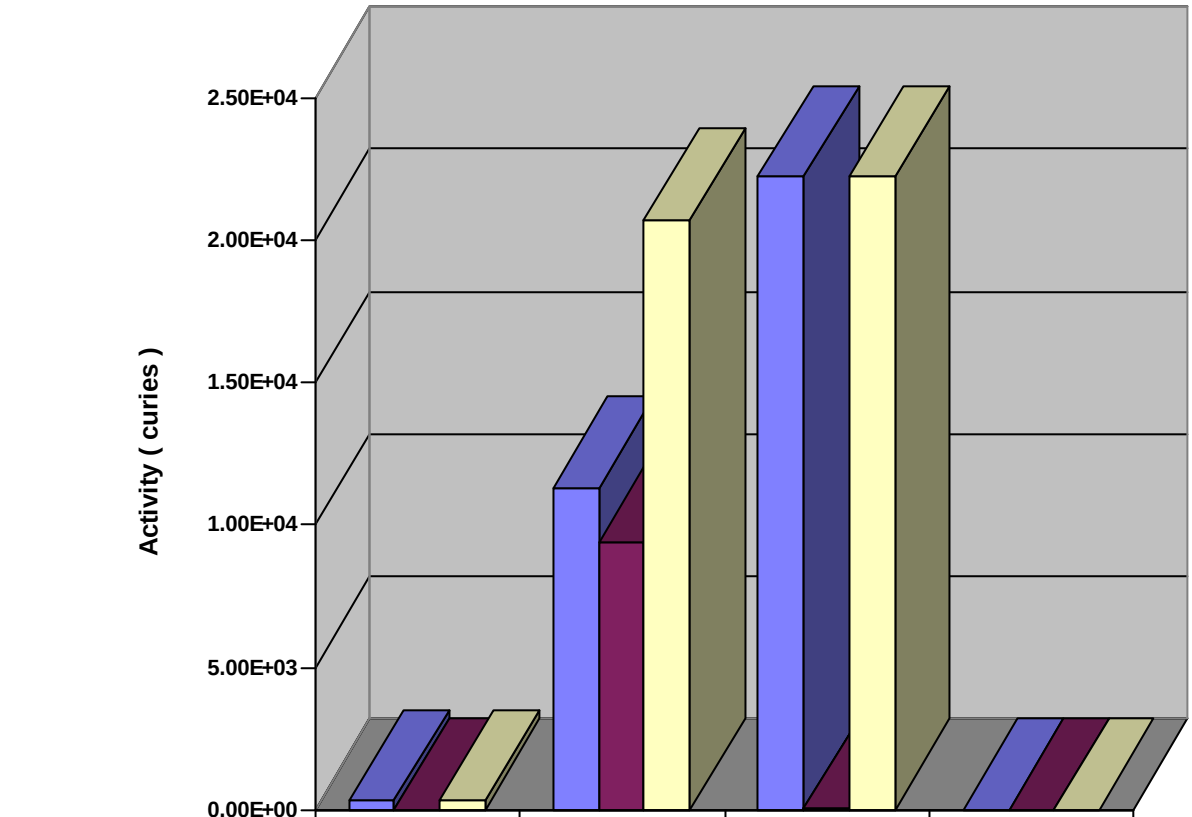


FIGURE 8

COMPARISON OF WASTE ACTIVITIES BY WASTE CLASS FOR 2008

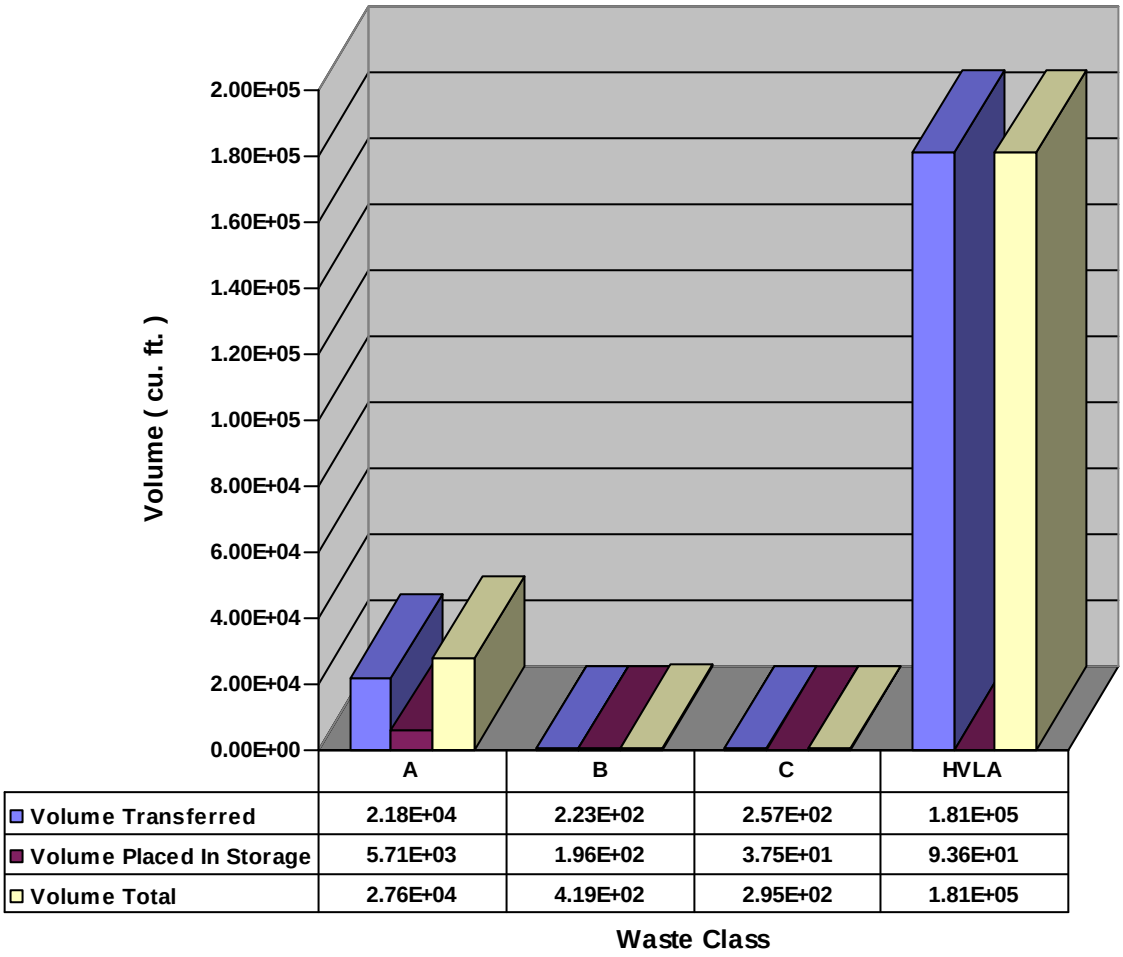


	A	B	C	HVLA
Activity Transferred	3.24E+02	1.13E+04	2.22E+04	7.05E+00
Activity Placed In Storage	1.94E+01	9.40E+03	5.21E+01	7.72E+00
Activity Total	3.43E+02	2.07E+04	2.22E+04	1.48E+01

Waste Class

FIGURE 9

COMPARISON OF WASTE VOLUMES BY WASTE CLASS FOR 2008



	A	B	C	HVLA
Volume Transferred	2.18E+04	2.23E+02	2.57E+02	1.81E+05
Volume Placed In Storage	5.71E+03	1.96E+02	3.75E+01	9.36E+01
Volume Total	2.76E+04	4.19E+02	2.95E+02	1.81E+05

