

Reporting Year 2009

Emergency Planning + Community RIGHT-TO-KNOW Act (EPCRA) Section 313

**EPA**

**Toxics Release Inventory  
Reporting Requirements**

**Advanced Concepts**

Note: This program includes audio narration.  
Use speakers or headphones for audio. Click Notes button for captions.

TRI

TRI REPORTING REQUIREMENTS

**TRI Training Module Agendas**

**Basic Concepts Module**

1. Do I Need to Report?
2. Covered Chemicals
3. Threshold Activities
4. Threshold Determinations
5. Reporting Exemptions
6. TRI Reporting Forms
7. *TRI-MEweb* Updates

**Advanced Concepts Module**

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

1/26/2010

TRI

**Section I:  
Recent TRI Program Changes**

TRI

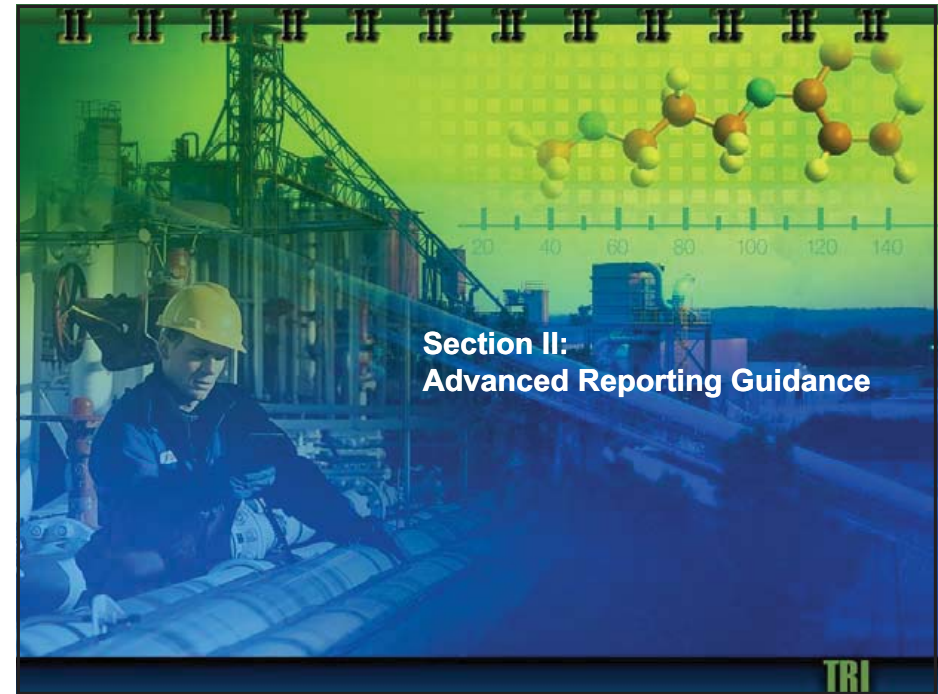
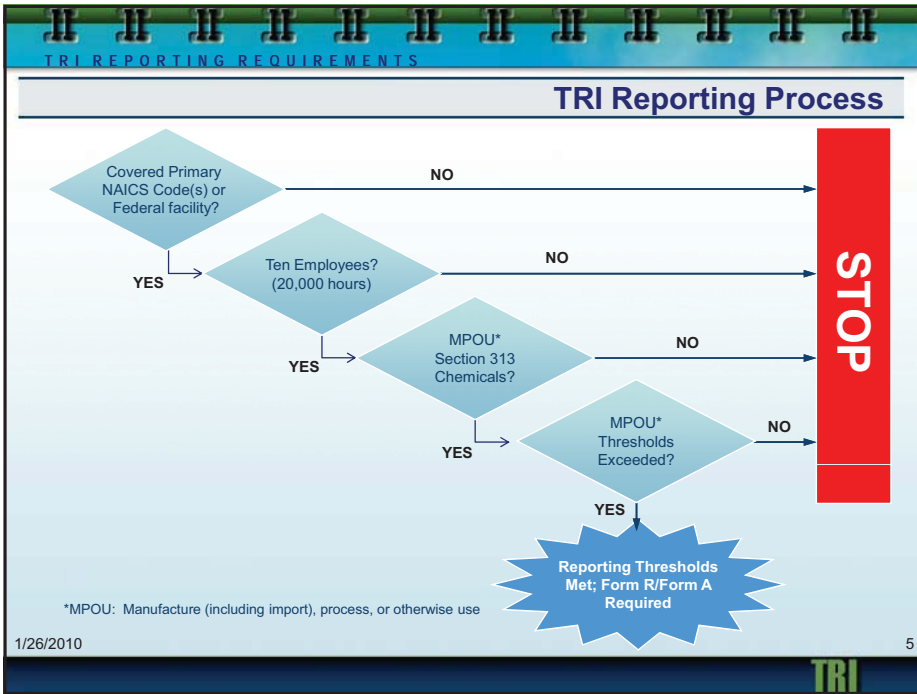
TRI REPORTING REQUIREMENTS

