





TRI Reporting Requirements



TRI Reporting Requirements




- After Methyl Isocyanate releases in Bhopal and West Virginia, communities demanded more information on hazardous materials
- Toxic Release Inventory is a way to track releases
- From a larger perspective, it is a way to PUBLICLY encourage alternative chemical use and the 3Rs (Reduce, reuse, recycle)

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TRI Reporting Requirements



Section 313

Regulates certain facilities:

- Ten or more full time employees (20,000 hours/year)
- Covered industrial sector – specifically manufacturing
- DoD installations – through Executive Order

3 threshold determinations for each toxic chemical & each toxic chemical category:

- Manufacture
- Process
- Otherwise use

Exemptions are different from 311 & 312
Submit "Form R" report to EPA & State

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Covered Facilities

Only applies to facilities meeting criteria:

- In specific industries (primarily manufacturing) & all federal facilities (via Executive Order)

With 10 or more full-time employees



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TRI-Covered* Industries NAICS

- 212 Mining
- 221 Utilities
- 31 - 33 Manufacturing
- All Other Miscellaneous Manufacturing (includes some sectors under NAICS 1119, 1133, 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

* Note: For many of these NAICS codes, there are reporting exceptions

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Federal facilities (covered by Executive Order 13423 and its implementing instructions)

- Required to report regardless of their NAICS code
- Includes military bases, federal prisons, national parks, etc.



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Other reporting requirements apply

- 10 or more full-time employees
- Exceed manufacture, process, or otherwise use thresholds of a listed chemical
- The federal agency or department that owns or operates the facilities is responsible for reporting

Government owned contractor operated (GOCO) facilities

- Same reporting requirements as non-federal facilities
- Counted as federal facilities in TRI data analysis

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Definition of "Facility"

TRI reporting requirements are determined by activities at "facilities"

- Primary NAICS code determination at facility level
- Employee threshold determination at facility level
- Chemical threshold determinations made at facility level

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"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)." (EPCRA § 329 (4))

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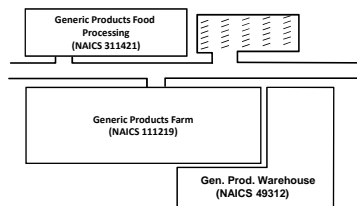
TRI Reporting Requirements



Example of a Multi-Establishment Facility

Three separate establishments located on contiguous/ adjacent property owned by same person(s), is one facility under EPCRA (40 CFR §§ 372.22(b) and 372.3)

Establishment - unique and separate economic unit of a facility (See 40 CFR § 372.3)



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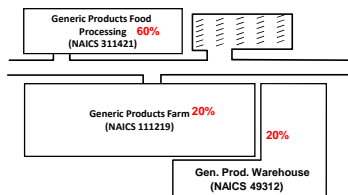


Multi-Establishment Facility

Three separate establishments located on contiguous/ adjacent property owned by same person(s), is one facility under EPCRA (40 CFR §§ 372.22(b) and 372.3)

NAICS determination by:

Majority
>50% of value added



Value added of food processing establishment = value of final food products – value of warehousing – value of farm products.

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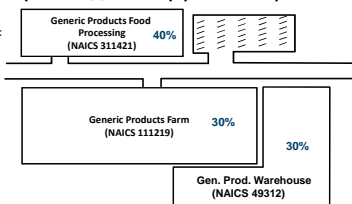


Multi-Establishment Facility

Three separate establishments located on contiguous/ adjacent property owned by same person(s), is one facility under EPCRA (40 CFR §§ 372.22(b) and 372.3)

NAICS determination by:

Plurality
Greatest % of value added



Value added of food processing establishment = value of final food products – value of warehousing – value of farm products.

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Is your NAICS covered by TRI?

- Determine your facility's six-digit NAICS code
- If you are unsure of your facility's six-digit code, there are several resources you can use:
 - View the U.S. Census Bureau's [SIC to NAICS crosswalk tables](#)
 - Refer to section B.2 of the [TRI Reporting Forms and Instructions](#)
 - Contact the [TRI Information Center](#)
 - Contact your [TRI regional coordinator](#)

<http://www.epa.gov/tri/lawsandregs/naic/incodes.htm>

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Is your NAICS covered by TRI?

