



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Radiation Protection

Appalachian Compact Low Level Radioactive Waste (LLRW) Disposal Data Calendar Year 2023

Low-Level Waste Advisory Committee Meeting

September 27, 2024

Josh Shapiro, Governor

Jessica Shirley , Acting Secretary

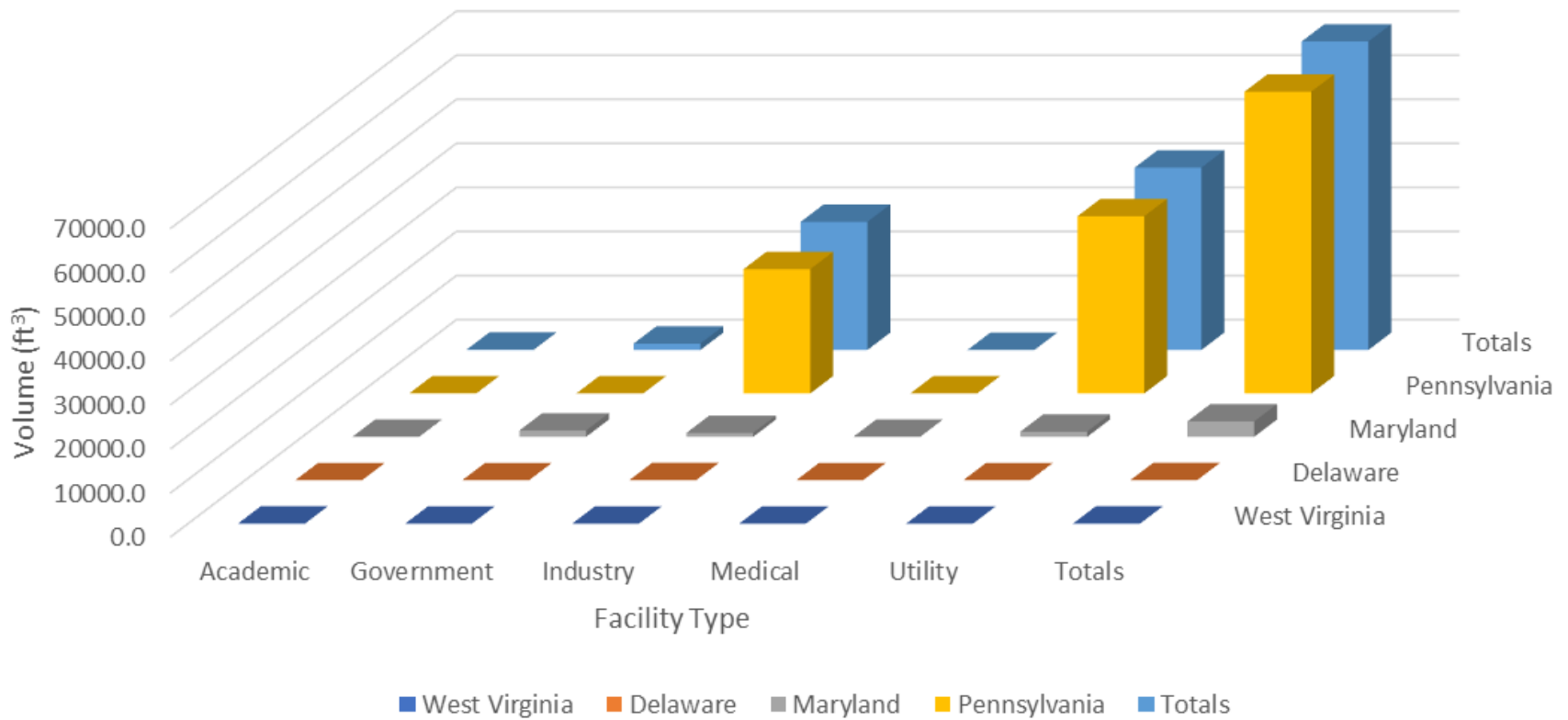
LLRW Volume Disposed – 2023

Facility Type/State	West Virginia	Delaware	Maryland	Pennsylvania	Totals
Academic	42.0	0.0	4.0	29.5	75.5
Government	0.0	0.0	1427.7	22.8	1450.5
Industry	0.0	7.4	875.1	28181.0	29063.5
Medical	0.0	0.0	4.0	19.4	23.4
Utility	0.0	0.0	1171.2	40202.6	41373.8
Totals	42.0	7.4	3482.0	68455.3	71986.7