FIGURE 10

PERCENT OF TOTAL ACTIVITY BY WASTE GENERATOR CATEGORY FOR 2008

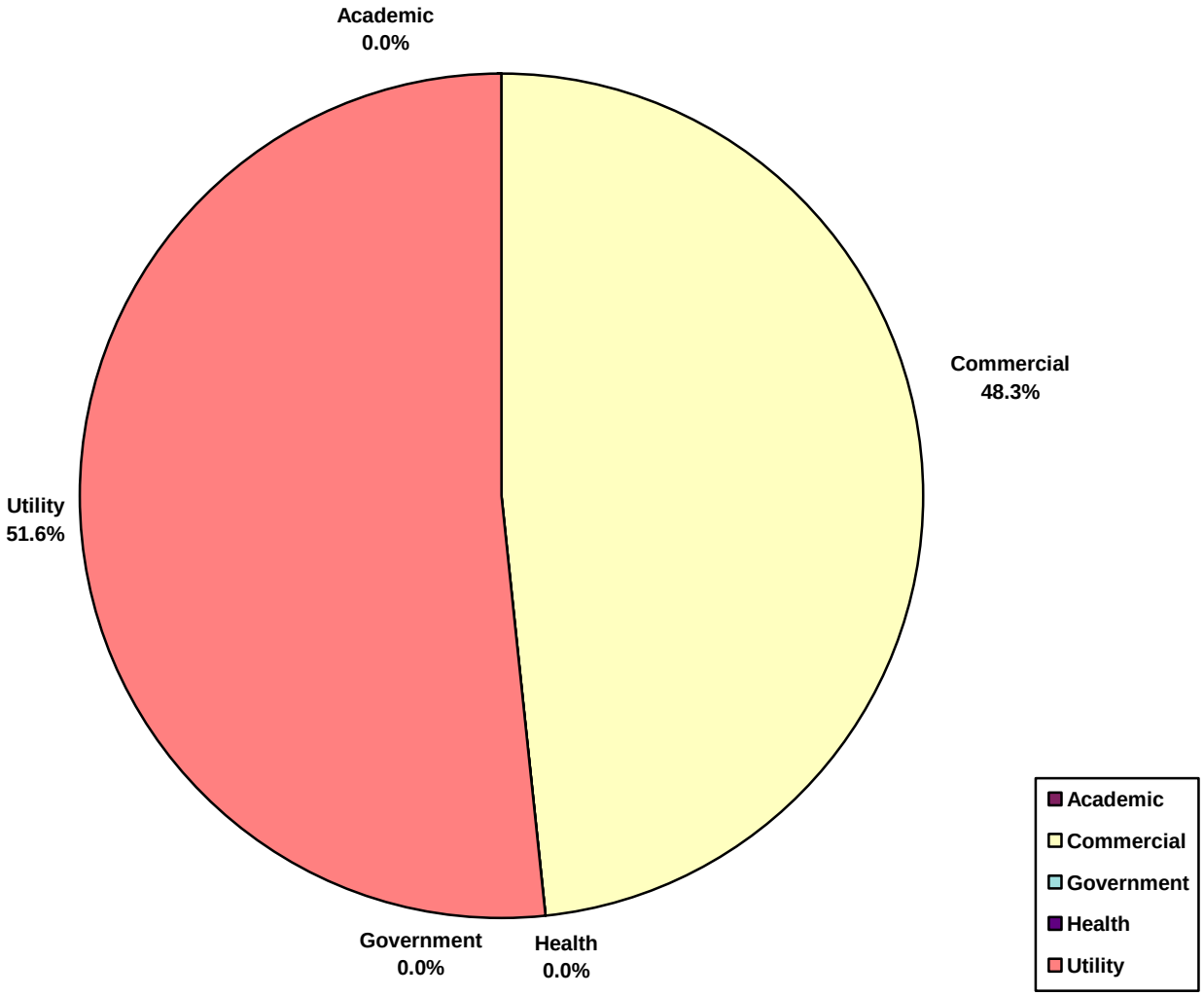


FIGURE 11

PERCENT OF IN-STORAGE ACTIVITY BY WASTE GENERATOR CATEGORY FOR 2008

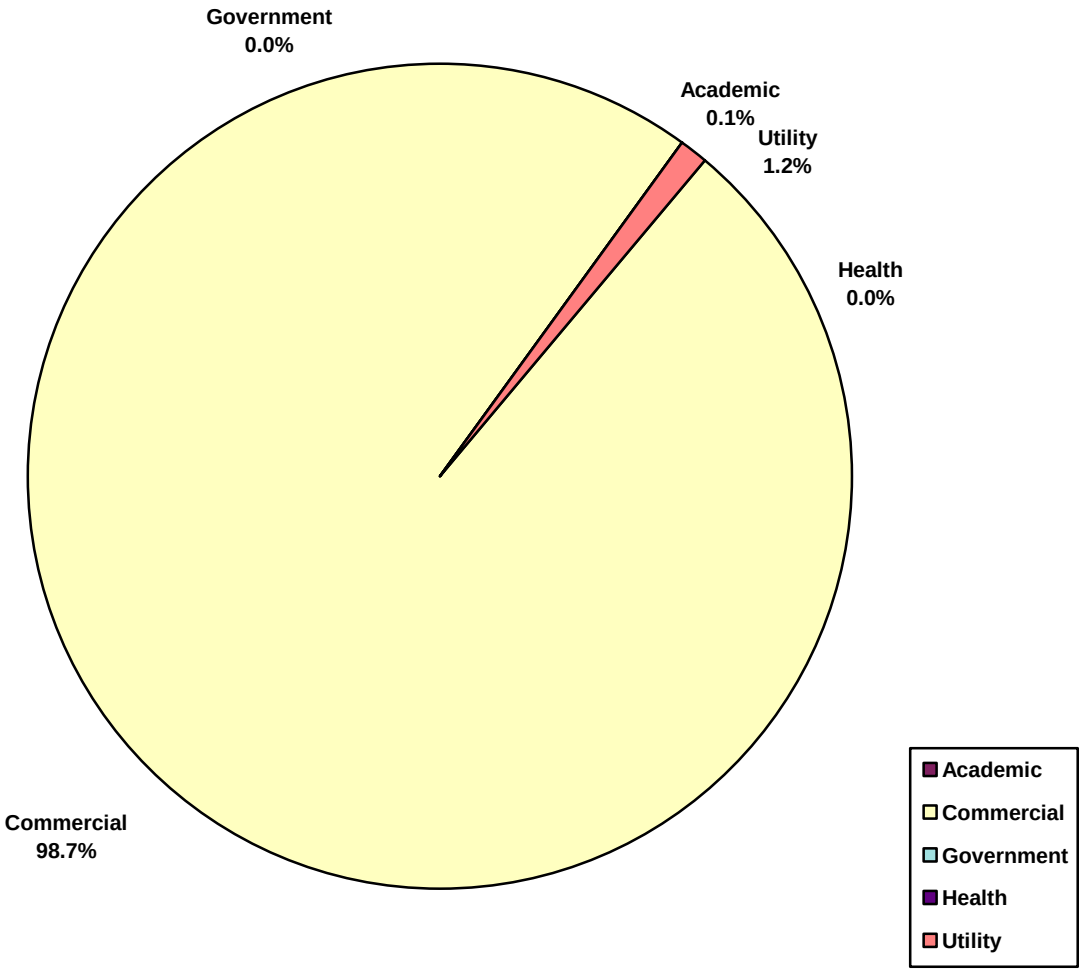


FIGURE 12

PERCENT OF TRANSFERRED ACTIVITY BY WASTE GENERATOR CATEGORY FOR 2008

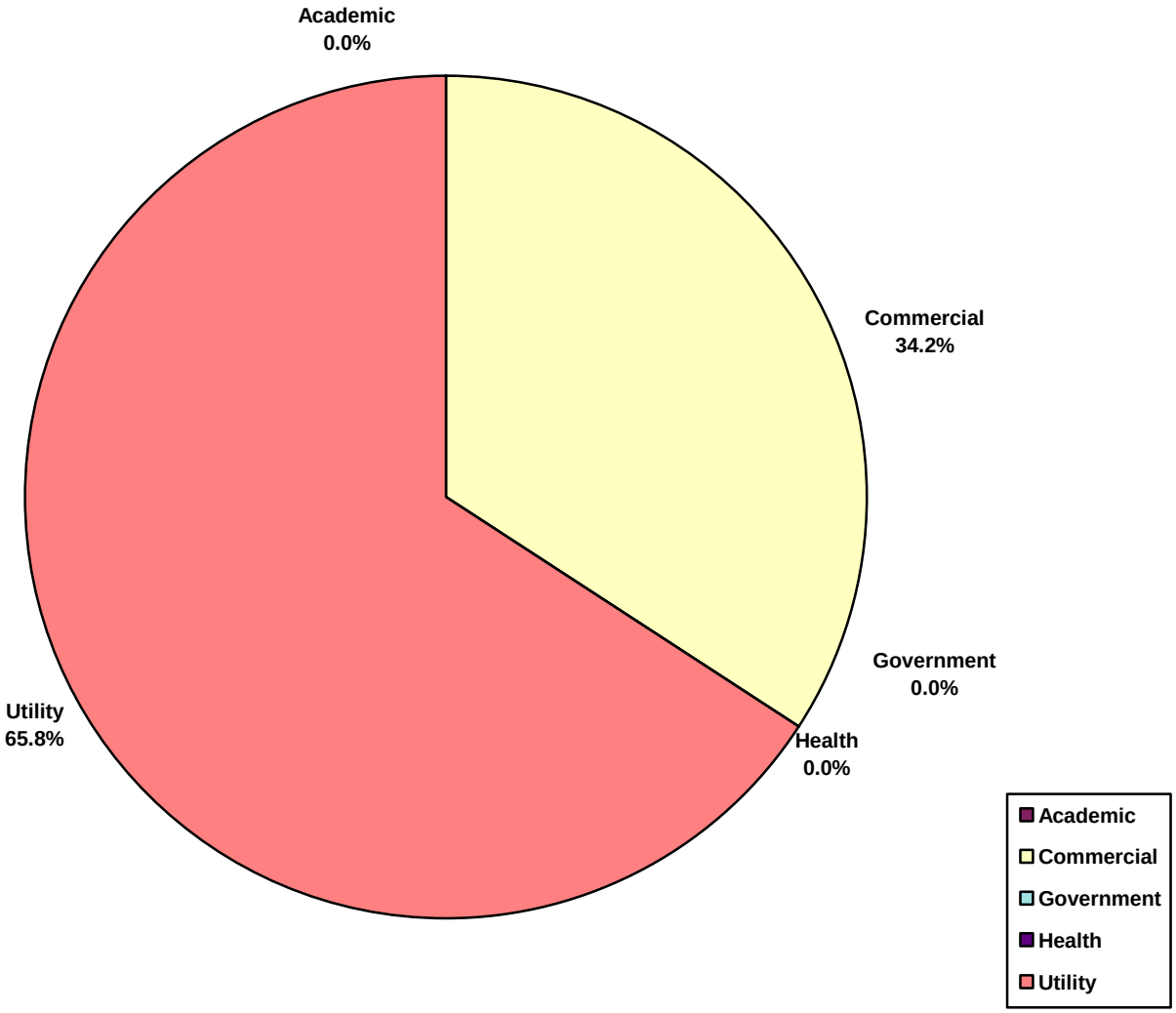
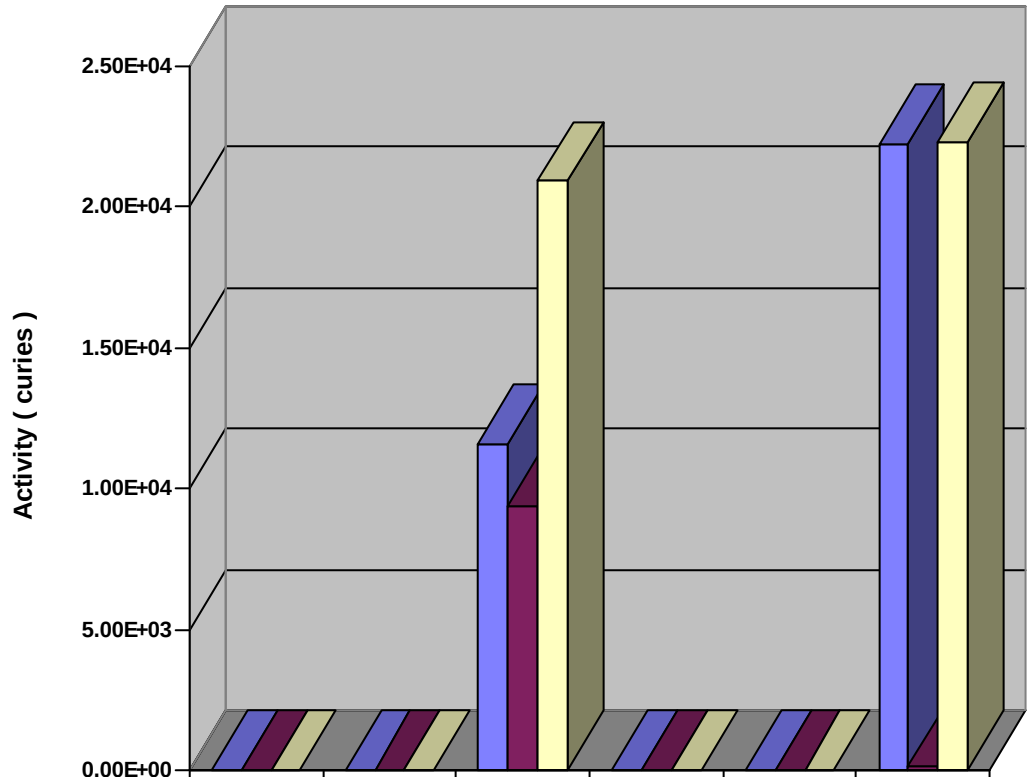


FIGURE 13

COMPARISON OF WASTE ACTIVITIES BY WASTE GENERATOR CATEGORY FOR 2008



		Academic	Commercial	Government	Health	Utility
Activity Transferred	0.00E+00	1.82E-01	1.16E+04	6.98E+00	5.74E-01	2.22E+04
Activity Placed In Storage	5.55E-04	6.15E+00	9.36E+03	0.00E+00	2.11E-01	1.14E+02
Activity Total	5.55E-04	6.33E+00	2.09E+04	6.98E+00	7.84E-01	2.23E+04

