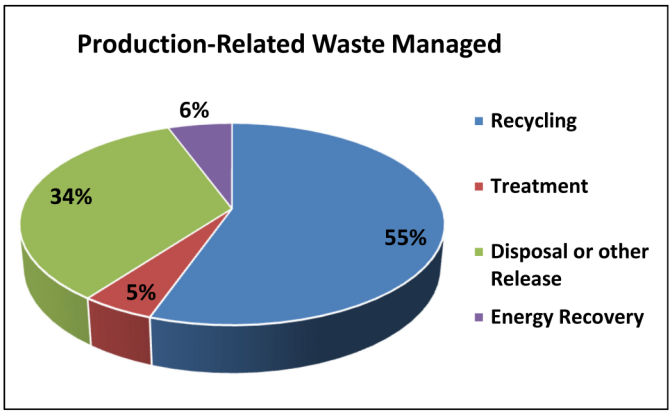
EPA TOXIC RELEASE INVENTORY (TRI)

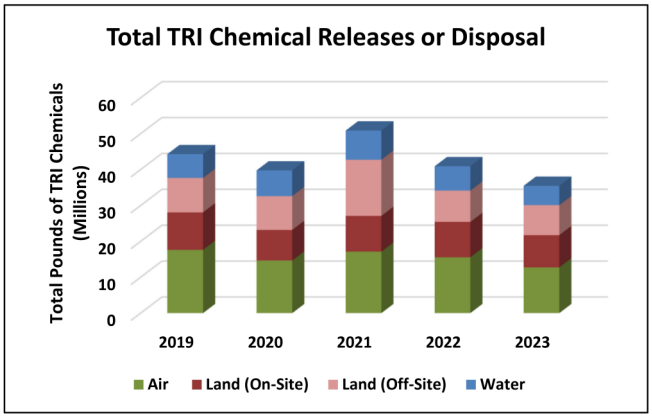
Kentucky At-A-Glance—2023 Reporting Year

The U.S. Environmental Protection Agency (EPA) releases its annual Toxic Release Inventory analysis to help citizens stay informed of pollutants that may impact their communities and land, air and water resources. TRI includes data from over 20,000 facilities across the country and covers over 700 chemicals. TRI tracks information about on-site releases, transfers of chemical waste, chemical recycling, waste treatment, energy recovery and pollution prevention. This fact sheet provides highlights from Kentucky facilities. You can find more information about TRI, specific facilities and other reports at the EPA TRI website.

How many total pounds of TRI-tracked chemicals were managed in 2023?

In 2023, onsite releases, onsite disposal, and offsite disposal reported for facilities in Kentucky decreased. Total releases and disposal also lower when compared to the 2022 reporting year. The 402 TRI facilities managed 631.2 million pounds of production-related waste. Of that, 18,152,847 pounds were released to air or water under existing environmental permits issued to protect human health and the environment and 13,317,120 pounds were placed in on-site or off-site in managed land disposal units. On-site and off-site releases continued to decrease in 2023.



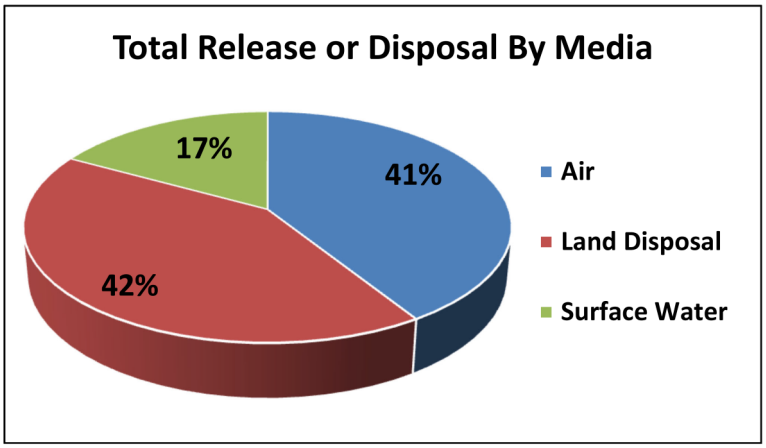


94% of the total chemicals managed by TRI facilities in 2023 ended up being recycled, treated or recovered for energy rather than being released to air, bodies of water or disposed on land.

The on-site designation means the chemical was treated, reused, disposed or released on the premises of the facility. Off-site means the chemical was treated, reused, disposed, or released outside of the facility.

What chemicals are most commonly released or disposed in Kentucky and where do they go?