**TRI Program Changes for RY 2009**

- 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.

1/26/2010

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TRI REPORTING REQUIREMENTS

### Threshold Guidance

Reminder:

- For threshold determinations, the definitions of “manufacture,” “process,” and “otherwise use” currently do not include Section 313 chemicals that are:
  - Remediated (chemicals coincidentally manufactured must be considered)
  - Treated in wastes generated on site
  - Stored
  - Recycled on-site for use on-site, unless recycled for use as part of a different threshold activity
  - Transfers sent off-site for further waste management (not including recycling)
- 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

1/26/2010

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TRI REPORTING REQUIREMENTS

### Threshold Guidance - Combustion

- Section 313 chemicals may be coincidentally manufactured during combustion of:
  - Oil
  - Coal
  - Natural gas
  - Waste
  - Other materials
- Any Section 313 chemicals in fuel considered otherwise used

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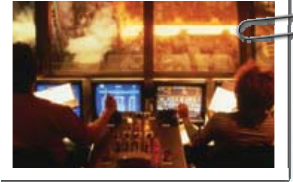
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TRI

## Threshold Guidance - Combustion

Reminder:

- Section 313 chemicals that are manufactured as by-products, coincidentally as impurities, or that are otherwise manufactured during activities covered under “otherwise use” exemptions, must be considered towards the manufacturing threshold.
  - Includes acid aerosols and metal compounds manufactured as by-products of fuel combustion



## Exemption Guidance

Reminder:

- Section 313 chemicals in fuels added to motor vehicles not operated by facility 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

- Diisononyl Phthalate category addition
  - Proposal, comment period closed October 12, 2005
- Delistings under consideration
  - Acetonitrile
  - Ethylene glycol monobutyl ether (EGBE)



## 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 have options to 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 on Form R.



## Metal Cyanide Compounds Guidance

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

\* Qualifier for cyanide compounds states: X<sup>+</sup>CN<sup>-</sup>, where X=H<sup>+</sup> or any other group where a formal dissociation may occur. For example, KCN or Ca(CN)<sub>2</sub>

## 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
  - Intake water exemption may apply for nitrates drawn from environmental sources

## Quiz #4 Question 1

1. A facility processes 200,000 lbs. of a mixture containing 10% zinc chromate (ZnCrO<sub>4</sub>) and 15% chromium dioxide (CrO<sub>2</sub>) 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<sub>3</sub>) with sodium hydroxide (NaOH) in an on-site wastewater treatment system. The neutralization is 100% complete and generates sodium nitrate (NaNO<sub>3</sub>), which is discharged to a nearby water body.

The molecular weight (MW) of HNO<sub>3</sub> = 63 and the MW of NaNO<sub>3</sub> = 85. 1 mole of HNO<sub>3</sub> generates 1 mole of NaNO<sub>3</sub>.

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<sub>3</sub>) with sodium hydroxide (NaOH) in an on-site wastewater treatment system. The neutralization is 100% complete and generates sodium nitrate (NaNO<sub>3</sub>), which is discharged to a nearby water body.

The molecular weight (MW) of HNO<sub>3</sub> = 63 and the MW of NaNO<sub>3</sub> = 85. 1 mole of HNO<sub>3</sub> generates 1 mole of NaNO<sub>3</sub>.