Generator Category

FIGURE 14

PERCENT OF TOTAL VOLUME BY WASTE GENERATOR CATEGORY FOR 2008

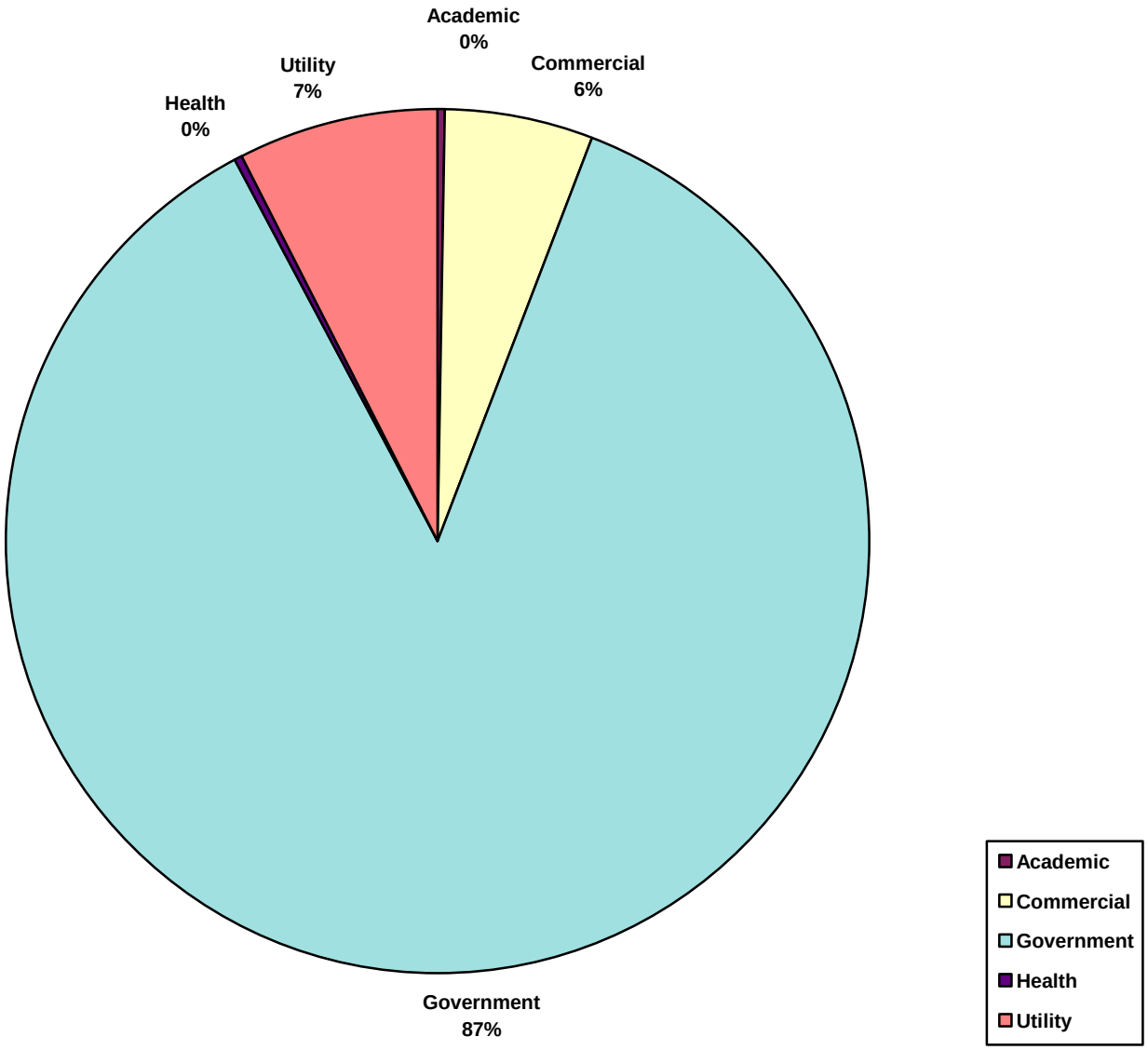


FIGURE 15

PERCENT OF IN-STORAGE VOLUME BY WASTE GENERATOR CATEGORY FOR 2008

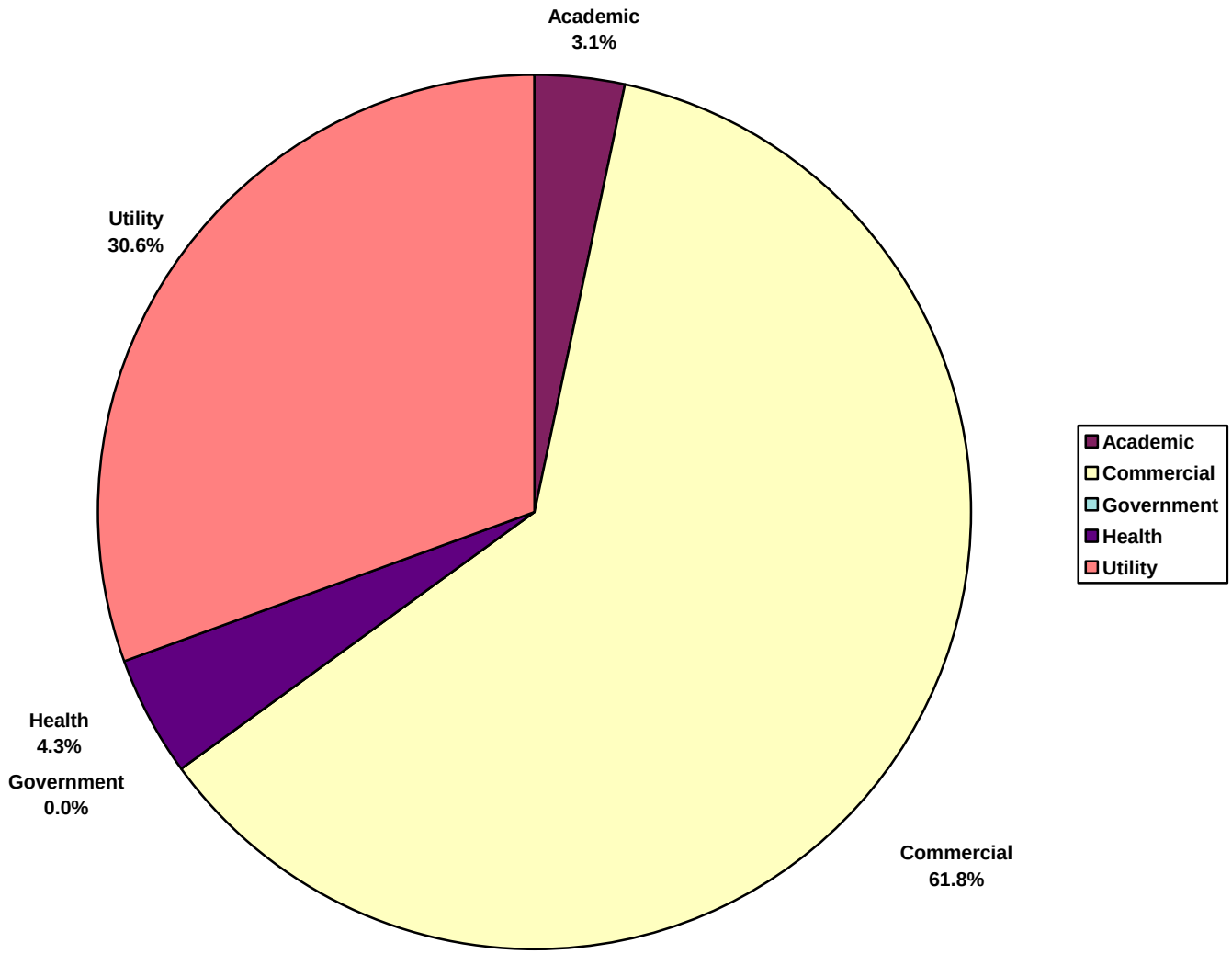


FIGURE 16

PERCENT OF TRANSFERRED VOLUME BY WASTE GENERATOR CATEGORY FOR 2008

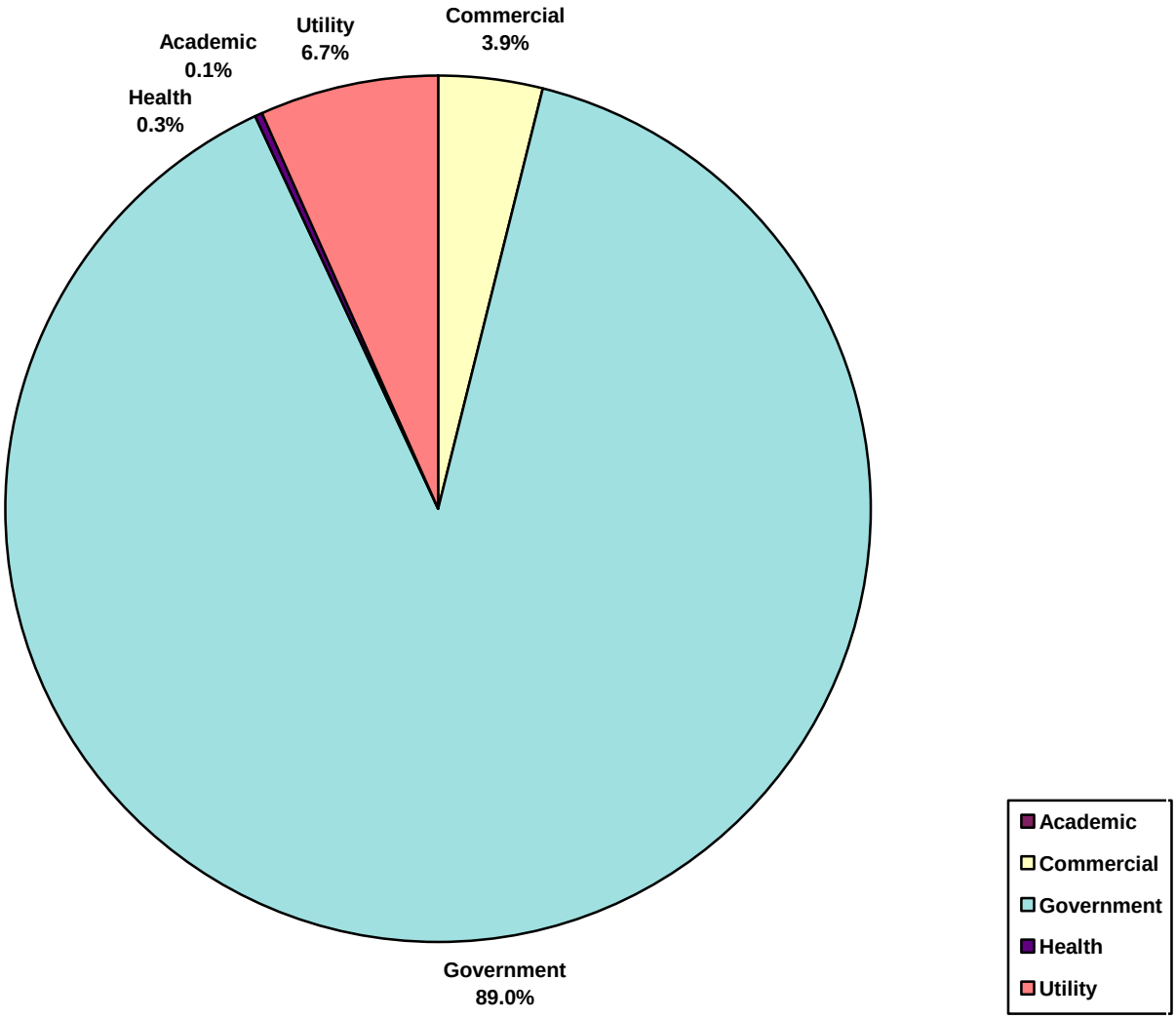
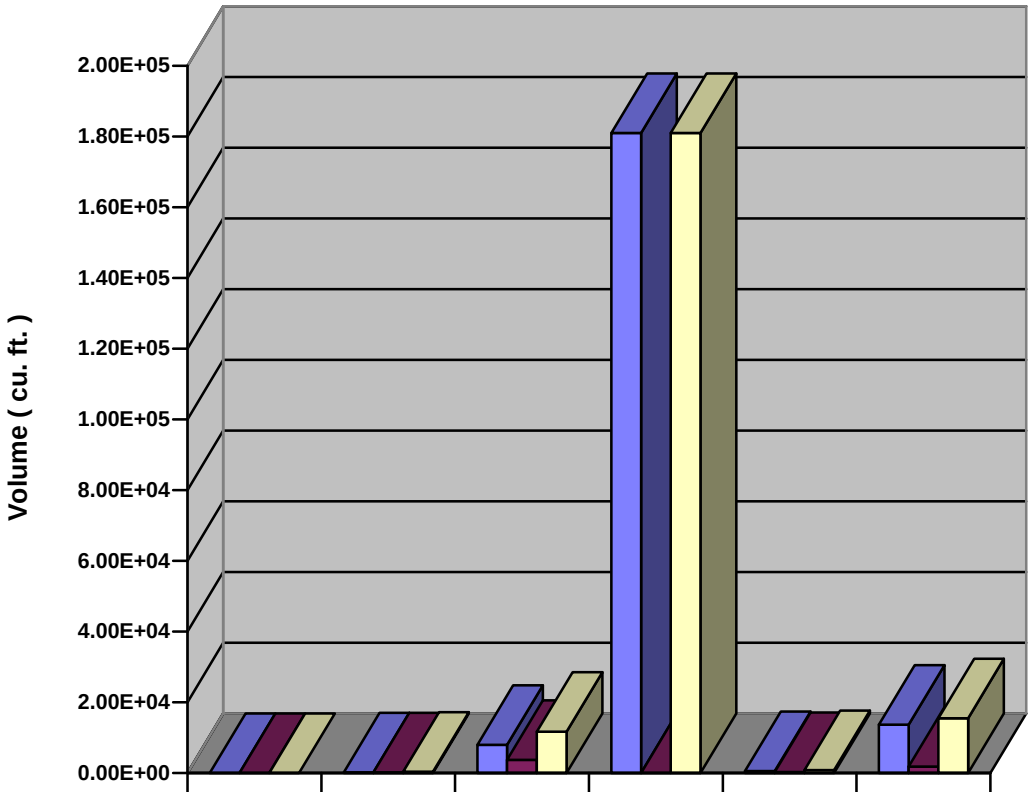


FIGURE 17

COMPARISON OF WASTE VOLUMES BY WASTE GENERATOR CATEGORY FOR 2008



		Academic	Commercial	Government	Health	Utility
Volume Transferred	0.00E+00	1.40E+02	7.97E+03	1.81E+05	5.81E+02	1.37E+04
Volume Placed In Storage	4.12E+00	1.90E+02	3.73E+03	0.00E+00	2.62E+02	1.85E+03
Volume Total	4.12E+00	3.30E+02	1.17E+04	1.81E+05	8.43E+02	1.55E+04

Generator Category

TABLE 14

Activity and Volume by Waste Generator Category For 2008

Waste Generator Category	Activity (curies)			Volume (Cu. ft.)		
	Transferred	**In Storage**	**Total**	**Transferred**	**In Storage**	**Total**
	0.00	0.00	0.00	0.00	4.12	4.12
(Percent)	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
Academic	0.18	6.15	6.33	139.57	190.03	329.60
(Percent)	0.0%	0.1%	0.0%	0.1%	3.1%	0.2%
Commercial	11,550.91	9,360.70	20,911.58	7,967.76	3,729.69	11,696.55
(Percent)	34.2%	98.7%	48.3%	3.9%	61.8%	5.6%
Government	6.98	0.00	6.98	181,257.00	0.00	181,257.00
(Percent)	0.0%	0.0%	0.0%	89.0%	0.0%	86.5%
Health	0.57	0.21	0.78	580.56	262.20	842.76
(Percent)	0.0%	0.0%	0.0%	0.3%	4.3%	0.4%
Utility	22,223.00	113.69	22,336.69	13,682.00	1,847.00	15,529.00
(Percent)	65.8%	1.2%	51.6%	6.7%	30.6%	7.4%
Grand Total	**33,781.64**	**9,480.74**	**43,262.35**	**203,626.90**	**6,033.04**	**209,659.03**

