

EPA FORM R
Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

TRI Facility ID Number
Toxic Chemical Category or Generic

Revision (Enter up to two code(s))
Withdrawal (Enter up to two code(s))

PART I. FACILITY IDENTIFICATION INFORMATION

DN 1. REPORTING YEAR

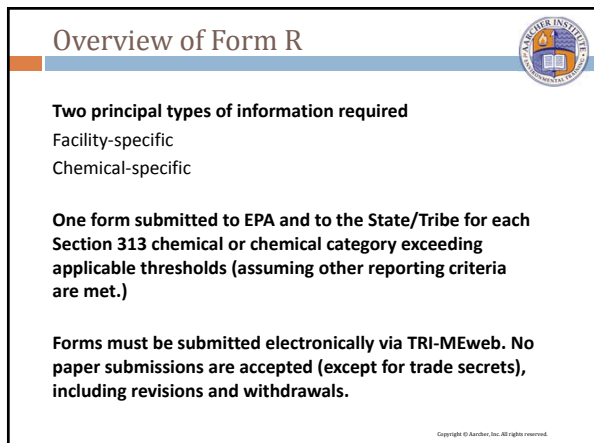
DN 2. TRADE SECRET INFORMATION

Do you claim the toxic chemical identified on page 2 as a trade secret?
Yes (Answer question 2.2; attach substantiation forms) ☐ No (Do not answer 2.2; go to Section 3)

DN 3. CERTIFICATION (Important: Read and sign after completing all form sections.)
I certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and correct and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Official title of owner/operator or senior management official: _____ Signature: _____ Date signed: _____

Form R Overview



Overview of Form R

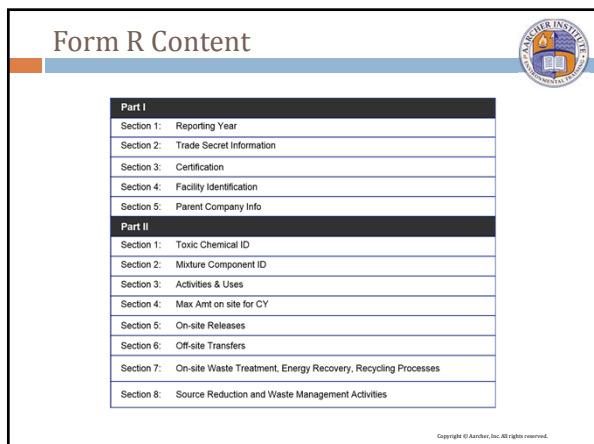
Two principal types of information required

- Facility-specific
- Chemical-specific

One form submitted to EPA and to the State/Tribe for each Section 313 chemical or chemical category exceeding applicable thresholds (assuming other reporting criteria are met.)

Forms must be submitted electronically via TRI-MEweb. No paper submissions are accepted (except for trade secrets), including revisions and withdrawals.

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Form R Content

Part I	
Section 1:	Reporting Year
Section 2:	Trade Secret Information
Section 3:	Certification
Section 4:	Facility Identification
Section 5:	Parent Company Info
Part II	
Section 1:	Toxic Chemical ID
Section 2:	Mixture Component ID
Section 3:	Activities & Uses
Section 4:	Max Amt on site for CY
Section 5:	On-site Releases
Section 6:	Off-site Transfers
Section 7:	On-site Waste Treatment, Energy Recovery, Recycling Processes
Section 8:	Source Reduction and Waste Management Activities

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Facility Identification



Select your facility with 'My Facilities'

For returning users, TRI-MEweb stores facility information

- Select "Edit" to view or make changes to the facility

For new TRI users reporting for an existing TRI facility, look up the existing TRI facility using 'Access/Add Facility'

- Option 1: Enter TRI Facility ID (TRIFID) and Technical Contact Name and Phone Number
- Option 2: Enter six-to-seven digit facility access key

For new facilities that have never reported to TRI, set up a new facility using 'Access/Add Facility'

- Option 3: Generate new facility in TRI-MEweb, TRIFID and access key assigned.

