# 2018 TRI National Analysis Frequently Asked Questions

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# Overview of the 2018 Data

## Q: What are the highlights of the data analysis for 2018?

Production-related waste managed in 2018 was 32.1 billion pounds, a 9% increase from 2017. Approximately 28 billion pounds (88%) of production-related waste were not released because they were managed through preferred waste management practices such as recycling, which increased 19% from 2017, and energy recovery, which increased 4%.

For 2018, 3.8 billion pounds of TRI chemicals were reported as disposed of or otherwise released to the environment. These releases constitute a 3% decrease from 2017. Excluding the metal mining sector, disposal or other release quantities increased by 3% (60 million pounds) from 2017. Air releases continued to decline, with a slight decrease (423 thousand pounds) from 2017 to 2018. Releases into surface water increased by 2% and on-site disposal to land decreased by 6% since 2017, with the latter due primarily to decreased land disposal from the metal mining sector.

## Q: Is the change in disposal or other release quantities comparable to that of prior years?

Total disposal or other release quantities decreased by 3% from 2017 to 2018. From 2016 to 2017, the total quantities disposed of or otherwise released increased by 11%. Much of the change from year to year is due to reporting from the metal mining sector, which accounted for 47% of all disposal or other releases for 2018. Disposal or other release quantities reported by the metal mining sector can vary significantly from year to year. Mining wastes include waste generated during the extraction, beneficiation, and processing of minerals and are subject to applicable federal environmental statutes and regulations (such as the Clean Air Act, the Clean Water Act, the Comprehensive Environmental Response, Compensation, and Liability Act, and the Emergency Planning and Community Right-to-Know Act) and applicable state regulations. EPA also provides a mining and mineral processing compliance assistance document focused on the gold and copper industries.

Since 2007, disposal or other release quantities have decreased by 9% (366 million pounds). Most industry sectors covered by TRI decreased the total quantities of TRI chemicals they disposed of or otherwise released into the environment over the 2007 to 2018 timeframe. This long-term decrease is driven mainly by declining releases of TRI chemicals to air, down 56% (755 million pounds) since 2007. The decrease is driven by electric utilities shifting from coal to other fuel sources, and the installation of control technologies at coal-fired power plants, which has led to decreases in emissions.

## Q: What is EPA doing to help sectors decrease the quantities of TRI chemicals they dispose of or otherwise release to the environment?

EPA's Pollution Prevention Program helps identify pollution prevention (P2) options in all industry sectors through a variety of assistance and information-sharing programs, such as P2 grants, Technical Assistance Programs (TAPs), and partnerships like the Safer Choice Program. In addition, the TRI program makes its pollution prevention information accessible to promote the implementation of effective P2 practices through the TRI P2 webpage.

## Q: What is production-related waste and why does EPA include information about this number as well as total disposal or other releases?

Production-related waste is the sum of all non-accidental chemical waste managed at a facility. It consists of on-site environmental disposal or other releases, on-site waste management (recycling, treatment, and combustion for energy recovery), and off-site transfers for disposal, treatment, recycling, and energy recovery. The quantity of total production-related waste of a TRI chemical or TRI chemicals is the sum of the quantities of the TRI chemical (or chemicals) managed as waste on-site or off-site (i.e., recycled, combusted for energy recovery, treated, or disposed of or released). Production-related waste does not include chemical waste quantities resulting from remedial actions, catastrophic events, or other one-time events not associated with normal or routine production processes. Including information on the management of production-related waste provides a greater understanding of how TRI chemicals are managed, rather than focusing only on their final disposition through disposal or other release.

EPA encourages facilities to strive to eliminate waste at its source. In other words, facilities should avoid generating the waste in the first place whenever feasible. For waste that is generated, the preferred management methods are recycling, followed by combusting for energy recovery, treating and, as a last resort, disposing of or otherwise releasing the waste. The percent of the quantities of production-related waste allocated to each of these management practices has changed over time, with a larger proportion recycled and a smaller proportion disposed of or otherwise released. The table below shows the percent of the production-related waste quantities for each waste management method in 2007, 2017 and 2018.

| **Percent of production-related waste recycled, combusted for energy recovery, treated or disposed of or otherwise released** | | | |
|---|---|---|---|
| | **2007** | **2017** | **2018** |
| **Quantity Recycled** | 38% | 50% | 55% |
| **Quantity Combusted for Energy Recovery** | 11% | 10% | 10% |
| **Quantity Treated** | 33% | 26% | 24% |
| **Quantity Disposed of or Otherwise Released** | 18% | 14% | 12% |

Note that the proportion of total production-related waste that was recycled increased to 55% in 2018, and recycling is a more preferable management activity than disposal or otherwise releasing the chemical waste.

## Q: How many facilities reported for 2018? Is it different from prior years?

A total of 21,557 facilities reported to TRI for 2018, which was similar to the number of facilities that reported for 2017. The number of facilities reporting to TRI has decreased by 8% since 2007.

There are many reasons why a facility may report to TRI one year but not report the next year. Each of the following reasons may account for some portion of the annual changes in facilities reporting to TRI:

- Each year a facility must evaluate whether it meets the criteria to report to TRI. If the facility: is a federal facility and/or in an industry sector that is within the scope of sectors subject to TRI reporting; has at least 10 full-time equivalent employees; and within a calendar year manufactures, processes or otherwise uses a TRI-listed chemical in quantities above a threshold amount, it must file a TRI report.
- Some facilities have had a reduction in employees, or in production that causes them to drop below the reporting threshold.

- Some facilities have stopped production, either temporarily or because the facility closed, and did not exceed a TRI reporting threshold during the reporting year.
- Some facilities have changed their processes so that they no longer use any chemicals on the TRI list.
- Some facilities have found ways to manufacture, process, or otherwise use a TRI-listed chemical throughout the reporting year in quantities that were below the reporting thresholds for these activities.
- Some facilities may have failed to report to TRI even though they fit the criteria. EPA will review these facilities for appropriate follow-up action.