FIGURE 18

VOLUME (CUBIC FT) LLRW TRANSFERRED BY YEAR

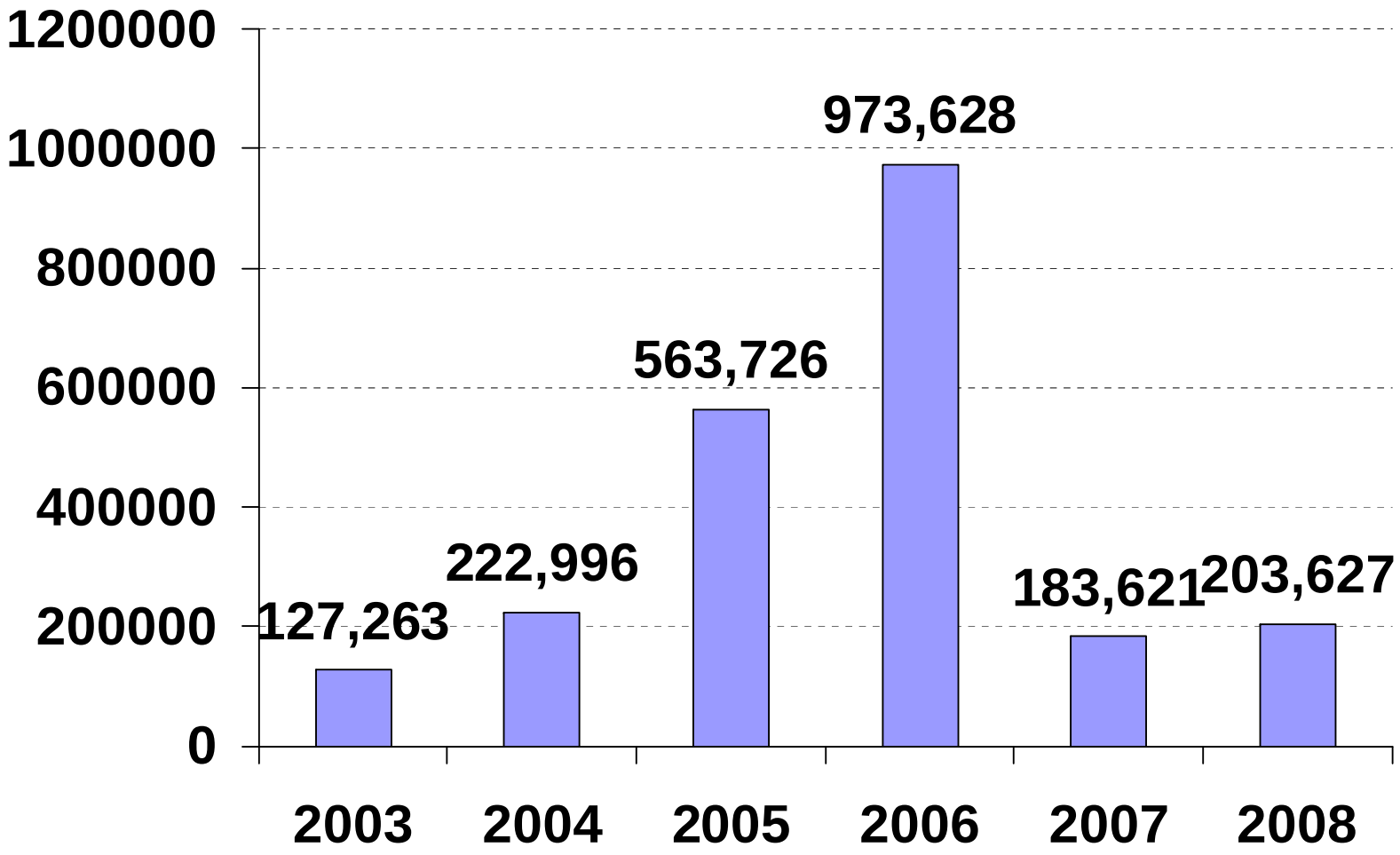


FIGURE 19
ACTIVITY (CURIES) LLRW TRANSFERRED BY YEAR

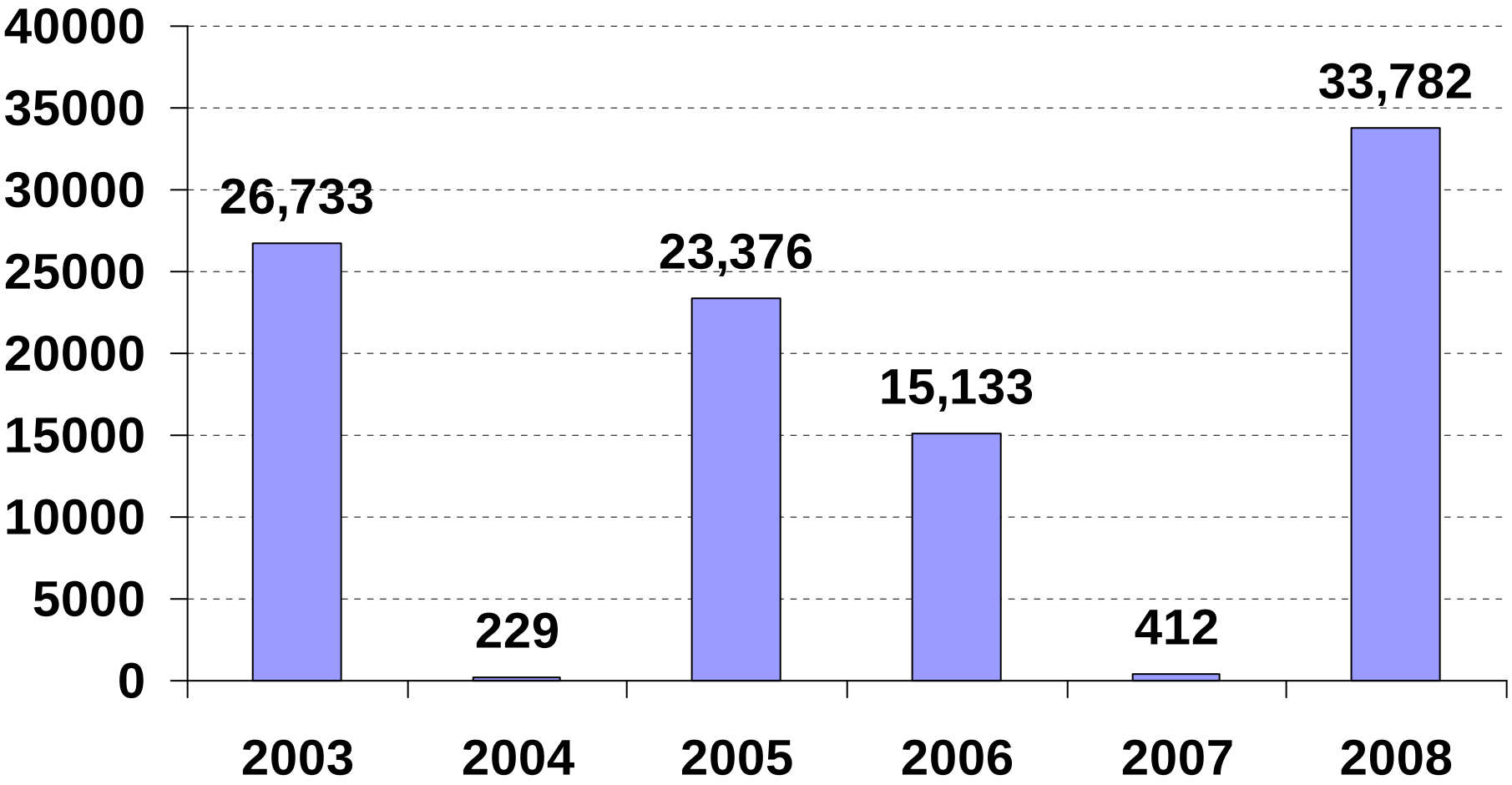


FIGURE 20

TOTAL RAM REPORTING FREQUENCY FOR ALL CLASSES OF WASTE IN 2008

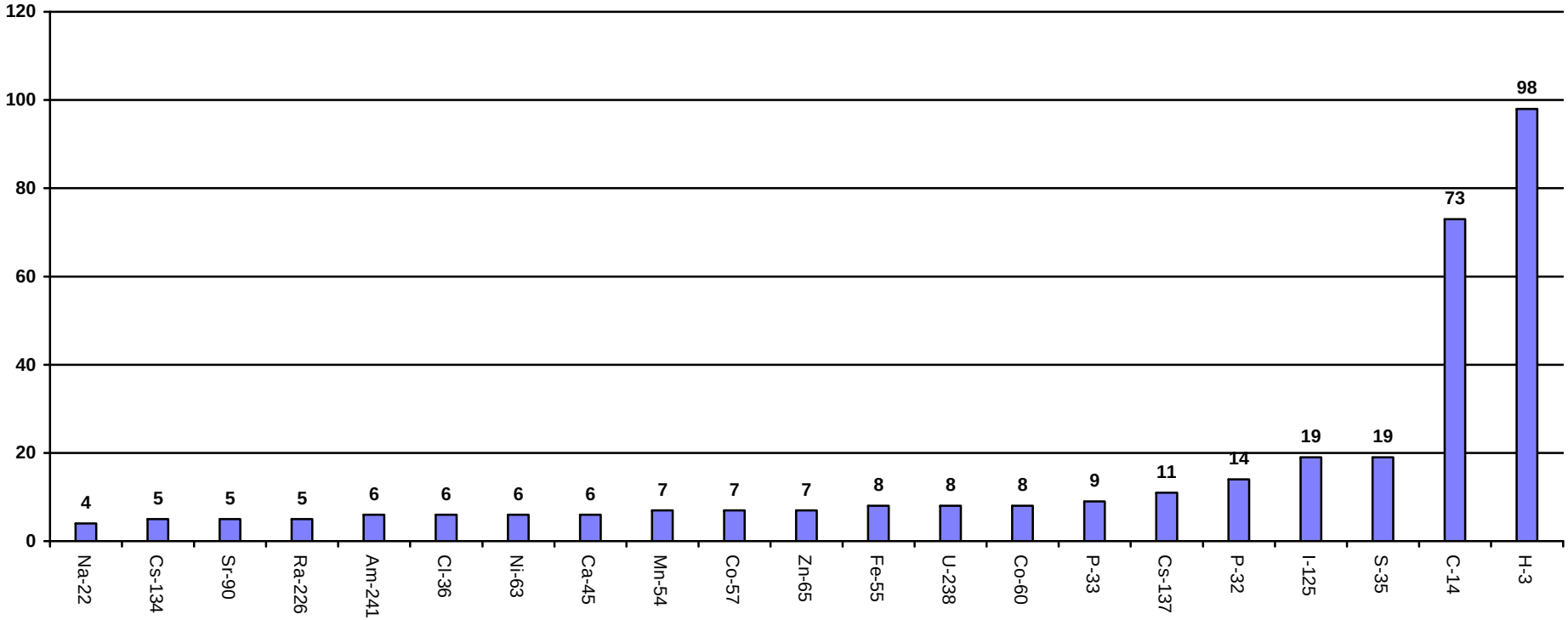


FIGURE 21
TOTAL RAM REPORTING FREQUENCY FOR CLASS A WASTE IN 2008

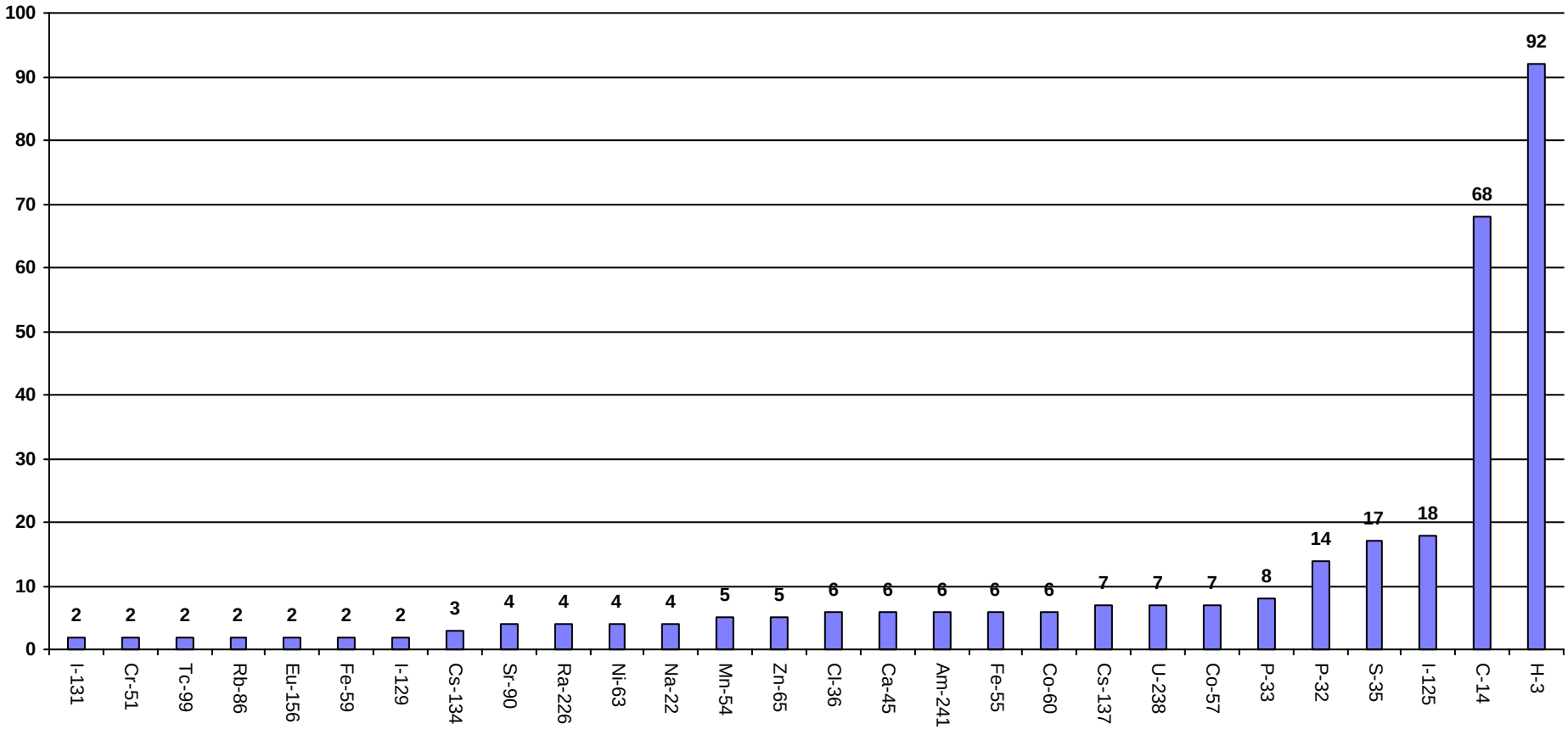


FIGURE 22

TOTAL RAM REPORTING FREQUENCY FOR CLASS B WASTE IN 2008

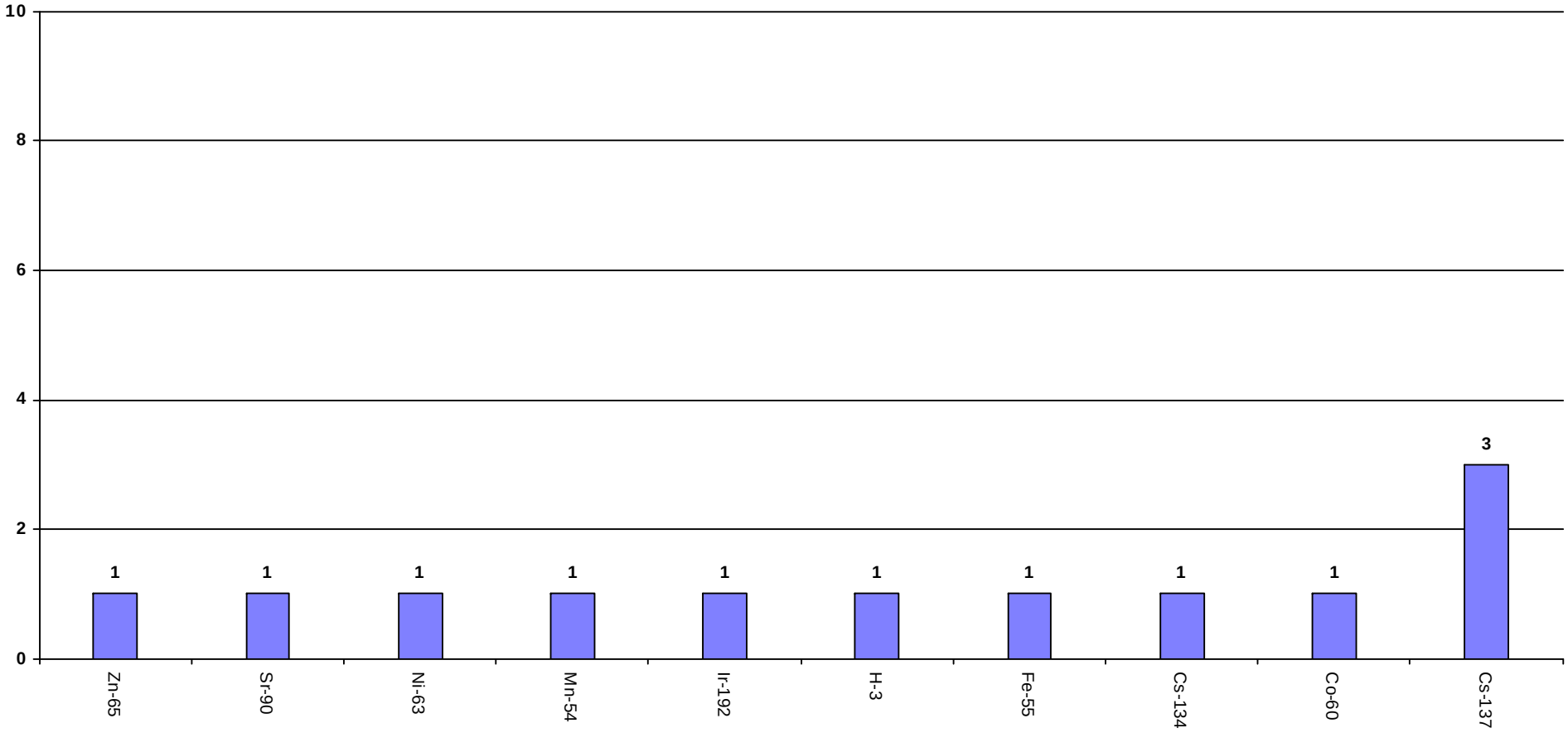


FIGURE 23

TOTAL RAM REPORTING FREQUENCY FOR CLASS C WASTE IN 2008

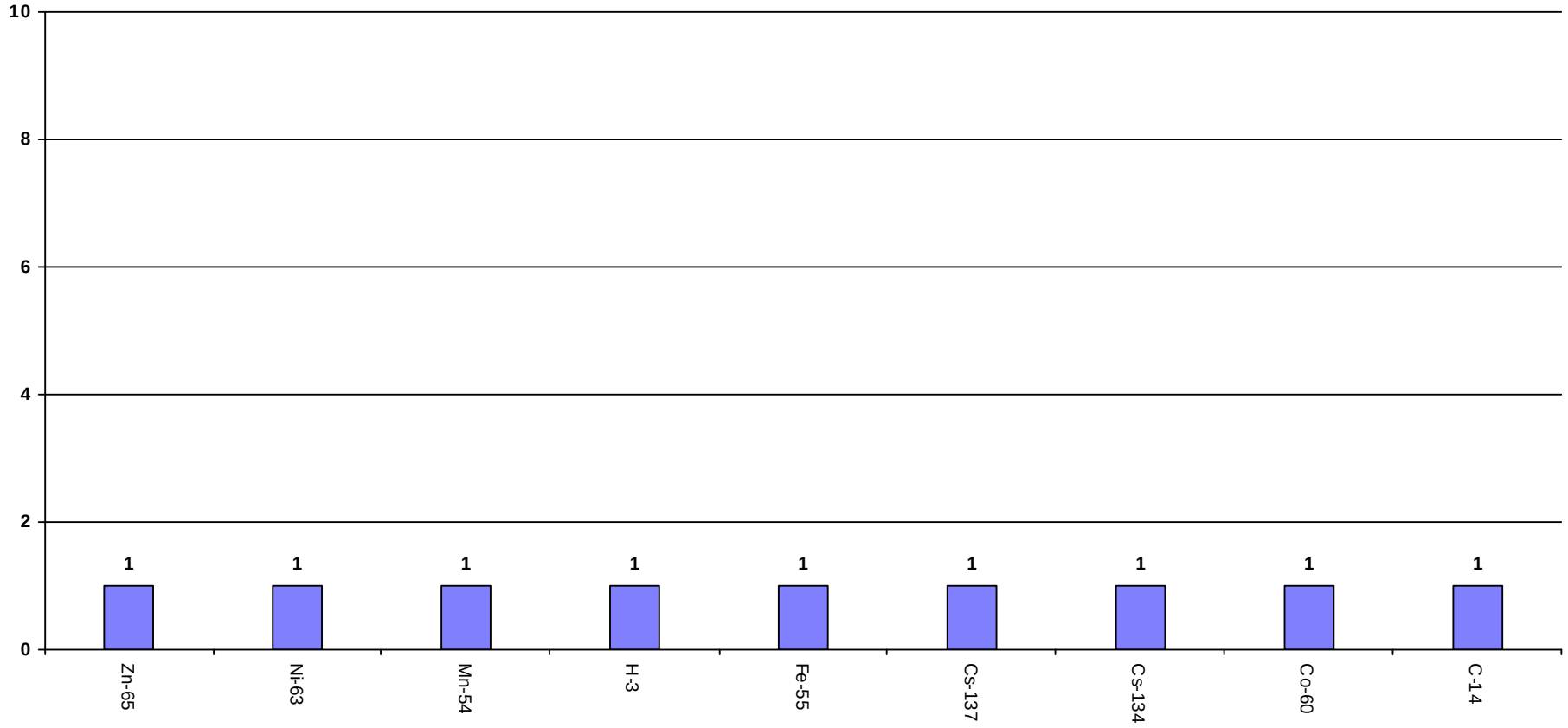


FIGURE 24
TOTAL RAM REPORTING FREQUENCY FOR HVLA WASTE IN 2008

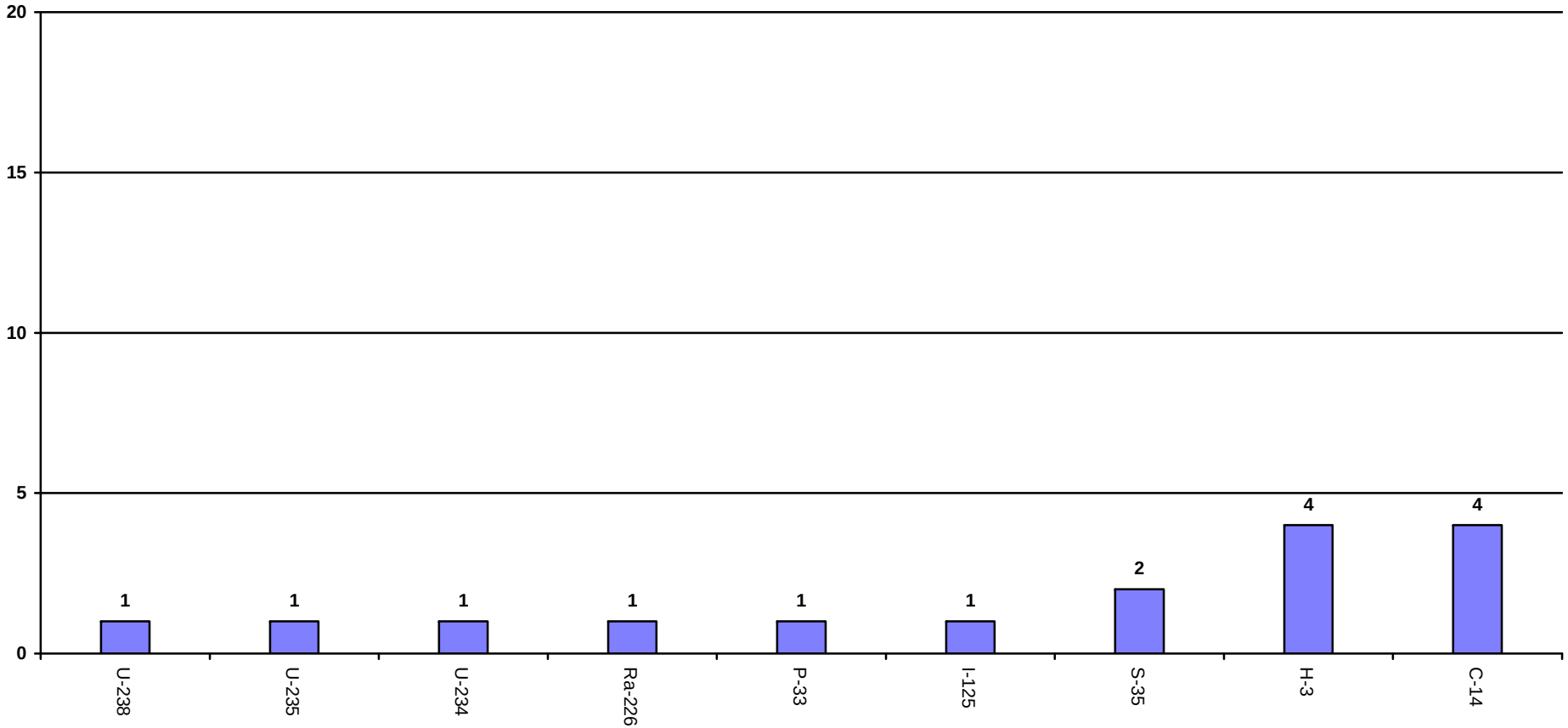


FIGURE 25
IN-STORAGE RAM REPORTING FREQUENCY FOR ALL CLASSES OF WASTE IN 2008

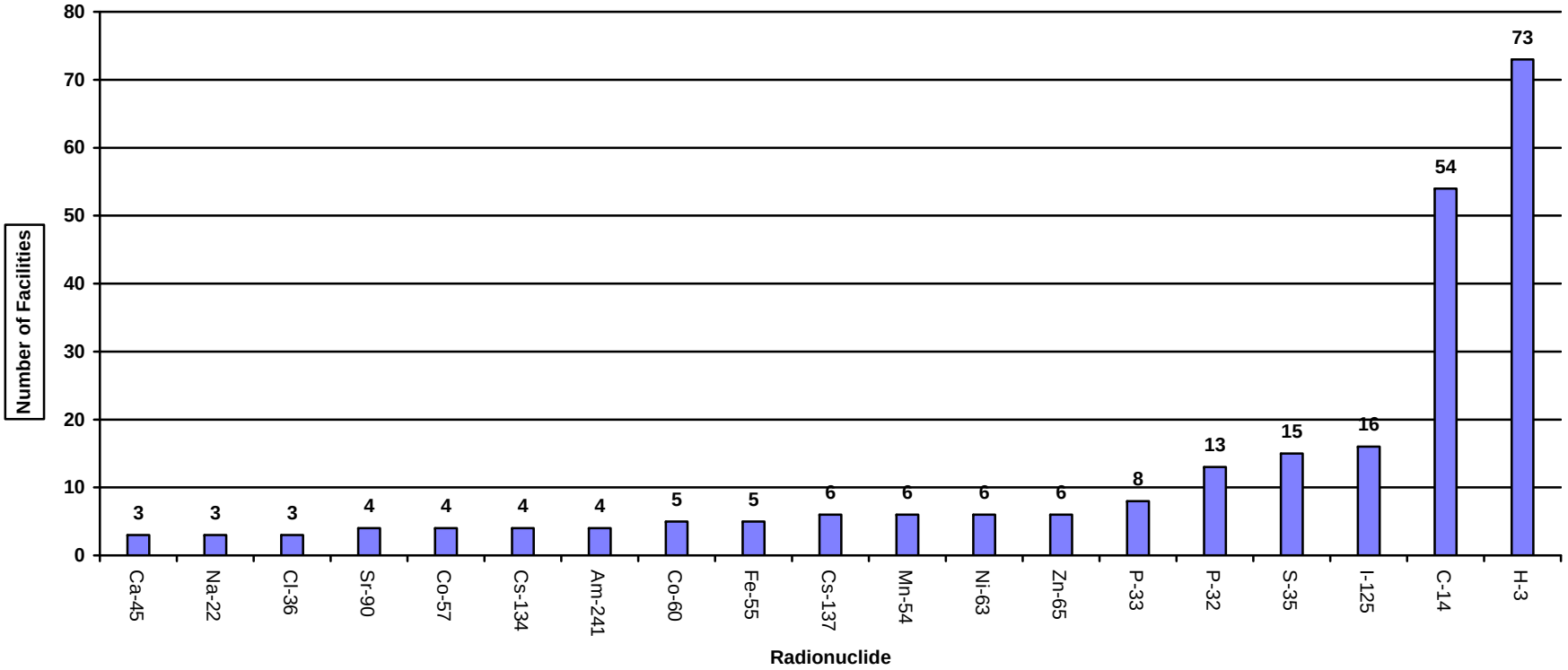


FIGURE 26

TRANSFERRED RAM REPORTING FREQUENCY FOR ALL CLASSES OF WASTE IN 2008

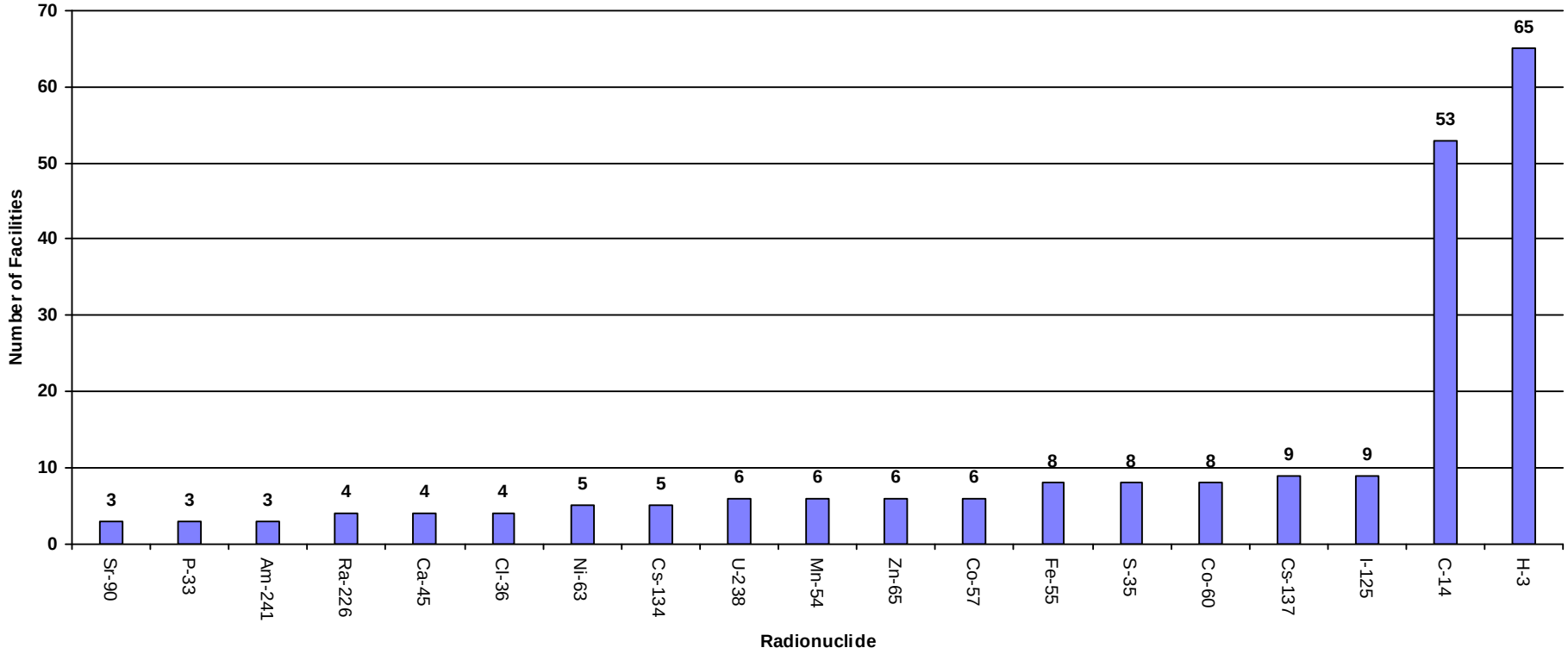


FIGURE 27

DISTRIBUTION OF ORGANIZATIONS THAT GENERATED WASTE IN 2008 - BY ACTIVITY

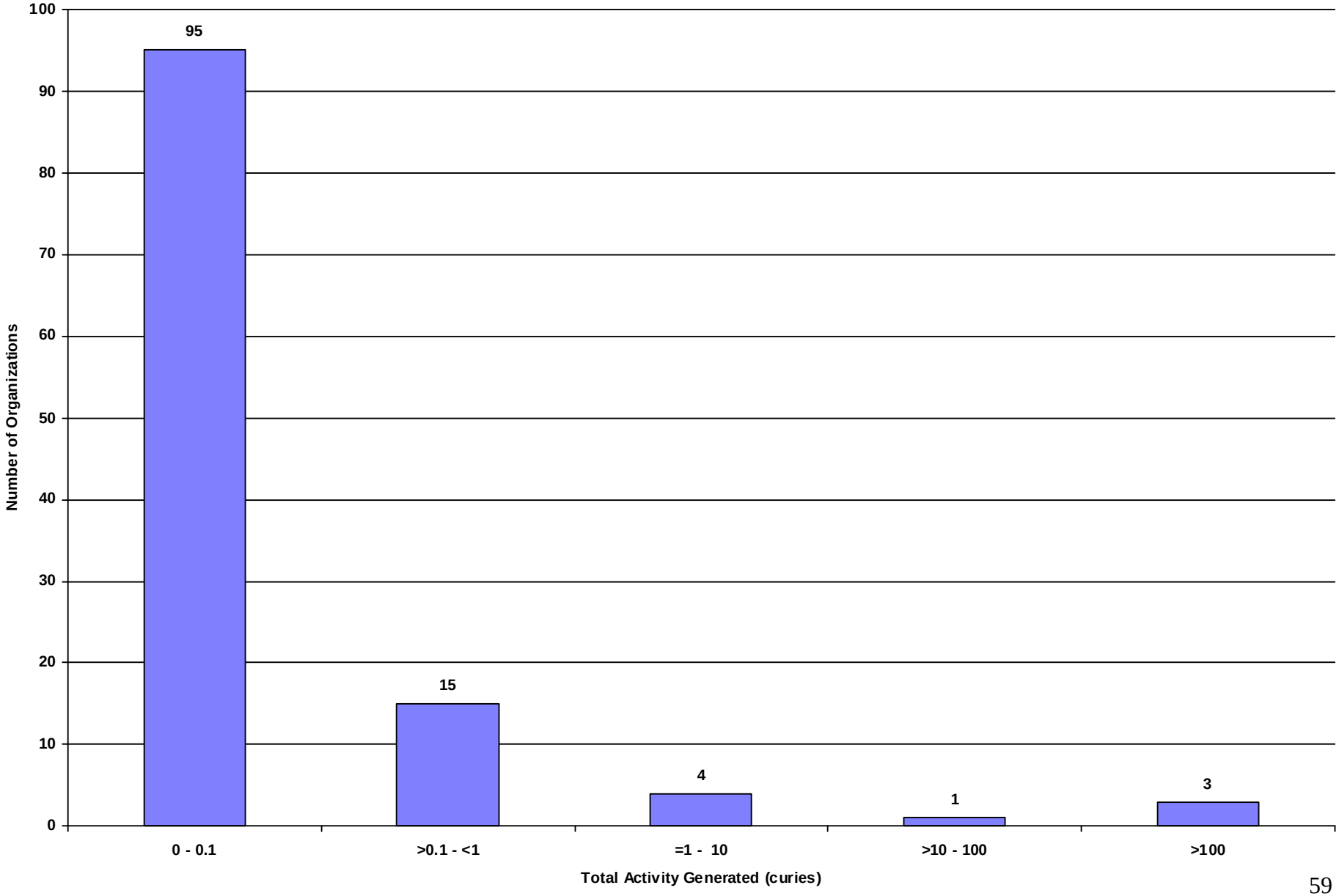


FIGURE 28
DISTRIBUTION OF ORGANIZATIONS THAT GENERATED WASTE IN 2008 - BY VOLUME

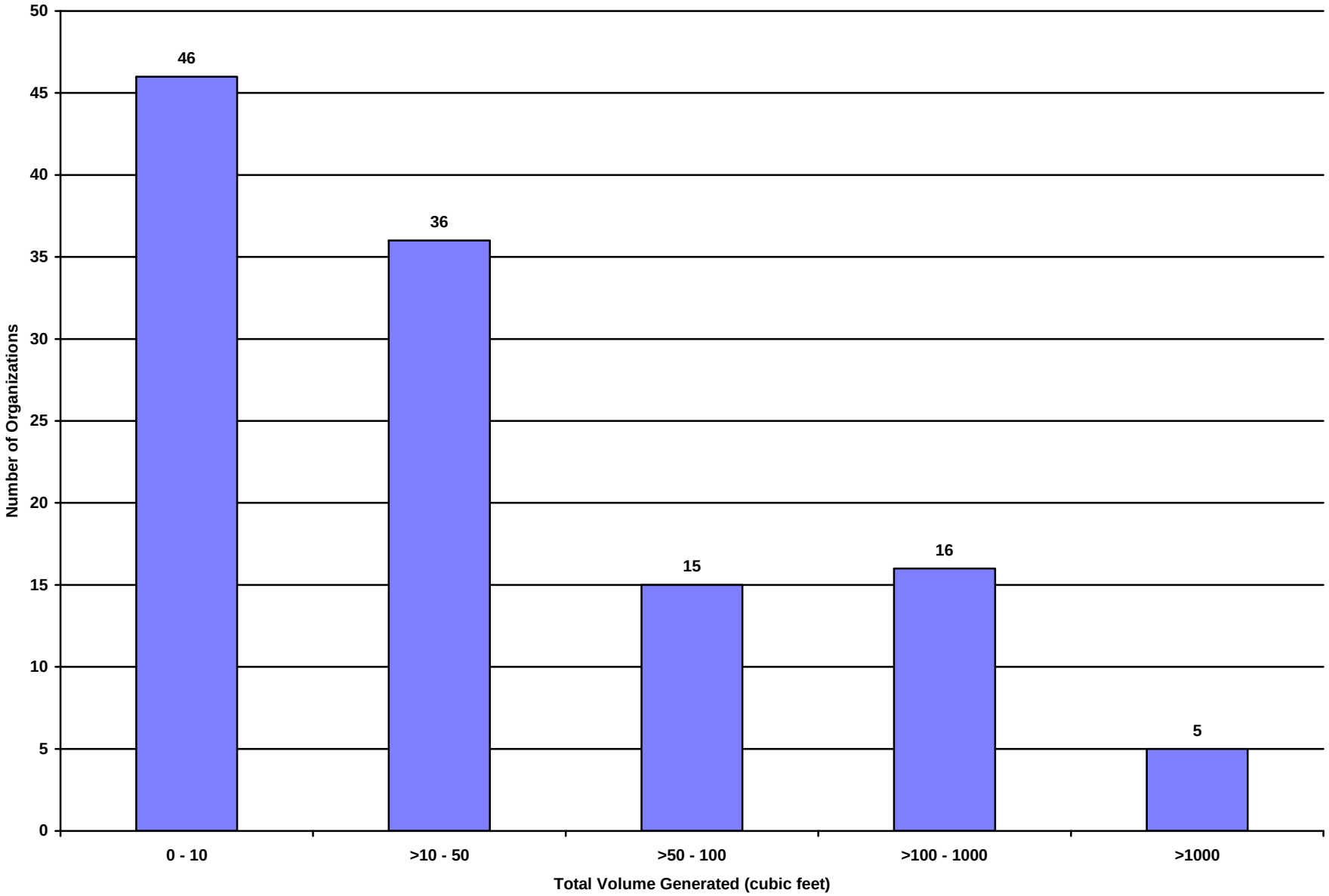


TABLE 15