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

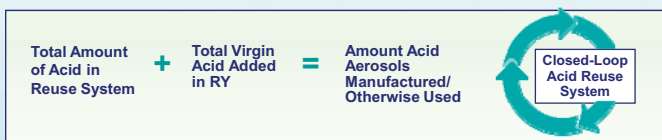
### Ammonia Guidance

- Ammonia
  - Requires 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) be 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
  - Effective RY 1994



### Acid Aerosols

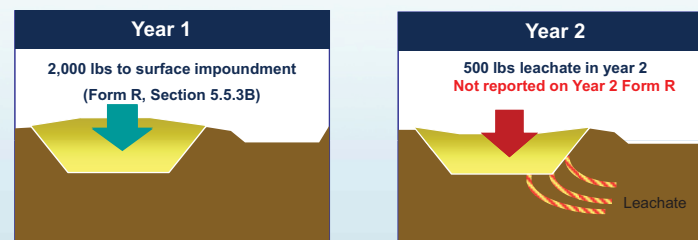
- Hydrochloric and sulfuric acids have a chemical qualifier...they are reportable only if in the aerosol form.
  - These aerosols are common combustion products of coal and other fuels combustion.
- Threshold determination for closed-loop acid reuse systems (sulfuric and hydrochloric acid only).
  - Acid aerosol manufactured and otherwise used
  - Simplified method of estimating quantity for threshold determination:



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

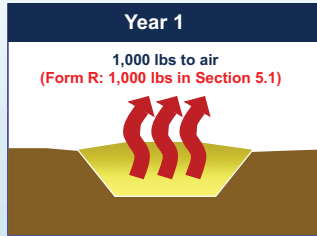
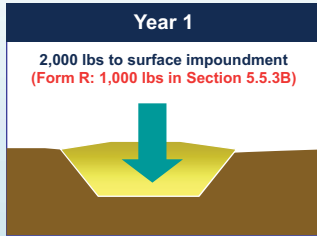
### Chemical Migration Guidance

- Migration of a Section 313 chemical contained in waste released (including disposal) may occur:
  - Migration of reportable chemical within one environmental medium (e.g., leachate from landfill)
    - Only required to report initial release of chemical to the environment



## Chemical Migration Guidance

- Migration of a Section 313 chemical contained in waste released (including disposal) may occur:
  - **Migration of chemical from one environmental medium to another (e.g., volatilization from a landfill) within the reporting year**
    - *Release estimates should 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

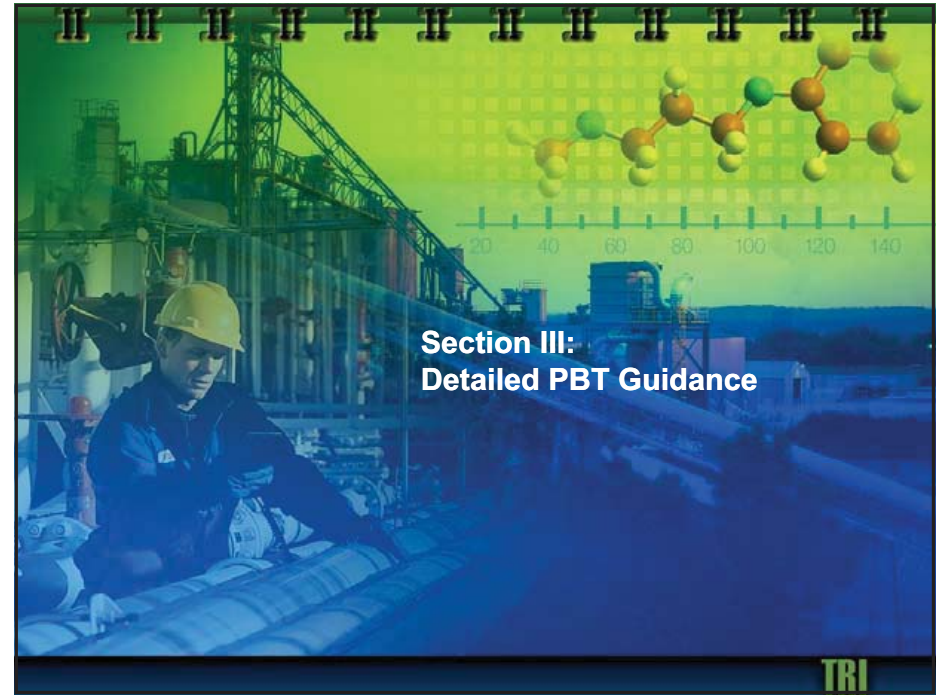
- Conditions to qualify (nine criteria):
  - **Systematic Discovery of the Violation through Environmental Audit or Due Diligence**
  - **Voluntary Discovery**
  - **Prompt Disclosure**
  - **Discovery and Disclosure Independent of Government or Third Party Plaintiff**
  - **Correction and Remediation**
  - **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>