- Find your facility's three-digit NAICS industry subsector code or four-digit NAICS industry group.
- The details given will indicate which six-digit NAICS codes are covered and whether there are any reporting exceptions or limitations for those covered codes.
- If your facility's two or three-digit code does not appear in one of the headings below, or is not captured under the "All Other Miscellaneous Manufacturing" heading, your facility is not required to report to the TRI Program.

<http://www.epa.gov/tri/lawsandregs/naic/incodes.htm>

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Multi-establishment facilities:

- Different NAICS code operations on contiguous property
 - Combine threshold calculations
 - May submit separate Form Rs (Part of a Facility)

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>10 Employee Criteria

- Equivalent of 20,000 hours per calendar year
- Total hours worked on-site or on-behalf of the facility, including hours worked by:
 - *Operations & administrative staff*
 - *Part-time and full-time workers*
 - *Contractors working on-site, exclude contract drivers & janitorial contractors*
 - *Dedicated sales staff & company drivers*
 - *Off-site corporate staff providing direct support*
- Use data from time management system


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Threshold Determinations

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Toxic Chemical List

- Specific list of more than 600 chemicals and 25 chemical categories
- EPA has modified the list repeatedly and extensively
- Consider all forms of the listed chemical present on-site:
 - *Pure chemicals*
 - *Mixtures (calculate amount on percent by weight)*
 - *Process intermediates*
 - *Wastes*



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Toxic Chemicals List – very complex

Persistent Bioaccumulative Toxic (PBT) lower threshold limits for example:

- 10 lbs./yr: benzo(g,h,i)perylene; chlordane; mercury; mercury compounds; polychlorinated biphenyls
- 100 lbs./yr: PACs; lead; lead compounds; aldrin
- 0.1 gram/yr: dioxin & dioxin-like compounds

Parenthetical qualifiers

- Manufacturing process, form of material (dust, fume, etc)

Limited to physical forms of some chemicals:

- Aerosol sulfuric acid & aerosol hydrochloric acid
- Ammonia –10% of aqueous & compressed gas
- Vanadium "excluding alloys"
- Aluminum (fume or dust) & zinc (fume or dust)

Changes to the chemical list:

- Naphthalene – de minimis limit = 0.1% (CY 2004)

TRI-MEweb contains the current list

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Be careful of Chemical Categories – Metals/Organic categories

- For all categories, includes any unique chemical substance that contains the element or compound as part of that chemicals infrastructure
- Make sure of the chemical and the chemical compound category
 - *Barium compounds does not include Barium Sulfate*
 - *Chromium compounds does not include chromite ore and unreacted ore component of processing residue*

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Amount of non-PBT Chemical Throughput/Year

Manufacture: 25,000 lbs./yr.

- Create chemical in form listed
- Importation to territories of US

Process: 25,000 lbs./yr.

- Incorporate chemical into products
- Repackage chemical for distribution

Otherwise use: 10,000 lbs./yr.

- On-site use or consumption (e.g., lubricants; oils)
- Treat wastes that were received from off-site



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PBTs – Lower thresholds and special rules apply

10 pounds per year:

- Benzo(g,h,i)perylene
- Chlordane
- Heptachlor
- Hexachlorobenzene
- Isodrin
- Toxaphene
- Octachlorostyrene
- Pentachlorobenzene
- Mercury and mercury compounds
- Polychlorinated biphenyls

100 pounds per year:

- Aldrin
- Methoxychlor
- Trifluralin
- Pendimethalin
- Tetrabromobisphenol A
- Polycyclic aromatic compounds (PACs) (specific list)
- Lead (starting 2001)
- Lead compounds (starting 2001)

0.1 grams per year:

- Dioxin and specifically-listed dioxin-like compounds

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Section 313 Compliance Requires Applying Thresholds Correctly

Threshold is determined by what happens to chemical

- Created, including unintentionally = “manufacture”
- Incorporated into products = “processed”
- On-site use in equipment, waste treatment, waste received for treatment = “otherwise use”

EPA set special threshold requirements for:

- Scrap metal sent for recycle is “processed”
 - *not considered “recycled” unless recovery occurs*
- Shift between metal compounds – is “manufacture”
e.g., lead sulfate converted to lead oxide

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Manufacturing Activities

Manufacturing (EPCRA §313(b)(1)(C)(i) and 40 CFR § 372.3)
- generating a Section 313 chemical. Intentionally producing chemicals for:

- Sale or Distribution
- On-site use or processing (e.g., intermediates)

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Manufacturing Activities

Coincidentally producing chemicals as impurities or by-products:

- At any point at the facility, including waste treatment (#152 of 1998 Q&A) and fuel combustion (#252 and #254 of 1998 Q&A)

Importing or "Cause" to be imported



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Processing Activities

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:

- Use as a reactant or a formulation component
- Incorporate as an article component
- Repackage for distribution
- Quantities sent off-site for recycling
- Incidentally include as an impurity



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Repackaging Activities

Repackaging a Section 313 chemical for distribution in commerce is considered processing including:

- Between a container and tanker truck
- Between similar size containers
- Via pipeline to/from a tank

Repackaging does not include:

- Sampling without repackaging
- Re-labeling

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Repackaging is Processing

Includes

Repackaging without distribution into commerce

- 55-gallon drum of paint put into 5 gallon cans

Transfer to a storage tank for mere storage is not processing



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Otherwise Use Activities - (10,000 lb. threshold; lower for PBTs)

- Other chemical activities (not storage)
- Wastes received from off-site for waste management
 - if disposed, stabilized, treated for destruction, or creating a TRI chemical



- Not incorporating chemical in products Chemical processing aid - internal to reaction
 - e.g., catalysts, buffers, process solvents, inhibitors
- Manufacturing aid - external to reaction mixture
 - e.g., metalworking fluids, coolants, lubricants
- Ancillary use - maintaining manufacturing equipment
 - e.g., lubricants, coolants, cleaners, waste treatment chemicals

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Material Received from Off-site for Waste Management

Otherwise use threshold applies to:

- Disposal, stabilizing, & treatment for destruction of TRI chemical received for waste management.
- TRI chemicals manufactured during waste management of material received from off-site facilities

TRI "waste management" includes:

- Recycling,
- Combustion for energy recovery
- Treatment for destruction
- Waste stabilization
- Release to the environment, including disposal

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Activities that don't count towards 313 thresholds

- Storage
- Direct reuse of material onsite
- Relabeling containers without repackaging
- On site recycling (other than wastes received from off site)
- Transfers shipped off site for further waste management (other than recycling)
- Remediation of on site contamination other than manufacture of TRI chemicals

However, while these activities are NOT included in the threshold determination, releases and wastes from these activities are not exempt from reporting if threshold is exceeded through other activities (unless specifically eligible for one of the reporting exemptions)

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Exemptions from Section 313 Thresholds & Form R Reports

- Mixtures containing below de minimis concentrations
- Articles - items purchased & brought on-site
- Laboratory activities
- NAICS Code specific
- Otherwise use
 - Structural components of the facility
 - Routine janitorial & grounds maintenance
 - Employee personal use
 - Motor vehicle maintenance
 - Intake water and air

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De Minimis Exemption

Minimum concentration for chemicals in mixtures as they are received or imported

- Intended to reduce effort

Exempts chemicals in mixtures if concentration (% by weight) is below:

- 0.1 % for OSHA-defined carcinogens
- 1 % for other Section 313 non-PBT chemicals


Does not apply to:

- Manufacturing activities, except impurities & import
- Wastes received from off-site
- Persistent and Bioaccumulative Toxic (PBT) chemicals

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De minimis does not apply because exceeded threshold



Raw material Primer Mixture (90% toluene)


Paint <1% toluene

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

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De minimis does apply



Raw material trace (<1% toluene)

Paint stripper >1% toluene

Processing a non-PBT in a mixture to above the *de minimis* triggers threshold determinations if thresholds are met, release calculations


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Exercise


A plant uses benzene as a raw material to manufacture liquid industrial adhesive. The plant adds 27,000 lb of benzene to its liquid adhesive-making operation during the reporting year, but 3,000 lb are volatilized during the operation. How much of the benzene should be applied toward the processing activity threshold?