List of Facilities Activities and Volumes Produced in 2008

	VOLUME (cu. ft.)			*ACTIVITY (curies)*		
Facility Name	**Transferred**	**In Storage**	**Total**	**Transferred**	**In Storage**	**Total**
ABBOTT BIORESEARCH CENTER, INC	0.0	15.0	15.0	0.000	0.002	0.002
ABC TESTING INC.	0.0	0.0	0.0	0.000	0.000	0.000
ACCELERON PHARMA, INC.	0.0	0.0	0.0	0.000	0.000	0.000
ACLIN, INC.	0.0	0.0	0.0	0.000	0.000	0.000
ADAPTIVE OPTICS ASSOCIATES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
ADNEXUS, A BRISTOL-MYERS SQUIBB R&D CO.	4.1	0.0	4.1	0.000	0.000	0.000
ADVANCE TESTING COMPANY, INC.	0.0	0.0	0.0	0.000	0.000	0.000
AGGREGATE INDUSTRIES-NORTHEAST	0.0	0.0	0.0	0.000	0.000	0.000
ALG ENVIRONMENTAL CONSULTING, LLC	0.0	0.0	0.0	0.000	0.000	0.000
ALKERMES, INC.	26.8	17.1	44.0	0.353	0.353	0.706
ALLEGHENY LUDLUM	0.0	0.0	0.0	0.000	0.000	0.000
ALLIANCE HEALTHCARE SERVICES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
ALLIED TESTING LABORATORIES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
ALNYLAM PHARMACEUTICALS, INC.	4.0	0.0	4.0	0.003	0.000	0.003
ALTRAN SOLUTIONS CORPORATION	0.0	0.0	0.0	0.000	0.000	0.000
AMAG PHARMACEUTICALS, INC.	0.0	1.0	1.0	0.000	0.300	0.300
AMERICAN ENG. & TESTING, INC.	0.0	0.0	0.0	0.000	0.000	0.000
AMERICAN RED CROSS BLOOD SERV.	0.0	0.0	0.0	0.000	0.000	0.000

