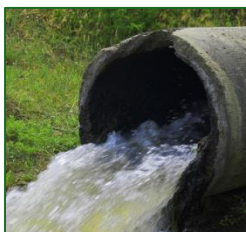It's your **Right to Know** about the
Toxic Chemicals
in your community

Introduction to the
Toxics Release Inventory

What is the Toxics Release Inventory (TRI)?

- TRI tracks the management of certain toxic chemicals that pose a threat to human health and the environment

- TRI includes information on:

Releases   Waste transfers   Recycling   Pollution prevention

- TRI includes data about approximately **20,000 facilities** across the country and covers **more than 675 toxic chemicals.**

Why was the Toxics Release Inventory created?

Bhopal memorial for those killed and disabled by the 1984 toxic gas release

Bhopal, India **December 1984**

- Methyl isocyanate gas released at a Union Carbide chemical plant
- Thousands died the first night
- Thousands more have died due to long-term health effects
- Survivors continue to suffer with permanent disabilities

Institute, West Virginia **August 1985**

- Chemical release at a similar facility in the U.S.
- Over 100 people hospitalized

Increased concern in the U.S. about chemical accident preparedness and availability of information on toxic chemical releases from industrial facilities

TRI is a Regulatory Program Created by Two Laws:

- **Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) § 313**

- **Pollution Prevention Act of 1990 (PPA) § 6607**

  These laws require facilities in certain industry sectors to report:

  - Their toxic chemical releases to EPA and states each year

  - How they manage toxic chemicals through treatment, recycling and energy recovery

  - If they are implementing pollution prevention activities

  EPA must maintain the data and make it available to the public

What is a "release"?

- A **"release"** refers to different ways that toxic chemicals from industrial facilities enter the:
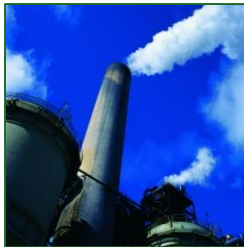
Air   Water   Land

- The likelihood of residents coming into contact with toxic chemicals depends on the type of release and other factors

Which facilities must report to TRI?

1. Facility must be in a TRI-covered industry sector or category, including:

Manufacturing

Coal/Oil electricity generation

Certain Mining Facilities

Hazardous Waste Management

Federal Facilities

2. Facility must have the equivalent of at least 10 full-time employees

3. Facility must manufacture, process or use more than a certain amount of a TRI toxic chemical per year
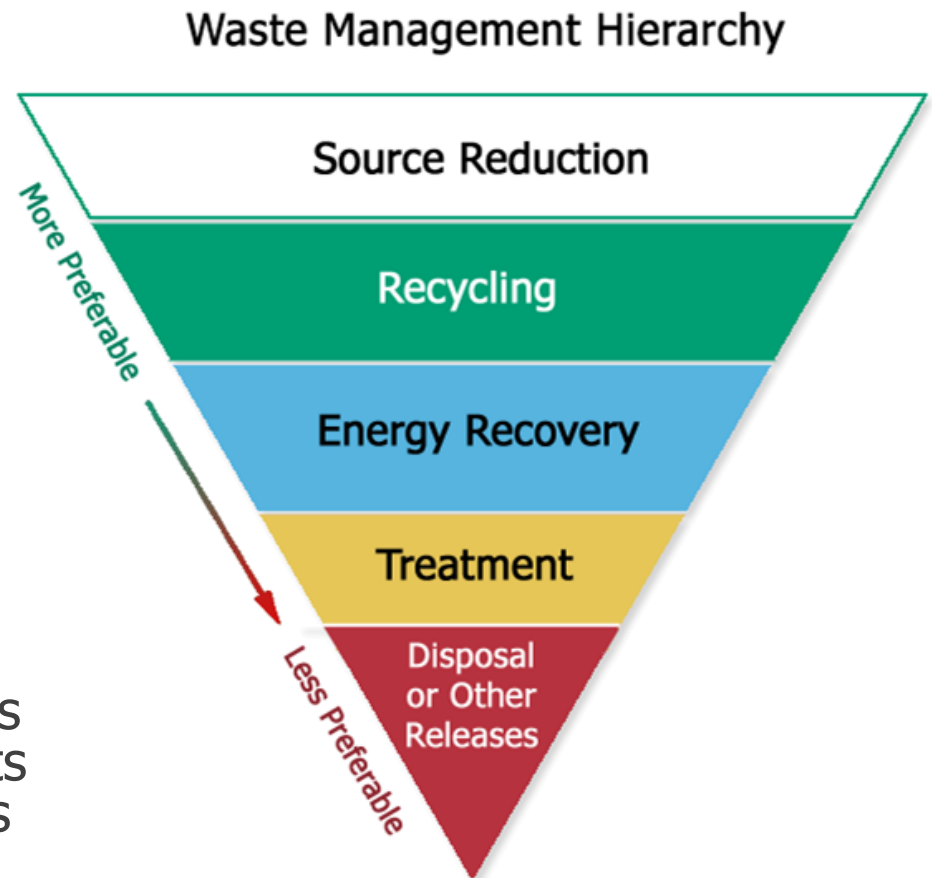
What air data do facilities report to TRI?