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Facility Identification (continued)



Facility Name and Address (Section 4.1)

Facility name

- Standard facility names are available through the Facility Registry System (www.epa.gov/enviro/html/fii/ez.html)

Street address (no PO Box or other mailing address)

- Mailing address required if different from street address

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Facility Identification (continued)



Full or Partial Facility and Federal Facility Designation (Section 4.2)

Facility type (select one)


- Federal facility;
- Government Owned, Contractor Operated (GOCO); or
- Neither

For multi-establishment facilities, option to indicate reporting for part of a facility (Form R only).

- Facilities reporting by part use the same TRIFID for all reports

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Facility Identification (continued)




Parent Company Information (Section 5)

Parent company name

- TRI-MEweb preloads standardized Parent Company names for prior TRI reporters. (Can change pre-loaded Parent Company names, if necessary)
- For new TRI reporters, the TRI-MEweb software has a list of standardized Parent Company names. If reporters cannot find correct name from the provided list, enter a new name. (Excel file on USB)

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Facility Identification (continued)



Parent Company Information (Section 5)


Parent company Dun and Bradstreet Number

Facility Dun and Bradstreet Numbers (Section 4.6)

To verify the accuracy of facility and parent company D&B number and name, go to: https://www.dnb.com/product/dlw/form_cc4.htm or call 1-888-814-1435

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Facility Identification (continued)



Primary and Secondary NAICS codes (Section 4.5)

- Enter primary 6-digit NAICS code
- Enter other applicable NAICS codes in decreasing order of significance

[NAICS Identification Tools](#)

[Is My Facility's Six-Digit NAICS Code a TRI-Covered Industry?](#)

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Facility Identification (continued)



TRI-MEweb preloads previous year's chemicals

To select new chemical (Part II Sections 1.1-1.3, 2.1)

- Select CAS number or category code and name of chemical or chemical category - except on trade secret "sanitized" form; or
- Enter generic name only if claiming chemical name as a trade secret (40 CFR 350); or
- Report generic name provide by supplier, if supplier claims trade secret

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Facility Identification (continued)



Contact information (Part I, Section 4.3 and 4.4)

List name, phone number, and email

- Technical contact – should be able to explain data to EPA
- Facilities should provide an email address for the technical contact (not provided in TRI's public data release)
- Public contact – should be able to represent the facility's data to the public.

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Activities and Uses



Specify use(s) of the Section 313 chemical (Section 3)

(e.g., manufacture, process, or otherwise use)

- Report only activities taking place at reporting facility
- Check all applicable boxes

3.1 Manufacture

<input type="checkbox"/> Yes <input type="checkbox"/> No	3.1 Did your facility manufacture 1.1 Chemical hydrocarbon in Reporting Year 2012?
<input type="checkbox"/> Yes <input type="checkbox"/> No	a. When 1.1 Chemical hydrocarbon produced at your facility?
<input type="checkbox"/> Yes <input type="checkbox"/> No	b. When 1.1 Chemical hydrocarbon imported to your facility?
<input type="checkbox"/> Yes <input type="checkbox"/> No	c. When 1.1 Chemical hydrocarbon produced or imported for sale at 313 facility?
<input type="checkbox"/> Yes <input type="checkbox"/> No	d. When 1.1 Chemical hydrocarbon produced or imported for sale at 313 facility?
<input type="checkbox"/> Yes <input type="checkbox"/> No	e. When 1.1 Chemical hydrocarbon produced or imported for sale at 313 facility?

3.2 Process

<input type="checkbox"/> Yes <input type="checkbox"/> No	3.2 Did your facility process 1.1 Chemical hydrocarbon in Reporting Year 2012?
--	--

3.3 Otherwise Use

<input type="checkbox"/> Yes <input type="checkbox"/> No	3.3 Did your facility otherwise use 1.1 Chemical hydrocarbon in Reporting Year 2012?
<input type="checkbox"/> Yes <input type="checkbox"/> No	a. When 1.1 Chemical hydrocarbon otherwise used as a chemical at 313 facility?
<input type="checkbox"/> Yes <input type="checkbox"/> No	b. When 1.1 Chemical hydrocarbon otherwise used as a chemical at 313 facility?
<input type="checkbox"/> Yes <input type="checkbox"/> No	c. When 1.1 Chemical hydrocarbon otherwise used as a chemical at 313 facility?

