



TRI Data Quality Activities

-- An Overview

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Oct 20, 2016

U.S. Environmental Protection Agency
For Conference/Training Purposes Only

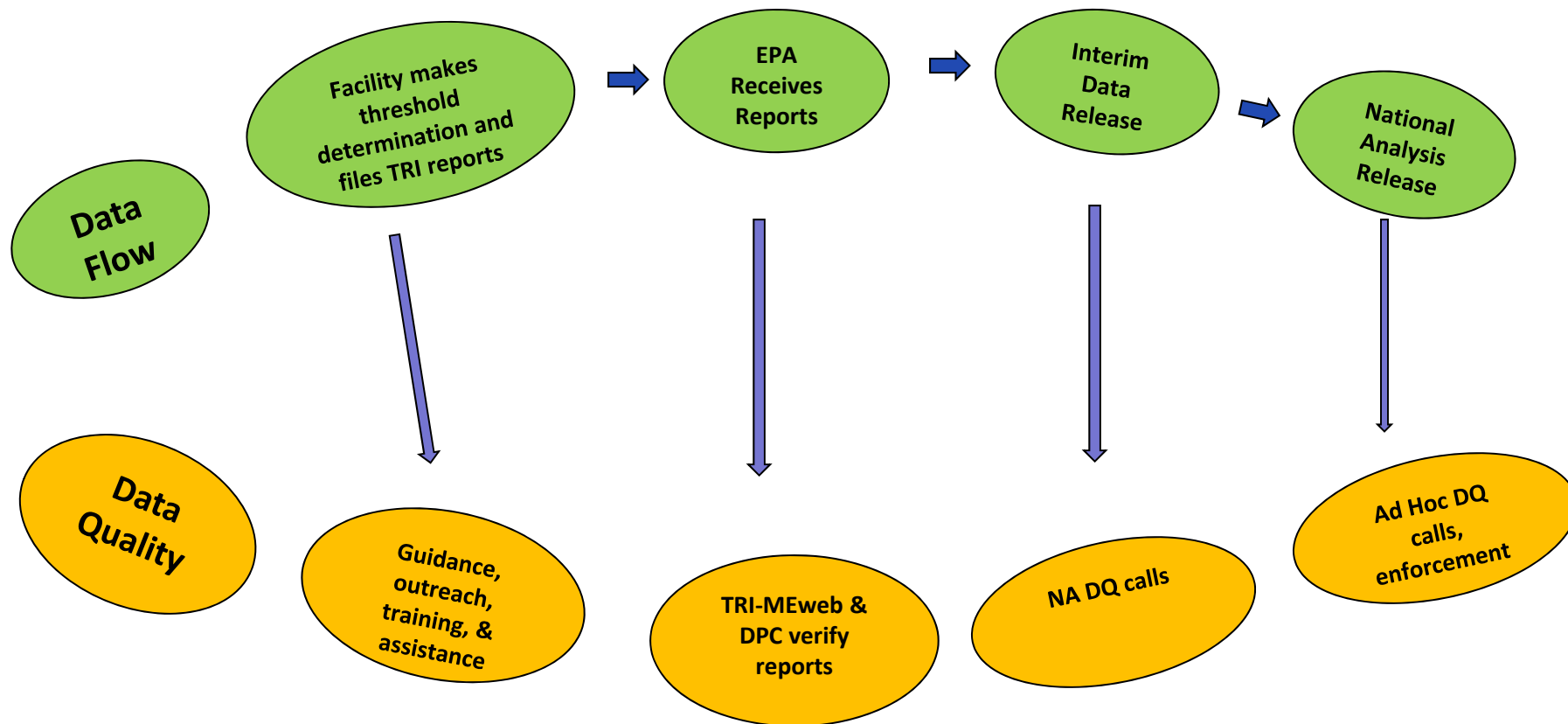


How Does EPA Help to Ensure the Quality of TRI Data?

- TRI Program is committed to assisting facilities to submit high quality TRI data:
 - Guidance
 - TRI-ME web
 - Training / TRI Information Center / Outreach
 - Data Quality Calls



TRI Reporting Data Flow and Data Quality Activities



CDX - Central Data Exchange DQ - Data Quality DPC - Data Processing Center NA - National Analysis
TRI - Toxics Release Inventory TRI-MEweb – Toxics Release Inventory Made Easy Web



Why Data Quality Calls?