- Total chemical fugitive (non-point) air emissions and total chemical stack (point) air emissions

- Basis of estimate for air emissions (e.g., published emission factors, monitoring)

- On-site treatment methods for gaseous wastestreams and associated destruction or removal efficiency

  - Treatment methods are reported using 25 codes that correspond to treatment activities

  - Treatment efficiencies are reported using six codes that correspond to six efficiency ranges
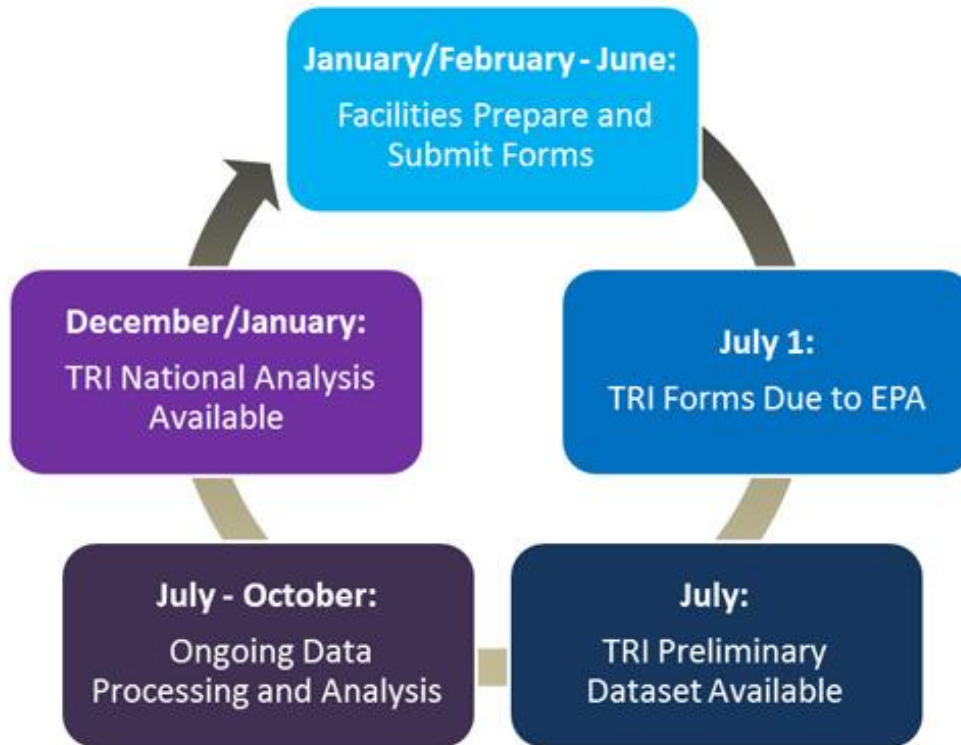
- Pollution prevention activities

TRI's Pollution Prevention (P2) Information

- The Pollution Prevention Act (PPA):

  – Set out hierarchy of waste management techniques

  – Goal is for facilities to shift away from releases towards more preferable waste management techniques

    - *Or, ideally, eliminate waste at source*

  – As required by the PPA, TRI tracks each facility's progress towards this goal and collects info on effective P2 practices

Waste Management Hierarchy

More Preferable

Source Reduction

Recycling

Energy Recovery

Treatment

Disposal or Other Releases

Less Preferable

Annual TRI Operating Cycle

January/February - June:
Facilities Prepare and Submit Forms

July 1:
TRI Forms Due to EPA

July:
TRI Preliminary Dataset Available

July - October:
Ongoing Data Processing and Analysis

December/January:
TRI National Analysis Available

- Facilities submit their TRI forms for each calendar year to EPA by July 1st of the following year

- The preliminary TRI dataset is released in July

- EPA conducts data quality checks and compliance assistance activities from July - October

- The TRI National Analysis (EPA's annual TRI report) is published by January

What are the limitations of TRI data?

- TRI data is collected once per year

- Only covers facilities in certain (not all) industry sectors

- Does not cover small facilities (under 10 employees)

- Does not cover all toxic chemicals

- Does not cover all sources of pollution, e.g. cars and trucks

- Does not describe how long or how often chemicals were released

- Facilities report based on best readily-available data

For more information see *"Factors to Consider When Using TRI Data"* at:
http://www.epa.gov/tri/triprogram/FactorsToConPDF.pdf

How Are TRI Data Used?

