

**TERRA**

# United States Toxics Release Inventory

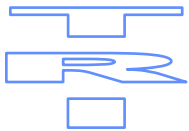
*Michelle Price  
U.S. EPA  
October 2004*



# Toxics Release Inventory (TRI) Program Update

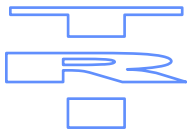
This presentation will cover:

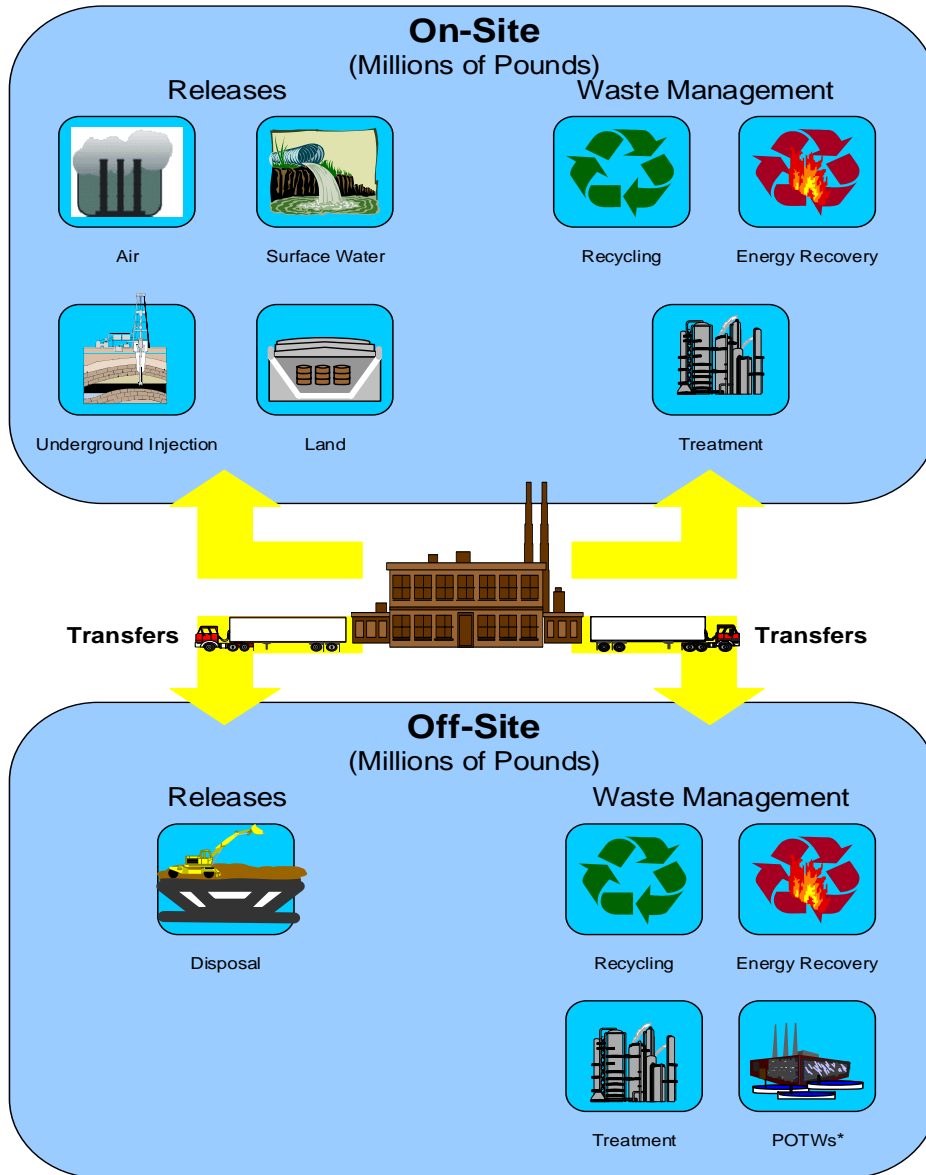
- TRI Background
- Overview of 2002 Data
- Current Activities



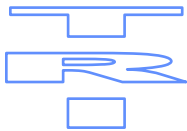
# TRI Background

- In 1986, Congress enacted the Emergency Planning and Community Right-to-Know Act (EPCRA). Section 313 of EPCRA established the Toxics Release Inventory (TRI) Program. Beginning in 1987, manufacturers were required to report to EPA releases of toxic chemicals to the environment and quantities sent off-site for treatment.
- In 1990, Congress enacted the Pollution Prevention Act (PPA) that expanded TRI to include additional information on toxic chemicals in waste and on source reduction methods.
- *Releases* -- EPCRA section 313 requires that facilities report on releases to air, water, land, including disposal both at the facility and at off-site facilities.
- *Other Waste Management* -- The Pollution Prevention Act of 1990 (PPA) requires facilities to report to TRI on the various ways they manage wastes, including recycling.