- Conduct Data Quality Calls bi-annually – Summer & Winter
 - National Analysis Data Quality Calls in Summer: focused on National Analysis
 - Ad Hoc Data Quality Calls in Winter: focused on specific issues
- Benefits of Data Quality Calls
 - Assures higher-quality National Analysis dataset
 - Delve directly into specific data quality issues
 - Identify enhancements for TRI-MEweb
 - Compare TRI data to other EPA datasets



Analyses for Data Quality Calls

- Engineering Analysis
 - Industry-Specific
 - Chemical-Specific
- Increases / Decreases Analysis
- Other Data Quality Issues
 - Persistent Bioaccumulative Toxic (PBT) Chemicals
 - Hazardous Air Pollutants
 - TRI-MEweb Certification Issues
- Comparison of TRI Data with Other EPA Data
 - National Emissions Inventory / Emissions Inventory System
 - National Pollutant Discharge Elimination System – Discharge Monitoring Reports
 - Toxic Substances Control Act – Chemical Data Reports
 - Resource Conservation and Recovery Act



NEI Data

- Office of Air and Radiation (OAR) releases National Emissions Inventory (NEI) data once every 3 years
 - Hazardous air pollutants (HAPs) from industrial facilities
 - Use data from states, TRI and facilities' test data
 - Most of the HAPs are also listed on TRI chemical list
- **Hypothesis:** Certain facilities that report to NEI are also expected to report to TRI
 - Many TRI sectors are also covered in NEI
 - TRI listed HAPs



Comparison of NEI-TRI Air Releases

- Downloaded NEI data from Emissions Inventory System (EIA) Portal
- Adjusted NEI and TRI CAS numbers
- Combined EIS-TRI crosswalk table with updated information
- Identified facilities with significant variations of air release values between TRI and NEI



CDR Data

- Office of Chemical Safety and Pollution Prevention (OCSP) collects chemical data reports (CDR) from manufacturing facilities
 - Manufacturing volumes, number of employees and other information
 - 5015 individually listed chemicals on TSCA Inventory
 - 770 chemicals reported to CDR for RY11
 - Overlaps with 271 TRI chemicals and chemical categories
- **Hypothesis:** Certain facilities that report to CDR are expected to report to TRI
 - Chemical manufacturing industry sectors
 - TRI listed chemicals
 - Exceeds employee threshold



DMR Data

- Office of Waste Management (OWM) issues NPDES permits
- Facilities submit Discharge Monitoring Reports (DMRs) to states and EPA works with states to populate that data in ICIS-NPDES
 - Reporting frequency varies as specified in permits
- DMR tool pulls information from NPDES database
- **Hypothesis:** Certain facilities with NPDES permits are expected to report to TRI
 - Covered industry sector
 - TRI listed chemicals
 - Exceeds activity threshold amounts



TRI-Tier 2 Comparison-1

Background on Tier 2 and TRI

- States maintain Tier 2 Reports
- Several TRI Chemicals are reported under Tier 2 Reporting
- What is Included in this Analysis?
 - Approximately **25 states**

R1: CT, MA, NH,
VT, ME, & RI

R5: MI, MN, & WI

R8: ND, MT, & UT

R2: NJ, & NY

R6: AR, & TX

R9: AZ, & NV

R3: VA

R7: IA, & NE

R10: ID & WA

R4: AL, FL, GA,
MS, NC, SC, & TN



TRI-Tier2 Comparison-2

- Most States do not give access to their Tier 2 Reports
- **Hypothesis:** Certain facilities that report Tier 2 Reports are expected to report directly to TRI (under section 313 of EPCRA)
 - Manufacturing industry sectors
 - TRI listed chemicals
 - Exceeds employee threshold



TRI-Tier 2 Comparison-3

Analytical Approach

- Downloaded Tier 2 data from E-Plan, individual states and regional Tier 2 coordinators
- Confirmed chemical identity between Tier 2 and TRI chemicals using Chemical Abstracts Service (CAS) numbers
- Obtained NAICS and number of Employees for Tier 2 facilities
- Matched Tier 2 facilities with FRS and TRI database
- Identified possible TRI non-reporters and never-reporters
- Double-checked facilities' operational status



Results and Follow Up

Results

- Under-Reporters / Over-Reporters
- Non-Reporters
 - Chemical
 - Facility
- Never-Reporters

Follow Up

- Data Quality Calls
- Enforcement



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