Select your choice.

- A. 27,000 lb
- B. 24,000 lb
- C. 3,000 lb




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Article Exemptions



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Article Exemption


Article is defined as a manufactured item:

- That is formed into a specific shape or design,
- Has use functions based on shape or design, and
- Does not release the chemical under normal use.


Processing & using articles are exempt; manufacturing an article is not exempt

Article loses the exemption if:

- Releases 0.5 pound of chemical; unless recycled
- Shape changes in all dimensions in processing



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Article can lose its exemption

Changes shape, or size in any dimension (wire)

Releases a Section 313 chemical, unless:

- Item remains recognizable form, and
- Total releases from all like items are:
 - *Recycled or directly reused, or*
 - *0.5 pound or less per year (round down to zero)*

But: releases from processing an article for disposal are not considered "during normal use" – article remains exempt

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Article Exemption: Examples

Wire is cut to specified lengths. Wastes include off-spec cuts and dust.

- Generation of off-spec cuts that are recognizable as articles will not, by themselves, negate the article status
- Dust and off-spec cuts not recognizable as articles, with greater than 0.5 pound of ANY Section 313 chemical released annually, and not recycled or directly reused, negate the article status

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Article Exemption: Examples

Fluorescent light bulbs containing mercury are installed and used. Following use, the bulbs are crushed for recycling at the facility and mercury is released.

- Crushing bulbs for recycling after use for lighting at the facility is not considered release under normal conditions of processing or use at this facility; the article exemption may apply.

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Article Exemption is often inappropriately used!

In many instances when metals are machined, cut, or ground, in any manner, the article exemption may not be applicable.

Generally, the articles exemption does not apply to the actual manufacturing of articles.

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Laboratory exemption

Use in a laboratory activity under direction of a technically qualified individual:

- Process control, QA/QC, R&D labs

EPA Guidance CY 1999

- Testing in open water bodies is NOT exempt

EPA Q&A 2000 & for Federal Facilities

- Only exempts activities conducted in a laboratory
- Maintain & clean lab equipment – NOT exempt



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Exemptions for Specific Industry Sectors (NAICS Codes)

Coal mining extraction activities in NAICS Codes 212111-212113 are exempt (40 CFR §372.38(g))

- Coal extraction: physical removal or exposure of ore, coal, minerals, waste rock, or overburden prior to beneficiation, and encompasses all extraction-related activities prior to beneficiation (40 CFR §372.3)

Chemicals in metal mining overburden that are processed or otherwise used (for NAICS Codes 212221, 212222, 212231, 212234, 212299) (40 CFR §372.38(h))

- Overburden: unconsolidated material that overlies deposit of useful material or ore (40 CFR §372.3)

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Structural Component of the Facility Exemption

Section 313 chemicals used as structural components are eligible for exemption (See 40 CFR § 372.38(c)(1)). Building components that are process-related are not "structural components" as contemplated by the exemption.

- Non-process-related building components that are "structural components" and therefore eligible for the exemption include:
- Potable water pipes and other non-process-related pipes and structures

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Structural Component of the Facility Exemption

Processed-related building components that are NOT "structural components" and therefore NOT eligible for the exemption include:

- Refractory brick, boiler tubes, process-related pipes, anodes used in electroplating, grinding wheels, & metal working tools
- Structural components that are integral to a non-industrial facility's "process" (e.g., federal prisons, hospitals, parks)

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Routine Janitorial & Grounds Maintenance Exemption

EPA Guidance to 1997 & DoD Consolidated Guidance

- Cleaning supplies (office & bathrooms), fertilizers, pesticides, fungicides, herbicides, & insecticides – same type and concentration as consumer products

EPA Guidance CY 1998 (EPA 745-B-97-008)

- Paint for road lines & signs are exempt

EPA Guidance CY 1999 (EPA 745-B-98-004)

- Process-related facility equipment cleaning or maintenance activities – NOT exempt
- Dust suppressants on roads – NOT exempt

EPA Q&A for Federal Facilities (EPA 745-R-00-003)