Maximum On-Site Amount



Select appropriate code indicating the maximum quantity on-site during the reporting year (Section 4).

Range Code	Amount Range
1	0 - 999 lbs
2	1,000 - 999,999 lbs
3	1,000,000 - 9,999,999 lbs
4	10,000,000 - 99,999,999 lbs
5	100,000,000 - 999,999,999 lbs
6	1,000,000,000 - 9,999,999,999 lbs
7	10,000,000,000 - 49,999,999,999 lbs
8	50,000,000,000 - 99,999,999,999 lbs
9	100,000,000,000 - 499,999,999,999 lbs
10	500,000,000,000 - 999,999,999,999 lbs
11	greater than 1 trillion lbs

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Maximum On-Site Amount



Use maximum total (non-exempt) amount present at one time during reporting year, even if the Section 313 chemical is present at more than one location at the facility

- Based on amount in storage, process, and wastes
- Maximum amount on site may differ from the Tier II-reported maximum amount on site value
- Tier II is usually by mixtures, Form R is chemical-specific
- Tier II excludes hazardous wastes, Form R does not

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Reporting Releases and Waste



Quantity of the toxic chemical entering each environmental medium on-site (Section 5)

Transfers to other off-site locations (Section 6)

On-site waste treatment, energy recovery, and recycling methods and quantities (Sections 7 and 8.2, 8.4, and 8.6)

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Reporting Releases and Waste



Tools and Data Sources for Release and Waste Management Calculations

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

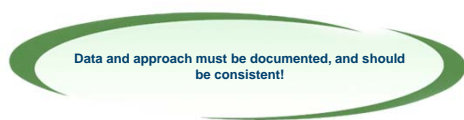
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Reporting Releases and Waste



Estimating Quantities Released and Managed as Waste Previous year Form R report(s) and documentation

- Consider all sources (routine and non-routine)
- Reasonable estimates are required by law
- The facility needs to determine the best approach



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Data Precision



EPA allows using two significant figures when reporting releases and other waste management estimates

- The number of significant figures is typically the number of non-zero digits

If estimate is more precise, additional significant figures may be used based on precision of data used to calculate estimate

- Regardless of estimation precision, however, non-PBT chemical quantities should be entered in whole numbers in TRI-MEweb
- Note that certain waste management quantities calculated automatically by TRI-MEweb may include up to two decimals

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Data Precision



For estimates of non-PBT Section 313 chemicals under 1,000 pounds, a range code can be used:

A= 1-10 pounds; B = 11-499 pounds; C = 500-999 pounds

- Note: If you enter a range code, TRI data tools used by the public will display the midpoint of the range (e.g., 5, 250, or 750 lbs.).

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Data Precision



For PBT chemicals, report releases and other waste management quantities at a level of precision supported by the data and estimation techniques used

For PBT chemicals, 0.1 pound (100 micrograms for dioxins) is the smallest amount required to be reported

- Estimates < 0.05 pounds (< 50 micrograms for dioxins) can be rounded down to zero pounds

TRI-MEweb will allow for decimal reporting for PBT chemicals (e.g., 9.3 pounds)

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"NA" vs. "0"



All data elements in Sections 5 and 6 must be completed. If you determine that there was no release or transfer quantity:

Use "NA" (not applicable) when no possibility of the Section 313 chemical being released to or otherwise managed as waste in that media (e.g., facility has no on-site landfill) or has not transferred any waste to an off-site location)

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"NA" vs. "0"



Use "0" when no release occurs or < 0.5 pound of a non-PBT Section 313 chemical from a waste stream is directed towards that medium

- Example: Discharge to water is zero; however, release possible if control equipment fails
- Must indicate a Basis of Estimate code (i.e., M1, M2, C, E1, E2, O) for all numerical estimates, including "0"

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Quantity Entering Each Medium



Report total releases of the Section 313 chemical to each environmental medium on-site - air, water, land (Section 5).