## 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>



## Section III: Detailed PBT Guidance

## 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

## Dioxin and Dioxin-like Compounds

- Beginning RY 2008, Dioxin and Dioxin Like Compounds Toxicity Equivalency (TEQ) Information Rule was in effect
  - Final rule issued May 10, 2007 (72 FR Page 26544)
  - In addition to the total mass grams released for the entire chemical category, facilities may need to report the quantity of each of the 17 compounds in the category on a new Form R Schedule 1
  - Removes the requirement to report the % distribution of each of the compounds in the category (Form R, Section 1.4)



## Dioxin and Dioxin-like Compounds

- Beginning RY 2008, Dioxin and Dioxin Like Compounds Form R, Schedule 1 may be required
  - Facilities that have data required by Form R Schedule 1 for individual members of the dioxin and dioxin-like compounds must submit a Form R Schedule 1 in addition to the Form R.
  - Speciated values reported in Schedule 1 must add up to values reported on the Form R
  - Data will be used to calculate TEQ values that will be 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 TEFs developed by the World Health Organization in 2005 ([http://www.who.int/ipcs/assessment/tef\\_update/en/](http://www.who.int/ipcs/assessment/tef_update/en/))

## 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
  - 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

## 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
- Removing old paint containing lead and sending it 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



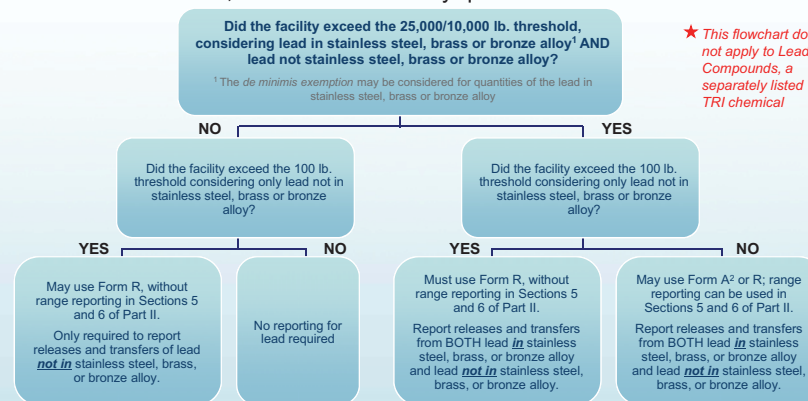
## Lead and Lead Compounds

- PBT activity threshold:
  - 100 pounds for lead (not contained in stainless steel, brass, or bronze)
  - 100 pounds for lead compounds
- Non-PBT activity threshold
  - 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



## 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 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 #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

### 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](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<sup>9</sup> gallons**
  - Coal: **11,000 – 120,000 tons**
  - No. 6 Fuel Oil: **1.89 x 10<sup>9</sup> gallons**