- Process-related services – NOT exempt (e.g., fed. prisons, hospitals, parks; DoD housing; BLM oil on roads)

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Employee and Personal Use Exemption

EPA Guidance to 1997 & DoD Consolidated Guidance

- Food, drugs, & cosmetics at company stores, medical facilities, & housing; treat drinking water
- Fuel for personal autos; heating & cooling comfort
- Munitions for non-military use on ranges
- Not exempt: Combustion product & waste treatment

EPA Guidance CY

- Ammonia from human sewage is exempt

EPA Guidance CY 1999

- Air conditioning to access processes – NOT exempt
- Ammonia from human sewage is "manufactured"

EPA Q&A for Federal Facilities

- DoD treating human waste on-site – NOT exempt
- Fed. Facilities' services to non-employees – NOT exempt

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Motor Vehicle Maintenance Exemption (car, truck, missile, spacecraft, tank, forklift)

EPA Guidance Through CY 1997

- Exempts use & maintenance of on-site vehicles, including fuel (storage and transfer) and exhaust
- Lubricants, brake and transmission fluid, coolants
- Bodywork and touch-up paint

EPA Guidance CY 1998

- Jet fuel in aircraft leaving the facility is "processed"

EPA Guidance CY 1999

- Used motor oil sent for recycling is exempt

EPA Q&A for Federal

- Exhaust chemicals are "manufactured" – NOT exempt
- Fuel in serviced vehicles shipped off-site is "processing" – NOT exempt



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Intake Water and Air Exemption

EPA Guidance to 1997 & DoD Consolidated Guidance

- Chemicals in process water or non-contact cooling water – from environment or municipal sources
- Air used for compressed air & combustion

EPA Guidance CY 1999

- Chemicals in storm water runoff used on-site – NOT exempt
- Discharging unused water to the environment – NOT exempt



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Otherwise Use Exemptions

Section 313 chemicals contained in non-process related items for employee personal use (40 CFR § 372.38(c)(3))

Non-federal Facilities:

- HCFC 22 in air conditioners used solely for employee comfort (exemption does NOT cover process cooling using chemical-based cooling systems)
- Chlorine used to treat on-site potable water
- Phenol used in a facility medical dispensary

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Otherwise Use Exemptions

Section 313 chemicals contained in non-process related items for employee personal use (40 CFR § 372.38(c)(3))

Federal Facilities:

- Does not include TRI chemicals used for providing services to non-employees (e.g., patients in federal hospitals, prisoners, park visitors)

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Exclusions from EPCRA TRI Thresholds & Reporting

National Security

- classified information under EPCRA is subject to normal clearance procedures (CERCLA, Section 120(j)(2)) & EO Presidential exemption

Active Shipping Papers

- material spilled while in transit is not considered for Section 313 release reporting (EPCRA section 327).

Natural Migration

- a chemical released to environment that later migrates to another environmental medium is not reportable a second time under TRI.

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Lead and Lead Compounds: PBTs Since Reports for CY 2001

- Thresholds: 100 pounds per year
 - *Lead (not in stainless steel, brass, or bronze alloys)*
 - *Lead Compounds*
- Lead may be in many types of mixtures:
 - *machining fluids, lubricants, oils, fuels for stationary equipment, paints, coatings, welding rods, and solder*
- No de minimis limit applies – any amount in mixtures requires consideration
- Report release data to nearest 0.1 pound

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Identifying Section 313 Exemptions for Facility Activities

- Structural components of the facility
- Routine janitorial and grounds maintenance
- Employee personal use
- Articles purchased and brought on-site
- Mixtures with below de minimis (but not PBTs)
- Motor vehicle maintenance
- Laboratory activities

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Data Sources

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Chemical Information Management

All non-exempt manufacture/processes/otherwise use of Section 313 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

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Chemical Information Management

Need cooperation and support from all functional groups purchasing or using Section 313 chemicals

Be comprehensive to ensure accurate threshold determination!

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Data Sources for 313

Supplier notification information on vendors' SDSs

- Section 15 Regulatory Information

Environmental permits & monitoring data

- incinerators can create hydrochloric acid (aerosols), PACs, & dioxins; waste treatment may create nitrates

Bulk materials databases or records

- Inventory content, filling records & capacity of tanks

Local purchase authorization cards or other company-issued credit cards

- For hazardous materials from vendors
- Most will be small quantities – consider PBTs.