Enter Total Release, report total quantity

- Range codes can be used in Sections 5 and 6 for non-PBT Section 313 chemical quantities less than 1,000 pounds*
 - *A = 1 - 10 pounds*
 - *B = 11 - 499 pounds*
 - *C = 500 - 999 pounds*

* Note that similar quantities reported in Section 8 of Form R must be actual values and not ranges. The Section 8 Calculator in TRI-MEweb will assume the midpoint of any ranges reported in Sections 5 and 6 when calculating quantities for Section 8. If you do not wish to use the midpoint of the range in Section 8 calculations, it is best to enter a value rather than a range in Section 5.

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Basis of Estimate Codes



One of the following "Basis of Estimate" codes must be listed on the Form R for each release and waste management quantity reported:

- Continuous monitoring (M1)
- Periodic or random monitoring (M2)
- Mass balance calculation (C)
- Published emissions factors (E1)
- Site-specific emissions factors (E2)

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Basis of Estimate Codes



Engineering calculations (O)

- Everything NOT M1, M2, C, E1 or E2 above, such as:
 - *Best engineering judgment*
 - *Estimated removal efficiencies*
 - *Non-chemical-specific and non-published emission factors*

Use the code on the Form R for the method used to estimate the largest portion of the release

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Fugitive or Non-Point Air Emissions



Enter total fugitive releases of the Section 313 chemical, including leaks, evaporative losses, building ventilation, or other non-point air emissions (Section 5.1)

Example Using a Mass Balance Basis of Estimate (C):

5,000 lbs. of a volatile solvent are added during the year as part of the manufacture of a liquid adhesive. 4,950 lbs. of the solvent are contained in the final liquid adhesive product.

- Input (5,000 lbs.) = Output (4,950 lbs.) + Air Loss (50 lbs.)
- Fugitive air emissions from this process = 50 lbs.

**Law of Mass Balance:
What Goes In = What Comes Out**

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Fugitive or Non-Point Air Emissions



Estimating Releases When No Data Available (Fugitive)

Example: Metal dust observed on floor near or within metalworking operation - indicates fugitive air emission occurring and possible transfer off-site; no additional data are available:

- Work with operations personnel familiar with the operation to gather relevant information about the releases or waste generation
- Document the calculations performed and keep records for future reporting and in case of audit
- Basis of Estimate code 'O' will likely be used
- Range codes may be used in some situations



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Stack or Point-Source Air Emissions



Enter total releases to air from point sources, including stacks, vents, pipes, ducts, storage tanks, or other confined air streams (Section 5.2)

- Data sources/tools
- Air permit applications
- CAA Title V air inventories
- Process and production data
- Published emission factors
- Facility-specific monitoring data and emissions factors

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Stack or Point-Source Air Emissions



Example using an Emission Factor basis of estimate (E1):

- 500,000 tons of coal are combusted in a fluidized bed combustor
- EPA emission factor: 0.11 lb. mercury emitted / 1,000,000 lb. coal combusted
- $500,000 \text{ tons} \times 2,000 \text{ pounds / ton} \times (0.11 \text{ lb. mercury} / 1,000,000 \text{ lb. coal}) = 110 \text{ lb. mercury}$
- 110 pounds of mercury are released through the stack
 - *Note: A portion of mercury may be present in resulting ash and would need to be reported as such*

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On-Site Wastewater Discharges



Releases to streams or water bodies (Section 5.3)

Use the map provided in TRI-MEweb to select the name of the receiving stream or waterbody. If not found, manually enter the name.

- Enter the total amount of Section 313 chemical released to each receiving stream or waterbody
- Enter the basis of estimate code
- Indicate percentage of total release quantity contributed by stormwater runoff (choose NA if not applicable).
- Select NA box for Section 5.3 if the facility does not discharge the Section 313 chemical to streams or water bodies.

Stream or Water Body Name	Reach Code Input/ID#	Quantity lbs	Range Code	Basis of Estimate Code	% from Stormwater
Shackles River	071000400001	54		02 - Stormwater, Periodic/Random	100%

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Calculating Wastewater Discharges



Release to stream or water body (Section 5.3) and Discharges to POTW (Section 6.1) are not the same

Direct AND Indirect Discharges

- Don't forget storm water!