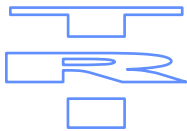


\*Publicly Owned Treatment Works



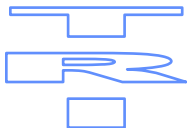
# Who Reported in 2002

- 24,379 facilities reported to TRI in 2002, compared to 25,388 facilities in 2001.
- 315 Federal facilities reported for 2002, an increase of 10%
- 2002 is the third reporting year in which lower reporting thresholds (10 and 100 pounds) apply for persistent bioaccumulative toxic (PBT) chemicals such as dioxins, mercury and PCBs. It is the second year for lead and lead compounds.
  - 8,505 facilities reported lead and lead compounds for 2002 compared to 8,702 facilities in 2001.



# What's New

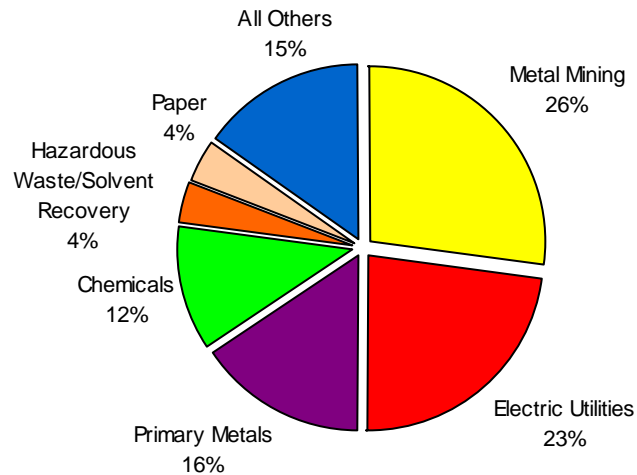
- EPA is presenting more context for understanding results by providing additional detail on types of on-site “releases”
  - Subcategories will show Class I injection wells, RCRA Subtitle C landfills, and other landfills, distinguishing them from other types of releases such as air or water
- We have made major strides in obtaining and providing data electronically
  - 81% of TRI reports were submitted electronically
  - 23% of reports submitted electronically were received via CDX this year, up from 7% last year
  - Electronic management of data allowing us to reduce paper reports
  - Web tool, TRI Explorer, is the dissemination mechanism of choice, allowing users to create reports defined by their needs
- Our modernization efforts focus on improving data quality and timeliness of releasing data to the public



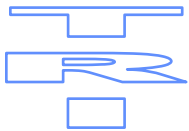
# 2002 Disposal or Other Releases by Industry

## TRI Total Disposal or Other Releases, 2002

2002 TRI Total Disposal or Other Releases  
4.79 billion pounds

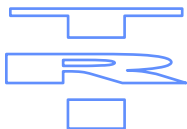


Note: Data are from TRI Form R, Section 5 (all parts) and Section 6.1 (metals and metal compounds only) and Section 6.2 (disposal codes only and metals and metal compounds reported under codes M40 and M61) as of April 2004. Off-site disposal or other releases transferred to other TRI facilities reporting such transfers as on-site disposal or other releases are not included.