# General

## Q: What is new in this year's TRI National Analysis?

This year's National Analysis includes:

- Regional Profiles for all ten EPA regions.
- Industry sector profiles highlighting the hazardous waste management and aerospace sectors.
- A new interactive diagram of metal mining operations.

## Q: What factors should I consider when using TRI data?

Users of TRI information should be aware that one cannot estimate human exposure to TRI chemicals or calculate risks to human health and the environment from just the quantities disposed of or released to the environment. Also, different TRI chemicals can pose different health hazards including cancer, neurological hazards, respiratory hazards, and developmental hazards, to name a few. In addition, chemicals can cause these different effects at different levels of exposure.

TRI data, in conjunction with other information, such as the toxicity of the chemical, the release medium, and site-specific conditions, can be used as a starting point in evaluating exposures that may result from releases of TRI-listed chemicals. Factors that users of TRI data might consider include:

- Toxicity of the chemical
- Exposure (proximity of populations to where releases or disposal occur)
- Bioaccumulation of the chemical in the food web
- Type of disposal or release (environmental medium), and magnitude of the release quantity
- Fate and transport of the chemical in the environment
- Type of off-site facility receiving the chemical and the efficiency of its waste management practices
- On-site waste management of the chemical

TRI Chemical Hazard Information Profiles (TRI-CHIP) is a tool that EPA has developed to provide critical effects toxicity information to the public. More information related to understanding and using TRI data is available on the TRI webpage in the Factors to Consider document.

## Q: Should I worry about releases in my community?

When using TRI data, one should be aware that a release of a TRI-listed chemical does not automatically mean that local communities are at risk of experiencing harm from the chemical. Large release quantities do not necessarily mean there is need to be concerned, nor do small releases necessarily mean there is a low risk. "Disposal or other releases" represent a wide variety of management methods. These range from highly controlled disposal, such as in hazardous waste landfills, to uncontrolled releases due to accidental leaks or spills. Many releases reported to TRI are subject to permits and/or environmental standards that establish emissions limits under Federal or State laws such as, for example, air permits issued under the Clean Air Act. Other factors, such as the extent of exposure to the TRI chemical following its release, route(s) of exposure (e.g., inhalation, dermal), bioavailability from the exposure route, and sensitivity of exposed individuals to effects caused by a TRI-listed chemical must be considered before any judgments regarding risk can be made.

## Q: What is the usual schedule for the TRI National Analysis?

TRI data for a given calendar (reporting) year are to be reported to EPA by facilities by July 1 of the following year, and the preliminary dataset is posted online by the end of July. The data are then subject to extensive data quality analyses by the TRI Program, and the dataset is refreshed throughout the fall to incorporate any revisions or late submissions received by EPA. The dataset used to create the TRI National Analysis is locked down in mid-October, and the report is developed from October to January. The National Analysis report is then typically published in January.

## Q: What is the difference between Reporting Form R and Reporting Form A?

Reporting Form R provides details about releases and other waste management quantities (e.g., total quantity of releases to air, water, and land and underground injection; and on- and off-site recycling, treatment, and combustion for energy recovery). Reporting Form A provides less information. It provides the name of the chemical and certain facility identification information. Reporting Form A can be used by the public as a "range report," i.e., an indication that the facility manages between 0 and 500 pounds of a non-PBT chemical as waste. For more information on the requirements and data elements for each form, see the TRI Reporting Forms and Instructions.

## Q: Does TRI cover greenhouse gases?

TRI covers a wide range of chemicals, and some of these chemicals, such as some fluorinated chemicals, are also regulated by EPA's Greenhouse Gas Reporting Program.

## Q: Do the TRI data reflect releases from hydraulic fracturing?

No. Under section 313 of the Emergency Planning and Community Right-to-Know Act, the TRI reporting requirements apply only to facilities in industrial sectors designated by certain North American Industrial Classification System (NAICS) codes. Facilities that extract crude petroleum or natural gas from the earth and companies that extract natural gas through hydraulic fracturing are not within the scope of sectors subject to TRI reporting requirements. For a list of all TRI-covered NAICS categories please see the North American Industry Classification System (NAICS) Codes as described on the TRI webpage.

## Q: Does TRI include information on releases related to natural disasters, such as hurricanes?

Releases of TRI-listed chemicals due to natural disasters are reported to TRI as "non-production-related waste," meaning waste that is not associated with normal production processes. These are wastes resulting from one-time events (e.g., remedial actions), or from catastrophic events (e.g., natural disasters such as hurricanes). Note that this information is only reported to TRI if the facility met all three of the TRI reporting criteria of 1) exceeding the chemical activity threshold; 2) exceeding the employment threshold; and 3) is operating within a TRI-covered sector.

## Q: What Per- and Polyfluoroalkyl Substances (PFAS) chemicals does TRI cover and what is TRI doing to help address PFAS concerns?

On December 4, 2019, EPA published an Advance Notice of Proposed Rulemaking to inform the public of a potential rulemaking to add certain PFAS to the TRI chemical list and solicit comment via a 60-day public comment period. Prior to December 20, 2019, no PFAS chemicals were included on the list of chemicals required to be reported to TRI. On December 20, 2019, the National Defense Authorization Act for Fiscal Year 2020 (NDAA) was signed into law. Among other provisions, the NDAA added certain PFAS to the TRI list of chemicals. The NDAA also established a framework for PFAS to be added automatically to the TRI list on January 1 of the year following certain EPA actions. EPA will soon be providing more information on how the NDAA affects the TRI reporting requirements.