

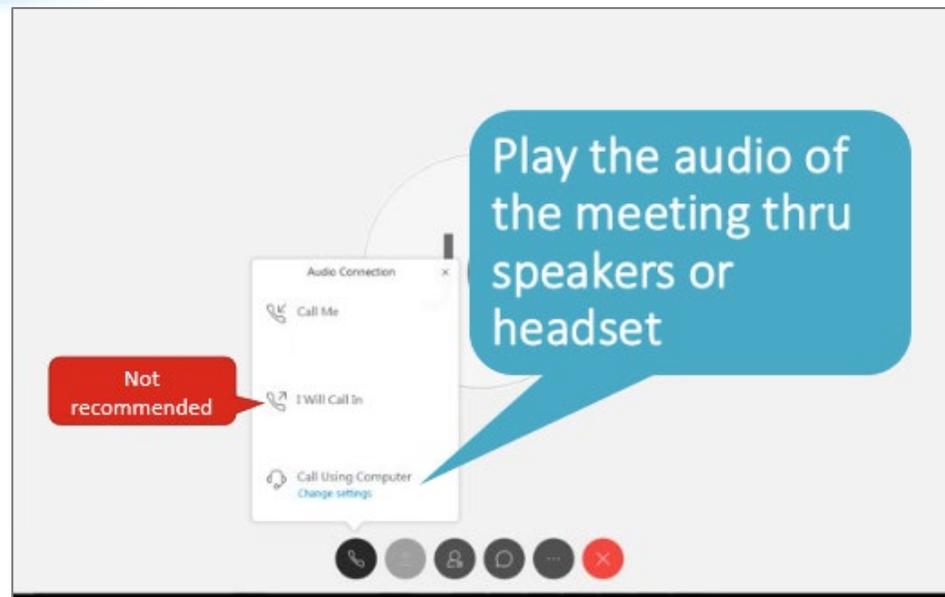
Webinar: Toxics Release Inventory Reporting and New Requirements for PFAS

U.S. ENVIRONMENTAL PROTECTION AGENCY

APRIL 16, 2020

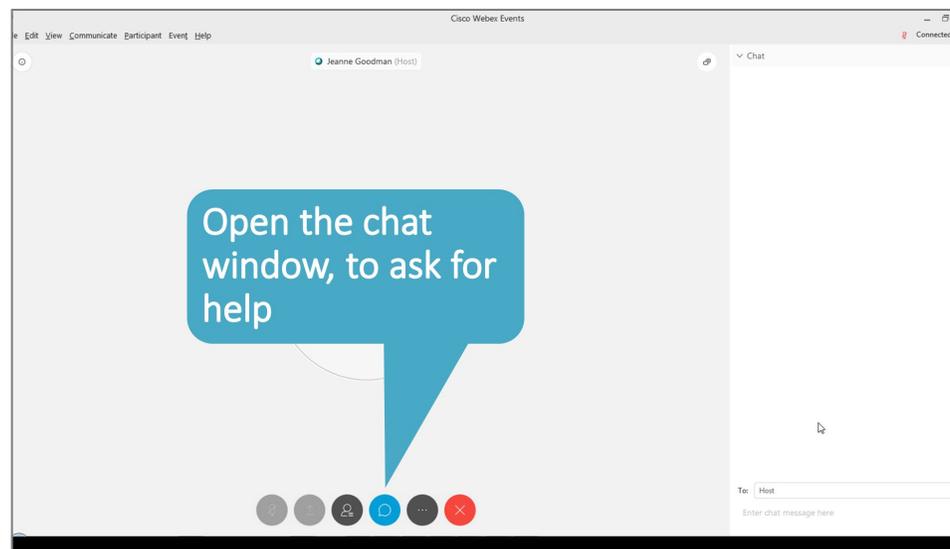


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Question for the presenter? Technical difficulties?

Use the chat feature to "all panelists." We will answer as many questions as possible.