Volume is in cubic feet. This data is for Appalachian Compost LLRW disposal at EnergySolutions in Clive, Utah, and Waste Control Specialists in Andrews, Texas, for the calendar year 2023.

LLRW Volume Disposed – 2023

Appalachian Compact 2023 Disposed LLRW Volume by State and Facility Type



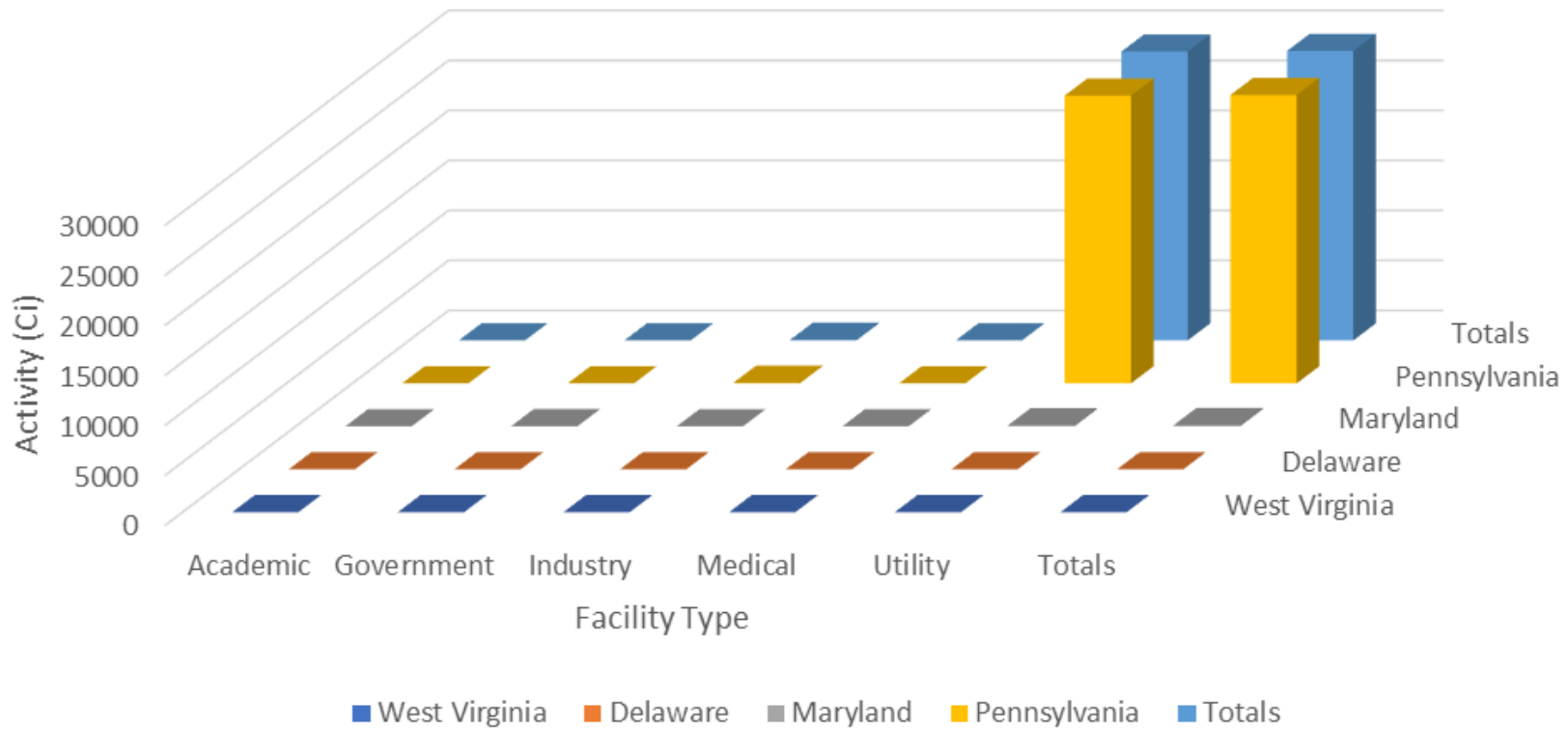
LLRW Activity Disposed – 2023

Facility Type/State	West Virginia	Delaware	Maryland	Pennsylvania	Totals
Academic	<0.1	0.0	<0.1	0.2	0.2
Government	0.0	0.0	8.6	<0.1	8.6
Industry	0.0	<0.1	0.1	55.5	55.6
Medical	0.0	0.0	<0.1	<0.1	0.0
Utility	0.0	0.0	106.2	28775.6	28881.8
Totals	0.0	0.0	114.9	28831.3	28946.2

Activity is in curies. This data is for Appalachian Compost LLRW disposal at EnergySolutions in Clive, Utah, and Waste Control Specialists in Andrews, Texas, for the calendar year 2023.

