

Toxics Release Inventory (TRI) for Industrial and Federal Facilities

Michelle May, TRI Program, EPA Region 8

may.michelle@epa.gov

303.312.6966

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What is the TRI?

**An information resource
about toxic chemical
waste management at facilities
across the U.S.**

**Annual reporting directly from facilities
since 1987**

TRI Program Mission

To provide communities, governments, companies, researchers, and all other stakeholders with timely, credible, useful information about the management of toxic chemicals reported by certain industrial and federal facilities



TRI's Statutory Authority

- **Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) §313**
 - Facilities in certain industry sectors must report—to EPA and the appropriate state —toxic chemical releases into the air, water, and land and off-site transfers each year
 - EPA must maintain the data and make it available to the public
- **Pollution Prevention Act of 1990 (PPA) §6607**
 - TRI facilities must report progress in reducing waste generation and moving towards safer waste management alternatives, such as recycling, energy recovery, and treatment

Which Facilities Must Report?

Covered industry sectors, including:

21,000+

Industrial and
federal facilities



Manufacturing



Federal Facilities



**Coal/Oil Electricity
Generation**



**Certain Mining
Facilities**



**Hazardous Waste
Management**

- Facilities with at least 10 full-time employees (or equivalent)
- Manufacture, process, or otherwise use (MPOU) TRI-listed chemicals above threshold quantities in a year
- Note: Some facilities are specifically required to report based on a determination by the EPA Administrator under EPCRA 313(b)(2)

MPOU Activities

Manufacturing (EPCRA §313(b)(1)(C)(i) and 40 CFR §372.3) includes generating a listed chemical whether intentionally or coincidentally as an impurity or byproduct, as well as importing

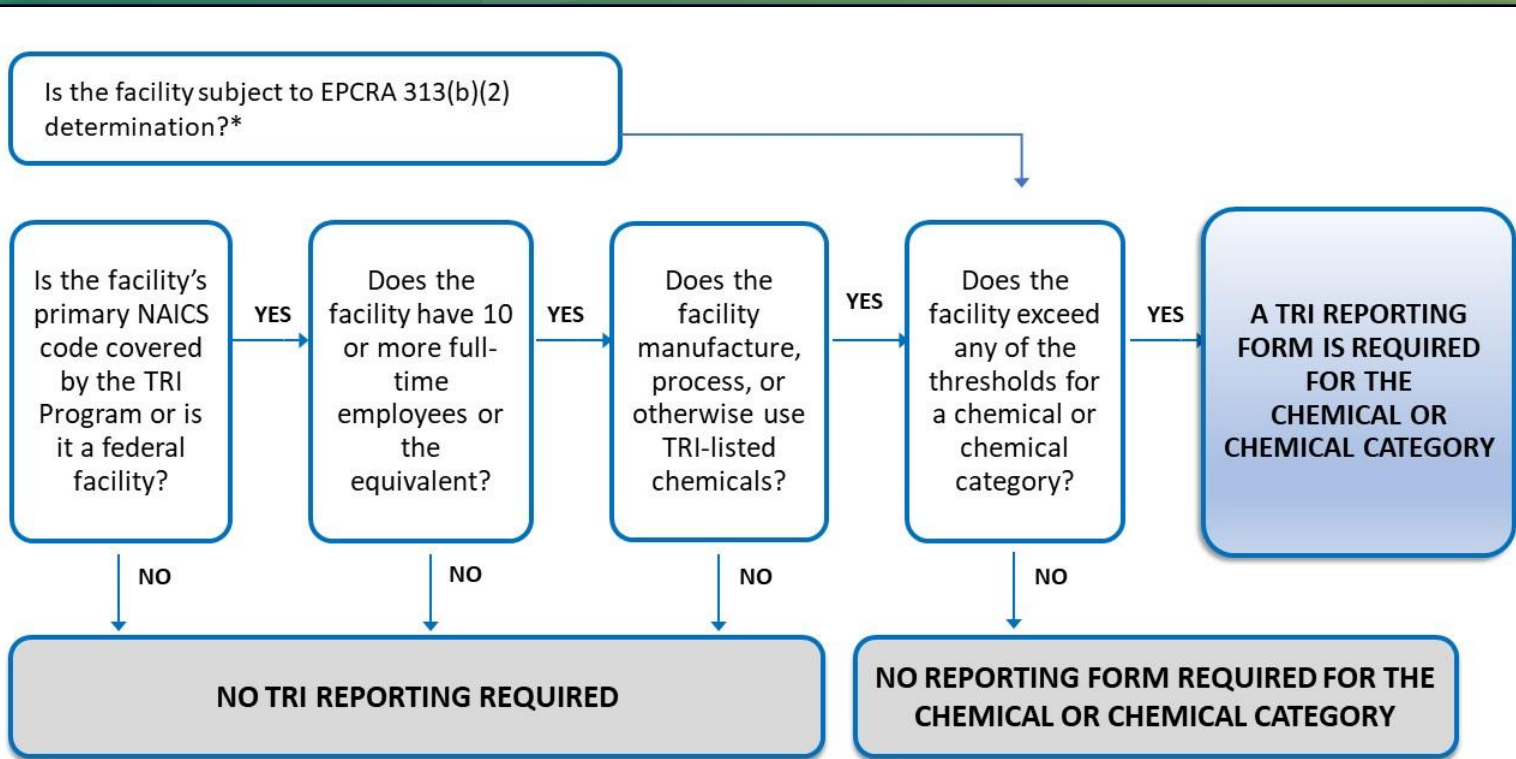
Processing (EPCRA §313(b)(1)(C)(ii) and 40 CFR §372.3) means preparation of a Section 313 chemical, after its manufacture, for distribution in commerce (includes, for example, use as a reactant to manufacture another substance or product, added as a formulation component, incorporated as an article component, repackaged for distribution, quantities sent off site for recycling, and incidental inclusion as an impurity)

