TRI Training Module Agendas

Basic Concepts Module

1. Introduction
2. Covered Sectors
3. Threshold (PBT and Non-PBT)
4. Reporting Exemptions
5. Threshold Determinations
6. Overview of Form R
7. Alternate Threshold Rule (Form A)

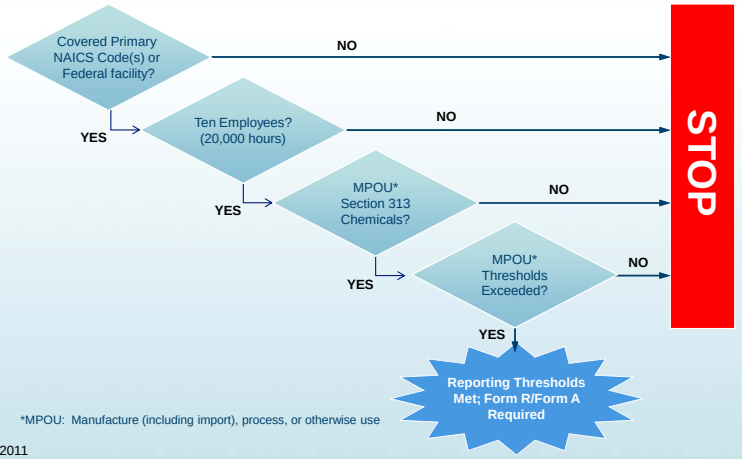
Advanced Concepts Module

1. Recent TRI Program Changes
2. Advanced Reporting Guidance
3. Detailed PBT Guidance
4. Tools and Assistance
5. *TRI-MEweb* Updates

TRI Program Changes for RY 2010

- Key program changes are listed in the front of the Reporting Forms & Instructions, as well as in *TRI-MEweb*, and on EPA's TRI website.
- RY2008 was the last year that *TRI-ME* desktop software was offered. Only *TRI-MEweb* is offered this year.

TRI Reporting Process



*MPOU: Manufacture (including import), process, or otherwise use

Threshold Guidance

- The following activities are not considered "manufacturing," "processing," or "otherwise use"
  - **Remediation**
    - *Chemicals being remediated are not manufactured, processed, or otherwise used*
    - *Chemicals used to remediate waste ARE counted as otherwise used*
    - *Chemicals manufactured when treating or remediating waste ARE counted toward manufacturing threshold*
  - **Treatment of wastes generated on-site**
    - *Wastes brought in from off-site for treatment or other management count towards the otherwise use threshold*
  - **Storage**
  - **Recycling on-site for use on-site**
  - **Transferring chemicals off-site for further waste management**
    - *Not including recycling. Chemicals sent off-site for recycling are counted as processed.*
- These activities do not constitute threshold activities, but are not exempt from reporting if threshold is exceeded through other activities unless specifically eligible for one of the reporting exemptions
- Chemicals coincidentally manufactured during waste treatment or remediation must be considered

Threshold Guidance - Combustion

- Section 313 chemicals may be coincidentally manufactured during combustion of:
  - **Oil**
  - **Coal**
  - **Natural gas**
  - **Waste**
  - **Other materials**

- Includes acid aerosols and metal compounds manufactured as by-products of fuel combustion
- Any Section 313 chemicals in fuel considered otherwise used

Threshold Guidance - Combustion

Reminder:

- Even where your activity is covered by an "otherwise use" exemption such as motor vehicle maintenance, if section 313 chemical are manufactured as by-products, coincidentally as impurities, or otherwise manufactured, they must be considered toward the manufacturing threshold.

Exemption Guidance

Reminder:

- Section 313 chemicals in fuels added to motor vehicles as part of the facility's service or product do not qualify for the motor vehicle maintenance exemption
  - **Considered toward processing threshold**
- Laboratory activities exemption only applies to certain activities that take place in a laboratory and they must be under the direct supervision of a technically qualified individual

Chemical List Changes

Pending Changes

- A rule was published on November 26, 2010, adding 16 new chemicals and chemical compounds to the TRI list of reportable chemicals.
  - **Reporting for these new chemicals will not be required on TRI reports until 2012, for Reporting Year 2011.**
- In February 2010, EPA announced its intent to consider lifting the 1994 administrative stay for reporting requirements for hydrogen sulfide. To date, no final decision has been reached.

