Demo of How to Pull TRI Data from EPA's Envirofacts

Kara Koehrn

Method

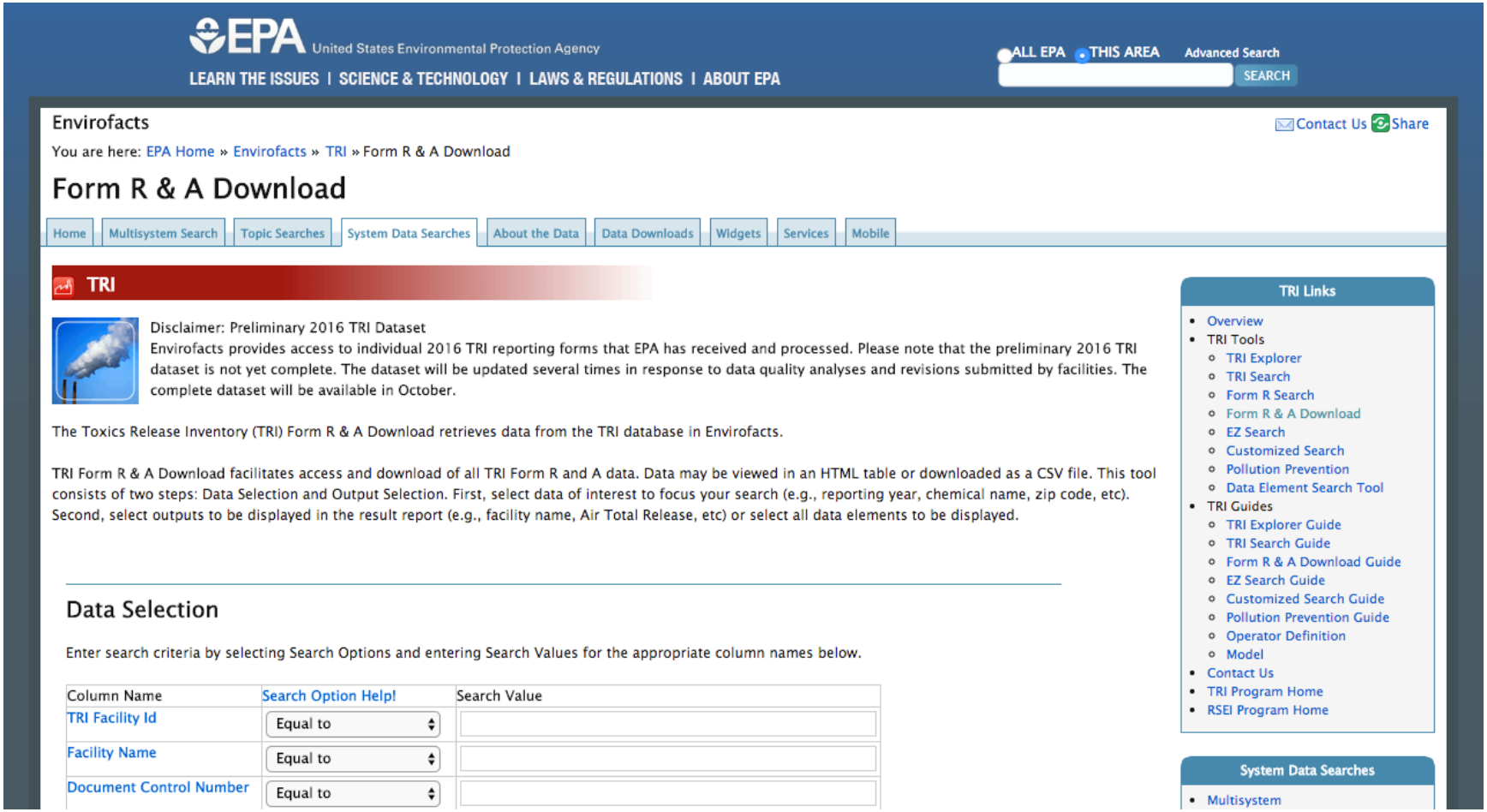
- Envirofacts
  - Free, public data query tool
  - https://www3.epa.gov/enviro/
  - Use the Form R & A Download feature

- Example data pulls
  - How to find the method of calculation for air release estimate
  - How to find waste treatment method for gaseous waste streams

Method

- Elements to pull
  - Chemical information
  - Facility information
  - Air release information (stack and fugitive releases)
  - Release calculation estimation method code
  - Waste stream treated
  - Waste treatment method

Form R & A Download



Form R & A Download: Filter

Data Selection

Enter search criteria by selecting Search Options and entering Search Values for the appropriate column names below.