Facility Name	VOLUME (cu. ft.)			ACTIVITY (curies)		
	Transferred	In Storage	Total	Transferred	In Storage	Total
AMGEN, INC.	30.0	31.1	61.1	0.014	0.026	0.040
AMHERST COLLEGE	14.8	6.7	21.5	0.001	0.000	0.001
AMHERST COLLEGE - RICHARD MEARS	0.0	0.0	0.0	0.000	0.000	0.000
AMPTEK, INC.	0.0	0.0	0.0	0.000	0.000	0.000
ANALYTICAL ANSWERS , INC	0.0	0.0	0.0	0.000	0.000	0.000
ANCHOR THERAPEUTICS	0.0	0.0	0.0	0.000	0.000	0.000
ANDERSON, CRAIG	0.0	0.0	0.0	0.000	0.000	0.000
ANDOVER SURGERY CENTER, LP	0.0	0.0	0.0	0.000	0.000	0.000
ANGELL ANIMAL MEDICAL CENTER - BOSTON	0.0	0.0	0.0	0.000	0.000	0.000
ANNA JAQUES HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
ANTIGENICS INC.	0.0	1.0	1.0	0.000	0.000	0.000
APPLIED BIOSYSTEMS	0.0	0.0	0.0	0.000	0.000	0.000
ARCADIS U.S., INC.	0.0	0.0	0.0	0.000	0.000	0.000
ARCHEMIX CORP.	0.0	0.1	0.1	0.000	0.000	0.000
AREVA NP, INC.	103.0	104.0	207.0	0.020	0.050	0.070
ARIAD PHARMACEUTICALS, INC.	0.0	0.0	0.0	0.000	0.000	0.000
ARMY, DEPARTMENT OF	0.0	0.0	0.0	0.000	0.000	0.000
ARQULE, INC.	0.0	0.1	0.1	0.000	0.000	0.000
ASAP ENVIRONMENTAL INCORPORATED	0.0	0.0	0.0	0.000	0.000	0.000
ASSURANCE TECHNOLOGY CORPORATION	0.0	0.0	0.0	0.000	0.000	0.000
ASTRAZENECA PHARMACEUTICALS LP	123.3	15.0	138.3	0.061	0.167	0.227
ATC ASSOCIATES, INC.	0.0	0.0	0.0	0.000	0.000	0.000

Facility Name	VOLUME (cu. ft.)			ACTIVITY (curies)		
	Transferred	In Storage	Total	Transferred	In Storage	Total
ATC ASSOCIATES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
ATC GROUP SERVICES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
ATHENA DIAGNOSTICS, INC.	19.4	14.7	34.1	0.001	0.000	0.001
ATLANTIC NUCLEAR CORPORATION	0.0	0.0	0.0	0.000	0.000	0.000
AVEO PHARMACEUTICALS, INC.	0.0	0.0	0.0	0.000	0.000	0.000
AVILA THERAPEUTICS	0.0	1.8	1.8	0.000	0.001	0.001
AXIOM PARTNERS, INC.	0.0	0.0	0.0	0.000	0.000	0.000
B.J. EDGE & ASSOCIATES	0.0	0.0	0.0	0.000	0.000	0.000
BAKER TESTING SERVICES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
BALFOUR, SCOTT	0.0	0.0	0.0	0.000	0.000	0.000
BARTLETT NUCLEAR, INC.	0.0	0.0	0.0	0.000	0.000	0.000
BASCOM, SCOTT A.	0.0	0.0	0.0	0.000	0.000	0.000
BAXTER HEALTHCARE CORPORATION	0.0	0.0	0.0	0.000	0.000	0.000
BAYSTATE HEALTH	0.0	0.0	0.0	0.000	0.000	0.000
BEAUDETTE, MARC	0.0	0.0	0.0	0.000	0.000	0.000
BERKSHIRE MEDICAL CENTER	0.0	0.0	0.0	0.000	0.000	0.000
BETH ISRAEL DEACON. MED. CTR.	2.2	0.0	2.2	0.044	0.000	0.044
BETH ISRAEL DEACON.MED CENTER	0.0	0.0	0.0	0.000	0.000	0.000
BETH ISRAEL DEACONESS HEALTHCARE	0.0	0.0	0.0	0.000	0.000	0.000
BETH ISRAEL DEACONESS HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
BEVERLY HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
BIND BIOSCIENCES, INC.	16.0	1.0	17.0	0.020	0.002	0.022
BIOCARE	0.0	0.0	0.0	0.000	0.000	0.000
BIOGEN IDEC, INC.	52.5	26.5	79.0	0.010	0.012	0.022

Facility Name	VOLUME (cu. ft.)			ACTIVITY (curies)		
	Transferred	In Storage	Total	Transferred	In Storage	Total
BIOHELIX CORPORATION	0.0	7.0	7.0	0.000	0.000	0.000
BIOMEASURE, INC.	12.0	0.0	12.0	0.000	0.000	0.000
BIOMEDICAL RESEARCH MODELS, INC	79.8	22.5	102.3	0.006	0.003	0.009
BIOMEDICAL TECHNOLOGIES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
BIOVEST INTERNATIONAL INCORPORATED	0.0	0.0	0.0	0.000	0.000	0.000
BLACKMAN, MEL	0.0	0.0	0.0	0.000	0.000	0.000
BOSTON BIOMEDICAL RES. INST.	0.2	0.0	0.2	0.006	0.000	0.006
BOSTON BIOMEDICAL, INC.	0.0	0.0	0.0	0.000	0.000	0.000
BOSTON CHILDHOOD LEAD PAINT POISON PREV.	0.0	0.0	0.0	0.000	0.000	0.000
BOSTON COLLEGE	0.0	22.5	22.5	0.000	0.011	0.011
BOSTON EYE SURGERY AND LASER CENTER, INC.	0.0	0.0	0.0	0.000	0.000	0.000
BOSTON MEDICAL CENTER	0.0	37.5	37.5	0.000	0.015	0.015
BOSTON SCIENTIFIC	0.0	0.0	0.0	0.000	0.000	0.000
BRANDEIS UNIVERSITY	0.0	22.5	22.5	0.000	0.096	0.096
BRIDGEWATER GODDARD PARK MED	0.0	0.0	0.0	0.000	0.000	0.000
BRIDGEWATER STATE COLLEGE	0.0	0.0	0.0	0.000	0.000	0.000
BRIGHAM & WOMEN'S HOSPITAL	0.0	76.5	76.5	0.000	0.063	0.063
BROCKTON CARDIOLOGY ASSOCIATES	0.0	0.0	0.0	0.000	0.000	0.000
BROCKTON HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
BROWN AND CALDWELL	0.0	0.0	0.0	0.000	0.000	0.000
BRUKER DETECTION CORPORATION	0.0	0.0	0.0	0.000	0.000	0.000
CAMBRIDGE PUB. HEALTH ALLIANCE	0.0	0.0	0.0	0.000	0.000	0.000

Facility Name	VOLUME (cu. ft.)			ACTIVITY (curies)		
	Transferred	In Storage	Total	Transferred	In Storage	Total
CAMP DRESSER & MCKEE, INC.	0.0	0.0	0.0	0.000	0.000	0.000
CAPE COD HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
CAPFILM / ELECTRONIC CONCEPTS, INC.	0.0	0.0	0.0	0.000	0.000	0.000
CAPITAL CARDIOLOGY ASSOC.,P.C	0.0	0.0	0.0	0.000	0.000	0.000
CARDINAL HEALTH NUCLEAR PHARMACY SERVICE	0.0	0.0	0.0	0.000	0.000	0.000
CARDINAL HEALTH NUCLEAR PHARMACY SERVICES	0.0	0.0	0.0	0.000	0.000	0.000
CARDIOLOGY CONSULT.OF CENTRAL MASS., LLP	0.0	0.0	0.0	0.000	0.000	0.000
CARDIOVASCULAR CONSULTANTS OF CAPE COD, LLC	0.0	0.0	0.0	0.000	0.000	0.000
CARDIOVASCULAR SPECIALISTS, LLC	0.0	0.0	0.0	0.000	0.000	0.000
CARITAS CARNEY HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
CARITAS GOOD SAMARITAN MED CENTER	0.0	0.0	0.0	0.000	0.000	0.000
CARITAS HOLY FAMILY HOSPITAL AND MED CTR	0.0	0.0	0.0	0.000	0.000	0.000
CARITAS NORWOOD HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
CARITAS PET IMAGING, LLC	0.0	0.0	0.0	0.000	0.000	0.000
CARITAS ST. ELIZABETH'S MED. CNTER OF BO	0.0	0.0	0.0	0.000	0.000	0.000
CATALDO, JOSEPH P.	0.0	0.0	0.0	0.000	0.000	0.000
CAULFIELD ENVIRONMENTAL	0.0	0.0	0.0	0.000	0.000	0.000
CELL SIGNALING TECHNOLOGY	0.0	0.0	0.0	0.000	0.000	0.000
CELLDEX THERAPEUTICS	0.0	0.0	0.0	0.000	0.000	0.000
CELLDEX THERAPEUTICS, INC.	0.0	0.0	0.0	0.000	0.000	0.000

Facility Name	VOLUME (cu. ft.)			ACTIVITY (curies)		
	Transferred	In Storage	Total	Transferred	In Storage	Total
CHADWICK MEDICAL ASSOCIATES	0.0	0.0	0.0	0.000	0.000	0.000
CHARLES RIVER LABORATORIES,INC	295.0	36.0	331.0	0.003	0.002	0.004
CHARLES STARK DRAPER LAB., INC	0.0	0.0	0.0	0.000	0.000	0.000
CHARM SCIENCES INC.	0.0	6.0	6.0	0.000	0.002	0.002
CHEMIC LABORATORIES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
CHILD SAFE LEAD PAINT	0.0	0.0	0.0	0.000	0.000	0.000
CHILDREN'S HOSPITAL, THE	1.3	45.0	46.3	0.035	0.030	0.064
CITY OF FITCHBURG	0.0	0.0	0.0	0.000	0.000	0.000
CITY OF LEOMINSTER	0.0	0.0	0.0	0.000	0.000	0.000
CITY OF NEWTON	0.0	0.0	0.0	0.000	0.000	0.000
CLARK UNIVERSITY	0.0	0.0	0.0	0.000	0.000	0.000
CLIPPER CARDIOVASCULAR ASSOCIATES	0.0	0.0	0.0	0.000	0.000	0.000
COLLEGE OF OUR LADY OF ELMS	0.0	0.0	0.0	0.000	0.000	0.000
COLLEGE OF THE HOLY CROSS	0.0	0.0	0.0	0.000	0.000	0.000
COMBINATORX, INC.	0.0	0.0	0.0	0.000	0.000	0.000
COMMUNICATIONS & POWER INDUST.	37.5	0.0	37.5	18.770	0.000	18.770
CONCORD BIOMEDICAL SCIENCES & EMERGING TECHNOLOGIES	7.5	0.0	7.5	0.003	0.000	0.003
CONSTELLATION PHARMACEUTICALS, INC.	0.0	4.1	4.1	0.000	0.001	0.001
COOLEY DICKINSON HOSPITAL, INC	0.0	0.0	0.0	0.000	0.000	0.000
COVINO ENVIRON. ASSOC. INC.	0.0	0.0	0.0	0.000	0.000	0.000
CRANE & CO., INC.	0.0	0.0	0.0	0.000	0.000	0.000
CUBIST PHARMACEUTICALS, INC.	31.0	23.3	54.3	0.002	0.014	0.016
CURIS, INC.	0.0	0.0	0.0	0.000	0.000	0.000

	VOLUME (cu. ft.)			ACTIVITY (curies)		
Facility Name	Transferred	In Storage	Total	Transferred	In Storage	Total
DANA-FARBER CANCER INSTITUTE	302.0	0.0	302.0	0.315	0.000	0.315
DAVID & SON LEAD INSPECTIONS	0.0	0.0	0.0	0.000	0.000	0.000
DIGIRAD IMAGING SOLUTIONS, INC.	0.0	0.0	0.0	0.000	0.000	0.000
DILLARD, ANNETTE	0.0	0.0	0.0	0.000	0.000	0.000
DISCOVERY LABWARE, INC.	90.4	37.0	127.4	0.010	0.003	0.013
DOMINION ENERGY BRAYTON POINT, LLC	0.0	0.0	0.0	0.000	0.000	0.000
DOMINION ENERGY SALEM HARBOR, LLC	0.0	0.0	0.0	0.000	0.000	0.000
DOSITEC, INC.	0.0	0.0	0.0	0.000	0.000	0.000
E.T. & L. CORP.	0.0	0.0	0.0	0.000	0.000	0.000
EARTHWORKS ENGINEERING, INC.	0.0	0.0	0.0	0.000	0.000	0.000
EASAI INC.	31.4	18.9	50.3	0.002	0.003	0.005
EASTERN MASSACHUSETTS SURGERY CENTER, LLC	0.0	0.0	0.0	0.000	0.000	0.000
EDITH NOURSE ROGERS MEMORIAL VETERANS HOSPITAL	1.4	0.0	1.4	0.000	0.000	0.000
ELIXIR PHARMACEUTICALS, INC.	14.2	8.0	22.2	0.010	0.000	0.010
EMD SERONO RESEARCH CENTER	0.0	13.3	13.3	0.000	0.003	0.003
EMD SERONO RESEARCH INSTITUTE, INC.	0.0	22.5	22.5	0.000	0.007	0.007
EMERALD LEAD TESTING CO.	0.0	0.0	0.0	0.000	0.000	0.000
EMERSON HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
ENANTA PHARMACEUTICALS	4.1	0.0	4.1	0.004	0.000	0.004
ENRIGHT, JOHN J.	0.0	0.0	0.0	0.000	0.000	0.000
ENSR INTERNATIONAL	0.0	0.0	0.0	0.000	0.000	0.000

Facility Name	VOLUME (cu. ft.)			ACTIVITY (curies)		
	Transferred	In Storage	Total	Transferred	In Storage	Total
ENTERGY NUCLEAR GENERATING COMPANY	13,682.0	1,847.0	15,529.0	22,223.000	113.686	22,336.685
ENVIRONMENTAL AND LEAD PT INSP	0.0	0.0	0.0	0.000	0.000	0.000
ENVIRONMENTAL CHEMICAL CORPORATION	0.0	0.0	0.0	0.000	0.000	0.000
ENVIRONMENTAL COMPLIANCE SERV	0.0	0.0	0.0	0.000	0.000	0.000
ENVIRONMENTAL HEALTH & ENGINEERING, INC.	0.0	0.0	0.0	0.000	0.000	0.000
ENVIRONMENTAL LEAD DETECTION, INC.	0.0	0.0	0.0	0.000	0.000	0.000
ENVIRONMENTAL STRATEGIES & MANAGE. INC.	0.0	0.0	0.0	0.000	0.000	0.000
ENVIRONMENTAL TESTING SVCS.INC	0.0	0.0	0.0	0.000	0.000	0.000
ENVIROTEST LABORATORY	0.0	0.0	0.0	0.000	0.000	0.000
ENZYMATICS, INC.	8.2	0.5	8.7	0.000	0.000	0.000
EPIX PHARMACEUTICALS, INC.	0.0	0.0	0.0	0.000	0.000	0.000
EPIZYME	18.0	4.5	22.5	0.011	0.004	0.015
EXCELLIMS CORPORATION	0.0	0.0	0.0	0.000	0.000	0.000
EYEGATE PHARMACEUTICALS, INC.	0.0	0.0	0.0	0.000	0.000	0.000
F. H. PETERSON MACHINE CORP.	0.0	0.0	0.0	0.000	0.000	0.000
F.X. MASSE ASSOCIATES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
FAIRVIEW HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
FALLON CLINIC, INC.	0.0	0.0	0.0	0.000	0.000	0.000
FAULKNER HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
FELINE HEALTH, INC.	0.0	0.0	0.0	0.000	0.000	0.000
FITCHBURG BOARD OF HEALTH	0.0	0.0	0.0	0.000	0.000	0.000
FITCHBURG STATE COLLEGE	0.0	0.0	0.0	0.000	0.000	0.000