LLRW Activity Disposed – 2023

Appalachian Compact 2023 Disposed LLRW Activity by State and Facility Type



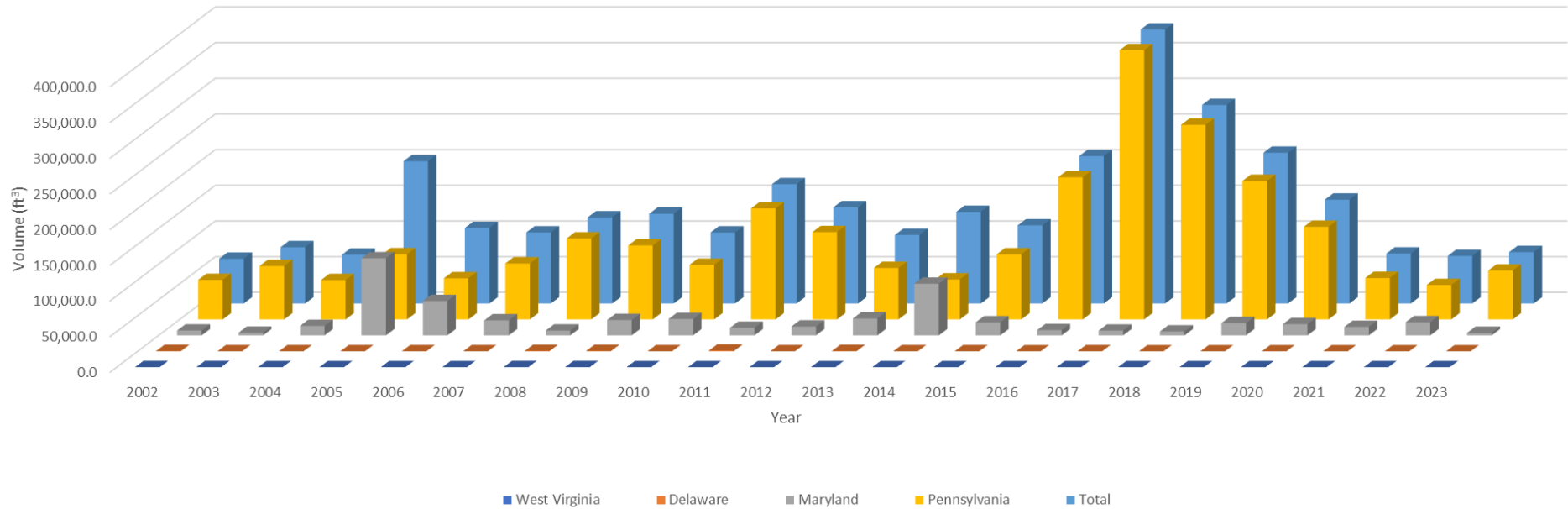
LLRW Volume in Ft³ from 2002 - 2023

Year	West Virginia	Delaware	Maryland	Pennsylvania	Total
2002	183.3	366.4	6,752.8	55,371.4	62,673.9
2003	151.8	73.5	3,703.1	74,901.0	78,829.4
2004	34.8	48.8	13,177.8	55,136.0	68,397.4
2005	2.4	74.2	107,956.4	91,292.6	199,325.6
2006	38.0	59.2	48,131.8	57,627.7	105,856.7
2007	48.7	42.7	21,015.6	78,454.5	99,561.5
2008	132.2	414.8	6,702.5	113,483.2	120,732.7
2009	134.1	431.2	21,451.3	103,666.9	125,683.5
2010	11.3	29.4	22,957.6	76,519.4	99,517.7
2011	19.1	1,061.0	10,568.7	155,508.5	167,157.3
2012	21.0	75.2	12,364.3	122,380.2	134,840.7
2013	44.8	339.5	23,597.2	72,066.9	96,048.4
2014	24.8	42.7	72,334.3	56,040.4	128,442.2
2015	19.0	45.2	18,202.9	91,222.9	109,490.0
2016	1.8	4.5	7,351.0	199,292.0	206,649.0
2017	0.7	34.1	6,588.0	377,234.0	383,857.0
2018	17.0	0.0	5,498.3	272,620.0	278,135.0
2019	0.0	26.0	17,193.0	194,052.0	211,271.0
2020	22.0	2.7	15,709.0	129,811.0	145,545.0
2021	36.0	8.0	11,824.0	58,078.0	69,946.0
2022	0.0	1.5	18,461.7	48,241.0	66,704.2
2023	42.0	7.4	3,482.0	68,455.0	71,986.4
Total 2002 to 2023	984.8	3,188.0	475,023.3	2,551,454.6	Grand Total 3,030,651

- Years 2002 to 2008 includes LLRW disposal at Barnwell, South Carolina, and Energy Solutions, Clive, Utah.
- 2009 to 2013 LLRW volume only includes disposal at EnergySolutions in Clive, Utah.
- ** 2014 to 2023 includes LLRW disposal at EnergySolutions in Clive, Utah, and Waste Control Specialists in Andrews, Texas.