Column Name	Search Option Help!	Search Value
TRI Facility Id	Equal to	
Facility Name	Equal to	
Document Control Number	Equal to	
Reporting Year	Equal to	2015
Chemical Name	Equal to	
TRI Chemical Id	Equal to	
City Name	Equal to	
County Name	Equal to	
State Abbreviation	Equal to	
ZIP Code	Equal to	
Region	Equal to	
SIC Codes	Equal to	
Primary SIC Code	Equal to	
NAICS Codes	Beginning with	2211
Primary NAICS Code	Equal to	
Industry Sector	Equal to	
BIA Tribal Code	Equal to	
Tribe	Equal to	

Form R & A Download: Data Elements

Output Selection

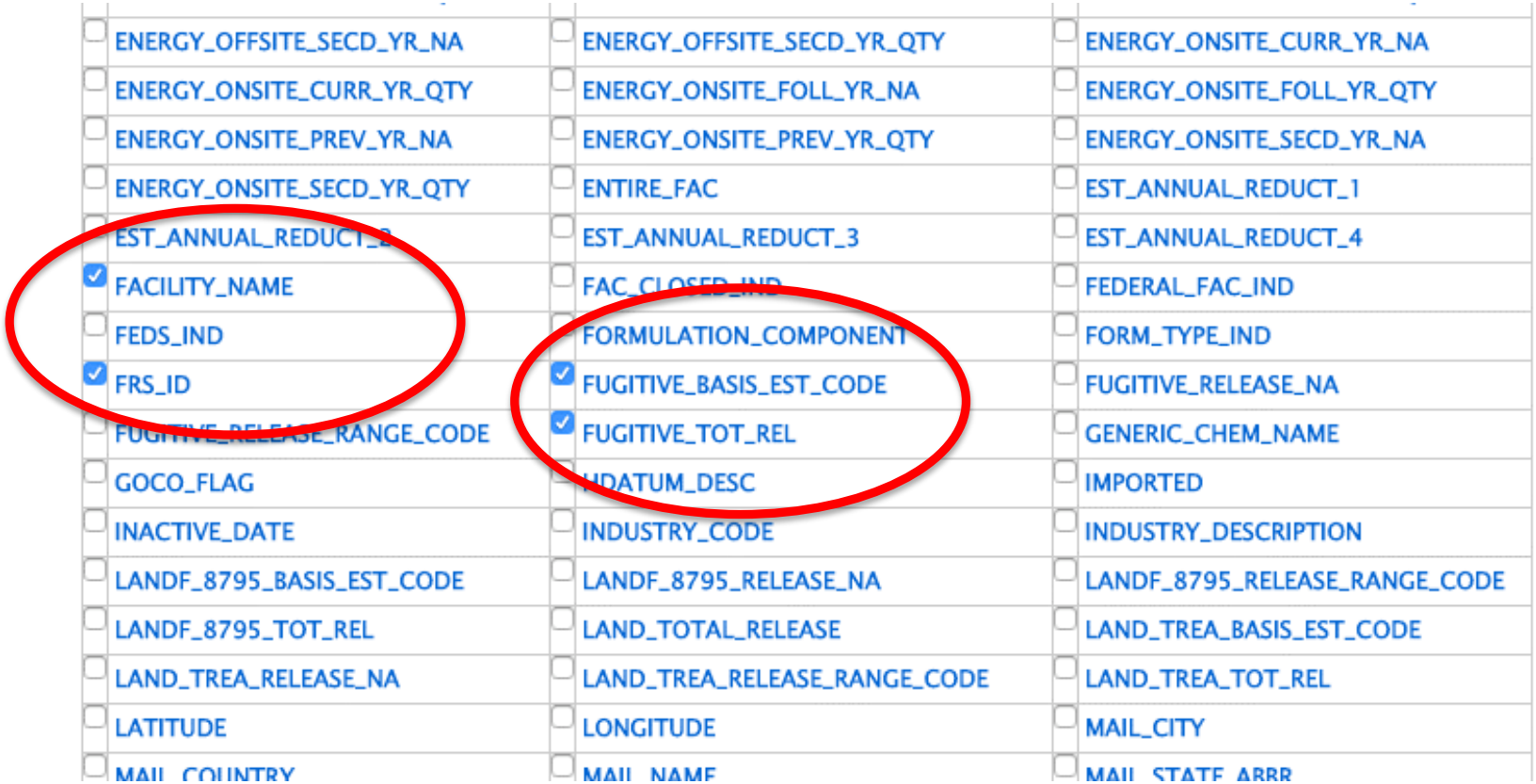
Chose desired output elements (columns) for the download by selecting one or more of the columns below by clicking on the square box next to the column name.