Overview

- The Toxics Release Inventory (TRI)
- TRI data sources for facilities
- Section 7321 of the FY2020 National Defense Authorization Act (NDAA)
- Advance Notice of Public Rulemaking (ANPRM): Adding Certain PFAS to the TRI Chemical List
- Supplier notification requirements
- Additional guidance on reporting



What is TRI?

- Reporting program tracking the releases and waste management of certain toxic chemicals that may pose a threat to human health and the environment
- TRI can tell you about:



Releases



Waste transfers



On-site waste management



Pollution prevention

- TRI collects data annually from more than **21,000 facilities** across the country and covers **767 individually-listed chemicals and 33 chemical categories** (as of January 2020)



TRI's Statutory Authority

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

- Facilities in certain industrial sectors must report toxic chemical releases to air, water, and land and other waste management to EPA and the states each year.
- EPA must maintain the data and make it available to the public.

Pollution Prevention Act of 1990 (PPA)

- TRI facilities must report progress in reducing waste generation and moving towards safer waste management alternatives.

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**.

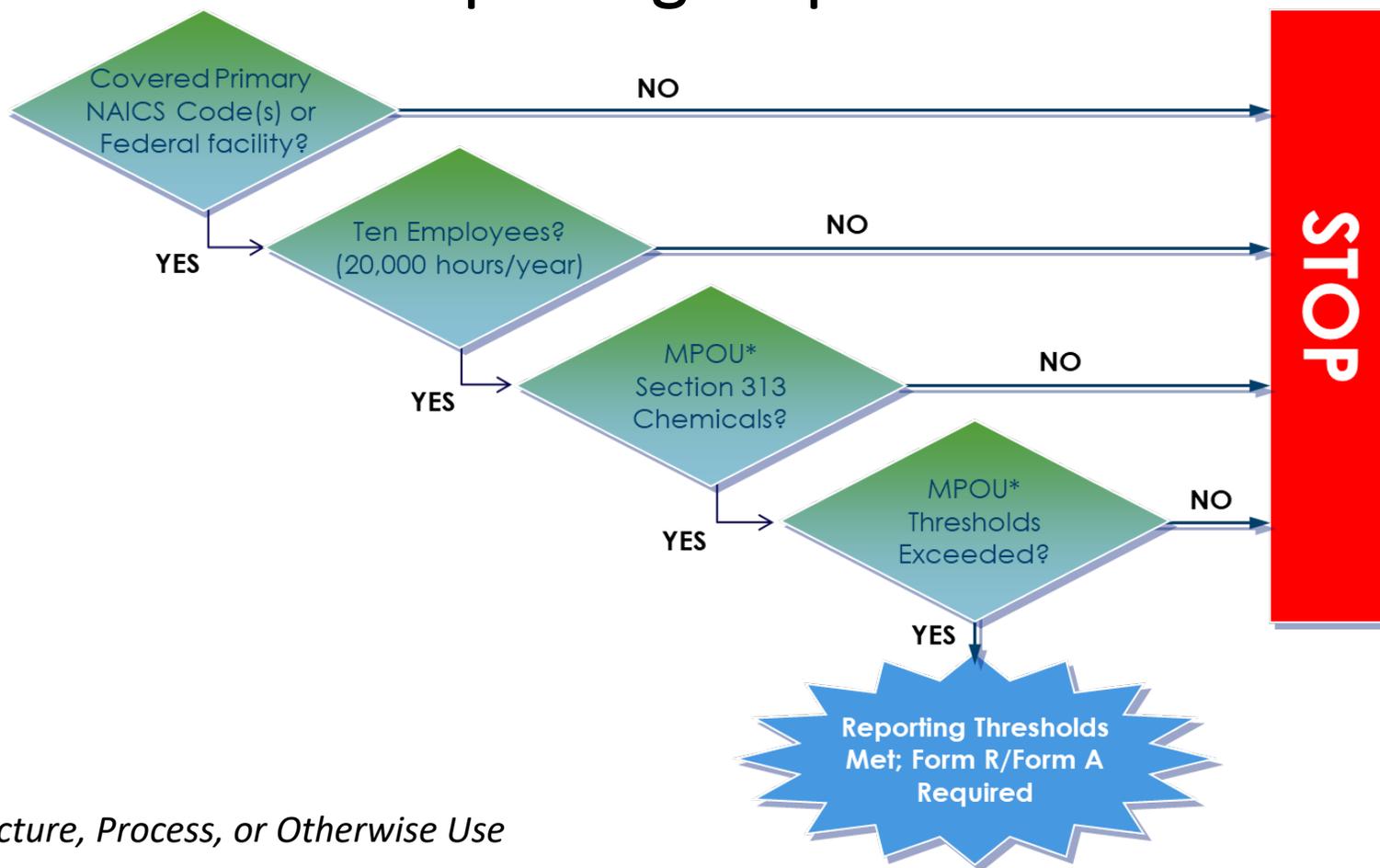
3. Facility must manufacture, process or otherwise use more than a **certain amount of a TRI-listed chemical per year**.