Metals and Metal Compound Category

- Elemental metals (metals in their neutral state) and their corresponding metal compound categories are listed separately under Section 313
  - **Separate activity threshold determinations**
  - **Report for each listing (e.g., nickel or nickel compound) only if the threshold for each listing is exceeded**
  - **If threshold exceeded for both the elemental metal and metal category compound (e.g., nickel and nickel compounds), you may report separately or file one combined report**
    - *If combined, file as metal category compound*
    - *The reason both the elemental metal and its compound may be reported on the same compound form is that while the entire weight of the compound is used to determine the threshold, only the amounts of the parent metal are reported.*

Metal Cyanide Compounds Guidance

- A metal cyanide compound, such as cadmium cyanide, requires separate reporting under both cadmium and cyanide*
  - **For report the metal compounds, such as cadmium compounds:**
    - *for threshold determinations, use entire weight of compound*
    - *for release and other waste management reporting, report only the weight of metal portion of the compound*
  - **For cyanide compounds**
    - *for threshold determinations, use weight of entire compound*
    - *for release and other waste management reporting, report weight of entire compound*

* Qualifier for cyanide compounds states: X^+CN^-, where $X=H^+$ or any other group where a formal dissociation may occur. For example, KCN or $Ca(CN)_2$

Nitrate Compounds

- Water dissociable nitrate compounds category
  - **Reportable only when in aqueous solution**
  - **For threshold determinations, use weight of entire nitrate compound**
  - **Calculate only weight of nitrate ion portion when reporting releases and other waste management quantities on Form R**
  - **Nitrate compounds are produced most commonly when nitric acid is neutralized or in biological treatment of wastewater**
  - **Exemption may apply for nitrates in intake water (used for processing or non-contact cooling)**

Quiz #4 Question 1

1. A facility processes 200,000 lbs. of a mixture containing 10% zinc chromate ($ZnCrO_4$) and 15% chromium dioxide (CrO_2) by weight.

   For which of the following chemical categories was the processing threshold exceeded?

   A. Chromium compounds only
   B. Zinc compounds only
   C. Neither
   D. Both

Quiz #4 Question 2

1. A facility neutralizes 20,000 lb of nitric acid (HNO_3) with sodium hydroxide (NaOH) in an on-site wastewater treatment system. The neutralization is 100% complete and generates sodium nitrate ($NaNO_3$), which is discharged to a nearby water body.

   The molecular weight (MW) of HNO_3 = 63 and the MW of $NaNO_3$ = 85. 1 mole of HNO_3 generates 1 mole of $NaNO_3$.

   Does the facility exceed the manufacturing threshold for nitrate compounds?

   YES NO

Quiz #4 Question 3

2. A facility neutralizes 20,000 lb of nitric acid (HNO_3) with sodium hydroxide (NaOH) in an on-site wastewater treatment system. The neutralization is 100% complete and generates sodium nitrate ($NaNO_3$), which is discharged to a nearby water body.

   The molecular weight (MW) of HNO_3 = 63 and the MW of $NaNO_3$ = 85. 1 mole of HNO_3 generates 1 mole of $NaNO_3$.

   In this example, should the facility report release of 27,000 lb of nitrate compounds as to a stream or water body? (Section 5.3 on Form R)?

   YES NO

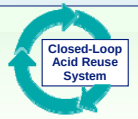
Ammonia Guidance

- Ammonia
  - **Aqueous ammonia - threshold determination and release and other waste management quantity calculations for aqueous ammonia from any source (i.e., anhydrous ammonia placed in water or water dissociable ammonium salts) is based on 10% of the total ammonia present in aqueous solutions**
  - **Anhydrous ammonia - include 100% for thresholds and releases**
    - *Including air releases from aqueous ammonia*
  - **Amounts from aqueous sources and anhydrous sources get added together for threshold determinations and ammonia reports**

Acid Aerosols

- Hydrochloric and sulfuric acids have a chemical qualifier…they are reportable only if in the aerosol form.
  - **These aerosols are common combustion products of coal and other fuels combustion.**
- Threshold determination for closed-loop acid reuse systems (sulfuric and hydrochloric acid only).
  - **Acid aerosol manufactured and otherwise used**
  - **To determine whether you have exceeded a threshold for acid aerosols in a closed-loop acid reuse system:**

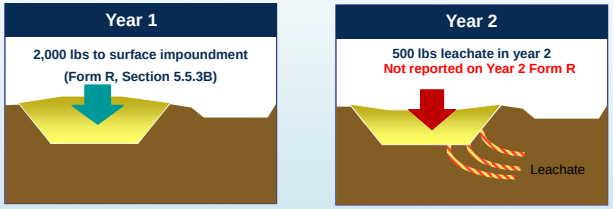
Total Amount of Acid in Reuse System + **Total Virgin Acid Added in RY** = **Amount Acid Aerosols Manufactured/ Otherwise Used**



* See EPA's *Guidance for Reporting Sulfuric Acid and Guidance for Reporting Hydrochloric Acid* for specific calculations