Please note: Some searches may take a long time to process, due to the limitations of your computer's resources. For best results, try limiting your column selections, whenever possible. 15 minutes of CPU time has been allotted for running the output searches. If your search exceeds this 15 minute threshold, the search will produce an error.

Select All

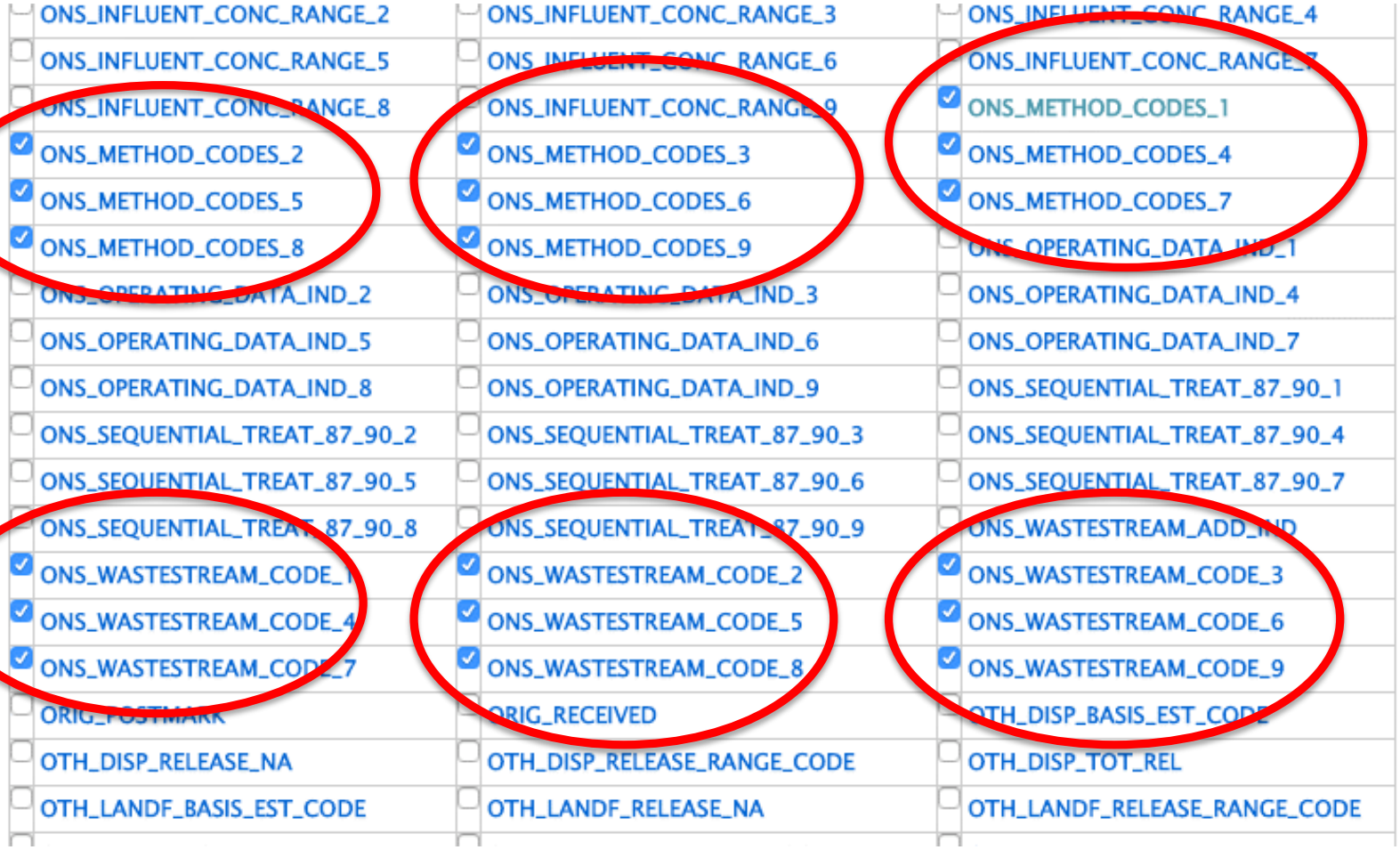
ACCURACY_SCORE	ACCURACY_VALUE	ACTIVE_DATE
ACTIVE_STATUS	ADDITIONAL_DATA_IND	ADDITIONAL_TEXT_8_11
ADDITIONAL_TEXT_9_1	NAICS ADJUSTED	AIR_TOTAL_RELEASE
ANCILLARY	ARTICLE_COMPONENT	ASGN_AGENCY
ASGN_DB_IND_1	ASGN_DB_IND_2	ASGN_FEDERAL_IND
ASGN_NPDES_IND_1	ASGN_NPDES_IND_2	ASGN_PARTIAL_IND
ASGN_PUBLIC_CONTACT	ASGN_PUBLIC_CONTACT_EMAIL	ASGN_PUBLIC_PHONE
ASGN_RCRA_IND_1	ASGN_RCRA_IND_2	ASGN_UIC_IND_1
ASGN_UIC_IND_2	BIA_CODE	BYPRODUCT
CAAC_IND	CARC_IND	CAS_CHEM_NAME
CAS_REGISTRY_NUMBER	CERTIF_DATE_SIGNED	CERTIF_NAME
CERTIF_OFFICIAL_TITLE	CERTIF_SIGNATURE	CHEM_NAME
CHEM_PROCESSING_AID	CITY_NAME	COLLECT_DESC
COLLECT_MTH_CODE	CONVEYOR	COUNTY_NAME
NAICS COVERED	DB_ADD_IND	DB_NUM_1
DB_NUM_2	DIOXIN_DISTRIBUTION_1	DIOXIN_DISTRIBUTION_10