### Mercury and Mercury Compounds

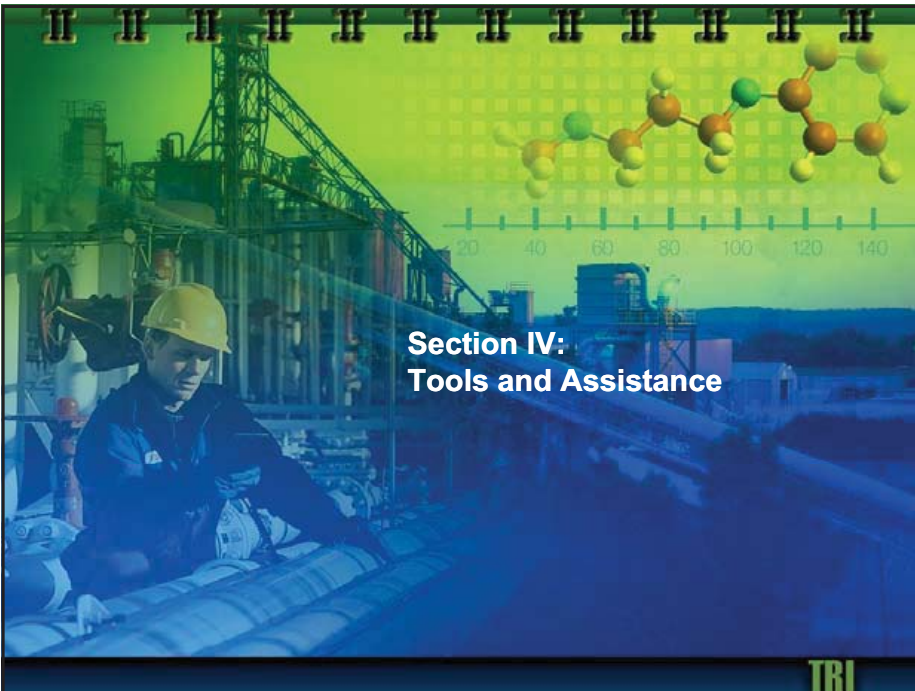
- Present in some switches and lights
  - **Otherwise use of bulbs and switches IS article exempt IF less than 0.5 pound of Section 313 chemical released (and not recycled) during reporting year from all like items during normal conditions of processing or use**
- Adding to manometers is **NOT** article exempt
- 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 not received from off-site
  - 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



### Section IV: Tools and Assistance

### Reference Sources

- EPA Industry Guidance located at [http://www.epa.gov/tri/guide\\_docs/](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*

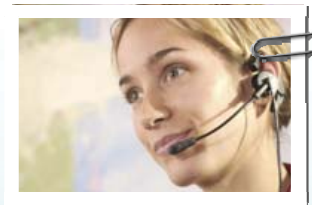


### Pollution Prevention Information

- 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](mailto: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:
 

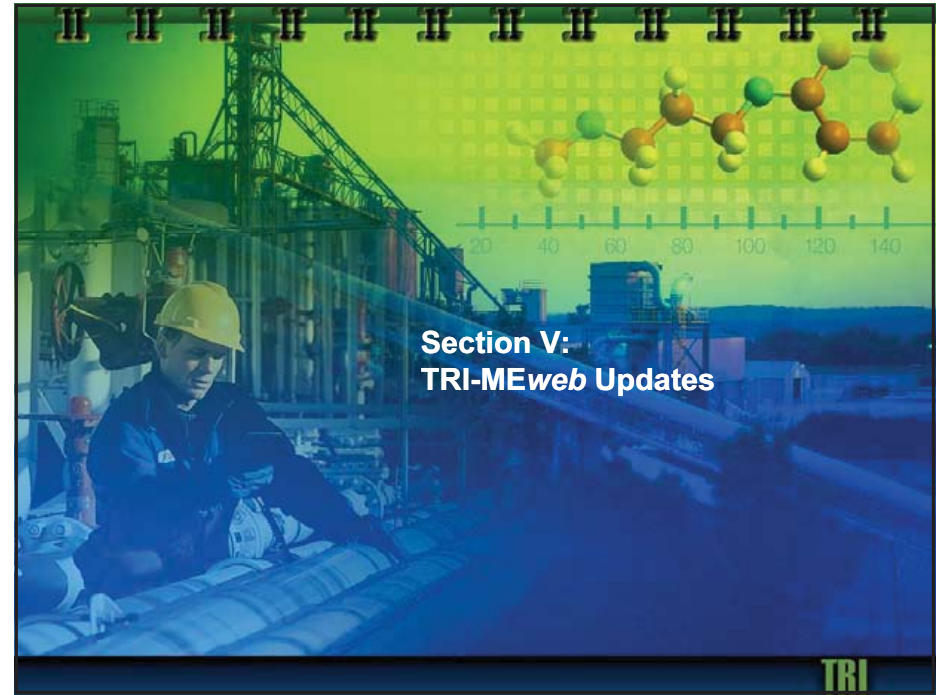
TRI Reporting Center  
P.O. Box 10163  
Fairfax, VA 22038

