STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
EXECUTIVE OFFICE

GRETCHEN WHITMER
GOVERNOR

PHILLIP D. ROOS
DIRECTOR

VIA EMAIL

TO: Governor Gretchen Whitmer
Senate Energy and Environment Committee Members
Senate Natural Resources and Agriculture Committee Members
House Natural Resources and Tourism Committee Members

FROM: Phillip D. Roos, Director

DATE: November 3, 2025

SUBJECT: Report on the Low-Level Radioactive Waste 2024 Survey

In accordance with Section 18a of the Low-Level Radioactive Waste Authority Act, 1987 PA 204, as amended, attached is the Department of Environment, Great Lakes, and Energy's (EGLE) report on the Low-Level Radioactive Waste (LLRW) 2024 Survey.

Generators of LLRW are required to report annually to EGLE's Low-Level Radioactive Waste Authority certain information on the volume, type, and activity of LLRW generated. This report is a summary of the information submitted by generators for LLRW generated in calendar year 2024.

If you need further information, please contact Tracy Kecskemeti, Acting Division Director, Materials Management Division, at 248-200-6469 or KecskemetiT@Michigan.gov; or you may contact me at 517-243-6195.

Attachment
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MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

Legislative Report

LOW-LEVEL RADIOACTIVE WASTE 2024 SURVEY

Report Period:
Calendar Year 2024

Authority:
MCL 333.26218a

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In accordance with Section 18a of the Low-Level Radioactive Waste Authority Act, 1987 PA 204, as amended, following is the Department of Environment, Great Lakes, and Energy's (EGLE) report on the Low-Level Radioactive Waste (LLRW) 2024 Survey. Generators of LLRW are required to report annually to EGLE's Low-Level Radioactive Waste Authority certain information on the volume, type, and activity of LLRW generated. This report is a summary of the information submitted by generators for LLRW generated in calendar year 2024.

Summary:

In calendar year 2024, 23 facilities reported the generation of waste requiring disposal in a licensed LLRW facility. Twenty facilities reported the disposal of waste off-site during 2024. The following tables summarize the waste generated and disposed of in 2024:

Table 1: Waste Generated and Disposed by Facility Type

Type of Facility	Number of Reporting Facilities in 2024 Generator (Disposer)	Volume of LLRW Generated in 2024 (ft^3)	Volume of LLRW Disposed in 2024 (ft^3)
Utility	3 (3)	71,156	71,156
Academic	7 (4)	581	328
Industry	7 (7)	3,168	3,296
Medical	5 (6)	37	54
Government	1 (0)	1	0
TOTAL	23 (20)	74,954	74,834

Table 2: Waste Generated by Waste Classification

Waste Class	Number of Reporting Generator Facilities in 2024	Volume of LLRW Generated in 2024 (ft^3)
Class A	21	73,814
Class B	3	315
Class C	1	822
Don't Know	2	2

All but two waste-reporting facilities generated Class A waste. All Class B and Class C waste was generated by utility companies, with one exception. One industry reported generation of Class B waste, which is consolidated over years and brokered for disposal as needed. The two generators of unknown waste Class were a government organization and a medical company. Waste Class is not always known by the generator at the time of creation and must be identified prior to disposal.

LLRW is categorized by Classes A, B, and C in Title 10 of the Code of Federal Regulations, Part 61, Licensing Requirements for Land Disposal of Radioactive Waste, Subsection 61.55. The classification of LLRW is dependent upon the waste's isotopic composition and abundance, as well as the waste's chemical and physical stability.

Class A waste is usually segregated from other waste classes at the disposal site. Class B waste is subjected to stricter requirements on waste packaging to ensure stability after disposal. Class C waste must not only meet more rigorous requirements on waste packaging to ensure stability but also requires additional measures at the disposal facility to protect against inadvertent intrusion. All LLRW disposal takes place outside of the state of Michigan.

Waste Streams:

Survey respondents were asked to provide the volume and activity for the different types of waste that were generated in 2024. Table 3 displays the volume and activity for the various waste types or "streams."