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Data Sources for 313 (continued)

- Individual shops & tenant activities that store and use hazardous materials, including short term & construction contractors

- Consider any chemical close to threshold & PBTs.
 - Contact individually to verify materials in use, annual purchases, or amount per activity & frequency of use.

- RCRA reports & manifests for off-site transfers of chemicals in waste

- annual or biannual, invoices & shipping receipts for recycling, energy recovery, or disposal.

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Determining Concentration in mixtures or other trade name products

Were thresholds exceeded for listed chemicals in mixtures?

- Exact concentration: SDS = 25%, TRI = 25%
- Upper bound – use upper limit: SDS <25%, TRI = 25%
- Range – use midpoint, SDS 30-50%, TRI = 40%
- Lower bound, subtract out other known constituents, create a range, use the midpoint
 - *SDS >75% toxic chemical, TRI use 87.5% (top of range =100%)*
 - *SDS >75% toxic, 15% H₂O, TRI use 80% (range = 75%-85%)*

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TRI Chemicals contained in mixtures

- For threshold quantity, only include portion of TRI chemical in the mixture, not the weight of the entire mixture
- De minimis is non-PBT chemicals at <1% or 0.1%
- Metal alloy can be thought of as a solid solution
 - *Threshold quantity = [TRI] by total weight of alloy processed*

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Concentrations in Wastes

- If concentration is exact, upper bound, range or lower bound, use mixture guidance
- If concentration is below detection limit, use engineering judgement
 - *Assume ½ of full detection limit if expected to be present*
 - *Assume 0 if not expected to be present*

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Supplier notification

Requires suppliers of mixtures or trade name products to covered facilities (See 40 CFR § 372.45(a)) to:

- Identify Section 313 chemical(s) by name and CAS number
- Identify Section 313 chemical(s) as being subject to Section 313 requirements
- Provide concentration (or range) of Section 313 chemicals in mixtures and other trade name products (not wastes)
- Provide notification at least annually in writing or attached to the SDS
- Update notification when changes occur

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Supplier notification

- The Regulatory Information section of the SDS should identify any chemicals that are subject to TRI reporting
- Suppliers of mixtures containing non-PBT chemicals below de minimis concentrations do not need to supply notification

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Watch for double counting

- For threshold determination, Section 313 chemicals recycled from spent or contaminated materials or directly reused
 - *Count original amount used only once*
 - *Watch multiyear reports*
- 313 chemicals stockpiled or in inventory but not manufactured, processed or otherwise used during reporting year are not counted for threshold determinations
- Chemicals sent off site for recycling and returned to the facility are considered new materials and counted for threshold determinations

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Count the original only once

If a chemical is blended into a product mixture, and then this mixture is packaged for sale into 55 gallon drums, these are both processing activities, the chemical is processed twice. Only count this quantity once towards the processing threshold.

- 20k lbs. toluene blended with other chemicals to create paint
- Paint product was then packed into 55 gallon drums for sale
- The processing threshold quantity is 20,000 lbs.



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Multi-Establishment Facilities

Reporting as multi-establishment facility (40 CFR §372.30(c))

- Use the 'Manage Establishments' option to create multiple establishments for which to submit reporting forms
- Multi-establishment facilities have the option to file separate Form R reports for each part of the facility
- Threshold calculations must account for all the facility's activities and are not performed at the establishment level

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Multi-Establishment Facilities

Reporting as multi-establishment facility (40 CFR §372.30(c))

- Form R reports must include all non-exempt releases and other waste management activities at the facility
- Use the 'Report by Part' option in TRI-MEweb to prepare separate Form R reports for the multi-establishment facility
- Avoid double-counting at the facility of chemicals involved in intra-facility transfers