Top 10 Chemicals Released or Disposed	
Chemical	**Pounds**
NITRATE COMPOUNDS	5,852,205
METHANOL	2,955,627
BARIUM COMPOUNDS	2,882,604
SULFURIC ACID	2,395,004
ZINC COMPOUNDS	2,136,175
CHROMIUM COMPOUNDS	1,790,013
MANGANESE COMPOUNDS	1,639,296
HYDROCHLORIC ACID	1,553,748
ALUMINUM	1,252,875
NICKEL COMPOUNDS	1,187,639

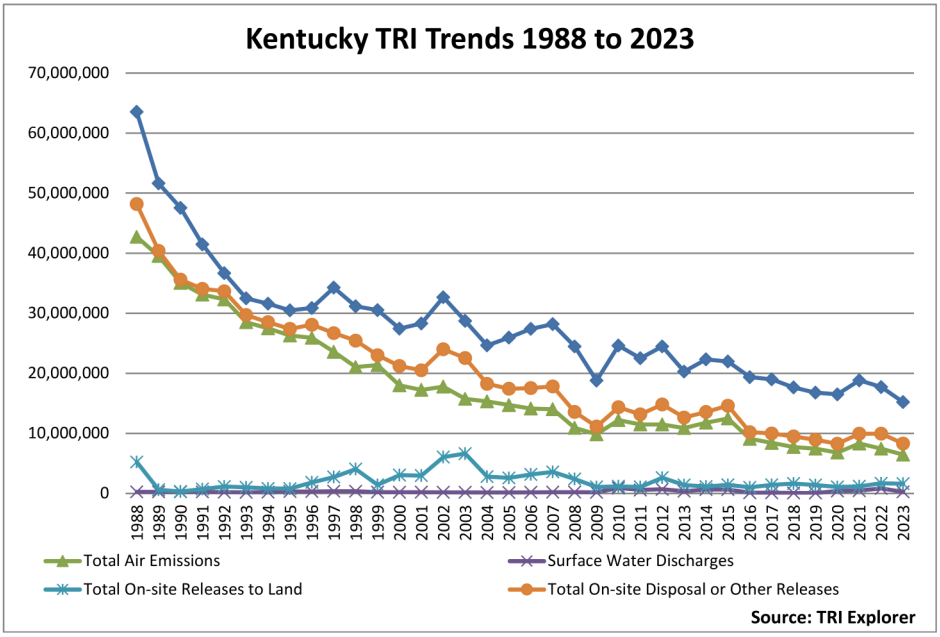


TRI chemicals can be released or managed on- or off-site of the facility. They can go to landfills, wastewater treatment facilities or be released into the air. This chart depicts the media where on- and off-site chemicals are released or disposed.

Which facilities released the most TRI chemicals in 2023?

Facility	Total Releases in Pounds
NORTH AMERICAN STAINLESS (CARROLL)	5,268,477
BIG RIVERS ELECTRIC CORP. WILSON STATION (OHIO)	2,287,309
U.S. TVA SHAWNEE FOSSIL PLANT (MCCRACKEN)	1,953,540
KENTUCKY UTILITIES CO GHENT STATION (CARROLL)	1,694,029
PHOENIX PAPER WICKLIFFE LLC (BALLARD)	1,469,734
SPURLOCK POWER STATION (MASON)	1,265,304
LOUISVILLE GAS & ELECTRIC CO. - TRIMBLE COUNTY STATION	1,177,847
REAL ALLOY RECYCLING LLC (BUTLER)	1,138,216
LOUISVILLE GAS & ELECTRIC CO. - MILL CREEK STATION	1,094,885
PERDUE FOODS LLC - CROMWELL PROCESSING PLANT (OHIO)	946,770

What is the trend for TRI chemicals in Kentucky?



Through production efficiencies, regulatory changes and pollution prevention activities, the amount of toxic chemicals produced in Kentucky has continued on a downward trend. The above chart is an index of chemicals that have been tracked since the beginning to EPA's Toxic Release Inventory in 1988. While more chemicals and facility sectors have been added to the tracking list, the pattern is indicative of the efforts of facilities and regulators to protect the environment.

What counties release the most TRI-tracked chemicals?

County	Releases in Pounds
Carroll	7,685,837
Jefferson	3,815,353
Ohio	3,253,023
Marshall	2,131,411
McCracken	2,021,270
Ballard	1,476,222
Mason	1,353,700
Trimble	1,177,847
Butler	1,138,216
Christian	1,006,010

Counties that are home to electrical utilities tend to have had higher levels of TRI chemicals present within their borders because of the nature of their processes. Despite being substantial TRI contributors, total air emissions from power plants have decreased significantly since 2010. These reductions are due to a combination of changes in business practices or fuels, facility closures, and improvements in pollution control measures.

Emissions– Electrical Utilities	
Year	Total Air Emissions (Pounds)
2019	6,594,128
2020	4,931,156
2021	5,544,275
2022	4,728,770
2023	3,477,851