# Major Findings 2002

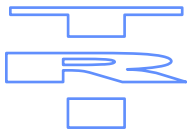
- There was a 15% decrease in total disposal or other releases into the environment nationwide from 2001 to 2002. This was largely attributable to the metal mining sector (43%) and is related to a court decision.
- Without metal mining, total disposal or other releases increased by 5%, largely attributed to one copper smelter that reported large increases.
  - Without metal mining and this one copper smelter that reported large increases, there was a decrease of 3 percent.
  - EPA strongly encourages facilities to identify ways to continue progress toward reducing releases



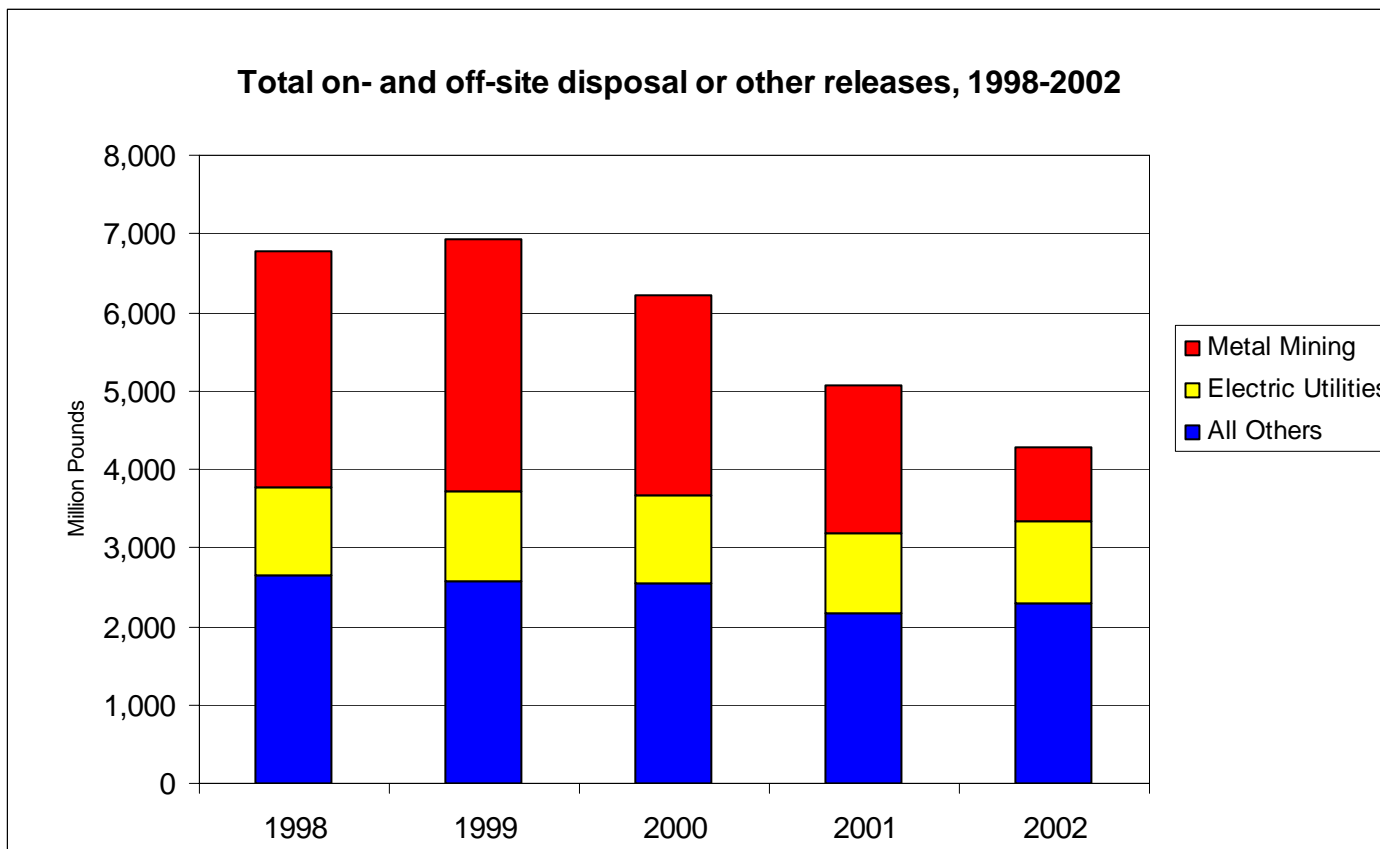


# Major Findings 2002

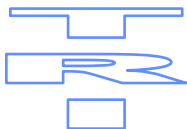
- Total disposal or other releases of certain PBT chemicals (lead and mercury) increased from 2001-2002 while Dioxin decreased.
  - However, the TRI data available to the public using the frozen dataset in TRI Explorer will show an increase in dioxin and a decrease in lead due to large known facility reporting errors. When correcting for these errors, lead increased by 3.2% and dioxin decreased by 5%.
  - Mercury releases increased by 10%
  - One or two facilities often drive results (e.g., two facilities accounted for 50% of lead releases in 2002)
- Releases from electric utilities increased 3.5% and now represent 23% of total disposal or other releases compared to 19% in 2001
  - A combination of large decreases in total disposal or other releases in metal mining (43%) and the increase in utility releases could shift more focus to the electric utility sector.
- Total on- and off-site disposal or other releases from federal facilities increased by 9%, attributed primarily to higher coal usage by one facility.