Form R & A Download: Data Elements



ENERGY_OFFSITE_SECD_YR_NA	ENERGY_OFFSITE_SECD_YR_QTY	ENERGY_ONSITE_CURR_YR_NA
ENERGY_ONSITE_CURR_YR_QTY	ENERGY_ONSITE_FOLL_YR_NA	ENERGY_ONSITE_FOLL_YR_QTY
ENERGY_ONSITE_PREV_YR_NA	ENERGY_ONSITE_PREV_YR_QTY	ENERGY_ONSITE_SECD_YR_NA
ENERGY_ONSITE_SECD_YR_QTY	ENTIRE_FAC	EST_ANNUAL_REDUCT_1
EST_ANNUAL_REDUCT_2	EST_ANNUAL_REDUCT_3	EST_ANNUAL_REDUCT_4
FACILITY_NAME	FAC_CLOSED_IND	FEDERAL_FAC_IND
FEDS_IND	FORMULATION_COMPONENT	FORM_TYPE_IND
FRS_ID	FUGITIVE_BASIS_EST_CODE	FUGITIVE_RELEASE_NA
FUGITIVE_RELEASE_RANGE_CODE	FUGITIVE_TOT_REL	GENERIC_CHEM_NAME
GOCO_FLAG	HDATUM_DESC	IMPORTED
INACTIVE_DATE	INDUSTRY_CODE	INDUSTRY_DESCRIPTION
LANDF_8795_BASIS_EST_CODE	LANDF_8795_RELEASE_NA	LANDF_8795_RELEASE_RANGE_CODE
LANDF_8795_TOT_REL	LAND_TOTAL_RELEASE	LAND_TREA_BASIS_EST_CODE
LAND_TREA_RELEASE_NA	LAND_TREA_RELEASE_RANGE_CODE	LAND_TREA_TOT_REL
LATITUDE	LONGITUDE	MAIL_CITY
MAIL_COUNTRY	MAIL_NAME	MAIL_STATE_ABBR