### 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/](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.



### Section V: TRI-MEweb Updates

### TRI-MEweb New Features

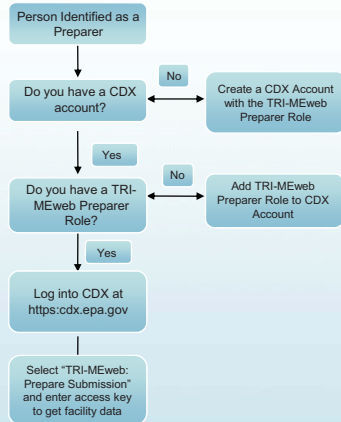
- Uses the updated 2007 NAICS codes
- Fully supports dioxin Form R/Schedule 1 reporting and provides calculated TEQ values for these forms
- Fully supports "Reporting By Part"
- Allows reporting for first-time filers and provides instant TRIFID identification for new facilities
- Supports original and revised reporting for RY2005 – 2009
- Generates submission diskettes for state reporting

### Important Notice 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>

## TRI-MEweb Registration (Preparer)

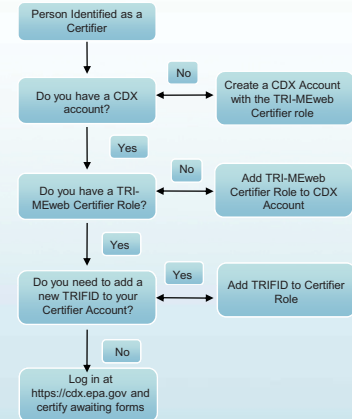
### Preparer Registration Decision Tree



Note: For more information, see the TRI-MEweb Tutorials at [www.epa.gov/tri](http://www.epa.gov/tri)

## TRI-MEweb Registration (Certifier)

### Certifier Registration Decision Tree



Note: For more information, see the TRI-MEweb Tutorials at [www.epa.gov/tri](http://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
- Beginning RY2005, USEPA introduced the TRI-ME Tutorials. Each tutorial is approximately four minutes and offers several help topics that will assist users with their TRI reporting experience.
- The tutorials can be viewed at:
  - <http://www.epa.gov/tri/report/software/index.htm>

## [www.epa.gov/tri](http://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/](http://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](mailto:tri.efdp@epacdx.net)
  - Web: [www.triefdp.org](http://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/](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 – 2009
- 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](http://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](http://www.epa.gov/tri/report/index.htm#revise) for more information on revisions and withdrawals

### TRI-ME Demo

If you are viewing an Online Training Module, please visit [www.epa.gov/tri](http://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<sub>3</sub>) with sodium hydroxide (NaOH) in an on-site wastewater treatment system. The neutralization is 100% complete and generates sodium nitrate (NaNO<sub>3</sub>), which is discharged to a nearby water body.

The molecular weight (MW) of HNO<sub>3</sub> = 63 and the MW of NaNO<sub>3</sub> = 85. 1 mole of HNO<sub>3</sub> generates 1 mole of NaNO<sub>3</sub>.

Does the facility exceed the manufacturing threshold for nitrate compounds?

**YES**

NO

Answer: Yes.

The quantity of nitrate compounds manufactured = (quantity of HNO<sub>3</sub> neutralized) \* (MW of NaNO<sub>3</sub> / MW of HNO<sub>3</sub>)

NaNO<sub>3</sub> 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<sub>3</sub>) with sodium hydroxide (NaOH) in an on-site wastewater treatment system. The neutralization is 100% complete and generates sodium nitrate (NaNO<sub>3</sub>), which is discharged to a nearby water body.

The molecular weight (MW) of HNO<sub>3</sub> = 63 and the MW of NaNO<sub>3</sub> = 85. 1 mole of HNO<sub>3</sub> generates 1 mole of NaNO<sub>3</sub>.

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<sub>3</sub><sup>-</sup>) basis. Based on molecular weights (NaNO<sub>3</sub> = 85, NO<sub>3</sub><sup>-</sup> = 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<sub>3</sub>) \* (MW of NO<sub>3</sub><sup>-</sup> / MW of NaNO<sub>3</sub>)

= (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<sup>-6</sup>) = 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.