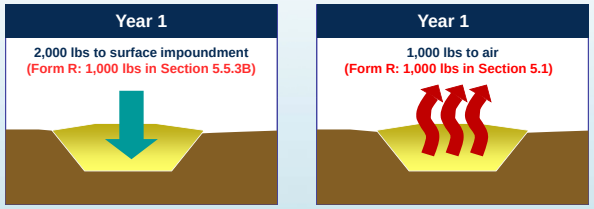
Chemical Migration Guidance

- Migration of a Section 313 chemical contained in waste reported as disposed or released in previous years:
  - **For example, leachate from landfill**
  - **Report only the initial release of chemical to the environment**



Chemical Migration Guidance

- Migration of a Section 313 chemical contained in waste disposed or released from one environmental medium to another within the reporting year:
  - **For example, volatilization from a landfill**
  - **Release estimates must be calculated and reported for all media in Part II, Sections 5, 6, and 8 of Form R**



EPA Self-Disclosure Audit Policy

- Audit Policy enhances environmental protection through incentives for companies to self-police, disclose and correct violations
- Facilities that meet all 9 conditions of the Audit Policy shall have 100% of the gravity based penalty waived. However, EPA reserves the option to collect any significant economic benefit which may have been realized by the facility.

- In the last five years alone, over 2,600 entities have self-disclosed violations at over 7,000 facilities under EPA's Compliance Incentive Policies.

EPA Self-Disclosure Audit Policy

- Conditions to qualify (nine criteria):
  - **Systematic Discovery of the Violation through Environmental Audit or Due Diligence**
  - **Voluntary Discovery**
  - **Prompt Disclosure**
  - **Discovery and Disclosure Independent of Government or Third Party Plaintiff**
  - **Correction and Remediation**
  - **Prevent Recurrence**
  - **No Repeat Violations**
  - **Other Violations Excluded**
  - **Cooperation**
- For more information, including a copy of the Audit Policy visit:
  - **http://www.epa.gov/compliance/incentives/auditing/auditpolicy.html**

EPA Small Business Compliance Policy

- Similar to Audit Policy, but available only to small businesses
  - **Small businesses employ 100 or fewer individuals across all facilities and operations**
- Small businesses that meet all 4 conditions of the policy may have 100% of the gravity based penalty waived. However, EPA reserves the option to collect any significant economic benefit which may have been realized by the facility.
- Conditions to qualify (four criteria):
  - **Good Compliance Record**
  - **Voluntary Discovery**
  - **Prompt Disclosure**
  - **Correction and Remediation**
- For more information, including a copy of the Small Business Compliance Policy and a Q&A document, visit:
  - **http://www.epa.gov/compliance/incentives/smallbusiness/index.html**

Audit Policy: Incentive for New Owners

- Federal Register notice published August 2008
- Offers incentives for new owners of facilities that want to make a "clean start" by addressing environmental noncompliance that began prior to acquisition.
  - **Penalty mitigation beyond what the Audit Policy generally provides**
  - **Modification of certain Audit Policy conditions**
- For a detailed description of how EPA will apply the Audit Policy to new owners of regulated facilities, visit: http://www.epa.gov/compliance/incentives/auditing/newowners-incentives.html

EPCRA Section 313 Enforcement

- Non-federal facilities (including GOCOs) violating any statutory or regulatory requirement are subject to penalties of up to $37,500 per day per violation (periodically adjusted for inflation)
- Companies subject to citizen suits and could also be liable for attorney fees and litigation costs (EPCRA § 326(f))
- Government's penalty is determined by applying the Enforcement Response Policy (ERP) to each violation
  - **For EPA's EPCRA enforcement policies, visit: http://cfpub.epa.gov/compliance/resources/policies/civil/epcra/index.cfm**

PBT Chemicals

- Aromatics - Benzo(g,h,i)perylene, Dioxin and dioxin-like compounds category, Hexachlorobenzene, Octachlorostyrene, Pentachlorobenzene, Polycyclic aromatic compounds (PAC) category, Polychlorinated biphenyl (PCB), and Tetrabromobisphenol A (TBBPA)
- Metals - Mercury, Mercury compounds category, Lead, and Lead compounds category
- Pesticides - Aldrin, Chlordane, Heptachlor, Isodrin, Methoxychlor, Pendimethalin, Toxaphene, Trifluralin
- PBT chemicals are subject to separate and lower reporting thresholds and different reporting requirements than the other TRI chemicals
  - **Must use Form R (cannot use Form A)**
  - **Quantities can be reported in decimal amounts**
  - **Cannot use range codes**
  - **Cannot use the *de minimis* exemption**