Facility Name	VOLUME (cu. ft.)			ACTIVITY (curies)		
	Transferred	In Storage	Total	Transferred	In Storage	Total
FOLDRX PHARMACEUTICALS, INC.	0.0	2.3	2.3	0.000	0.000	0.000
FORSYTH INSTITUTE THE	0.0	18.0	18.0	0.000	0.001	0.001
FRANKLIN ANALYTICAL SERVICES	0.0	0.0	0.0	0.000	0.000	0.000
FSL ASSOCIATES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
FUSS & O'NEAL ENVIROSCIENCE, LLC	0.0	0.0	0.0	0.000	0.000	0.000
GAETA, NEIL A.	0.0	0.0	0.0	0.000	0.000	0.000
GALANEK, MITCHELL S.	0.0	0.0	0.0	0.000	0.000	0.000
GALENEA CORPORATION	0.0	0.0	0.0	0.000	0.000	0.000
GALEOTA ASSOCIATES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
GE HEALTHCARE BIO-SCIENCES CORP.	0.0	0.0	0.0	0.000	0.000	0.000
GEI CONSULTANTS, INC.	0.0	0.0	0.0	0.000	0.000	0.000
GENE LOGIC, INC.	0.0	0.0	0.0	0.000	0.000	0.000
GENERAL DYNAMICS DEFENSE SYS.	0.0	0.0	0.0	0.000	0.000	0.000
GENERAL ELECTRIC COMPANY D/B/A GE HEALTH	0.0	0.0	0.0	0.000	0.000	0.000
GENETICS INSTITUTE, LLC	741.0	306.0	1,047.0	0.089	0.139	0.228
GENZYME BIOSURGERY	0.0	0.0	0.0	0.000	0.000	0.000
GENZYME CORPORATION	0.0	260.0	260.0	0.000	0.149	0.149
GEOSYNTEC CONSULTANTS	0.0	0.0	0.0	0.000	0.000	0.000
GEOTECHNICAL CONSULTANTS, INC	0.0	0.0	0.0	0.000	0.000	0.000
GEOTECHNICAL SERVICES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
GEOTESTING EXPRESS, INC.	0.0	0.0	0.0	0.000	0.000	0.000
GOLDER ASSOCIATES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
GRANGER-LYNCH CORPORATION	0.0	0.0	0.0	0.000	0.000	0.000
GRANITE MEDICAL GROUP	0.0	0.0	0.0	0.000	0.000	0.000

Facility Name	VOLUME (cu. ft.)			ACTIVITY (curies)		
	Transferred	In Storage	Total	Transferred	In Storage	Total
GREATER BOSTON LEAD PAINT TESTING	0.0	0.0	0.0	0.000	0.000	0.000
GREEN ENVIRONMENTAL CONSULTING	0.0	0.0	0.0	0.000	0.000	0.000
GUARNIERI, GREGG	0.0	0.0	0.0	0.000	0.000	0.000
GUNTLOW & ASSOCIATES	0.0	0.0	0.0	0.000	0.000	0.000
GWATHMEY, INC.	0.0	0.0	0.0	0.000	0.000	0.000
GZA GEOENVIRONMENTAL, INC.	0.0	0.0	0.0	0.000	0.000	0.000
HACK, TERRENCE C.	0.0	0.0	0.0	0.000	0.000	0.000
HALEY & ALDRICH, INC.	0.0	0.0	0.0	0.000	0.000	0.000
HALLMARK HEALTH SYSTEM, INC.	0.0	0.0	0.0	0.000	0.000	0.000
HAMILTON THORNE BIOSCIENCES	0.0	0.0	0.0	0.000	0.000	0.000
HARBOR MEDICAL ASSOCIATES, PC	0.0	0.0	0.0	0.000	0.000	0.000
HARDIN-KIGHT ASSOCIATES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
HARRINGTON MEMORIAL HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
HARRIS, JEFFERY, W.	0.0	0.0	0.0	0.000	0.000	0.000
HARTIN, ROBERT	0.0	0.0	0.0	0.000	0.000	0.000
HARVARD ENVIRONMENTAL SERVICES	0.0	0.0	0.0	0.000	0.000	0.000
HARVARD UNIVERSITY	9.2	0.0	9.2	0.172	0.000	0.172
HARVARD VANGUARD MED. ASSOCIATES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
HAWTHORN MEDICAL ASSOCIATES	0.0	0.0	0.0	0.000	0.000	0.000
HEALTH & HUMAN SERVICES, DEPT. OF	0.0	7.0	7.0	0.000	0.000	0.000
HEART CENTER, THE	0.0	0.0	0.0	0.000	0.000	0.000
HEARTSAFE	0.0	0.0	0.0	0.000	0.000	0.000

Facility Name	VOLUME (cu. ft.)			ACTIVITY (curies)		
	Transferred	In Storage	Total	Transferred	In Storage	Total
HEMMILA, FREDERIC J.	0.0	0.0	0.0	0.000	0.000	0.000
HERLEY NEW ENGLAND	0.0	7.5	7.5	0.000	0.000	0.000
HEYWOOD HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
HIGGINS ENVIRONMENTAL ASSOCIATES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
HOLYOKE MEDICAL CENTER, INC.	0.0	0.0	0.0	0.000	0.000	0.000
HOMEINEX CORP.	0.0	0.0	0.0	0.000	0.000	0.000
HOPEDALE CARDIOLOGY, LLP	0.0	0.0	0.0	0.000	0.000	0.000
HUSTON, GERALD F., SR.	0.0	0.0	0.0	0.000	0.000	0.000
HYGIENETICS ENVIRON. SERVICES	0.0	0.0	0.0	0.000	0.000	0.000
IBA MOLECULAR NORTH AMERICA, INC.	0.0	0.0	0.0	0.000	0.000	0.000
IDENIX (MASSACHUSETTS) INC.	30.0	3.0	33.0	0.005	0.000	0.005
IDERA PHARMACEUTICALS, INC.	0.0	7.4	7.4	0.000	0.002	0.002
IMAGING ASSOCIATES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
IMAGING CONSULTANTS, INC.	0.0	0.0	0.0	0.000	0.000	0.000
IMMUNE DISEASE INSTITUTE	0.0	20.2	20.2	0.000	0.001	0.001
IMMUNOGEN, INC.	64.2	7.4	71.6	0.128	0.050	0.178
IMPERIAL INSPECTION SERVICES	0.0	0.0	0.0	0.000	0.000	0.000
INDUSTRIAL NUCLEAR COMPANY, INC.	0.0	0.0	0.0	0.000	0.000	0.000
INEOS NOVA LLC	0.0	0.0	0.0	0.000	0.000	0.000
INFINITY PHARMACEUTICALS, INC	20.8	12.7	33.5	0.069	0.071	0.140
INOTEK PHARMACEUTICAL CORPORATION	0.0	30.0	30.0	0.000	0.001	0.001
INSIGHT HEALTH CORP.	0.0	0.0	0.0	0.000	0.000	0.000

Facility Name	VOLUME (cu. ft.)			ACTIVITY (curies)		
	Transferred	In Storage	Total	Transferred	In Storage	Total
INSTITUTE FOR ENVIRONMENTAL EDUCATION, INC.	0.0	0.0	0.0	0.000	0.000	0.000
INTER MED ASSOCIATES	0.0	0.0	0.0	0.000	0.000	0.000
INTERNAL MEDICINE & CARDIOLOGY ASSOC.	0.0	0.0	0.0	0.000	0.000	0.000
IRONWOOD PHARMACEUTICALS, INC.	54.0	42.4	96.3	0.003	0.038	0.041
J & M INSPECTIONAL SVCS. INC.	0.0	0.0	0.0	0.000	0.000	0.000
JAY CASHMAN, INC.	0.0	0.0	0.0	0.000	0.000	0.000
JHR ENVIRONMENTAL TESTING	0.0	0.0	0.0	0.000	0.000	0.000
JOHN TURNER CONSULTING, INC.	0.0	0.0	0.0	0.000	0.000	0.000
JOHNSON FOILS	0.0	0.0	0.0	0.000	0.000	0.000
JORDAN HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
JOSLIN DIABETES CENTER, INC.	93.6	35.7	129.3	0.014	0.013	0.027
KANE, JACK	0.0	0.0	0.0	0.000	0.000	0.000
KEVILLE ENTERPRISES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
KIDDE-FENWAL, INC.	0.0	1.4	1.4	0.000	0.002	0.002
LAHEY CLINIC FOUNDATION	0.0	0.0	0.0	0.000	0.000	0.000
LANE CONSTRUCTION CORP. THE	0.0	0.0	0.0	0.000	0.000	0.000
LANTHEUS MEDICAL IMAGING, INC.	720.6	267.6	987.3	1.076	0.110	1.186
LAWRENCE GENERAL HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
LAWRENCE PUMPS, INC.	0.0	0.0	0.0	0.000	0.000	0.000
LEADSAFE ENVIRONMENTAL SVCS.	0.0	0.0	0.0	0.000	0.000	0.000
LEMAY CONSULTING	0.0	0.0	0.0	0.000	0.000	0.000
LEVINSON HARRIS MEDICAL GROUP	0.0	0.0	0.0	0.000	0.000	0.000
LINK MEDICINE CORPORATION	0.0	0.0	0.0	0.000	0.000	0.000
LONZA BIOLOGICS, INC.	18.9	26.4	45.3	0.003	0.003	0.006

Facility Name	VOLUME (cu. ft.)			ACTIVITY (curies)		
	Transferred	In Storage	Total	Transferred	In Storage	Total
LOVELY, PAUL	0.0	0.0	0.0	0.000	0.000	0.000
LOWELL GENERAL HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
LOWN CARDIOVASCULAR GROUP, PC	0.0	0.0	0.0	0.000	0.000	0.000
LYNCH, BERNARD	0.0	0.0	0.0	0.000	0.000	0.000
M&M LEAD INSPECTIONAL SVCS.	0.0	0.0	0.0	0.000	0.000	0.000
MAKOTO LIFE SCIENCES, INC.	0.0	4.7	4.7	0.000	0.000	0.000
MARINE BIOLOGICAL LABORATORY	22.5	10.0	32.5	0.005	0.045	0.051
MASS. -AMHERST, UNIVERSITY OF	65.8	43.0	108.8	0.003	0.001	0.004
MASS. -BOSTON, UNIVERSITY OF	0.0	1.2	1.2	0.000	6.000	6.000
MASS. COLLEGE OF PHARMACY	0.0	0.0	0.0	0.000	0.000	0.000
MASS. -DARTMOUTH, UNIV. OF	0.0	0.0	0.0	0.000	0.000	0.000
MASS. DEPT OF PUBLIC HEALTH	0.0	0.0	0.0	0.000	0.000	0.000
MASS. DEPT. ENVIRONMENTAL PROT	0.0	0.0	0.0	0.000	0.000	0.000
MASS. DPH CHILD LEAD POIS PREV	0.0	0.0	0.0	0.000	0.000	0.000
MASS. EMERG. MGT. AGENCY	0.0	0.0	0.0	0.000	0.000	0.000
MASS. EYE & EAR INFIRMARY	0.0	0.0	0.0	0.000	0.000	0.000
MASS. GENERAL HOSPITAL	160.0	57.5	217.5	0.025	0.011	0.036
MASS. HIGHWAY DEPARTMENT	0.0	0.0	0.0	0.000	0.000	0.000
MASS. INSTITUTE OF TECHNOLOGY	7.0	10.0	17.0	0.005	0.000	0.005
MASS. -LOWELL, UNIVERSITY OF	0.0	22.0	22.0	0.000	0.016	0.016
MASSACHUSETTS MOBILE PET, P.C.	0.0	0.0	0.0	0.000	0.000	0.000
MCARDLE GANNON ASSOCIATES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
MEDI-PHYSICS, INC. DBA GE HEALTHCARE	0.0	0.0	0.0	0.000	0.000	0.000
MERCK SHARP & DOHME CORP.	26.1	37.0	63.1	0.050	0.069	0.119

Facility Name	VOLUME (cu. ft.)			ACTIVITY (curies)		
	Transferred	In Storage	Total	Transferred	In Storage	Total
MERCURY THERAPEUTICS, INC.	0.0	0.0	0.0	0.000	0.000	0.000
MERCY HOSPITAL, INC., THE	0.0	0.0	0.0	0.000	0.000	0.000
MERRIMACK PHARMACEUTICALS, INC.	8.0	0.5	8.5	0.003	0.000	0.003
MERRIMACK VALLEY CARD. ASSOC.	0.0	0.0	0.0	0.000	0.000	0.000
MERRIMACK VALLEY HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
METROWEST MEDICAL CENTER	0.0	0.0	0.0	0.000	0.000	0.000
MGI PHARMA , INC.	0.0	2.0	2.0	0.000	0.001	0.001
MICROBIA, INC.	0.0	2.0	2.0	0.000	0.000	0.000
MICROCHIPS, INC.	8.5	0.0	8.5	0.012	0.000	0.012
MICROSEMI	0.0	0.0	0.0	0.000	0.000	0.000
MICROTEST LABORATORIES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
MID-CITY SCRAP IRON & SALVAGE CO., INC.	0.0	0.0	0.0	0.000	0.000	0.000
MILFORD REGIONAL MEDICAL CENTER	0.0	0.0	0.0	0.000	0.000	0.000
MILLENNIUM PHARMACEUTICALS, INC.	201.2	11.6	212.8	0.307	0.009	0.316
MILLER ENGINEERING & TESTING, INC.	0.0	0.0	0.0	0.000	0.000	0.000
MILLER, TERRY P.	0.0	0.0	0.0	0.000	0.000	0.000
MILLIPORE CORPORATION	0.0	2.0	2.0	0.000	0.004	0.004
MILTON HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
MINUTEMAN ENVIRONMENTAL SERVICES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
MISTRAS GROUP, INC.	0.0	0.0	0.0	0.000	0.000	0.000
MOLECULAR INSIGHT PHARMACEUTICALS, INC.	201.1	0.0	201.1	0.910	0.000	0.910

Facility Name	VOLUME (cu. ft.)			ACTIVITY (curies)		
	Transferred	In Storage	Total	Transferred	In Storage	Total
MOMENTA PHARMACEUTICALS	0.0	28.0	28.0	0.000	0.000	0.000
MORPHO DETECTION, INC.	0.0	0.0	0.0	0.000	0.000	0.000
MORTON HOSPITAL & MED. CENTER	0.0	0.0	0.0	0.000	0.000	0.000
MOUNT AUBURN HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
MOUNT HOLYOKE COLLEGE	0.0	1.0	1.0	0.000	0.001	0.001
NASHOBA VALLEY MEDICAL CENTER	0.0	0.0	0.0	0.000	0.000	0.000
NAVIX DIAGNOSTIX, INC (FIXED)	0.0	0.0	0.0	0.000	0.000	0.000
NAVIX DIAGNOSTIX, INC (MOBILE)	15.0	0.0	15.0	0.005	0.000	0.005
NEUROLOGICA CORPORATION	0.0	0.0	0.0	0.000	0.000	0.000
NEUROPHYSICS CORPORATION	0.0	0.0	0.0	0.000	0.000	0.000
NEW BEDFORD HEALTH DEPARTMENT	0.0	0.0	0.0	0.000	0.000	0.000
NEW BEDFORD MEDICAL ASSOCIATE	0.0	0.0	0.0	0.000	0.000	0.000
NEW ENG. COLLEGE OF OPTOMETRY	0.0	0.0	0.0	0.000	0.000	0.000
NEW ENGLAND BAPTIST HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
NEW ENGLAND BIOLABS, INC.	112.5	60.0	172.5	0.057	0.025	0.082
NEW ENGLAND CARDIOLOGY, LLC	0.0	0.0	0.0	0.000	0.000	0.000
NEW ENGLAND MEDICAL SPECIALISTS	0.0	0.0	0.0	0.000	0.000	0.000
NEW ENGLAND PET IMAGING SYSTM	0.0	0.0	0.0	0.000	0.000	0.000
NEW ENGLAND PET OF GREATER LOWELL	0.0	0.0	0.0	0.000	0.000	0.000
NOBLE HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
NORFOLK COUNTY CARDIOLOGY ASSOCIATES	0.0	0.0	0.0	0.000	0.000	0.000
NORFOLK LEAD INSPECTION	0.0	0.0	0.0	0.000	0.000	0.000
NORTH ADAMS REGIONAL HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000