If no monitoring data exists, estimate based on process knowledge and/or mass balance calculation

Data Sources

DMRs (or related wastewater monitoring reports)

Other monitoring data such as permit applications

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Calculating Wastewater Discharges



Calculate the yearly pounds of methanol discharged using the following data concerning wastewater discharges of methanol:

Date	Conc. (mg/l)	Flow (MGD)	Amt. (lb/day)
3/1	1.0	1.0	8.33
9/8	0.2	0.2	0.33
Average =			4.33

Assuming 365 days of discharge and no other sources:

- $4.33 \text{ lb/day} \times 365 \text{ day} = 1,580 \text{ lb. total release}$
- Basis of Estimate Code: M2
- Include receiving stream or waterbody name
- Indicate NA for contribution from stormwater.

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On-Site Injection Wells



Underground injection to Class I wells (Section 5.4.1)

- Enter total amount of Section 313 chemical injected into Class I wells at facility and basis of estimate code

Underground injection to Class II - V wells (Section 5.4.2)

- Enter total amount of Section 313 chemical injected into Class II - V wells at facility and basis of estimate code

Total Quantity:	<input type="text"/>	lbs
- or -		
Range Code:	<input type="text" value="No Code Selected"/>	
Basis of Estimate:	<input type="text" value="No Value Selected"/>	

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Other Disposal to Land On-Site



Enter quantity of toxic chemical entering each on-site land disposal option (Section 5.5)

- On-site landfills: RCRA Subtitle C (Section 5.5.1A)
- On-site landfills: other (Section 5.5.1B)
- On-site land treatment and application farming (Section 5.5.2)
- On-site surface impoundments: RCRA Subtitle C (Section 5.5.3A)
- On-site surface impoundments: Other (Section 5.5.3B)
- Other disposal (includes spills or leaks to land) (Section 5.5.4)

Quantities released to air or water during the reporting year of the initial release to land (e.g., volatilization from surface impoundments) are not included in the land disposal quantity

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On-Site Waste Management



Examples of on-site waste management

- Air pollution control devices
- Wastewater treatment processes
- Energy recovery devices
- Recycling devices

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On-Site Waste Management




Report each waste treatment method that each waste stream containing the Section 313 chemical undergoes (Section 7A)

- Include even if method has no effect on the chemical
- Report the efficiency of the waste treatment methods at eliminating the Section 313 chemical from the waste stream
- Includes destruction or physical removal



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Energy Recovery



Enter on-site energy recovery quantity and methods for Section 313 chemical

- Section 313 chemical must be combustible and have a significant heating value (>5,000 BTU/lb.)
- Combustion unit is integrated into an energy recovery system (e.g., industrial furnace, industrial kiln, or boiler)

Enter codes in descending order by quantities combusted


Quantity Used for Energy Recovery Onsite: Current Year (lbs)

Energy Recovery Methods:
(Select the order of energy recovery methods used)

First Method	Second Method	Third Method
Not Selected	Not Selected	Not Selected

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Recycling Methods and Quantity



Enter quantity and methods used for on-site recycling of the Section 313 chemical (Sections 7C and 8.4 current year)

- Codes for recycling methods used are found in EPA's TRI Reporting Forms and Instructions document
- Do not include energy recovery processes

Enter codes in descending order by quantities recycled


Quantity Recycled Onsite: Current Year (lbs)

Recycling Methods:
(Select the order of recycling methods used)

First Method	Second Method
Not Selected	Not Selected

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Off-Site Transfers



Includes both off-site location information and quantities of Section 313 chemicals transferred to off-site locations

Report quantities of chemical sent off-site to each POTW or other location for recycling, energy recovery, waste treatment, or disposal

Report only total quantity of chemical transferred off-site, not the quantity of entire waste stream mixture

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Off-Site Transfers



In Sections 6.1 and 6.2, Total Transfers, report total quantity

Range codes can be used in Sections 5 and 6 for non-PBT Section 313 chemical quantities less than 1,000 pounds*

- A = 1 - 10 pounds
- B = 11 - 499 pounds
- C = 500 - 999 pounds

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Off-Site Transfers



Note that similar quantities reported in Section 8 of Form R must be actual values and not ranges. The Section 8 Calculator in TRI-MEweb will assume the midpoint of any ranges reported in Sections 5 and 6 when calculating quantities for Section 8.