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TRI Reporting Requirements



Examples of Toxic Chemicals in Contractor Activities

- Metals in scrap sold (processed)
 - alloys of cadmium, chromium, copper, lead, nickel
- Maintenance & support contractors:
 - PACs generated by tar on parking lots and roof
 - Sulfuric acid (aerosol) released by equipment cleaner
 - Pesticides applied by a licensed pesticide service
- Foreign sources imported to the U.S. (manufactured)
- Chemicals generated by waste treatment
 - Ammonia in sewage treatment
 - PACs & dioxin in combustion processes
- de minimis PBT chemicals in mixtures
- Chemicals from coal combustion:
 - Hydrochloric acid
 - Mercury compounds

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TRI Reporting Requirements



Some Chemicals Are Not TRI Regulated Chemicals

Metals:

- Iron
- Aluminum metal (solid)
- Zinc metal (solid)
- Vanadium in alloys (reporting ended in 2000)



Chemicals in propellant, energetic, & pyrotechnics

- 2,4,6-Trinitrotoluene (TNT)
- Composition B (mixture of RDX & HMX)
- RDX (CAS Number: 121-82-4)
- HMX (CAS Number: 2691-41-0)
- Dimethyl phthalate

Other chemicals

- Sulfuric acid (liquid)
- Hydrochloric acid (liquid)

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TRI Reporting Requirements



Section 313 Compliance Process for Each Toxic Chemical

- Make threshold determinations & document
- Assemble release & transfer quantity data for each chemical that met any threshold
 - Use monitoring data where available
 - Make estimates
 - Document assumptions
- Use EPA's TRI reporting software and submit to EPA
- Submit electronic or paper reports to State
 - Keep all records for 3 years (40 CFR §372.10)
 - Cover letters, return receipts, screen shots of electronic submissions

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TRI Reporting Requirements



Minimum Documentation for Each 313 Reported Chemical

- Threshold determinations
- Form R reports – including revisions submitted
- Acknowledgement of TRI report submission to EPA & State
- Exemptions and assumptions
- Process or material flow diagrams
 - *indicating emissions & release sources*
- Release estimation calculations
 - *Air, water, & waste permits & monitoring data*
 - *RCRA hazardous waste manifests & reports*
 - *Waste transfer & treatment invoices*

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TRI Reporting Requirements



Maintaining 313 Compliance

- Review EPA changes to guidance
- Consider all chemical's forms & activities:
 - *Created in combustion & waste treatment*
 - *Metals converted to metal compounds*
- Two step process for each chemical:
 - *Threshold calculations – manufacture; process; otherwise use*
 - *Prepare Form R report – for on-site releases & off-site transfers*
- Document thresholds & reported releases
Including chemicals not meeting thresholds

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TRI Reporting Requirements



Record Keeping & Documentation

Importance of good record keeping

- Detailed records improve reporting accuracy and data quality
- Reduces replication of effort from year to year
- Well-labeled calculations and engineering assumptions serve as standard operating procedures (SOPs) for future years
- Ensures consistency from year to year, especially if personnel responsible for reporting change



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TRI Reporting Requirements



Record Keeping & Documentation EPA Requirements

- Records used to complete Form R must be kept for three years from the time the report was submitted (40 CFR § 372.10)
- EPA may review records during a data quality audit

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TRI Reporting Requirements



Facility Name: OMNI-CHEMICAL Date Worksheet Prepared: _____
Toxic Chemical or Chemical Category: Toluene Prepared By: J.S.P.
Reporting Year: _____

Step 1. Identify amounts of the toxic chemical manufactured, processed, or otherwise used.

Mixture Name or Other Identifier	Information Source	Percent by Weight	Total Weight (in lb)	Amount of the Listed Toxic Chemical by Activity (in lb):	
				Manufactured	Otherwise Used
1. Bulk Toluene	SDS	98	23,000	22,500	
2. Jet-A Degreaser	Purchasing	99	10,000		9,900
3. Bathroom Paint	Vendor	5	30,000		1,500
4. Parts Washer Fluid	Purchasing	40	10,000		4,000
5.					
6.					
7.					
Subtotal:			(A) _____ lb	(B) 22,500 lb	(C) 10,500 lb

Step 2. Identify exempt forms of the toxic chemical that have been included in Step 1.