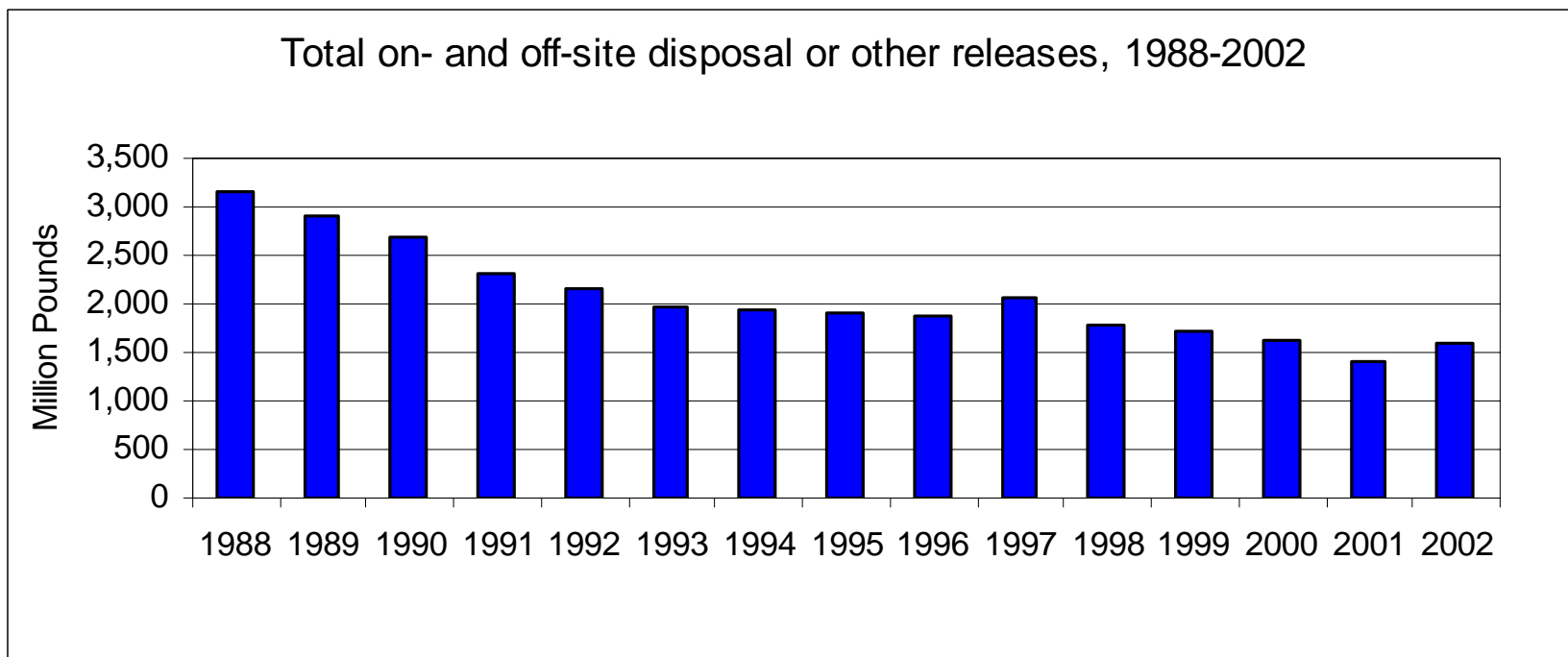
# 1998-2002 Data Trends



Note: Data are from TRI Form, Sections 5 (all parts) and 6.1 (metals and metal compounds only) and 6.2 (Disposal codes only and metals and metal compounds reported under codes M40 and M61). Does not include PBT chemicals, vanadium and vanadium compounds. Does not include transfers to disposal or other releases sent to other TRI facilities that reported the amounts as on-site disposal or other releases. Data as of April 2004.