Table 3: Generated Volumes and Activities by Waste Stream

Waste Stream	Volume (ft^3)	Percent of Total Volume	Activity (millicuries)	Percent of Total Activity
Activated Equipment or Shielding	8	<0.1%	<1	<0.1%
Air Filter Media, Cartridges	0	0.0%	0	0.0%
Animal Carcasses	4	<0.1%	6	<0.1%
Aqueous Liquids	89	0.1%	18	<0.1%
Ash	0	0.0%	0	0.0%
Biological Waste (excludes carcasses)	185	0.2%	173	<0.1%
Contaminated Equipment	1,160	1.5%	3	<0.1%
Contaminated Hazardous Material	137	0.2%	117	<0.1%
Dry Active Waste	67,714	90.3%	12,564	0.3%
Evaporator Concentrates	0	0.0%	0	0.0%
Ion Exchange Resins	5,368	7.2%	1,843,150	50.4%
Liquid Filter Media, Cartridges	15	<0.1%	2	<0.1%
Medical Generators	1	<0.0%	5	<0.0%
Oils	253	0.3%	366	<0.1%
Organic Liquids (not oils)	11	<0.1%	4	<0.1%
Rubble, Sand, Soil, etc.	1	<0.1%	<1	<0.1%
Sealed Sources	8	<0.1%	1,800,155	49.2%
Sludge	1	<0.1%	5	<0.1%
Total*	74,954		3,656,567	

*Total is different than shown in Table 2 due to compounding rounding.

Historical Trends:

Figures 1 through 3 show the changes in disposal of LLRW over time.

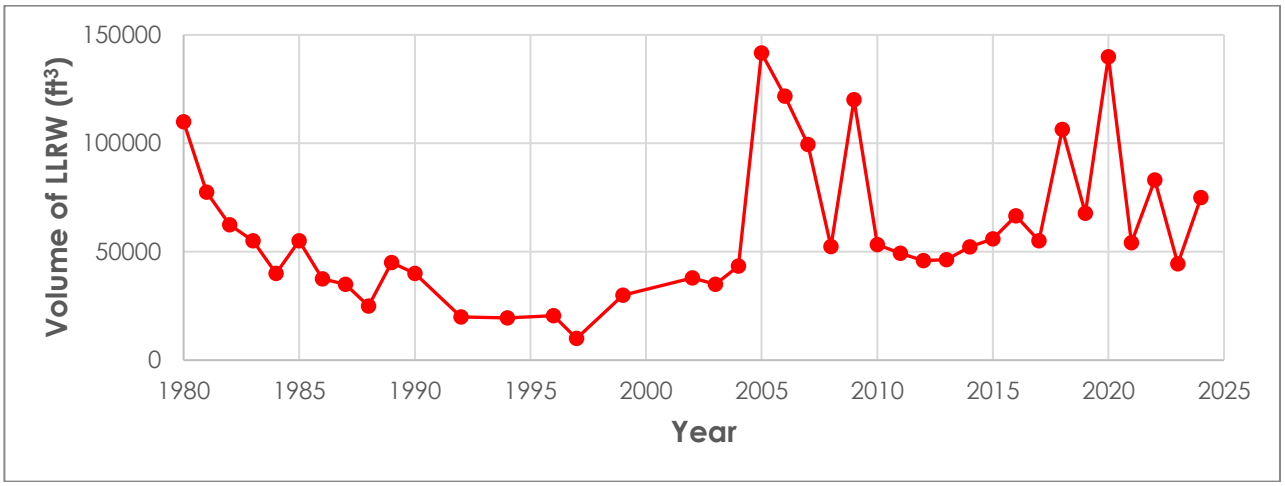

Figure 1 – Volume of LLRW generated from 1980-2024

Figure 1 shows the annual volume of LLRW generated since 1980. The spikes in LLRW generation are from the decommissioning activities at Consumers Energy's Big Rock Point Nuclear Power Plant from 2005 to 2007 and refurbishing the torus at DTE Energy's Enrico Fermi Unit 1 Nuclear Generating Station in 2009. The primary generators of LLRW are utilities operating nuclear power plants.