Otherwise Use (40 CFR §372.3) includes most activities that are not manufacturing or processing

Overview of Covered Industry Sectors

SECTOR	NOTES
Manufacturing	Facilities engaged in the mechanical or chemical transformation of materials or substances into new products
Metal Mining	Does not include metal mining services, and uranium/radium/vanadium ores
Coal Mining	Does not include coal mining services
Electric Utilities	Limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce
Treatment, Storage, and Disposal Facilities	Limited to facilities regulated under RCRA, Subtitle C
Solvent Recovery Services	Limited to facilities primarily engaged in solvent recovery services on a contract or fee basis
Chemical Distributors	Facilities engaged in the wholesale distribution of chemicals and allied products
Petroleum Bulk Terminals	Facilities engaged in the wholesale distribution of crude petroleum and petroleum products from bulk liquid storage facilities.
Natural Gas Processors	Includes all natural gas facilities that receive and refine natural gas. Does not include facilities primarily engaged in natural gas extraction (e.g., exploration, fracking)

Determining if a Facility Must Report



*Effective for RY 2022, 29 facilities are required to submit TRI reporting forms for ethylene oxide (and in some cases, ethylene glycol) regardless of industry sector or number of full-time employee equivalents. See www.epa.gov/tri/lawsregs

More Information on TRI Reporting Criteria

- A facility is defined as “all buildings, equipment, structures, and other stationary items which are located on a single site or on contiguous or adjacent sites and which are owned or operated by the same person (or by any person which controls, is controlled by, or under common control with, such person).” (EPCRA §329 (4))
- The full-time employee criterion means 10 or more full-time employee equivalents (i.e., 20,000 hours) (40 CFR §372.3 and 372.22(a))
 - All persons employed by a facility regardless of function (includes operational staff, administrative staff, contractors, etc.)

What Information do Facilities Report?

The image shows a portion of EPA Form R. At the top left is the EPA logo and the text "United States Environmental Protection Agency". To the right, it says "FORM R" and "Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of Superfund Amendments and Reauthorization Act". Below this, there is a line of text: "Complete form online via TRI-MEweb. For a trade secret submission, send completed forms to TRI Rep". Another line of text states: "annual public burden related to the Form R is estimated to average 35.71 hours per response for a facility". Below that, it says: "Instructions for more information on submissions and the Paperwork Reduction Act." At the bottom left, there is a box with the text: "This section only applies if you are revising or withdrawing a previously submitted form, otherwise leave blank." To the right of this box is a section titled "Revision (Enter up to two code(s))" with two empty rectangular boxes for input.

- On-site releases (including disposal) of TRI chemicals in waste into the air, water, and land
- On-site recycling, energy recovery, or treatment of TRI chemicals in waste
- Transfers of TRI chemicals in waste going to off-site locations for further management (recycling, energy recovery, treatment or disposal)
- Newly implemented source reduction (pollution prevention) activities

What is a Release?

- On-Site Release **to Air**

- Includes both fugitive/non-point source emissions (e.g., leaks and evaporation) and stack/point-source emissions (e.g., releases from a duct or pipe)



- On-Site Release **to Water**

- Discharges to surface water bodies such as streams, rivers, lakes, and oceans; also includes releases of TRI chemicals to surface water due to runoff, including stormwater runoff



What is a Release?

- On-Site Release **to Land**
 - Includes nine types of on-site land disposal:
 - Class I Injection Wells
 - Class II-V Injection Wells
 - RCRA Subtitle C Landfills
 - Other Landfills
 - Land treatment/Application Farming
 - Surface Impoundments
 - RCRA Subtitle C Surface Impoundments
 - Other Surface Impoundments
 - Other Disposal (e.g., engineered piles at metal mines)



What is Waste Management?