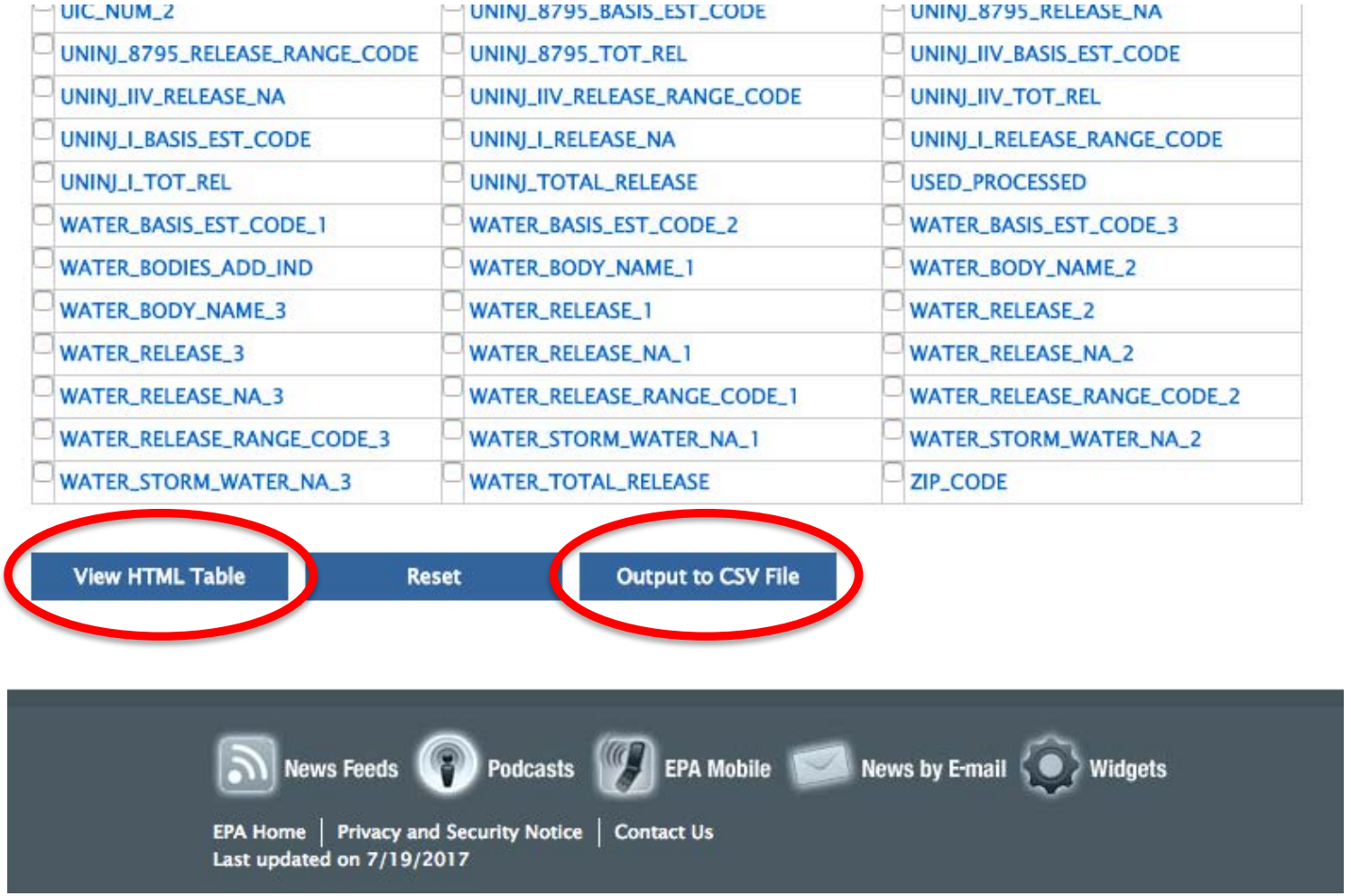
Form R & A Download: Data Elements



Form R & A Download: Data Elements

SOURCE_REDUCTION_IND	SOURCE_REDUCTION_METHODS_1	SOURCE_REDUCTION_METHODS_2
SOURCE_REDUCTION_METHODS_3	SOURCE_REDUCTION_METHODS_4	SRS_ID
☑ STACK_BASIS_EST_CODE	STACK_RELEASE_NA	STACK_RELEASE_RANGE_CODE
☑ STACK_TOT_REL	STANDARDIZED_PARENT_COMPANY	STATE_ABBR
STATE_COUNTY_FIPS_CODE	STORM_WATER_PERCENT_1	STORM_WATER_PERCENT_2
STORM_WATER_PERCENT_3	STREET_ADDRESS	SUB_SURF_IMP_BASIS_EST_CODE
SUB_SURF_IMP_RELEASE_NA	SUB_SURF_IMP_TOT_REL	SUB_SURF_RELEASE_RANGE_CODE
SURF_IMP_BASIS_EST_CODE	SURF_IMP_RELEASE_NA	SURF_IMP_TOT_REL
SURF_RELEASE_RANGE_CODE	TOTAL_OFF_SITE_RELEASE	TOTAL_ON_OFFSITE_RELEASE
TOTAL_ON_SITE_RELEASE	TOTAL_PRODUCTION_RELATED_WASTE	TRADE_SECRET_IND
TREATED_OFFSITE_CURR_YR_NA	TREATED_OFFSITE_CURR_YR_QTY	TREATED_OFFSITE_FOLL_YR_NA
TREATED_OFFSITE_FOLL_YR_QTY	TREATED_OFFSITE_PREV_YR_NA	TREATED_OFFSITE_PREV_YR_QTY
TREATED_OFFSITE_SECD_YR_NA	TREATED_OFFSITE_SECD_YR_QTY	TREATED_ONSITE_CURR_YR_NA
TREATED_ONSITE_CURR_YR_QTY	TREATED_ONSITE_FOLL_YR_NA	TREATED_ONSITE_FOLL_YR_QTY