- *Individuals and Communities* to start dialogues with local facilities over emissions reductions, pollution prevention, and safety

- *Federal, state and local governments* to develop environmental policies, establish priorities, and track performance

- *Non-governmental organizations* to evaluate local environmental conditions in the U.S. and design improvement goals

- *Industry* to measure progress in preventing pollution

- *Academic institutions* to research a wide range of topics including environmental justice, pollution & health, impact on stock value, and others

- *Financial analysts* to identify potential liabilities and environmentally responsible investment opportunities

http://www2.epa.gov/toxics-release-inventory-tri-program/tri-data-uses

Accessing TRI Data

- National Analysis report
- Web-based access and analysis tools
- Downloadable data files
- Redesigned website
- Mobile application and other materials in Spanish

TRI Explorer

Envirofacts

P2 Search Tool

TRI.NET

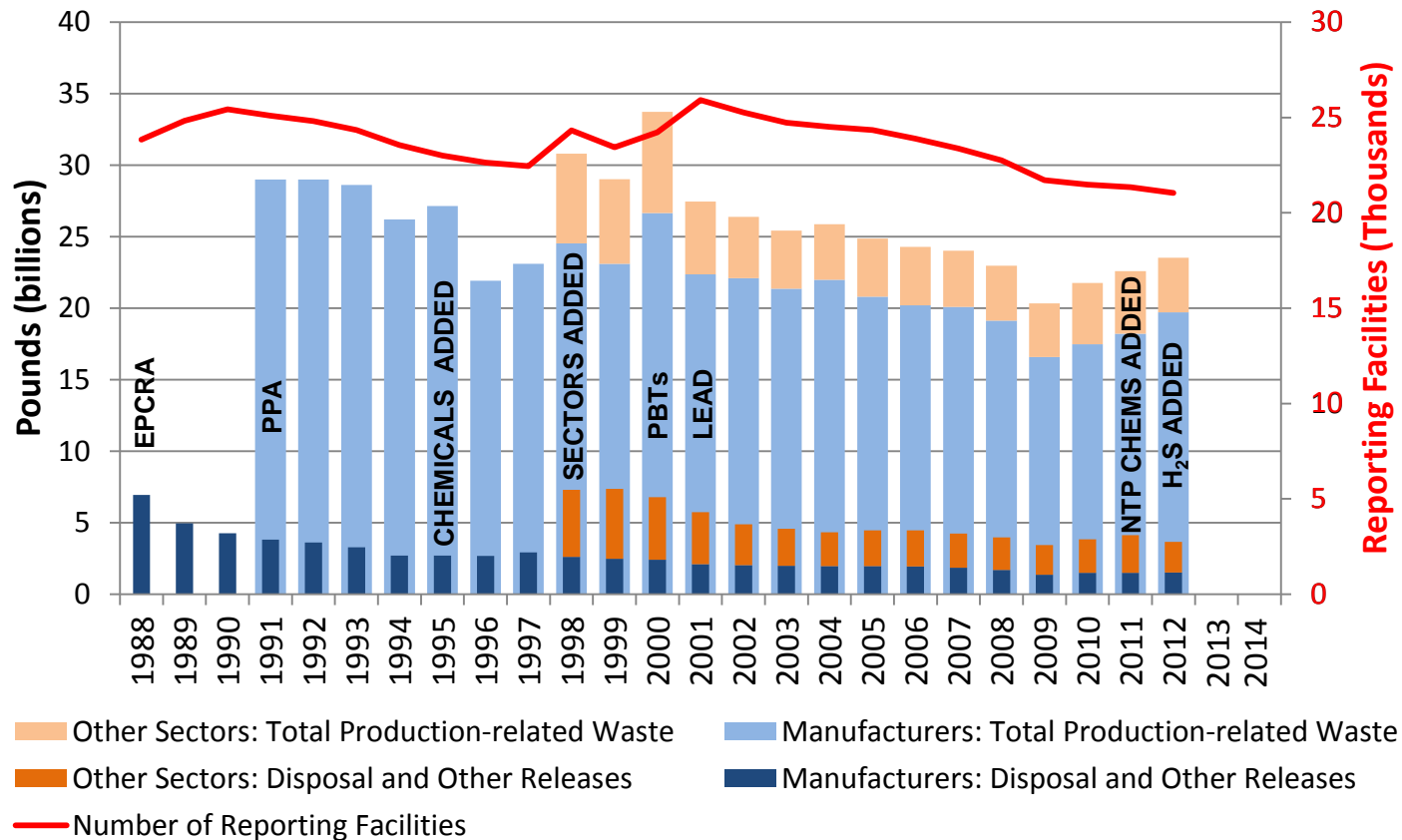TRI-CHIP

myRTK

TRI National Analysis

- Annual report displaying EPA's analysis of the most recent TRI data

- Includes profiles of specific geographic areas, industry sectors, and chemicals of concern

TRI Trends

- In general, toxic chemical releases have decreased over time
- Rulemakings impact trends

Industry or Chemical-Specific

- How have toxic chemical releases for a specific industry or chemical changed over time?

- How do different facilities or companies compare in terms of waste generation and waste management practices?

- What P2 activities have contributed to the biggest reductions?

Facility-Specific

- Have toxic chemical releases at a particular facility gone up or down over time?

- Were changes in releases driven by changes in production? Did P2 practices play a role?

- How do the facility's TRI and GHGRP trends compare?

Questions That TRI's P2 Tool Can Address

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