▶ LLRW Volume in Ft³ from 2002 - 2023

Appalachian Compact LLRW Volume from 2002 to 2023



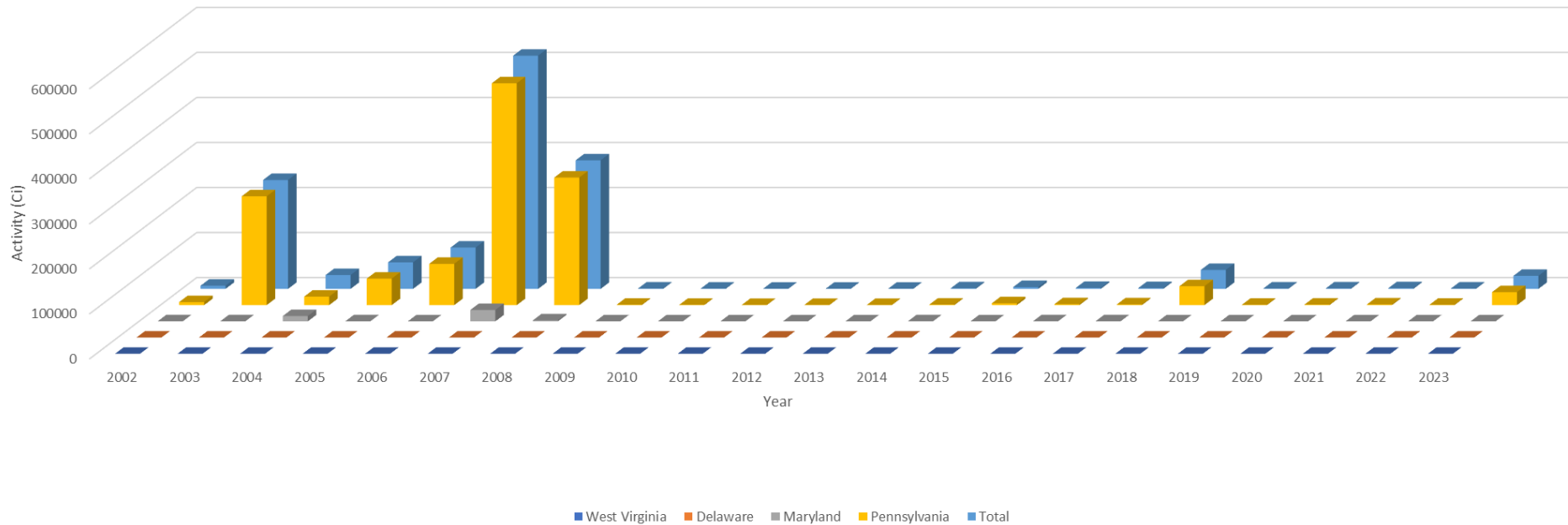
LLRW Activity (Ci) from 2002 - 2023

Year	West Virginia	Delaware	Maryland	Pennsylvania	Total
2002	0.1	0.5	244.5	6,777.4	7,022.5
2003	0.2	24.7	166.3	241,649.8	241,841.0
2004	0.8	0.2	11,830.7	18,890.3	30,722.0
2005	0.7	31.3	156.8	58,786.2	58,975.0
2006	0.0	11.9	60.1	91,719.1	91,791.1
2007	0.2	12.9	25,304.7	492,579.3	517,897.1
2008	0.1	12.2	2,181.5	283,328.8	285,522.6
2009	0.0	0.5	4.7	1,001.4	1,006.6
2010	0.0	0.0	1.4	656.8	658.2
2011	0.0	1.0	1.8	492.6	495.4
2012	0.0	0.0	2.1	449.3	451.4
2013	0.0	45.3	15.7	458.5	519.5
2014	0.0	0.0	260.7	1,212.8	1,473.5
2015	0.0	0.0	27.8	4,147.3	4,175.1
2016	0.4	0.0	209.0	2,020.1	2,229.5
2017	0.0	0.0	178.5	1,711.3	1,889.8
2018	0.0	0.0	125.3	42,027.5	42,152.8
2019	0.0	0.0	72.6	834.1	906.7
2020	0.0	0.0	1.52	1,212.0	1,213.5
2021	0.0	0.0	68.0	1,615.0	1,683.0
2022	0.0	0.0	27.93	818.6	846.5
2023	0.0	0.0	114.88	28,831.3	28,946.2
Total 2002 to 2023	2.6	140.6	41,056.6	1,281,219.4	Grand Total
					1,322,419

- Years 2002 to 2008 includes LLRW disposal at Barnwell, South Carolina, and EnergySolutions, Clive, Utah
- 2009 to 2013 LLRW activity only includes disposal at EnergySolutions in Clive, Utah.
- ** 2014 to 2023 includes LLRW disposal at EnergySolutions in Clive, Utah, and Waste Control Specialists in Andrews, Texas.