TREATED_ONSITE_PREV_YR_NA	TREATED_ONSITE_PREV_YR_QTY	TREATED_ONSITE_SECD_YR_NA
TREATED_ONSITE_SECD_YR_QTY	TRIBE	☑ TRI_CHEM_ID
☑ TRI_FACILITY_ID	UIC_ADD_IND	UIC_NUM_1
UIC_NUM_2	UNINJ_8795_BASIS_EST_CODE	UNINJ_8795_RELEASE_NA
UNINJ_8795_RELEASE_RANGE_CODE	UNINJ_8795_TOT_REL	UNINJ_IIV_BASIS_EST_CODE
UNINJ_IIV_RELEASE_NA	UNINJ_IIV_RELEASE_RANGE_CODE	UNINJ_IIV_TOT_REL
UNINJ_I_BASIS_EST_CODE	UNINJ_I_RELEASE_NA	UNINJ_I_RELEASE_RANGE_CODE
UNINJ_I_TOT_REL	UNINJ_TOTAL_RELEASE	USED_PROCESSED

Form R & A Download: Output



Output Example

CHEM_NAME	FACILITY_NAME	STACK_BASIS_ES	STACK_TOT_REL
VANADIUM COMPOUNDS	BARRY STEAM PLANT	E1	2000
COPPER COMPOUNDS	BARRY STEAM PLANT	E1	129.7
ZINC COMPOUNDS	DUKE ENERGY INDIANA INC - CA	E2	555
HYDROCHLORIC ACID (1995 AND AFTEF	DUKE ENERGY INDIANA INC - CA	E2	787
POLYCYCLIC AROMATIC COMPOUNDS	COMMONWEALTH UTILITIES CC	E1	0
NICKEL COMPOUNDS	BRUNNER ISLAND STEAM ELECT	E1	0.0050546
DIOXIN AND DIOXIN-LIKE COMPOUNDS	BRUNNER ISLAND STEAM ELECT	E1	205
1 2 4-TRIMETHYLBENZENE	FPL ENERGY WYMAN LLC WF W	E1	5.6
SULFURIC ACID (1994 AND AFTER "ACI	FPL ENERGY WYMAN LLC WF W	E1	0.002572