Covered 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) - preparation of a Section 313 chemical, after its manufacture, for distribution in commerce (e.g., 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

TRI Reporting Requirements



*MPOU: Manufacture, Process, or Otherwise Use

What Information Do Facilities Report to TRI?

- Facility & parent company identification
- Maximum amount on-site
- On-site releases of TRI chemicals to:
 - Air
 - Water
 - Land (including land disposal)
- Transfer of chemical waste to off-site locations
- Other waste management:
 - Recycling
 - Treatment
 - Energy Recovery
- Pollution prevention activities





What is a TRI “Release”?

- On-site Release to **Air**
 - Fugitive/non-point source emissions (e.g. leaks and evaporation)
 - 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; includes releases to surface water due to runoff, including stormwater runoff
- On-site Release to **Land**
 - Eight categories of land releases or disposal reported to TRI. Some examples include:
 - Placement of waste rock containing TRI chemicals into engineered structures at metal mines
 - Disposal of chemical waste in landfills
 - Injection of liquid containing TRI chemicals into underground injection wells
 - Placement of waste materials into surface impoundments to volatilize or settle
 - Application of certain waste products to farmlands as fertilizer

TRI Data Sources for Facilities



Best Readily Available Information

- Use readily available data (including monitoring data) collected pursuant to other provisions of law
- Where such data are not readily available, use reasonable estimates
- If available data known to be non-representative, facilities must make reasonable estimates using the best readily available information
- Base reasonable estimates using published emission factors, material balance calculations, or engineering calculations
- Do not use emission factors or calculations if more accurate data available
- TRI does not require additional monitoring or measurement beyond what other laws/regulations require or are part of routine plant operations
- What is readily available can change over time (e.g., new information)
- **Recommendation:** Carefully document decision making used (e.g., assumptions & calculations)



Best Readily Available Information: TRI Guidance Examples

- If SDS lacks info then no TRI requirement to contact supplier, but if you do contact supplier and receive detailed info then that becomes readily available info ([Q&A 849](#))
- Reasonable estimates can be preferable if available data is non-representative ([Q&A 570](#))
- If data unavailable, maximum emission level specified in permit could be basis for reasonable estimate ([Q&A 572](#))
- If no data indicates chemical exists in waste stream then may assume concentration is zero, but if reason to believe chemical is present then may use half of the detection limit ([Q&A 573](#))



TRI Information Sources for Facilities: Threshold Determinations

Identify Chemicals and Concentrations:

- SDS
- Product or Specifications
- Available Supplier/Vendor Product QA/QC data
- Industry Standards (API, ASTM, etc.)
- Waste Profiles
- Process Knowledge
- Other References (AP-42, WebFIRE, Merck Index)
- **Supplier Notification**



Collect Data to Calculate Thresholds:

- Inventory or Purchase Records
- Throughput / Production Data
- Integrated Supplier Records
- EPCRA or Other Env. Reports
- Air Permits or Similar Standards / Emission Inventories
- Water Permits / DMRs / Discharge Reports
- Annual / Biennial Waste Reports
- User Records
- Other Vendor Records (can call vendor)