Facility Name	VOLUME (cu. ft.)			ACTIVITY (curies)		
	Transferred	In Storage	Total	Transferred	In Storage	Total
NORTH SHORE CARDIOVASCULAR ASSOCIATES	0.0	0.0	0.0	0.000	0.000	0.000
NORTH SHORE LEAD PAINT TEST SERVICE	0.0	0.0	0.0	0.000	0.000	0.000
NORTH SHORE MEDICAL CENTER	0.0	0.0	0.0	0.000	0.000	0.000
NORTHAMPTON CARDIOLOGY ASSOC., PC	0.0	0.0	0.0	0.000	0.000	0.000
NORTHEASTERN UNIVERSITY	36.1	20.0	56.1	0.001	0.002	0.003
NORTHEASTERN UNIVERSITY, ENVIRONMENTAL H	0.0	0.0	0.0	0.000	0.000	0.000
NOVARTIS INST. FOR BIOMEDICAL RESEARCH	0.0	0.0	0.0	0.000	0.000	0.000
ORGANON RESEARCH CENTER, USA	0.0	0.0	0.0	0.000	0.000	0.000
OSRAM SYLVANIA PRODUCTS, INC.	0.0	0.0	0.0	0.000	0.000	0.000
P.A. TECHNOLOGIES, LLC	0.0	0.0	0.0	0.000	0.000	0.000
P.J. KEATING COMPANY, INC.	0.0	0.0	0.0	0.000	0.000	0.000
PALMER PAVING CORPORATION	0.0	0.0	0.0	0.000	0.000	0.000
PANTHER ENVIRONMENTAL	0.0	0.0	0.0	0.000	0.000	0.000
PARATEK PHARMACEUTICALS, INC.	0.7	0.0	0.7	0.121	0.000	0.121
PARE CORPORATION	0.0	0.0	0.0	0.000	0.000	0.000
PASSPORT SYSTEMS, INC.	0.0	0.0	0.0	0.000	0.000	0.000
PENTUCKET MEDICAL ASSOCIATES, LLC	0.0	0.0	0.0	0.000	0.000	0.000
PEPTIMMUNE, INC.	8.1	0.0	8.1	0.000	0.000	0.000
PERKINELMER HEALTH SCIENCES, INC.	2,066.0	65.7	2,131.7	11,520.511	44.110	11,564.621
PERKINELMER OPTOELECTRONICS	0.0	0.0	0.0	0.000	0.000	0.000
PETNET SOLUTIONS, INC.	0.0	9.0	9.0	0.000	0.020	0.020

Facility Name	VOLUME (cu. ft.)			ACTIVITY (curies)		
	Transferred	In Storage	Total	Transferred	In Storage	Total
PFIZER, INC.	40.2	45.0	85.2	0.075	0.019	0.094
PHARMALUCENCE, INC.	0.0	0.0	0.0	0.000	0.000	0.000
PHILOTECHNICS, LTD	0.0	0.0	0.0	0.000	0.000	0.000
PHOENIX SCIENCE AND TECHNOLOGY	0.0	0.0	0.0	0.000	0.000	0.000
PHOTO DIAGNOSTIC SYSTEMS, INC.	0.0	0.0	0.0	0.000	0.000	0.000
PHOTOVAC, INC.	0.0	0.0	0.0	0.000	0.000	0.000
PINE & SWALLOW ASSOCIATES, INC	0.0	0.0	0.0	0.000	0.000	0.000
PIONEER VALLEY CARDIOLOGY, PC	0.0	0.0	0.0	0.000	0.000	0.000
PK ASSOCIATES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
PMG PHYSICIAN ASSOCIATES, P.C.	0.0	0.0	0.0	0.000	0.000	0.000
PRIMA CARE, P.C.	0.0	0.0	0.0	0.000	0.000	0.000
PROFESSIONAL SERV. INDUSTRIES	0.0	0.0	0.0	0.000	0.000	0.000
PROSCAN, INC.	0.0	0.0	0.0	0.000	0.000	0.000
PROTEIN FOREST, INC.	30.0	0.0	30.0	0.010	0.000	0.010
QSA GLOBAL, INC.	30.0	99.2	129.2	6.150	9,313.157	9,319.307
QUALITY ASSURANCE LAB, INC.	0.0	0.0	0.0	0.000	0.000	0.000
QUINCY MEDICAL CENTER, INC.	0.0	0.0	0.0	0.000	0.000	0.000
QUINLAN, MICHAEL A.	0.0	0.0	0.0	0.000	0.000	0.000
R. P. HOLMES ENVIRONMENTAL	0.0	0.0	0.0	0.000	0.000	0.000
RADIATION MONITORING DEVICE, INC, RMD IN	0.0	0.0	0.0	0.000	0.000	0.000
RADIATION MONITORING DEVICES, INC.; RMD	0.0	0.0	0.0	0.000	0.000	0.000
RADIOCAT	0.0	0.0	0.0	0.000	0.000	0.000
RADIUS HEALTH, INC.	32.7	4.1	36.8	0.000	0.000	0.000

Facility Name	VOLUME (cu. ft.)			ACTIVITY (curies)		
	Transferred	In Storage	Total	Transferred	In Storage	Total
RAIA, FRANK	0.0	0.0	0.0	0.000	0.000	0.000
RAYTHEON COMPANY	0.0	0.0	0.0	0.000	0.000	0.000
RAYTHEON COMPANY	0.0	0.0	0.0	0.000	0.000	0.000
RCS LEAD PAINT DETECTION	0.0	0.0	0.0	0.000	0.000	0.000
READING CARDIOLOGY ASSOCIATES	0.0	0.0	0.0	0.000	0.000	0.000
REMSERV, INC.	0.0	0.0	0.0	0.000	0.000	0.000
REPLIGEN CORPORATION	0.0	0.0	0.0	0.000	0.000	0.000
RESIDENTIAL INSPECTION COMPANY	0.0	0.0	0.0	0.000	0.000	0.000
RESOLVYX PHARMACEUTICALS, INC.	0.0	11.6	11.6	0.000	0.000	0.000
RIVER BEND MEDICAL GROUP	0.0	0.0	0.0	0.000	0.000	0.000
RXI PHARMACEUTICALS, INC.	0.0	2.0	2.0	0.000	0.002	0.002
S.V. HOSPITAL, L.L.C.	0.0	0.0	0.0	0.000	0.000	0.000
SAINTS MEMORIAL CENTER, INC.	0.0	0.0	0.0	0.000	0.000	0.000
SANDBORN, HEAD & ASSOCIATES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
SANOFI-AVENTIS U.S., INC.	0.0	3.0	3.0	0.000	0.001	0.001
SATORI PHARMACEUTICALS INCORPORATED	0.0	0.0	0.0	0.000	0.000	0.000
SCHEPENS EYE RESEARCH INST.	0.0	0.0	0.0	0.000	0.000	0.000
SCHERING CORPORATION	30.0	7.5	37.5	0.012	0.004	0.016
SCHLUMBERGER TECHNOLOGY CORPORATION	0.0	0.0	0.0	0.000	0.000	0.000
SCINTITECH, INC.	0.0	0.0	0.0	0.000	0.000	0.000
SELECTX PHARMACEUTICALS, INC.	0.0	0.0	0.0	0.000	0.000	0.000
SEMPRUS BIOSCIENCES CORP.	0.0	0.0	0.0	0.000	0.000	0.000
SEPRACOR, INC.	15.0	22.5	37.5	0.030	0.021	0.051

Facility Name	VOLUME (cu. ft.)			ACTIVITY (curies)		
	Transferred	In Storage	Total	Transferred	In Storage	Total
SHARED DIAGNOSTIC SERVICES,INC	0.0	0.0	0.0	0.000	0.000	0.000
SHIELDS IMAGING OF MASS., LLC	0.0	0.0	0.0	0.000	0.000	0.000
SHIRE HUMAN GENETIC THERAPIES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
SIEMENS HEALTHCARE DIAGNOSTICS, INC.	0.0	0.0	0.0	0.000	0.000	0.000
SIEMENS MEDICAL SOLUTIONS USA, INC.	0.0	0.0	0.0	0.000	0.000	0.000
SIMMONS COLLEGE	0.0	4.0	4.0	0.000	0.001	0.001
SIONEX CORPORATION	0.0	0.0	0.0	0.000	0.000	0.000
SIRTEX WILMINGTON LLC	0.0	0.0	0.0	0.000	0.000	0.000
SIRTRIS PHARMACEUTICALS	0.0	6.0	6.0	0.000	0.000	0.000
SMITH AND WESSEL ASSOC. INC.	0.0	0.0	0.0	0.000	0.000	0.000
SMITH COLLEGE	0.0	0.9	0.9	0.000	0.000	0.000
SMITHKLINE BEECHAM DBA GLAXOSMITHKLINE	0.0	2.0	2.0	0.000	0.018	0.018
SMITHSONIAN INSTITUTE	0.0	0.0	0.0	0.000	0.000	0.000
SOLUTIA, INC.	0.0	0.0	0.0	0.000	0.000	0.000
SOUTH SHORE CARDIOLOGY, P.C.	0.0	0.0	0.0	0.000	0.000	0.000
SOUTH SHORE HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
SOUTH SHORE LEAD PAINT TESTING	0.0	0.0	0.0	0.000	0.000	0.000
SOUTHCOAST HOSPITAL GROUP	0.0	0.0	0.0	0.000	0.000	0.000
SPRINGBORN SMITHERS LAB., INC.	133.0	24.6	157.6	0.013	0.007	0.020
SPRINGFIELD NEIGHBORHOOD HOUSING SERVICE	0.0	0.0	0.0	0.000	0.000	0.000
SPRUCE ENVIRONMENTAL TECHNOLOGIES, INC.	0.0	0.0	0.0	0.000	0.000	0.000

Facility Name	VOLUME (cu. ft.)			ACTIVITY (curies)		
	Transferred	In Storage	Total	Transferred	In Storage	Total
SQUICOR LABS, INC.	0.0	0.0	0.0	0.000	0.000	0.000
ST. ANNE'S HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
STARMET NMI	0.0	0.0	0.0	0.000	0.000	0.000
STERIS ISOMEDIX SERVICES	0.0	0.0	0.0	0.000	0.000	0.000
STOWE AND WOODWARD	0.0	0.0	0.0	0.000	0.000	0.000
STURDY MEMORIAL HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
SUMMIT LTD.	0.0	0.0	0.0	0.000	0.000	0.000
SURFACE LOGIX, INC.	37.5	7.5	45.0	0.011	0.002	0.013
SYMETRICA, INC.	0.0	0.0	0.0	0.000	0.000	0.000
SYNTA PHARMACEUTICALS CORPORATION	15.0	0.0	15.0	0.001	0.000	0.001
SYNTONIX PHARMACEUTICALS, INC.	0.0	0.0	0.0	0.000	0.000	0.000
TAMFELT, INC.	0.0	0.0	0.0	0.000	0.000	0.000
TERRACON CONSULTANTS, INC. FORMERLY JGI	0.0	0.0	0.0	0.000	0.000	0.000
TEST AMERICA LABORATORIES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
THE LEAD LAB, INC.	0.0	0.0	0.0	0.000	0.000	0.000
THERMO EGS GAUGING, INC.	0.0	0.0	0.0	0.000	0.000	0.000
THERMO FISHER SCIENTIFIC, INC. - ENVIRON	0.0	0.0	0.0	0.000	0.000	0.000
THERMO NITON ANALYZERS LLC	0.7	1.0	1.7	1.478	1.282	2.730
THRASOS	0.0	5.0	5.0	0.000	0.003	0.003
THYRO-CAT, LLP	0.0	0.0	0.0	0.000	0.000	0.000
TIBBETTS ENGINEERING CORP.	0.0	0.0	0.0	0.000	0.000	0.000
TOLERX	12.7	5.2	17.9	0.001	0.004	0.005
TOXIKON CORPORATION	60.5	19.0	79.5	0.045	0.012	0.057

Facility Name	VOLUME (cu. ft.)			ACTIVITY (curies)		
	Transferred	In Storage	Total	Transferred	In Storage	Total
TRANSMOLECULAR, INC.	0.0	0.0	0.0	0.000	0.000	0.000
TRC ENVIRONMENTAL CORPORATION	0.0	0.0	0.0	0.000	0.000	0.000
TRIAD ISOTOPES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
TRUESDALE CARDIOLOGY ASSOCIATES	0.0	0.0	0.0	0.000	0.000	0.000
TUFTS MEDICAL CENTER	36.9	15.2	52.1	0.001	0.001	0.002
TUFTS UNIVERSITY	6.7	0.0	6.7	0.000	0.000	0.000
TUFTS UNIVERSITY, SCH. OF MED.	0.0	15.2	15.2	0.000	0.016	0.016
TW ENVIRONMENTAL SERVICES, INC.	0.0	0.0	0.0	0.000	0.000	0.000
TYCO SAFETY PRODUCTS	0.0	0.0	0.0	0.000	0.000	0.000
U.S. ENVIRONMENTAL RENTAL	0.0	0.0	0.0	0.000	0.000	0.000
UMASS MEMORIAL HEALTHALLIANCE LEOMINSTER	0.0	0.0	0.0	0.000	0.000	0.000
UMASS MEMORIAL/MARLBOROUGH HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
UMASS/MEMORIAL HEALTH CARE	60.0	22.5	82.5	0.139	0.090	0.228
UNITECH SERVICES GROUP, INC.	2,000.0	1,715.0	3,715.0	0.388	0.333	0.721
URBAN, JERRY	0.0	0.0	0.0	0.000	0.000	0.000
US ARMY CORPS OF ENGINEERS, SHPACK SUPERFUND/FUSRAP SITE	181,257.0	0.0	181,257.0	6.980	0.000	6.980
UTS OF MASSACHUSETTS, INC.	0.0	0.0	0.0	0.000	0.000	0.000
VA BOSTON HEALTH CARE SYSTEM	1.8	1.0	2.8	0.010	0.002	0.012
VALLEY SAFETY SERVICES ASSOCIATES	0.0	0.0	0.0	0.000	0.000	0.000
VANASSE, HANGEN, BRUSTLIN, INC.	0.0	0.0	0.0	0.000	0.000	0.000
VERTEX PHARMACEUTICALS, INC.	45.0	35.6	80.6	0.000	0.010	0.010

Facility Name	VOLUME (cu. ft.) Transferred	In Storage	Total	ACTIVITY (curies) Transferred	In Storage	Total
WAMPANOAG TRIBE OF GAY HEAD (AQUINNAH)	0.0	0.0	0.0	0.000	0.000	0.000
WARNER BROS., LLC	0.0	0.0	0.0	0.000	0.000	0.000
WELLESLEY COLLEGE	0.0	0.0	0.0	0.000	0.000	0.000
WEST SUBURBAN IMAGING CENTER	0.0	0.0	0.0	0.000	0.000	0.000
WESTON SOLUTIONS, INC.	0.0	0.0	0.0	0.000	0.000	0.000
WHITEHEAD INST. FOR BIOMED RES	15.0	7.5	22.5	0.004	0.000	0.004
WILLIAM F. SULLIVAN & COMPANY, INC.	0.0	0.0	0.0	0.000	0.000	0.000
WILLIAMS COLLEGE	0.0	3.0	3.0	0.000	0.000	0.000
WINCHESTER HOSPITAL	0.0	0.0	0.0	0.000	0.000	0.000
WING MEMORIAL HOSPITAL CORPORATION	0.0	0.0	0.0	0.000	0.000	0.000
WOODARD & CURRAN, INC.	0.0	0.0	0.0	0.000	0.000	0.000
WOODS HOLE OCEANOGRAPHIC INSTITUTION	64.3	16.0	80.4	0.018	0.007	0.025
WORCESTER POLYTECHNIC INST.	0.0	0.0	0.0	0.000	0.000	0.000
WTE RECYCLING, INC.	0.0	0.0	0.0	0.000	0.000	0.000
XRF CORPORATION	0.0	0.0	0.0	0.000	0.000	0.000
YANKEE ATOMIC ELECTRIC COMPANY	0.0	0.0	0.0	0.000	0.000	0.000
YANKEE ENG. & TESTING, INC.	0.0	0.0	0.0	0.000	0.000	0.000
YEE CONSULTING GROUP, INC.	0.0	0.0	0.0	0.000	0.000	0.000
GRAND TOTALS:	**203,626.9**	**6,033.0**	**209,659.0**	**33,781.644**	**9,480.741**	**43,262.354**

COMMENTS AND SUGGESTIONS

Comments on this report and suggestions for future annual reports are welcome. Please send correspondence to:

Massachusetts Department of Public Health
Radiation Control Program
Schrafft Building, Suite 1M2A
529 Main Street, Charlestown, MA 02129
Attn: William Sellers
617-242-3035 - Main
617-242-3457 - Fax

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[i]Compact is a formal agreement between two or more states under Article 1, Section 10 of the US Constitution, states may form compacts with the consent of Congress to resolve conflicts or address common problems. More than 120 such compacts have focused on various subjects, including water, education, transportation, fisheries, health and waste.