Dioxin and Dioxin-like Compounds

- PBT activity threshold for dioxins = 0.1 gram manufactured, processed, or otherwise used for the entire reporting year!
- Dioxins formed as unwanted byproducts when chlorinated materials involved in combustion or other high-temperature processes, such as:
  - **Fossil fuel and wood combustion**
  - **Waste incineration**
  - **Metallurgical processes**
- What it takes to exceed the 0.1 gram activity threshold?
  - **64,500 tons of coal combusted in a utility boiler**
  - **8.33 million gallons of fuel oil combusted in a utility boiler**
  - **1,230 tons copper scrap fed to a secondary copper smelter**

Dioxin and Dioxin-like Compounds

- Dioxin and Dioxin-like Compounds Toxicity Equivalency (TEQ) Information Rule:
  - **Final rule issued May 10, 2007 (72 FR Page 26544), in effect since RY2008**
  - **In addition to the total mass grams released for the entire chemical category, facilities that have the data are required to report the quantity of each of the 17 members in the dioxin category on a Form R Schedule 1**
  - **Speciated values reported in Schedule 1 must add up to values reported on the Form R**
  - **Data is used to calculate TEQ values that is made available to the public along with the mass data**
  - ***TRI-MEweb* can provide a report showing estimates converted into TEQ values**
    - In calculating TEQ, EPA uses Toxic Equivalency Factors (TEFs) developed by the World Health Organization in 2005 (http://www.who.int/ipcs/assessment/tef_update/en/)
  - **Be aware that in RY2008 the order of the 17 members of the dioxin category changed on the Schedule 1**

Dioxin and Dioxin-like Compounds

- Dioxin and dioxin-like compounds are measured based on the individual compounds within the category – not as a total quantity.
- Emission factors for dioxin and dioxin-like compounds are based on emission factors for individual compounds within the category.
- As a result, the information required on Form R Schedule 1 should be available to facilities that file Form R reports for the dioxin and dioxin-like compounds category

Dioxin and Dioxin-like Compounds

- PBT activity threshold = 0.1 gram manufacture, process, or otherwise use for the entire reporting year!
- Dioxins formed as unwanted byproducts when chlorinated materials involved in combustion or other high-temperature processes, such as:
  - **Fossil fuel and wood combustion**
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Lead and Lead Compounds

- Raw materials processed by a variety of facilities may contain metallic lead or lead compounds:
  - **Metal ores**
  - **Coal**
  - **Wood**
  - **Oil & Oil products: heating oils, gasolines**
- Lead used in solder and other alloys is in the elemental NOT the compound form (i.e., this is lead, not a lead compound)
- Lead-acid batteries will typically meet the articles exemption
- Sending old paint containing lead off-site for disposal or treatment is not a threshold activity
- Other sources of lead and lead compounds for PBT threshold:
  - **Lead solder, lead babbitt, castings/molds, contaminants of aluminum and other common base alloys, X-Ray film**
  - **Cement, asphalt, graphite brushes, leaded glass**
  - **Transfers of lead and lead compounds off-site for recycling**

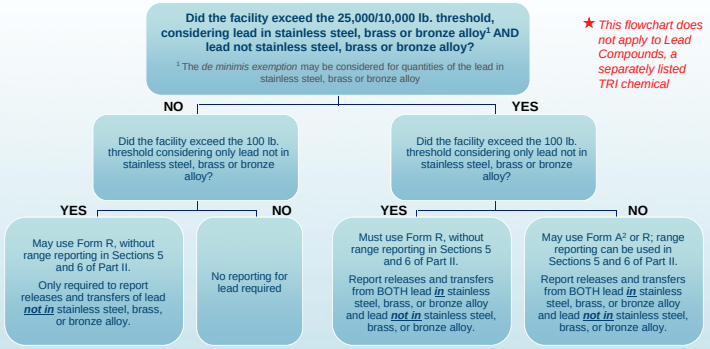
Lead and Lead Compounds

- PBT activity threshold for lead and lead compounds:
  - **100 pounds for lead (not contained in stainless steel, brass, or bronze)**
  - **100 pounds for lead compounds**
- Non-PBT activity threshold for lead:
  - **Non-PBT thresholds apply to lead contained in stainless steel, brass, or bronze***
    - *25,000 lbs for manufacture or process*
    - *10,000 lbs for otherwise use*

*If elemental lead is removed from the qualified alloy, such as vaporization during melting of an alloy, the 100 lb threshold applies

Lead Threshold Determination Flow Chart

- Activity thresholds and reporting requirements for lead related to stainless steel, brass or bronze alloy qualifier



[2] Must meet additional requirements for Form A use.