TRI Information Sources for Facilities: Release and Waste Management Calculations

- Previous year Form R report(s) and documentation
- Process flow diagrams
- Environmental monitoring data
- Permit applications
- EPCRA, CERCLA, RCRA, NPDES, CAA and other env. reports
- Waste management manifests, invoices, and waste profiles
- Engineering calculations and other notes
- EPA guidance (AP-42, WebFIRE, TANKS, WATER9)



Determining Concentrations in Mixtures or Other Trade Name Products

Determine whether thresholds were exceeded for listed chemicals in a mixture (40 CFR 372.30(b)(3)):

- **Exact concentration** - use concentration provided
 - SDS = 25% *Use 25%*
- **Upper bound** - use upper limit
 - SDS < 25% *Use 25%*
- **Range** - use the midpoint of the range
 - SDS: 30% – 50% *Use 40%*
- **Lower bound** - subtract out other known constituents, create a range, and use the midpoint of range
 - SDS: >75% toxic chemical *Use 87.5% (top of range = 100%)*
 - SDS: >75% toxic chemical, *Use 80% (range = 75% - 85%)*
and 15% water



Determining Concentrations in Wastes

- If concentration is exact, upper bound, range, or lower bound, use the guidance for mixtures and other trade name products discussed earlier
- If concentration is below detection limit, use engineering judgment:
 - If the Section 313 chemical IS expected to be present, assume half of full detection limit
 - If the Section 313 chemical is NOT expected to be present, assume 0



Chemical Information Management

- All non-exempt manufacture/processes/otherwise use of TRI chemicals at the facility must be counted towards chemical activity thresholds.
- Tracking toxic chemicals entering facility
 - Purchasing/Inventory
 - Contractors
 - Capital purchases (e.g., chillers, process equipment)
 - Direct purchases (credit card or other emergency purchases)
 - Direct and indirect materials
 - Manufacturing byproducts/intermediates generated

Helpful tips!

- Start early
- Collaborate with all relevant functional groups
- Keep good records
- Document your work

PFAS & TRI



What are PFAS?

- Per- and polyfluoroalkyl substances (PFAS) are a group of synthetic chemicals that includes PFOA, PFOS, GenX, and many other chemicals. PFAS have been manufactured and used in a variety of industries around the globe, including in the United States since the 1940s.
- PFAS can be found in food packaging, firefighting foams, stain/grease repellent products, and a wide range of industrial processes.
- Certain PFAS can accumulate and stay in the human body for long periods of time. There is evidence that exposure to PFAS can lead to adverse health outcomes in humans.
- EPA published its PFAS Action Plan in February 2019 to outline the agency's multi-media approach to addressing PFAS.



National Defense Authorization Act

- National Defense Authorization Act of Fiscal Year 2020 (NDAA) was enacted on December 20, 2019
- Section 7321 of the NDAA pertains to TRI reporting
- Information on Section 7321 is available here:
<https://www.epa.gov/toxics-release-inventory-tri-program/addition-certain-pfas-tri-national-defense-authorization-act>



Section 7321 of the NDAA

Section 7321 of the NDAA addresses TRI reporting of PFAS

- 7321(b) adds 172 PFAS to the TRI (PFAS list updated February 9, 2020)
 - Reporting requirements became effective on January 1, 2020
 - A 100-pound reporting threshold was established
- 7321(c) indicates that certain EPA activities involving PFAS will trigger automatic additions to the TRI list in the future
 - For example, EPA finalizing a “toxicity value” for a PFAS will add it to the TRI list
 - Effective date will be January 1 of the year following the activity w/ 100-pound reporting threshold
- 7321(d) requires EPA to assess remaining PFAS for listing suitability pursuant to EPCRA 313(d)(2) listing criteria
- 7321(e) provides a process that EPA must follow before any PFAS covered by the NDAA that is subject to a claim of protection from disclosure is added to the TRI list