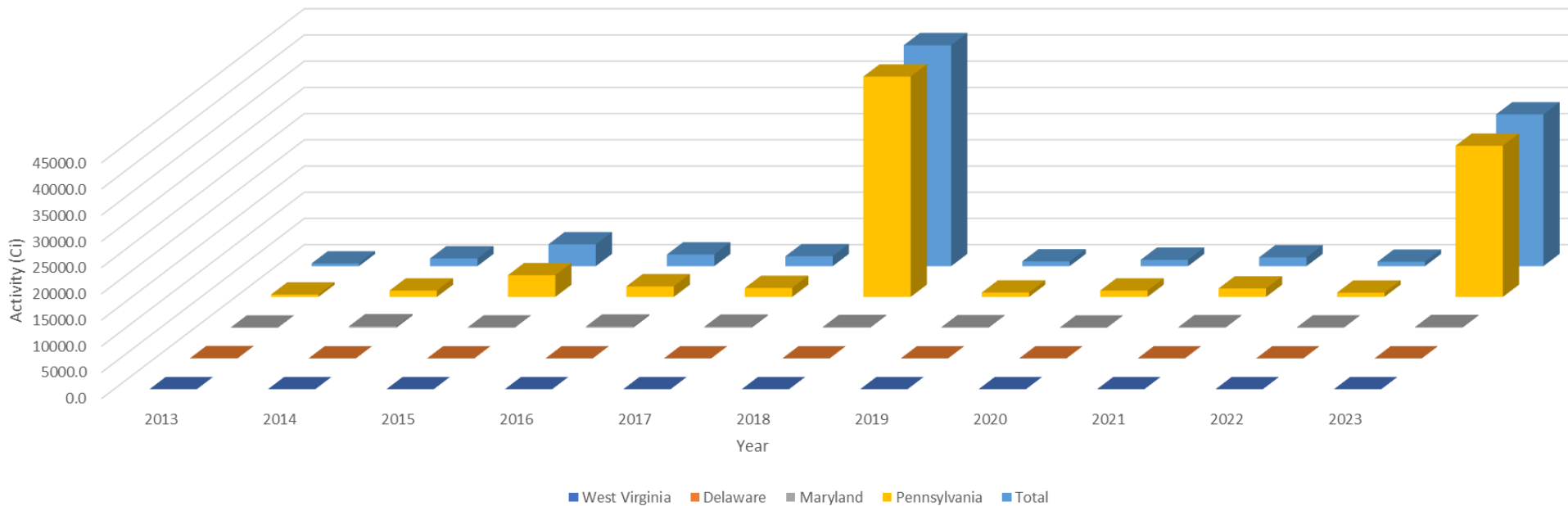
LLRW Activity (Ci) from 2002 - 2023

Appalachian Compact States Disposed LLRW Activity 2002 - 2023



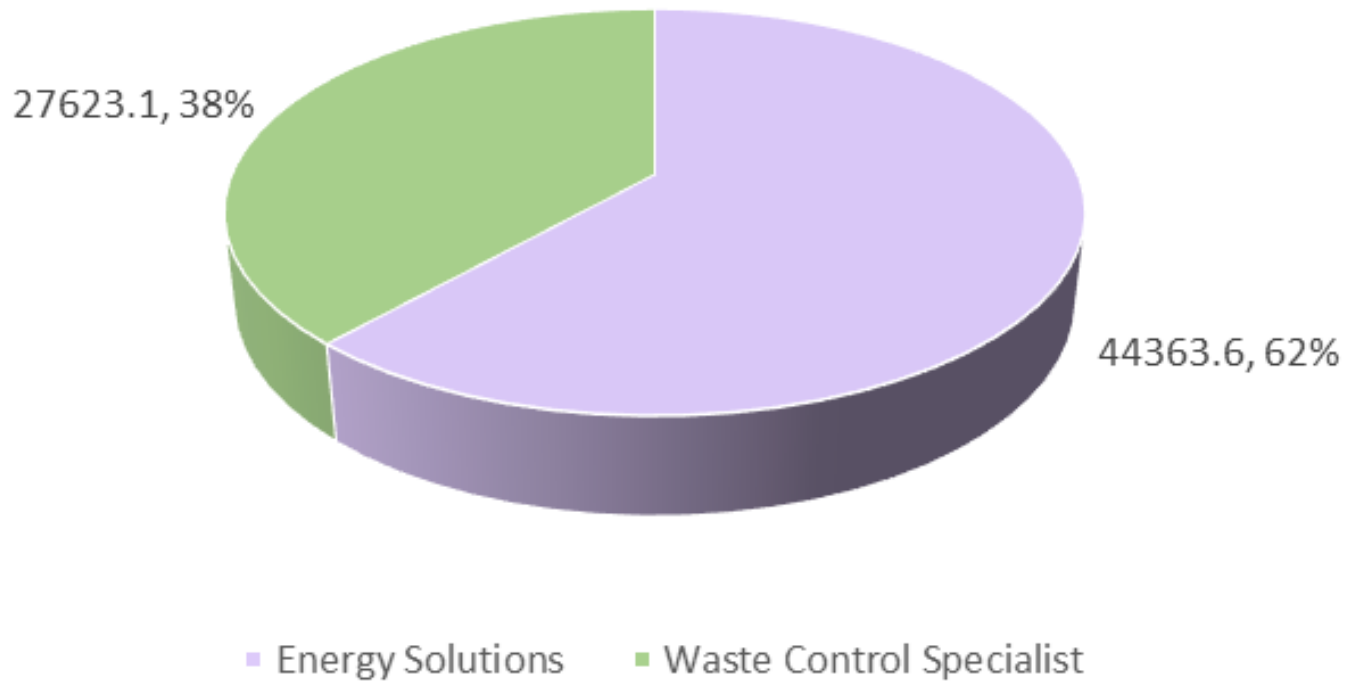
LLRW Activity (Ci) from 2013 - 2023

Appalacian Compact LLRW Activity from 2013 to 2023



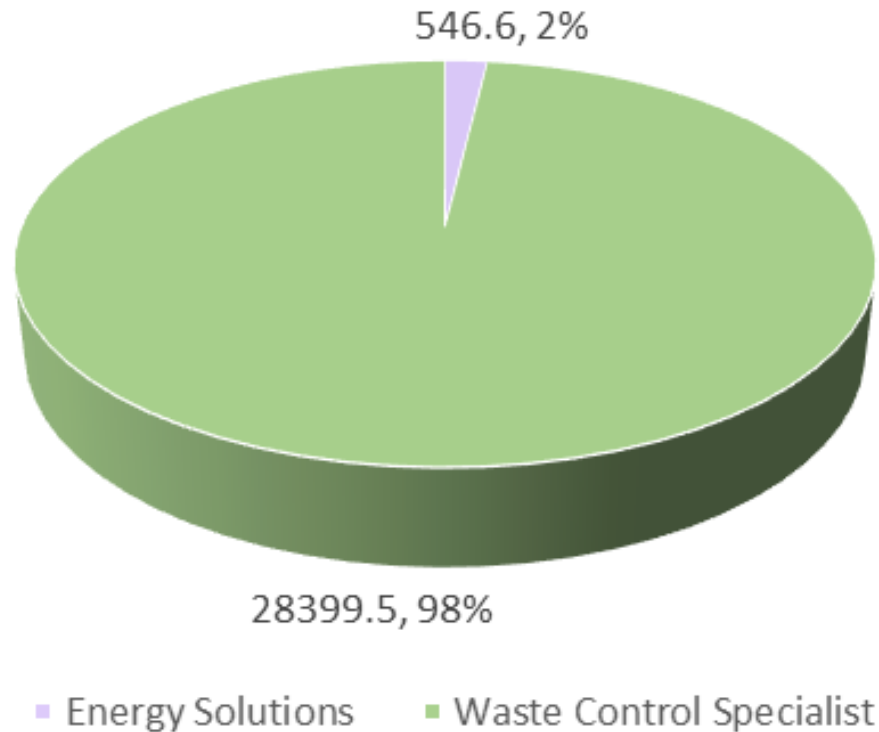
LLRW % Volume Disposed – 2023

Appalachian Compact 2023 LLRW Disposed
Volume by Disposal Site



LLRW % Activity Disposed – 2023

Appalachian Compact 2023 LLRW Disposed Activity by Disposal Site





pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Radiation Protection

Thank you. Questions?

Rich Janati, MS

Bureau of Radiation Protection

Phone: 717-787-2163

rjanati@pa.gov

Federal and State law prohibit discrimination on the basis of age, color, creed, mental and/or physical disability, gender identity, national origin, pregnancy, race, religion, sex, or sexual orientation. If you believe you have been discriminated against in any program, activity or facility as described above, or if you desire further information, please contact DEP's Non-Discrimination Coordinator at ra-epondiscrim@pa.gov