Quiz #6 Question 1

1. A facility combusts 13,600,000 lbs. of coal to fire its boilers. The coal contains elemental lead (Pb) at 7.0 ppm by weight. In combusting the coal, the facility otherwise uses lead and coincidentally manufactures lead compounds. The facility has no other information about the chemical makeup of the lead compounds manufactured and assumes it is the lowest-weight oxide – PbO. Based on molecular weights (Pb = 207, PbO = 223), the facility knows that 223 lbs. of PbO is formed for every 207 lbs. Pb combusted.

   Which of the following thresholds have been exceeded for lead or lead compounds?

   A. Otherwise Use only
   B. Manufacturing only
   C. Neither
   D. Both

Answer

Quiz #6 Question 2

2. A facility processes two alloys that include lead, a stainless steel alloy with 20,000 lbs. of lead, and another alloy, which is not stainless steel, brass, or bronze, with 275 lbs. of lead.

   Which of the following processing thresholds have been exceeded?

   A. Only the 25,000 lbs. processing threshold for total lead
   B. Only the 100 lbs. threshold for lead not in stainless steel, brass, or bronze
   C. Neither
   D. Both

PACS and Benzo(g,h,i)perylene

- PBT activity threshold
  - **PAC category threshold: *100 pounds***
  - **Benzo(g,h,i)perylene threshold: *10 pounds***
- Present in coal, fuel oil, other petroleum products, such as asphalt and roofing tars
- Asphaltic concrete (blacktop) typically contains 4 - 10% paving asphalt
- Most uses of blacktop are NOT EXEMPT
  - **Process areas and roadways – NOT EXEMPT**
  - **Employee parking lot – EXEMPT**
- See also EPA's PACs guidance (http://www.epa.gov/tri/guide_docs/pdf/2001/pacs2001.pdf)

PACs *(cont.)*

- Quantity required to meet threshold

Fuel Material	Typical Concentration	Quantity Needed to Meet Threshold (gallons)
No. 6 Fuel Oil (Bunker C)	2461 ppm	5,140
No. 2 Fuel Oil	10.0 ppm	1,410,000
Crude Oil	depends on type of crude	
Gasoline	17 ppm	1,060,000
Paving Asphalt	178 ppm	51,800

From EPA's Guidance for Reporting Toxic Chemicals: Polycyclic Aromatic Compounds Category

Mercury and Mercury Compounds

- PBT activity threshold:
  - **10 pounds for mercury**
  - **10 pounds for mercury compounds**
- Combustion of fuels is expected to be a main source of mercury triggering a reporting threshold
- Combustion involves the otherwise use of mercury compounds in fuel, and the manufacture of elemental mercury
- Amount of fuel required to exceed a threshold
  - **No. 2 Fuel Oil: 1.41 x 10^9 gallons**
  - **Coal: 11,000 – 120,000 tons**
  - **No. 6 Fuel Oil: 1.89 x 10^9 gallons**

Mercury and Mercury Compounds

- Present in some switches and lights
  - **Bulbs and switches may qualify as articles for which the articles exemption would apply IF less than 0.5 pound of Section 313 chemicals are released from all like items as a result of processing or use of the items during the year**
- When mercury is added to manometers, they no longer qualify as articles and therefore need to be considered in threshold and release calculations.
- Present in Caustics/Acids (if produced in mercury cell process – not common)
- May be present in mined ores

Polychlorinated Biphenyls (PCBs)

- PBT activity threshold: 10 pounds
- Manufacturing: PCBs may be manufactured as a product of incomplete combustion (PIC)
- Otherwise use:
  - **On-site treating or disposing PCB-contaminated waste received from off-site**
  - **Combusting PCB-contaminated oil**

Polychlorinated Biphenyls (PCBs)

- NOT manufacturing, processing, or otherwise use
  - **On-site disposal or treatment of PCBs**
    - *Exception: if PCBs were received as wastes from off-site they are counted towards "otherwise use" threshold*
  - **Off-site shipment of PCBs for disposal or treatment**
- PCB transformers (and similar electrical equipment) are considered exempt as articles if no PCBs released during normal use
  - **Leaks may negate article exemption**

Reference Sources

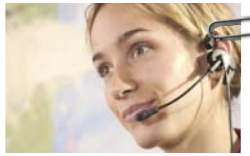
- EPA Industry Guidance located at http://www.epa.gov/tri/guide_docs/
- *AP-42: Compilation of Air Pollutant Emission Factors* located at http://www.epa.gov/ttn/chief
- Technology Transfer Network located at http://www.epa.gov/ttn
  - **AP-42**
  - **WATER9 program**
  - **TANKS program**
- *Perry's Chemical Engineer's Handbook; CRC Handbook of Chemistry and Physics; Lange's Handbook of Chemistry*