M1	Estimate is based on continuous monitoring data or measurements for the EPCRA Section 313 chemical.
M2	Estimate is based on periodic or random monitoring data or measurements for the EPCRA Section 313 chemical.
C	Estimate is based on mass balance calculations, such as calculation of the amount of the EPCRA Section 313 chemical in streams entering and leaving process equipment.
E1	Estimate is based on published emission factors, such as those relating release quantity to through-put or equipment type (e.g., air emission factors).
E2	Estimate is based on-site specific emission factors, such as those relating release quantity to through-put or equipment type (e.g., air emission factors).
O	Estimate is based on other approaches such as engineering calculations (e.g., estimating volatilization using published mathematical formulas) or best engineering judgment. This would include applying estimated removal efficiency to a waste stream, even if the composition of the stream before treatment was fully identified through monitoring data.

Output Example

CHEM_NAME	FACILITY_NAME	ONS_METHOD_C	ONS_METHOD_CODES_
VANADIUM COMPOUNDS	BARRY STEAM PLANT	A05	A07
COPPER COMPOUNDS	BARRY STEAM PLANT	A05	A07
ZINC COMPOUNDS	DUKE ENERGY INDIANA INC - CA	H123	H123
HYDROCHLORIC ACID (1995 AND AFTEF	DUKE ENERGY INDIANA INC - CA	H123	
POLYCYCLIC AROMATIC COMPOUNDS	COMMONWEALTH UTILITIES CC		
NICKEL COMPOUNDS	BRUNNER ISLAND STEAM ELECT	H123	
DIOXIN AND DIOXIN-LIKE COMPOUNDS	BRUNNER ISLAND STEAM ELECT	H123	
1 2 4-TRIMETHYLBENZENE	FPL ENERGY WYMAN LLC WF W		
SULFURIC ACID (1994 AND AFTER "ACI	FPL ENERGY WYMAN LLC WF W		

A01	Flare
A02	Condenser
A03	Scrubber
A04	Absorber
A05	Electrostatic Precipitator
A06	Mechanical Separation
A07	Other Air Emission Treatment
H040	Incineration--thermal destruction other than use as a fuel
H071	Chemical reduction with or without precipitation
H073	Cyanide destruction with or without precipitation
H075	Chemical oxidation

H076	Wet air oxidation
H077	Other chemical precipitation with or without pre-treatment
H081	Biological treatment with or without precipitation
H082	Adsorption
H083	Air or steam stripping
H101	Sludge treatment and/or dewatering
H103	Absorption
H111	Stabilization or chemical fixation prior to disposal
H112	Macro-encapsulation prior to disposal
H121	Neutralization
H122	Evaporation
H123	Settling or clarification

Basis of Estimate Codes

M1	Estimate is based on continuous monitoring data or measurements for the EPCRA Section 313 chemical.
M2	Estimate is based on periodic or random monitoring data or measurements for the EPCRA Section 313 chemical.
C	Estimate is based on mass balance calculations, such as calculation of the amount of the EPCRA Section 313 chemical in streams entering and leaving process equipment.
E1	Estimate is based on published emission factors, such as those relating release quantity to through-put or equipment type (e.g., air emission factors).
E2	Estimate is based on-site specific emission factors, such as those relating release quantity to through-put or equipment type (e.g., air emission factors).
O	Estimate is based on other approaches such as engineering calculations (e.g., estimating volatilization using published mathematical formulas) or best engineering judgment. This would include applying estimated removal efficiency to a waste stream, even if the composition of the stream before treatment was fully identified through monitoring data.

Waste Stream Codes

A	Gaseous (gases, vapors, airborne particulates)
W	Wastewater (aqueous waste)
L	Liquid waste streams (non-aqueous waste)
S	Solid waste streams (including sludges and slurries)

Waste Treatment Codes

A01	Flare
A02	Condenser
A03	Scrubber
A04	Absorber
A05	Electrostatic Precipitator
A06	Mechanical Separation
A07	Other Air Emission Treatment
H040	Incineration--thermal destruction other than use as a fuel
H071	Chemical reduction with or without precipitation
H073	Cyanide destruction with or without precipitation
H075	Chemical oxidation