- **For TRI purposes:** handling waste through recycling, energy recovery, treatment, or release/disposal
- **Production-related waste:** chemical waste containing TRI chemicals generated at as a result of normal, routine production processes. Production-related waste managed is the sum of on-site releases, other on-site waste management, and off-site transfers minus quantities from non-routine, one-time events
- **Non-production-related waste:** waste containing TRI chemicals resulting from one-time, non-routine events, rather than from standard production activities

TRI Reporting Form R Content

Part I
Section 1: Reporting Year
Section 2: Trade secret information
Section 3: Certification
Section 4: Facility Identification
Section 5: Parent Company Information
Part II
Section 1: Toxic chemical ID
Section 2: Mixture Component ID
Section 3: Activities & Uses
Section 4: Max Amount On Site for CY
Section 5: On-site Releases
Section 6: Off-site Transfers
Section 7: On-site Waste Treatment
Section 8: Source Reduction and Waste Management Activities
Section 9: Miscellaneous Information

Form A Eligibility

The Form A Certification Statement is a simplified TRI reporting form

- Facilities may submit a Form A instead of a Form R if:
 - The chemical IS NOT a chemical of special concern,
 - The amounts of the chemical manufactured, processed, or otherwise used do not exceed 1,000,000 pounds in a year, and
 - The total annual waste management (i.e., on-site disposal and other releases; on-site recycling, energy recovery, and treatment; and off-site transfers for further waste management) of the chemical does not exceed 500 pounds.
- If using Form A:
 - Fewer reportable data elements (e.g., no reporting occurs on releases, other waste management activities, or source reduction activities)
 - Facility should maintain records and calculations used to determine eligibility

ANNUAL TRI DATA COLLECTION AND ANALYSIS CYCLE

JANUARY-MARCH
TRI National Analysis
published

JANUARY-JUNE
Facilities prepare and
submit reporting forms
for the previous year

JULY 1
Reporting forms due
to EPA

JULY
Preliminary dataset
available

JULY-OCTOBER
Ongoing data
processing and
analysis by EPA

OCTOBER
National Analysis dataset
available

Examples of TRI Data Use

- Identify how many TRI facilities operate in a community and where they are located
- Identify what chemicals are being released
- Track increases or reductions in releases from facilities over time
- Inform prioritization efforts to reduce pollution from facilities in an area
- Compare the releases and pollution prevention efforts of facilities in one location with similar facilities across the country
- Support regulatory activities involving TRI chemicals



Reporting Source Reduction Data

Source reduction activities are practices that reduce, eliminate, or prevent pollution at **its source**. Source reduction is also referred to as Pollution Prevention (P2).

- Facilities are **required** to report all newly implemented source reduction activities involving TRI chemicals
 - Includes selection from 24 source reduction activity codes. Example: "S02: Substituted an organic solvent"
 - Codes are tracked across 5 categories
- Must also indicate the method(s) used to identify the activity (e.g., audit, vendor assistance)
- More efficient pollution control is **not** source reduction



Reporting Optional P2 Data

- **Optionally**, facilities may disclose additional details:
 - Estimated annual reduction expected from implemented source reduction activity (range codes)
 - Details about the implemented source reduction activities (e.g., benefits, substitutes, efficiencies) (narrative)
 - Barriers to implementing these activities (barrier codes and narrative)
 - Details about other waste management activities (e.g., recycling, climate adaptation strategies) (narrative)



- **Resources:**
 - [P2 Reporting Guide](#)
 - [Source Reduction webpage](#)
 - [Green Chemistry webpage](#)

TRI-MEweb and e-Reporting Through CDX

- EPA requires electronic reporting via TRI-MEweb
 - includes form revisions and withdrawals
 - paper forms are still used for trade secret reporting
- Tutorials are available at: www.epa.gov/tri/trimeweb
- Access TRI-MEweb via the Central Data Exchange:
<https://cdx.epa.gov/cdx/login>

Electronic TRI Reporting Process



Certifying Official logs into CDX



Need to sign a TRIFID Signature Agreement(s) for each facility account in TRI-MEweb



Import last year's data

Step 1:
Prepare TRI
Forms in TRI-
MEweb

Pass form(s) to
Certifying Official

Step 2:
Certify forms in
TRI-MEweb

Review,
Sign and
Submit

Forms sent to
EPA/State/Tribe

Resources & Help

- More information on TRI reporting requirements: www.epa.gov/tri/rfi
- TRI guidance is accessible via GuideME: www.epa.gov/tri/guideme
- Contact Us webpage: www.epa.gov/tri/contacts
 - Regional, tribal, and state TRI coordinators
 - Reporting assistance
- Email TRI staff at EPA Headquarters: tri.help@epa.gov

Please note that reporting to TRI does not fulfill your facility's reporting responsibilities under other environmental programs (e.g., Chemical Data Reporting, Risk Management Plan, etc.)