Pollution Prevention Information

- OPPT Pollution Prevention (P2)
  - **http://www.epa.gov/opptintr/p2home/index.htm**
- Pollution Prevention Information Clearinghouse (PPIC)
  - **(202) 566-0799**
  - **http://www.epa.gov/opptintr/ppic/index.htm**

TRI Contact Information

- TRI Technical Support
  - **For technical questions related to *TRI-MEweb* and the Central Data Exchange (CDX), please contact the CDX Hotline at helpdesk@epacdx.net or call toll-free at (888) 890-1995.**
- TRI Information Center
  - **Provides a toll free number that facilities may call to obtain guidance on TRI reporting requirements and help on completing the TRI reporting forms.**
  - **The number is (800) 424-9346. Callers in the Washington, D.C. metropolitan area call (703) 412-9810. The TDD is (800) 553-7672.**



TRI-Data Processing Center

- For hand courier, certified mail, Fed Ex, UPS delivery:
  CGI Federal, Inc.
  c/o EPA Reporting Center
  12601 Fair Lakes Circle
  Fairfax, VA 22033
- For regular mail:
  TRI Reporting Center
  P.O. Box 10163
  Fairfax, VA 22038

Benefits of *TRI-MEweb* and Submitting Via CDX

- It saves time and money
- Using *TRI-MEweb* significantly reduces reporting errors
- *TRI-MEweb* has integrated TRI Assistance Library
- EPA provides instant email confirmation of submission
- Electronic Signature allows for quick, paperless submissions
- IMPORTANT: TRI-ME desktop software is no longer available. EPA only supports TRI-MEweb.

Benefits of *TRI-MEweb* and Submitting Via CDX *(cont.)*

- CDX submissions are processed automatically, unlike paper submissions, which leads to faster Facility Data Profile (FDP) access
- Reduced data collection costs for EPA, States, and Regulated Community
- Facilities in participating States can submit TRI information to both EPA and their State simultaneously.
  - **To view States that are on the exchange network, go to http://www.epa.gov/tri/stakeholders/state/state_exchange/**
  - **Facilities in other states can generate CD's or diskettes for their state reporting using TRI-MEweb.**

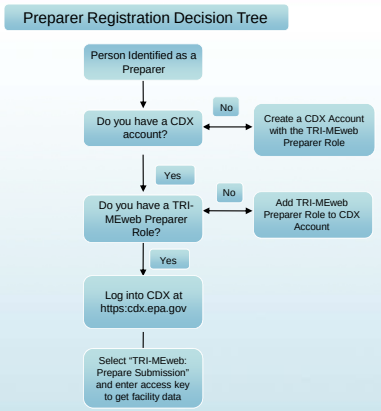
TRI-MEweb New Features

- Fully supports dioxin Form R/Schedule 1 reporting and provides calculated TEQ values for these forms
- Fully supports “Reporting By Part”
- Allows reporting for first-time filers and provides instant TRIFID identification for new facilities
- Supports original and revised reporting for RY2005 – 2010
- Generates submission diskettes for state reporting
- Ability to upload third party vendor data using TRI-MEweb XML schema to allow quicker multi-chemical data uploads.

Important Notices on *TRI-MEweb*!

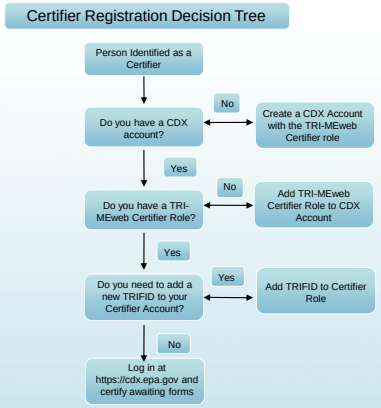
- TRI-MEweb requires new certifiers to register with the Central Data Exchange (CDX) prior to being able to certify TRI-MEweb forms.
  - **Registration includes creating, signing, and sending an electronic signature agreement (ESA) to the TRI data processing center**
  - **This process is estimated to take a minimum of 5 business days**
  - **Submission of the ESA is one time only as long as the certifier represents the facility**
  - **EPA recommends that facilities using *TRI-MEweb* register their certifier immediately upon accessing the application**
  - **For more information about *TRI-MEweb*, please visit: http://www.epa.gov/tri/report/software/index.htm**
- EPA's CDX recently changed from SSL encryption to TLS encryption.
  - **If users are not able to access the CDX or *TRI-MEweb* due to a security setting issue, change security settings in the web browser.**
  - **If using "Internet Explorer," in "Tools" menu, select "Internet Options." Under the "Advanced" tab, scroll to the bottom and check the "Use TLS 1.0" box.**

TRI-MEweb Registration (Preparer)