TRI ANPRM: Adding Certain PFAS to TRI

- EPA published an Advance Notice of Public Rulemaking in December 2019
 - Comment period closed on February 3, 2020
 - Provides summary information on TRI and PFAS and seeks comment related to a possible rulemaking to add certain PFAS to the TRI list of chemicals
- The TRI PFAS ANPRM works in concert with the NDAA
 - There are additional PFAS that were not added to TRI by the NDAA
 - Info concerning appropriate reporting thresholds remains useful
 - Info on other topics would also be useful



Reporting PFAS to TRI

- Many questions & topics relevant to TRI reporting on PFAS may be addressed on GuideME: [epa.gov/tri/guideme](https://www.epa.gov/tri/guideme)
- Communication with the TRI Program is welcome!
 - Questions that aren't answered through existing guidance
 - Information for EPA regarding quantity estimation for thresholds or reporting calculations

Supplier Notification



Supplier Notification

- 40 CFR 372.45 requires suppliers of mixtures or trade name products to covered facilities to provide written notification which:
 - Identifies TRI chemical(s) by name and CAS number
 - Declares chemical(s) as being subject to Section 313 requirements
 - Provides concentration (or range) of TRI chemicals in mixtures and other trade name products (not wastes)
 - Is sent with the first shipment of the year or attached to the SDS
 - Is updated whenever changes occur
- **The Regulatory Information section of the SDS should identify any chemicals that are subject to TRI reporting**
- Suppliers of mixtures containing PBT chemicals below *de minimis* concentrations do not need to supply notification



Who Provides Supplier Notifications?

If your facility:

- Is in a North American Industry Classification System (NAICS) code that corresponds to Standard Industrial Classification (SIC) codes 20-39;
- Manufactures/imports or processes a TRI chemical; and
- Sells or otherwise distributes a mixture or trade name product containing the toxic chemical to:
 - A facility in a covered NAICS code; or
 - A facility that then may sell the same mixture or trade name product to a facility in a covered NAICS code.

....You must provide supplier notification.

Note that some facilities may be subject to supplier notification requirements even if they are not required to report to TRI.



Additional Guidance on Reporting

- **TRI GuideME** (TRI guidance website): www.epa.gov/tri/guideme
 - **Reporting Forms and Instructions** (Primary TRI guidance document)
 - **Training Slides** (“Overview of Reporting Concepts” PDF/PPTX)
- **TRI Call Centers / Helpdesks**
 - TRI Information Center (Regulatory Support): **(800) 424-9346 - select option #3**
 - Central Data Exchange (CDX) Helpdesk (Electronic Reporting Support): **(888) 890-1995**
- **TRI Program Contacts** (Useful resources to support TRI reporting, including contacts at TRI HQ, EPA regions, and states and tribes)
 - Tri.help@epa.gov
- **40 CFR 372** (Location for most TRI regulations)



For more information on TRI, go to
<https://www.epa.gov/tri>

For more information on
TRI Reporting Requirements, go to
<https://epa.gov/tri/rfi>

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

Appendix



Reporting Guidance – Exemptions

- Certain reporting exemptions are available
- Resources on TRI exemptions include:
 - GuideME:
 - Activity Exemptions section of the Reporting Forms and Instructions
 - Summary page of TRI-reporting exemptions
 - 40 CFR 372.38
- Examples of Exemptions:
 - Janitorial or Facility Grounds Maintenance
 - Personal Use
 - De Minimis



De Minimis Exemption

- The quantity of a non-PBT Section 313 chemical in a mixture or other trade name product is eligible for the *de minimis* exemption (40 CFR 372.38(a)) if the chemical is:
 - A carcinogen present at a concentration of less than 0.1%
- OR
 - Any other non-PBT TRI chemical present at a concentration of less than 1%
- The TRI *de minimis* level appears next to each chemical on the chemical list in Table II of the *TRI Reporting Forms and Instructions* (1.0, 0.1 or * for PBT chemicals where *de minimis* is not allowed (See 40 CFR 372.38(a)))