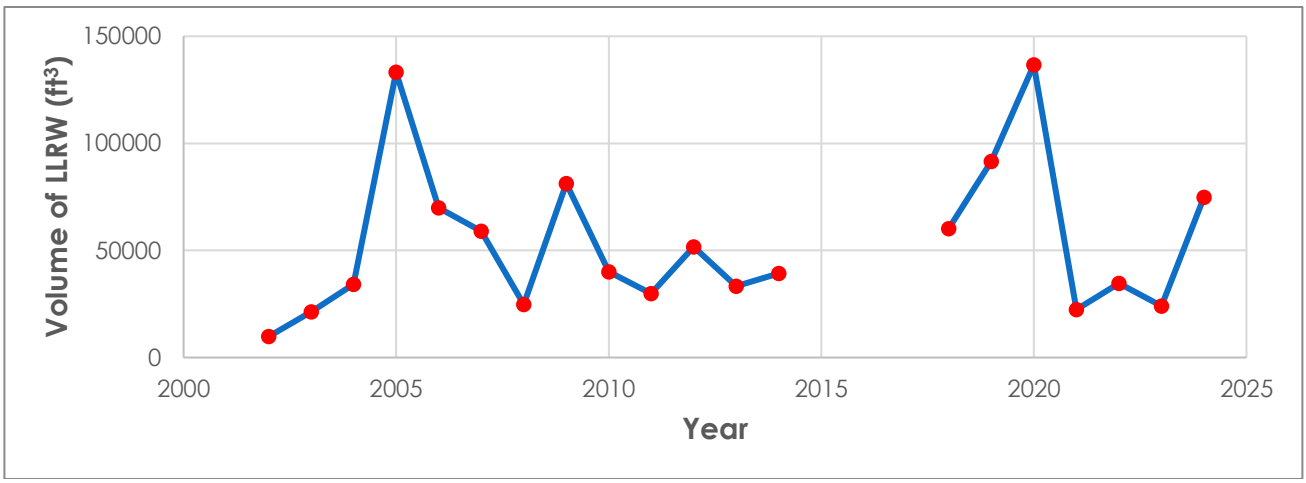

Figure 2 – Volume of LLRW disposed from 2002-2024

As included in the previous year's report, Figure 2 is included to demonstrate the trends and differences between waste volumes generated and disposed. Figure 2 displays the amount of LLRW that survey respondents have reported from 2002-2024. Disposal volumes were not surveyed in 2015-2017.

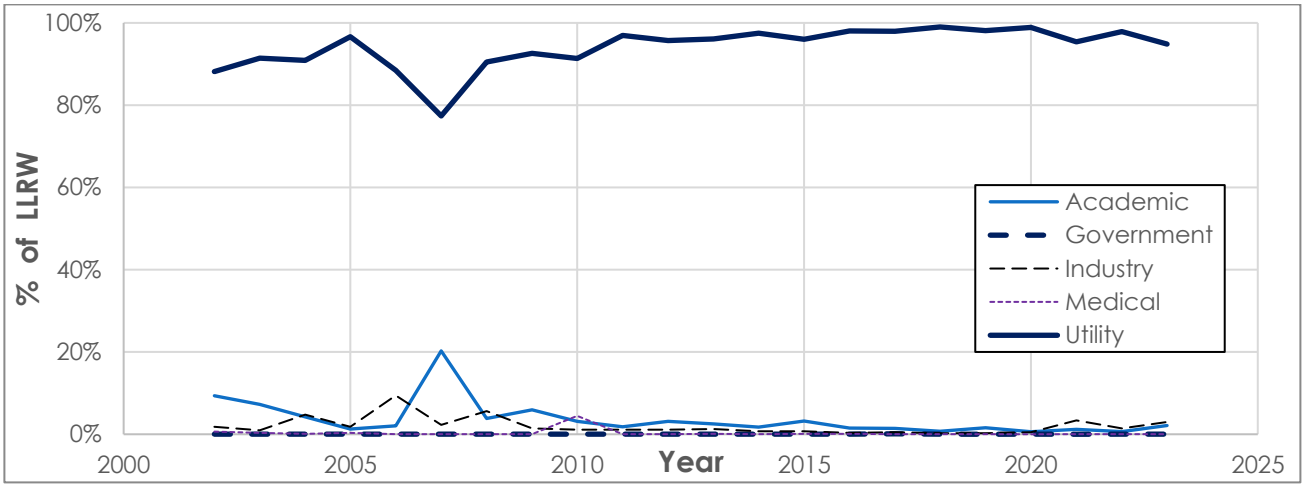

Figure 3 – Percentage of LLRW disposed of by facility type from 2002-2024

As shown in Figure 3, utilities have accounted for greater than 90 percent of the volume generated in 20 of the last 23 years. Utilities accounted for approximately 95 percent of the volume of LLRW generated in 2024. The remainder is from facilities that routinely dispose of small amounts of waste and facilities needing one-time disposal.