If you do not wish to use the midpoint of the range in Section 8 calculations, it is best to enter a value rather than a range in Section 6.

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Transfers to POTWs



Discharges to publicly owned treatment works

- Enter total quantity of the Section 313 chemical transferred to all POTWs and basis of estimate
- Select POTW name and location for each POTW
- May be able to find official name of POTW:
 - Using TRI-MEweb search tool
 - Facility Registry System: www.epa.gov/enviro/html/fri/ez.html

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Transfers to POTWs



Example using an Engineering Calculations basis of estimate (O):

A wet grinding process generates wastewater with 300 lbs. of lead (contained in particulates) during the year. This wastewater undergoes on-site filtration prior to being sent to the POTW. Manuals from the filter equipment vendor indicate a 95% removal efficiency for particulates of this size.

- $300 \times 0.95 = 285$ lbs. removed from the wastewater
- $300 - 285 = 15$ pounds remaining in the wastewater after filtration
- 15 pounds of lead are transferred off-site to the POTW

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Transfers to POTWs



You may enter the percentage of the chemical that is released by the POTW and it will be applied in the automatic Section 8 calculations (otherwise default percentages will be used).

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Other Off-site Transfers



Enter transfers to other off-site locations (Section 6.2)

Include name, address, and EPA identification (RCRA ID) number of the receiving facility

- Enter quantity, basis of estimate, and M code for each different waste management activity (waste treatment, disposal, recycling, and energy recovery)
 - Check "NA" box to indicate no transfers to off-site locations

Data/tools

- Waste manifests and vendor receipts
- RCRA reports

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Other Off-site Transfers



Identify all sources of off-site transfers of TRI chemicals

- Potential off-site waste transfers of reportable chemicals
- Hazardous waste
- Non-hazardous waste (e.g., waste oil and coolant)
- Trash
- Scrap metal (reuse versus recycle)

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Other Off-site Transfers



Identify all sources of off-site transfers of TRI chemicals

- Container residue: RCRA empty is NOT EPCRA empty
- BE COMPREHENSIVE!
- Identify sources for waste composition data
- Identify final disposition of each Section 313 chemical:
- Disposal, waste treatment, energy recovery, recycling by selecting the appropriate code

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Release and Waste Management



Helpful hints for accurate release estimates

- Always use your best available information
- Estimate the quantity of Section 313 chemical, not the entire waste stream
- Differentiate fugitive from stack air emissions
- Zero air emissions for volatile organic compounds (VOCs) are unlikely
- Watch out for releases of Section 313 chemicals with qualifiers
- Check your math and document your work!

Result of release estimation errors

- Incorrect release estimates and inconsistencies could carry over from year to year

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Waste Management Hierarchy

Section 8 of Form R: Source Reduction and Waste Management

Waste Management Hierarchy

Source Reduction
Recycling
Energy Recovery
Treatment
Disposal or Other Releases

More Preferable
Less Preferable

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Production-Related Waste Managed

The sum of sections 8.1 through 8.7 represents the total quantity of waste generated through regular production

Waste Management Description	Prior Year (R12009)	Current Year (R12010)	Following Year (R12011)	Second Following Year (R12012)
8.1a Total on-site disposal...	0	0	0	0
8.1b Total other on-site disposal...	390	410	0	0
8.1c Total off-site disposal...	0	0	0	0
8.1d Total other off-site disposal...	1050	1145	0	0
8.2 Quantity used for energy recovery on-site	0	0	0	0
8.3 Quantity used for energy recovery off-site	0	NA	0	0
8.4 Quantity recycled on-site	0	0	0	0
8.5 Quantity recycled off-site	0	NA	0	0
8.6 Quantity treated on-site	5000	9150	0	0
8.7 Quantity treated off-site	0	0	0	0

TRI-MEweb includes a Section 8 Calculator feature that helps calculate Section 8 estimates from estimates reported in previous portions of on-line application. A validation feature ensures consistency between Sections 5 and 6 and Section 8.