# 1988-2002 Data Trends

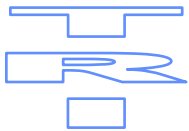


Note: Data are from TRI Form, Sections 5 (all parts) and 6.1 (metals and metal compounds only) and 6.2 (Disposal codes only and metals and metal compounds reported under codes M40 and M61). Does not include delisted chemicals, chemicals added in 1990, 1994 and 1995, aluminum oxide, ammonia, hydrochloric acid, PBT chemicals, sulfuric acid, vanadium and vanadium compounds. For the years 1998 and after, does not include industries, other than manufacturing industries, that are required to report for 1998 and later years only. Data as of April 2004.



# Production-related Waste Managed, 2002 and 2001-2002

- Total production-related waste managed in 2002 was 26.2 billion pounds.
  - Includes disposal or other releases, recycling, energy recovery, treatment on- and off-site not associated with one-time remedial actions or catastrophic events.
- This represents a 4% decrease (1.05 billion pounds) from 2001-2002. Almost 981 million pounds of the decrease was reported by metal mining sector. Without reporting by the metal mining sector, the decrease is 0.3%.



# Current Activities

## *TRI-ME* and Electronic Reporting

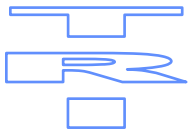
- For reporting year 2002 (forms due 1 July, 2003), as a result of the development and implementation of electronic signature (e-signature), facilities were able to submit forms electronically over the Internet using EPA's Central Data Exchange (CDX) **without** mailing any paper to EPA
- Many facilities took advantage of the paperless, electronic signature certification feature of *TRI-ME* allowing them to certify and submit forms via the Internet through CDX
- To date, the number of TRI chemical reports filed electronically rose from **5,450** in FY 2002 to **22,303** in FY 2003, an increase of 309%.



# Current Activities – cont.

## Modernization of the data collection and processing

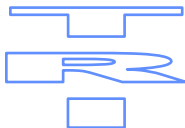
- Web-based *TRI-ME* (goal is 100% electronic reporting)
- e-FDPs and DQAs
- development of the TRI-State Data Exchange Network process to establish an out bound flow of TRI data to states via CDX to state nodes. This will eliminate the dual reporting to EPA and the states by reporting facilities.



# Current Activities - cont.

## Public Data Release Products

- electronic-Facility Data Release (e-FDR):
  - Early release of facility reporting data with no trend analysis
  - Late Nov. 2004, the 2003 data will be available through EPA's *Envirofacts* database ([www.epa.gov/enviro](http://www.epa.gov/enviro))
- Public Data Release (PDR):
  - Earlier release
  - Colorful brochure
  - e-reports
  - *TRI Explorer* ([www.epa.gov/triexplorer](http://www.epa.gov/triexplorer))



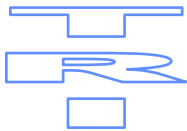
# Current Activities - cont.

## Burden Reduction rules

- Basic changes to the Form R
- Programmatic changes

## TEQ rule

- EPA is pursuing a rulemaking to broaden the information collected on dioxin and dioxin-like compounds
- In addition to grams, EPA would also collect information on “toxicity equivalence” or TEQ for each release data element (e.g., fugitive emissions)
- EPA is aiming to have this rule proposed this calendar year



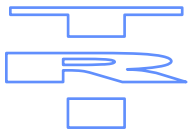


# Current Activities - cont.

## Reporting using North American Industry Classification

### System (NAICS) Codes

- Standard Industrial Classification (SIC) codes are used in TRI reporting by facilities to determine whether they are required to report. The facilities required to report are identified by SIC codes in the statute and by subsequent regulation.
- In March 2003, EPA's TRI Program proposed replacing SIC codes with NAICS codes as an applicability criteria for TRI without producing any changes in the universe of facilities now subject to TRI reporting.
- EPA is working on finalizing the rule in 2005.



# Current Activities - cont.

## Manufacturing Rule

- The TRI Program is working on a rulemaking with regard to mining in light of several court decisions on lawsuits.
- This rule will clarify how the activities of extraction and beneficiation should be characterized for the purposes of the TRI threshold determination.