Note: *For more information, see the TRI-MEweb Tutorials at www.epa.gov/tri*

TRI-MEweb Registration (Certifier)



Note: *For more information, see the TRI-MEweb Tutorials at www.epa.gov/tri*

TRI-ME Tutorials

- TRI-MEweb has integrated on-line tutorials to assist users with common functions in the application.
  - **Tutorials cover areas such as**
    - *Overview*
    - *Registration*
    - *Accessing Your Facility*
    - *Nominating a Certifying Official*
    - *Section 8 Calculator*
    - *Submitting Data*
    - *Certifying Data*
    - *Getting Help*
- The tutorials can be viewed at:
  - **http://www.epa.gov/tri/report/software/index.htm**

www.epa.gov/tri

- TRI website for reporting materials and guidance
- Includes:
  - **Electronic versions, or links to electronic versions, of the statutes, regulations, executive orders, chemical-specific guidance documents, and industry-specific guidance documents**
- TRI Frequently Asked Questions (FAQ) Service
  - **Browse frequently asked questions and answers**
  - **Submit new questions**
  - **Access to the service is available from the TRI Web site: www.epa.gov/tri/. Click on "Frequent Questions" on the left side menu bar.**

Facility Data Profiles

- Review your Facility Data Profile (FDP) immediately
- FDP provides an opportunity to review data submitted to EPA
- Allows EPA to highlight errors and possible issues with your submission
- You MUST provide a Technical Contact email address on your TRI forms to receive real-time notification of FDP availability
- Use *TRI-MEweb* and CDX to receive your FDP sooner (than paper or diskette submissions)
- If you have problems accessing your FDPs,contact:
  - **E-mail: tri.efdp@epacdx.net**
  - **Web: www.triefdp.org**

Revising TRI Data – Preferred Method

- The preferred method for submitting revised TRI forms is *TRI-MEweb*, through the Internet via EPA's CDX.
- For more information regarding revisions, go to:
  - **http://www.epa.gov/tri/report/index.htm#revise**
- Please be aware that in CDX capable states submitting via CDX to EPA will also satisfy your state obligations. For non-CDX capable states, revisions must also be submitted in the state-specified format (e.g., diskette, paper, etc.)
  - **To determine if your state is CDX capable go to: http://www.epa.gov/tri/stakeholders/state/state_exchange/**

Withdrawing TRI Data – Preferred Method

- Submitting a withdrawal TRI form, using *TRI-MEweb*, through the Internet via EPA's CDX, is the preferred method for RY2005 – 2010
- For more information regarding withdrawals, go to:
  - **http://www.epa.gov/tri/report/index.htm#revise**
- Please be aware that in CDX capable states submitting via CDX to EPA will also satisfy your state obligations. For non-CDX capable states, withdrawals must also be submitted in the state-specified format (e.g., diskette, paper, etc.)

Submitting Withdrawals *(continued)*

- Withdrawals can be made through the reporting software or in hardcopy
  - **RY2007 forward: You may submit a photocopy of your original submission (from your file). Using blue ink, re-sign and re-date the certification statement on Page 1 and enter appropriate withdrawal code(s) in space on page 1 of the form.**
  - **RY2006 and prior years: Please submit a photocopy of the form you wish to withdraw (from your files), and attach – as a cover page – page 1 of the current year's reporting form, which includes a field for the withdrawal codes. Using blue ink, please sign and date the certification statement and enter appropriate withdrawal code(s) in space on page 1 of the current year's form.**
- EPA may audit withdrawals at any time

Submitting Revisions and Withdrawals

- Facilities may submit a request to revise or withdraw a previously submitted Form R
- Form R submitted to replace previously filed Form A Certification Statement
  - **Considered to be a late submission of a Form R and a request for a withdrawal of the previously filed Form A Certification Statement**
  - **Do not check the revision box!**
  - **Note that submitting a Form A when a Form R is required is considered a less severe violation than failing to submit either form (cfpub.epa.gov/compliance/resources/policies/civil/epcra/index.cfm)**
- For a change in chemical reported (including a metal to a metal compound) you must withdraw the original submission and re-submit for the new chemical. This is not a revision.
- See www.epa.gov/tri/report/index.htm#revise for more information on revisions and withdrawals

*TRI-ME*web Demo

If you are viewing an Online Training Module, please visit www.epa.gov/tri to view the *TRI-MEweb* tutorials.

Quiz Answers

Quiz #4 Question 1

1. A facility processes 200,000 lbs. of a mixture containing 10% zinc chromate ($ZnCrO_4$) and 15% chromium dioxide (CrO_2) by weight.

For which of the following chemical categories was the processing threshold exceeded?