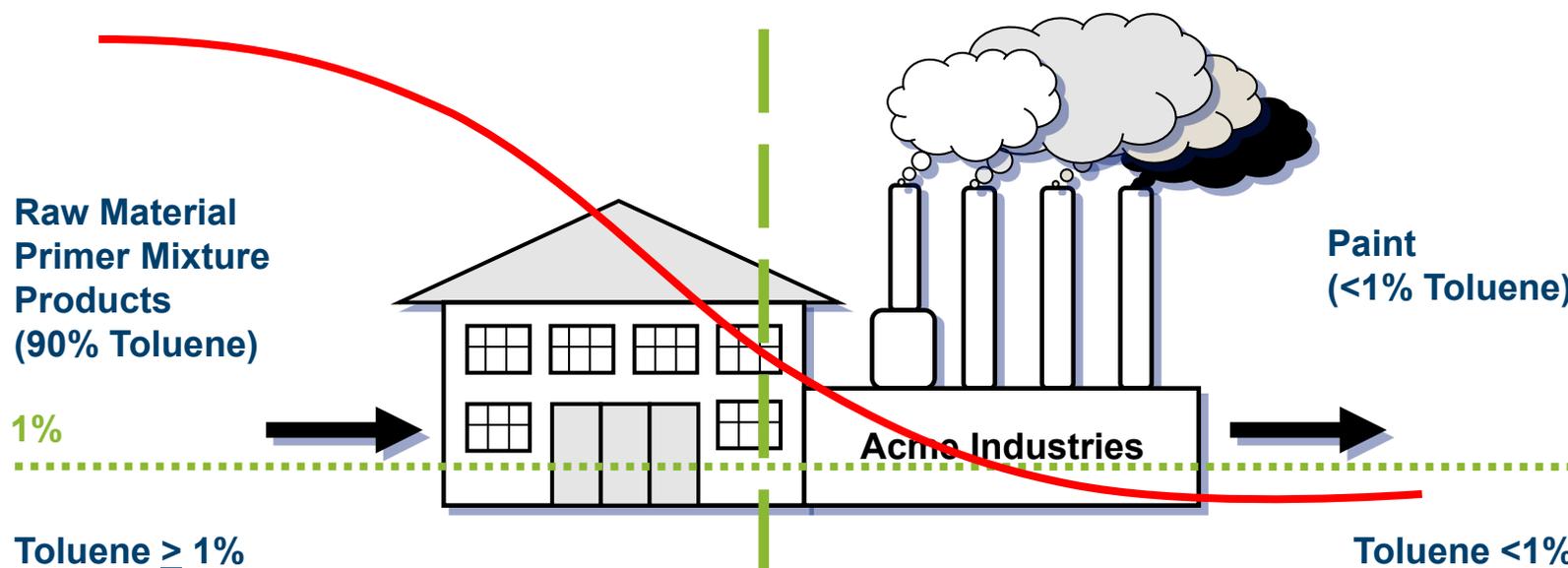
De Minimis Exemption

HOW IT WORKS...

- *De minimis* exemption generally applies to non-PBT chemicals:
 - In mixtures or trade name products received from off-site, including imported
 - Coincidentally manufactured as impurities that remain in products distributed in commerce
- *De minimis* exemption does not apply to:
 - Manufactured chemicals (in most cases): this includes byproducts produced from manufacturing, processing, otherwise use, or any waste management
 - Wastes received from off-site
 - PBT chemicals (except for supplier notification)

De Minimis Exemption: How It Works... (cont.)

Processing a non-PBT Section 313 chemical in a mixture to below the *de minimis* concentration does NOT exempt the chemical from threshold determinations and release calculations