Mixture Name as Listed Above	Applicable Exemption	Note: Fraction or Percent (except if Applicable)	Exempt Amount of the Toxic Chemical from Above (in lb):	
			Manufactured	Otherwise Used
1. Bathroom Paint	Struct. Comp.	100		1,500
2.				
3.				
4.				
5.				
Subtotal:			(A) _____ lb	(B) 22,500 lb (C) 1,500 lb

Step 3. Calculate the amount subject to threshold: (A - B) _____ lb (C - C₁) _____ lb

Compare to thresholds for section 313 reporting: 25,000 lb 25,000 lb 10,000 lb

If any threshold is met, reporting is required for all activities. Do not submit this worksheet with Form R. Retain for your records.

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Begin early

- Implement a program to gather real time data on usage
- Searches for historical information can be difficult

Team approach

- Include all relevant personnel

Recordkeeping and documentation

- Keep good records. Document everything!
- Helps future generations
- EPA can perform a data quality audit

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AARCHER Notes

Enforcement



Metal Products Company Settles with EPA for Chemical Reporting Lapses at Warwick, R.I. Facility

06/23/2018

Contact Information:
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BOSTON - EPA reached a settlement with a Warwick, R.I. company that makes metal products, which will help ensure that the public is aware of the potential for chemical releases in their community.

Lucas (Babcock) Warwick LLC also agreed to pay a penalty of \$80,000 to resolve claims that it failed to file the proper "Toxic Release Inventory" (TRI) Reporting Forms, for copper and silver for 2012, 2013, and 2014, in violation of the federal Emergency Planning and Community Right-to-Know Act.

The company makes silver and copper-based brazing and soldering filler metals and fluxes - or cleaning agents - for the appliance, construction, and metal-working industries.

"Failing to file toxic inventory forms deprives the community of its right to know about releases and the presence of chemicals in facilities in their community," said Curt Spaulding, regional administrator of EPA's New England office. "Companies that work with or produce potentially hazardous chemicals must follow federal reporting requirements so the community is not deprived of its right to know about potential chemical releases that may affect public health and the environment."

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Enforcement



Northstar Casteel Products agrees to second EPA settlement in four years over federal Toxics Release Inventory (TRI) violations

06/08/2018

Contact Information:
Mark MacIntyre (macintyre.mark@epa.gov)
206-953-7702

(Seattle, WA - June 8, 2018) The U.S. Environmental Protection Agency has settled with North Star Casteel Products, Inc. (North Star), a foundry located in Seattle, Washington for violations of the Toxics Release Inventory (TRI) chemical reporting requirements of the Emergency Planning and Community Right-to-Know Act. As part of today's agreement, North Star will pay a \$133,000 penalty.

North Star is a foundry that manufactures metal castings to meet customer alloy and shape specifications. According to the Company, Northstar sells products to "manufacturers and end users seeking strong, ductile, heat resistant, and wear-resistant ferrous castings." The facility is located next to the I-5 freeway, just south of downtown, in Seattle's Georgetown neighborhood.

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Enforcement



SI Group Will Properly Report Chemicals and Provide Emergency Response Equipment To Rotterdam Junction Fire Department as Part of Settlement with the EPA

06/01/2018

Contact Information:
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(New York, NY - August 1, 2018) The U.S. Environmental Protection Agency announced a legal settlement with the SI Group, Inc. of Rotterdam Junction, New York that will provide emergency response equipment worth at least \$30,275 to the Rotterdam Junction Fire Department. The agreement resolves alleged violations of the Emergency Planning and Community Right-to-Know Act (EPCRA), which was designed to help communities protect public health, safety, and the environment from chemical hazards. The SI Group has also agreed to pay a \$108,000 penalty for failure to properly submit information about chemicals it releases from its Rotterdam, NY facility.

Under the legal agreement with the EPA, the SI Group will comply with the requirements of EPCRA. The company has already submitted to the EPA information it had not previously filed as required by EPCRA. The company will also purchase an air bottle filling station and gas meters for the Rotterdam Junction Fire Department, which will improve the ability of the fire department to respond to emergencies. The Rotterdam Junction Fire Department is currently using a system that is over 20 years old and is not able to completely fill its Self-Contained Breathing Apparatus cylinders.

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Questions/Discussion