

# Introduction to Toxic Release Inventory Reporting

A&WMA – Iowa Chapter

May 2014

# Agenda

- Introduction to TRI Reporting
  - Applicability Determinations
  - Activity Threshold Determinations
    - Manufacture, Process, Otherwise Use
  - Exemptions
    - De minimus, Article, etc.
  - Release Threshold Determinations
    - Form R or Form A
  - Reporting
  - Q&A



# Introduction to TRI

- TRI – Toxic Release Inventory (also known as Form R)
- Required by Section 313 of EPCRA
  - Over 600 chemicals and categories covered
- Who has to report?
  - Those in a covered sector as defined by NAICS codes, and
  - Facility has 10 or more employees, and
  - Exceed manufacture/process/otherwise use thresholds
- Reports due to state/tribal agency and USEPA by July 1st



# Applicability Determination Process

- Identify the 313 chemicals that you manufacture, process, and otherwise use at your facility;
- Quantify the 313 chemicals that you manufactured, processed, or otherwise used for the reporting year (no reporting may be required);
- Identify releases, off-site transfers, waste management practices, and pollution prevention activities;
- Perform release calculations to determine if a Form R or Form A is required; and
- Enter the pertinent information into TRI-me Web for submittal



# Covered Industries

- Use 2012 NAICS codes to determine applicability ([Is My Facility's Six-Digit NAICS Code a TRI-Covered Industry?](#))
- Covered Industries:
  - 212 Mining
  - 221 Utilities
  - 31-33 Manufacturing
  - Other Misc. Mfc. Codes (1119, 1131, 2111, 4883, 5417, 8114)
  - 424 Merchant Wholesalers, Non-durable Goods
  - 425 Wholesale Electronic Markets and Agents Brokers
  - 511, 512, 519 Publishing
  - 562 Hazardous Waste
  - Federal Facilities
- Use the link above to determine if your facility is covered, there are some exemptions



# Definition of a 'Facility'

- There are 3 criteria
  - Primary NAICS Code
  - Employee threshold
    - 10 or more employees including operations, admin, contractors, sales, company drivers, off-site corporate support
    - Does not include contract drivers, contractors performing intermittent functions (Sections 327.3 and 372.22(a))
  - Chemical (activity) threshold
- Per EPCRA Section 329(4):

“Facility - 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).”



# Activity Thresholds

- Once you have determined that you meet the first two criteria
  - Covered industry
  - At least 10 employees
- Must determine if you have exceeded the activity thresholds
  - Must treat each 'activity' separately
    - Manufacture (or import)
    - Process
    - Otherwise Use
- Thresholds differ based on chemical (see EPA List of Lists)
  - Non-PBT Chemicals
  - PBT Chemicals



# Manufacturing

- What is 'manufacturing'?
  - Intentionally producing chemicals for:
    - Sale
    - Distribution
    - On-site use or processing
  - Coincidentally producing chemicals as impurities or by-products
    - Includes combustion by-products and chemicals generated during waste treatment activities
  - Importing:

'To cause a chemical to be imported into the customs territory of the United States. For purposes of this definition, to cause means to intend that the chemical be imported and to control the identity of the imported chemical and the amount to be imported.'

(EPCRA Section 313(b)(1)(C)(i) & 40 CFR 372.3)





# Processing

- What is 'processing'?
  - Preparation of a toxic chemical, after its manufacture, for distribution in commerce:
    - Used as a reactant to form another product
    - Added as a formulation component
    - Incorporated as an article component
    - Repackaged for distribution (container to tanker, via pipeline to/from tank)
    - Sent off-site for recycling
    - Included as an impurity

(EPCRA Section 313(b)(1)(C)(ii) & 40 CFR 372.3)



# Otherwise Use

- What is 'otherwise use'?

- Covers pretty much everything not covered by manufacturing and processing

- Processing aid (solvents)
    - Manufacturing aid (lubricants, refrigerants)
    - Ancillary activities (waste treatment chemicals)
    - Definition:

“...any use of a toxic chemical, including a toxic chemical contained in a mixture or other trade name product or waste, that is not covered by the terms “manufacture” or “process.” Otherwise use of a toxic chemical does not include disposal, stabilization (without subsequent distribution in commerce), or treatment for destruction unless:

- (1) The toxic chemical that was disposed, stabilized, or treated for destruction was received from off-site for the purposes of further waste management; or
- (2) The toxic chemical that was disposed, stabilized, or treated for destruction was manufactured as a result of waste management activities on materials received from off-site for the purposes of further waste management activities. Relabeling or redistributing of the toxic chemical where no repackaging of the toxic chemical occurs does not constitute otherwise use or processing of the toxic chemical.”