A. Chromium compounds only
B. Zinc compounds only
C. Neither
D. Both

Answer: A is correct.
Total chromium compounds processed: (10% + 15%)*(200,000) = 50,000 lbs.Total zinc compounds processed: (10%)*(200,000) = 20,000 lbs.The non-PBT chemical processing threshold (25,000 lbs.) was exceeded for chromium compounds, but not zinc compounds.

Quiz #4 Question 2

1. A facility neutralizes 20,000 lb of nitric acid (HNO_3) with sodium hydroxide (NaOH) in an on-site wastewater treatment system. The neutralization is 100% complete and generates sodium nitrate ($NaNO_3$), which is discharged to a nearby water body.

The molecular weight (MW) of HNO_3 = 63 and the MW of $NaNO_3$ = 85. 1 mole of HNO_3 generates 1 mole of $NaNO_3$.

Does the facility exceed the manufacturing threshold for nitrate compounds?

YES **NO**

Answer: Yes.
The quantity of nitrate compounds manufactured = (quantity of HNO_3 neutralized)*(MW of $NaNO_3$ / MW of HNO_3)
$NaNO_3$ manufactured = (20,000 lb)*(85/63) = 26,984 lb (rounded to 27,000 lb)
The 25,000 lb manufacturing threshold for non-PBT chemicals is exceeded, so the facility must submit a TRI form for nitrate compounds.

Quiz #4 Question 3

2. A facility neutralizes 20,000 lb of nitric acid (HNO_3) with sodium hydroxide (NaOH) in an on-site wastewater treatment system. The neutralization is 100% complete and generates sodium nitrate ($NaNO_3$), which is discharged to a nearby water body.

The molecular weight (MW) of HNO_3 = 63 and the MW of $NaNO_3$ = 85. 1 mole of HNO_3 generates 1 mole of $NaNO_3$.

In this example, should the facility report release of 27,000 lb of nitrate compounds as to a stream or water body? (Section 5.3 on Form R)?

YES **NO**

Answer: No.
Releases of nitrate compounds are reported on nitrate ion (NO_3-) basis. Based on molecular weights ($NaNO_3$ = 85, NO_3- = 62), 62 lb of nitrate ion are generated for every 85 lb of nitrate compounds.
To calculate the quantity of nitrate ion released to the water body in the example described above: (lb of $NaNO_3$)*(MW of NO_3- / MW of $NaNO_3$)
= (26,984 lb)*(62/85)
= 19,682 lb (rounded to 20,000 lb)
On the Form R for nitrate compounds, the facility would report 20,000 lbs of the nitrate ion releases to the stream or water body.

Quiz #5 Question 1

1. A facility combusts 13,600,000 lbs. of coal to fire its boilers. The coal contains elemental lead (Pb) at 7.0 ppm by weight. In combusting the coal, the facility otherwise uses lead and coincidentally manufactures lead compounds. The facility has no other information about the chemical makeup of the lead compounds manufactured and assumes it is the lowest-weight oxide – PbO. Based on molecular weights (Pb = 207, PbO = 223), the facility knows that 223 lbs. of PbO is formed for every 207 lbs. Pb used.

Which of the following thresholds have been exceeded for lead or lead compounds?

A. Otherwise Use only
B. Manufacturing only
C. Neither
D. Both

Answer: B is correct.
Pb in coal: (13,600,000 lbs.)*(7 x 10^{-6}) = 95.2 lbs.
Total lead combusted (95.2 lbs.) does not exceed the threshold for otherwise using lead not in stainless steel, brass, or bronze (100 lbs.).
PbO formed: (95.2 lbs.)*(223/207) = 103 lbs. Since lead is expected to be present in coal in compound, you could consider that 103 lbs. of lead compounds was combusted and, therefore, otherwise used.
Total lead oxide combusted (103 lbs.) exceeds the threshold for manufacturing and otherwise use of lead compounds (100 lbs.)

Quiz #5 Question 2

2. A facility processes two alloys that include lead, a stainless steel alloy with 20,000 lbs. of lead, and another alloy, which is not stainless steel, brass, or bronze, with 275 lbs. of lead.

Which of the following processing thresholds have been exceeded?

A. Only the 25,000 lbs. processing threshold for total lead
B. Only the 100 lbs. threshold for lead not in stainless steel, brass, or bronze
C. Neither
D. Both

Answer: B is correct.
Total lead processed: 20,000 lbs. + 275 lbs. = 20,275 lbs.
Total lead processed not in stainless steel, brass, or bronze: 275 lbs.
Although the threshold for total lead (25,000 lbs.) was not exceeded, the threshold for lead not in stainless steel, brass, or bronze (100 lbs.) was exceeded.