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Section 8: Relationship to Sec. 5 & 6


Part II. Sections 8.1 - 8.7

8.1a	Total on-site disposal to Class I UIC wells, RCRA & other landfills 5.4.1 + 5.5.1A + 5.5.1B – 8.8 (on-site release or disposal due to catastrophic event)
8.1b	Total other on-site disposal or other releases 5.1, 5.2, 5.3.1, 5.3.2, 5.3.3, 5.4.2, 5.5.2, 5.5.3A, 5.5.3B, 5.5.4 – 8.8 (on-site release or disposal due to catastrophic event)
8.1c	Total off-site disposal to Class I UIC wells, RCRA & other landfills Section 6.2, M64, M65, and M81 – 8.8 (off-site disposal due to catastrophic event)
8.1d	Total other off-site disposal or other releases 6.1 (for metals and metal category compounds only) + 6.2 (quantities associated with M codes M10, M41, M62, M66, M67, M73, M79, M82, M90, M94, M99) – 8.8 (off-site disposal due to catastrophic event)
8.3	Off-site energy recovery 6.2, M56 and M92 – 8.8 (off-site energy recovery due to catastrophic events)
8.5	Off-site recycling 6.2, M20, M24, M26, M28, and M93 – 8.8 (off-site recycling due to catastrophic events)
8.7	Off-site treatment 6.1 (excluding metals and metal category compounds), 6.2 (quantities associated with M codes M50, M54, M61, M69, M95) – 8.8 (off-site treatment due to catastrophic event)

Note: Quantity reported in 6.1 is distributed among 8.1c, 8.1d and 8.7 based on final disposition. TRI-MEweb provides default percentages for making this distribution. Metals and metal category compounds should not be reported in 8.7.

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Section 8: Relationship to Section 7



Part II. Sections 8.1 - 8.7	
8.2	On-Site Energy Recovery <ul style="list-style-type: none"> Determine quantity for activities described in 7B Report quantity actually combusted in energy recovery unit (i.e., consider efficiency)
8.4	On-Site Recycling <ul style="list-style-type: none"> Determine quantity for activities described in 7C Report quantity actually recycled (i.e., consider efficiency)
8.6	On-Site Treatment <ul style="list-style-type: none"> Determine quantity of the chemical for activities on waste stream described in 7A Report quantity actually destroyed (i.e., consider efficiency) Metals and metal category compounds cannot be reported here


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Non-Production-Related Waste




Enter the quantity of Section 313 chemical released into the environment or transferred off-site (Section 8.8) as a result of:

Remediation
Catastrophic events (e.g., earthquake, hurricane, fire, floods)
Other one-time events not associated with production processes (e.g., pipe rupture due to unexpected weather)



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Non-Production-Related Waste



Does not include quantities treated, recovered for energy, or recycled ON-SITE

Quantities in Sections 8.1 through 8.7 should not include amounts reported in Section 8.8

TRI-MEweb calculator will subtract any quantities reported as non-production-related waste from 8.1-8.7 quantities

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Production Ratio or Activity Ratio



Production ratio or activity ratio (Section 8.9)

- A ratio of production or activity involving the Section 313 chemical in the reporting year to production or activity in the previous year
- Puts year-to-year changes in chemical quantities released and managed as waste into the context of production

Tips:

- Consider using a production ratio when production is directly related to the amount of chemical used or produced
- Consider using an activity ratio when the chemical is "otherwise used" and the amount is determined by a variable other than production

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Production Ratio or Activity Ratio



- The Production Ratio/Activity Ratio is a ratio, not a percent change
- You can provide information on the variable you used in your ratio in the "Optional Miscellaneous Info" section using the button in TRI-MEweb

A Production Ratio Wizard is now available in TRI-MEweb to help you calculate your Production Ratio or Activity Ratio

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Production Ratio Examples



Example (Production Ratio): Oven manufacturing

40,000 ovens assembled (Current RY) = 1.14

35,000 ovens assembled (Prior RY)