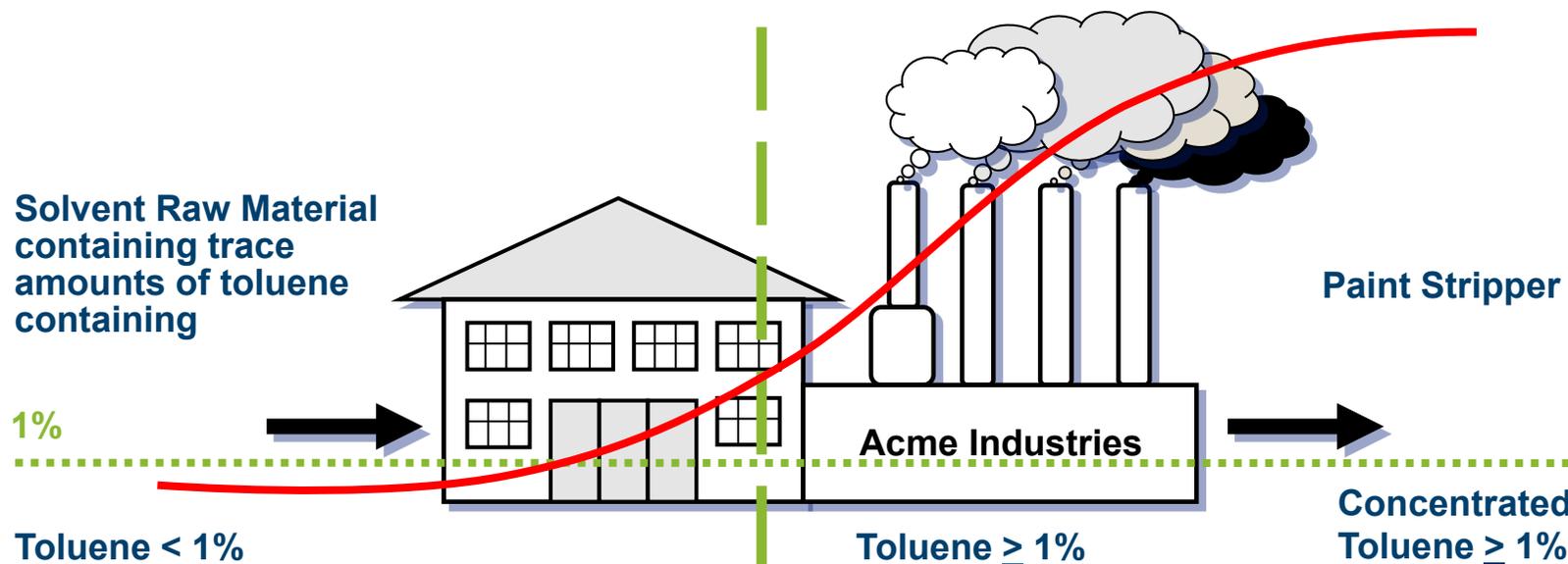


- *De minimis* exemption does NOT apply
- Threshold determination required
- Release calculations required

- *De minimis* exemption does NOT apply
- Threshold determination required
- Release calculations still required

De Minimis Exemption: How It Works... (cont.)

Processing a non-PBT Section 313 chemical in a mixture to above the *de minimis* concentration triggers threshold determinations and, if thresholds are met, release calculation requirements



- *De minimis* exemption DOES apply
- Threshold determination not required
- Release calculations not required

- *De minimis* exemption does NOT apply
- Threshold determination required
- Release calculations still required



Trade Secrets

Under EPCRA § 322(b): a specific chemical identity may be claimed as trade secret if it is documented that:

1. The identity has not been disclosed to others without confidentiality agreement;
2. That information isn't required to be disclosed or made public under other federal or state law;
3. Disclosure of the identity is likely to cause substantial harm to a competitive position, and;
4. The identity is not easily discoverable through reverse engineering.



Trade Secrets & TRI

- *If trade secret is claimed: the TRI facility must submit sanitized & unsanitized TRI reporting forms and claim substantiation forms.*
 - Only the chemical identity is withheld from public TRI data; the facility replaces with a structurally descriptive name (40 CFR 372.85(b))
 - All trade secret claims must be submitted through the mail; no electronic submissions
 - Reporting deadlines still apply
 - EPA reviews all claims and substantiation forms to determine whether claim meets statutory criteria
- **Claims do not change supplier notification requirements**
 - Supplier replaces the chemical name on notification with structurally descriptive name (40 CFR 372.45(e))