(40 CFR 372.3)



# Activities Not Covered

- Activities that are, alone, not considered in threshold determinations
  - Storage
  - Remediation of on-site contamination (unless a listed chemical is manufactured during the process)
  - Direct reuse on-site
  - On-site recycling (not including off-site wastes)
  - Transfers sent off-site for waste management (not recycling)
  - Repackaging and blending of fuels for burning for energy recovery (counts as 'otherwise used' if combusted for energy recovery)

Note: Wastes and releases from these activities are subject to threshold determination if exceeded through other activities



# Activity Thresholds – Non-PBT

- **Manufacture (or Import)**  
More than 25,000 lbs of the chemical during the reporting year
- **Process**  
More than 25,000 lbs of the chemical during the reporting year
- **Otherwise Use**  
More than 10,000 lbs of the chemical during the reporting year



# Activity Thresholds – PBT

- PBT = Persistent, Bioaccumulative, Toxic
- Have lower activity thresholds, different reporting requirements, and may have other rules that apply (40 CFR 372.28)
- There are 20 chemicals and chemical compounds classified as ‘PBT’



# Activity Thresholds – PBT

- 100 lbs/yr
  - Aldrin
  - Lead\*
  - Lead Compounds
  - Methoxychlor
  - Pendimethalin
  - Tetrabromobisphenol A
  - Polycyclic Aromatic Compounds
  - Trifluralin
- 10 lbs/yr
  - Chlordane
  - Heptachlor
  - Mercury
  - Toxaphene
  - Isodrin
  - PCBs
  - Benzo(g,h,i)perylene
  - Hexachlorobenzene
  - Mercury Compounds
  - Octachlorostyrene
  - Pentachlorobenzene
- 1 lbs/yr
  - Dioxin and Dioxin-like compounds

*\*Excludes lead in stainless steel, brass, and bronze alloys*



# Activity Thresholds

- Qualifiers and Chemical Categories
  - There are some specific criteria and exemptions that apply to particular chemicals and how you quantify them in your activity threshold determinations
  - For example:
    - Aluminum – You need only count the fume or dust form
    - Hydrochloric Acid – You need only count the acid aerosols
    - Metals and metal compounds are separately listed chemicals under 313

(Qualifiers - 40 CFR 275.25(g))



# Exemptions

- De minimis
  - Toxic chemical present in a concentration <1% (<0.1% if an OSHA carcinogen), not applicable to PBT chemicals
- Article – 3 criteria (must meet all three, many caveats here)
  - Is formed into a specific shape of design during manufacture;
  - Has end-use functions dependent in whole or in part on its shape of design during end-use; and
  - Does not release a 313 chemical under normal processing of use
- Lab activities
  - Chemicals used in sampling and analysis, R&D, and QAQC
- NAICS (see specific codes)
  - Coal Mining extraction activities
  - Metal mining overburden
- Otherwise Use
  - Vehicle maintenance
  - Janitorial and grounds maintenance
  - Structural components
  - Personal Use
  - Intake water and air

(40 CFR 372.38)





# Threshold Determination

- Records to Identify Chemicals
  - SDS (use upper bound of range for threshold determinations)
  - Product Specs
  - Vendor/Supplier data
  - Waste Profiles
  - Process Knowledge (!)
  - Reference Materials (AP-42)
- Records to Calculate Thresholds
  - Inventory/Purchase Records
  - Production data
  - Supplier Records
  - Various Environmental Reports (EI, Release Reports, Tier II, CRR, NORWA)
  - Permits (Air, Water)
  - Analytical (Product specs, waste profiles)



# Threshold Determination

- Maintain an activity threshold determination and release quantity calculation tool (spreadsheet or database)
  - When changes are made to the rules or at your facility, be sure to capture that change in your reporting tool
  - Review any and all assumptions annually. Don't assume that because something was accurate last year that it is still accurate. The fewer assumptions you make, the better.
  - Involve others in the reporting process (engineers, operators, lab personnel). Knowledge of your processes is one of the most helpful aspects in release reporting.
  - Maintain a robust Change Management program. While this may not be required for your facility, it is much easier to keep track of changes and projects that could affect your reporting obligations.



# Threshold Determination – Things to think about...

- When calculating your thresholds, keep your various other environmental permits and reports in mind
  - If you have a Continuous Release Report, do your calculations indicate that you exceeded an upper bound or your Statistically Significant Increase (SSI)?
    - If so and you believe your calcs are correct, you may have a 15 minute verbal reporting requirement
  - Do your calculations indicate that you are an LQG?
    - Have you submitted an Notice of Regulated Waste Activity (NORWA) form that updates your status?
    - Can you show compliance with your new status?
  - If you are a minor air source (non-Title V), do your calcs indicate that you are actually major for HAPs?
    - Have you exceeded an annual limit from one of your permits?



# Reporting

- Facilities are required to submit using the TRI-me Web application via CDX (effective January 21, 2014 for RY2013)
  - If you report under the GHG MRR, your user ID and password are the same for CDX
- Your facility must be assigned a TRIFID (TRI Facility ID). You can register your facility within the web application if this is your first year reporting under Form R.
- Facility must be assigned a Certifying Official. All certifying officials must submit to EPA a Electronic Signature Agreement (ESA) prior to certifying...Don't wait to start this process!
- TRI records (calculations and final forms) must be kept for at least 3 years



# Changes of Note

- November 7, 2013: o-nitrotoluene was added to the TRI list. Reporting requirements begin for the 2014 reporting year (reports due July 1, 2015)
- October 17, 2011: Stay on reporting requirements for hydrogen sulfide (H<sub>2</sub>S) lifted. Reversed a 1994 administrative stay. Reporting requirements once again effective for reporting year 2012 (reports due July 1, 2013)
- In 2010, a new rule was published adding 16 chemicals to the TRI list for RY2011.



# Questions

If you were unable to attend the Region 7 TRI workshop in Kansas City and you would like a copy of the slides, please let me know.

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