Example (Activity Ratio): Tank washouts

50 Washouts (Current RY) = 0.83

60 Washouts (Prior RY)

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Production Ratio Examples



Additional Production / Activity Variable Examples, by Industry

- Refractory Manufacturing: Tons of brick manufactured
- Chemical Wholesalers: Gallons of glycol ethers packaged
- Electric Power Generation: Megawatt-hours of electricity produced
- National Security: Man-days of training per year
- Synthetic Dye Manufacturing: Number of color changeovers
- Waste Treatment and Disposal: Tons of waste landfilled on-site

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Source Reduction Activities



Report Source Reduction activities implemented for the chemical, and the methods used to identify those activities (Section 8.10)

Include only those source reduction activities implemented for the first time during the reporting year

- Include activities that reduce the total quantity of chemical waste released (including disposal), recycled, combusted for energy recovery, or treated

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Source Reduction Activities



Examples of Source Reduction Activities

- Process or equipment changes (e.g., replacements, adjustments)
- Product redesign
- Changed production schedule to minimize equipment changeovers
- Green chemistry practices (e.g., Optimized reaction conditions or otherwise increased efficiency of synthesis)

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Source Reduction Activities



You may also report the estimated annual reduction associated with each activity using range codes provided

Based on expected amount of chemical waste generation once the activity has been implemented as a percentage of the amount that would have been generated otherwise

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Optional P2 Information



Report additional information in the open-ended Pollution Prevention Information text field (Section 8.11)

This optional section provides an opportunity to publicly highlight any steps your facility took to reduce the amount of toxic chemicals entering the environment

Information about recycling, energy recovery, and treatment is welcome in addition to details about source reduction activities

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Optional P2 Information



Facility can provide information on previous years' activities

Tips


- Be specific
- Enter useful URLs
- Note any barriers inhibiting P2 (using checkboxes in TRI-MEweb)
- Put information unrelated to P2 in Section 9.1

TRI's P2 website features P2 information reported by facilities and includes a P2 reporting tip-sheet

<http://www.epa.gov/tri/p2>

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Optional Miscellaneous Information



Optional Miscellaneous Information (Section 9.1)
Facility can provide any useful additional information related to any portion of the Form R submission in this new data field

Examples of information to include:

- Changes in production
- Facility closures
- Staffing changes
- Calculation methods, e.g., emission factors
- Explanation of data quality alerts

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Optional Miscellaneous Information

TRI-MEweb provides a pick-list of suggested topics for this Section


- When providing optional miscellaneous information, it is helpful to check the box next to the topic to which your information pertains

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TRI-ME

EPA Central Data Exchange (CDX)

- TRI-ME holds data, but submission of reports is via CDX
- Apply to receive electronic signature
- <http://cdx.epa.gov>



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TRI-ME

Revise or Withdrawing Data

EPA prefers revisions & withdraws be sent via CDX and TRI-ME software

- <http://www.epa.gov/tri/report/index.htm#revise>
- Changes must also be sent to the State
 - CDX accepting states are automatically updated
 - Separate reports must be sent to non-CDX states

Withdrawals can be submitted by sending a photocopy of the old report.

To change the chemical reported (including metal to metal compound) – withdraw the original submission and report for the new chemical. This is not a revision.

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Form A Eligibility

Form A Eligibility

If alternate threshold criteria met:


- Have the option to file a Form A in lieu of a Form R
- No detailed release, other waste management, or source reduction reporting
- Maintain records and calculations used to determine Form A eligibility

Facilities can submit a combination of Forms R and Forms A. Some chemicals may meet Form A criteria, others may not.

If a facility submits a Form A and does not meet the qualifying criteria, it may result in an enforcement action.

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Criteria for Submitting Form A



Must NOT be a PBT chemical





Do not exceed 1,000,000 pounds of the toxic chemical manufactured, processed, or otherwise used.

Do not exceed 500 pounds for the total annual waste management (i.e., releases including disposal, recycling, energy recovery, and treatment) of the Section 313 chemical.

- Equivalent to the sum of the quantities calculated for Sections 8.1 – 8.7 of the Form R

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Review data for overlap and inconsistencies with other environmental permits and submitted reports

- *Monitoring data (stormwater, NPDES, air emissions)*
- *Be sure the data in all submitted EPCRA reports is consistent with reporting under other requirements.*

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AARCHER Notes




Questions/Discussion
