

# Toxics Release Inventory File Type 5

(Additional Information on Source Reduction, Recycling and Pollution Control)

## Basic Plus Data File Format Documentation v14



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## 1.0 Overview

The Toxics Release Inventory (TRI) Basic Plus Data Files are a set of seven files that collectively contain all the data that were submitted on the TRI Reporting Form R or Certification Statement (Form A) by facilities in a selected state. The data in these files have been extracted from the Envirofacts database system. The seven files and their contents are as follows:

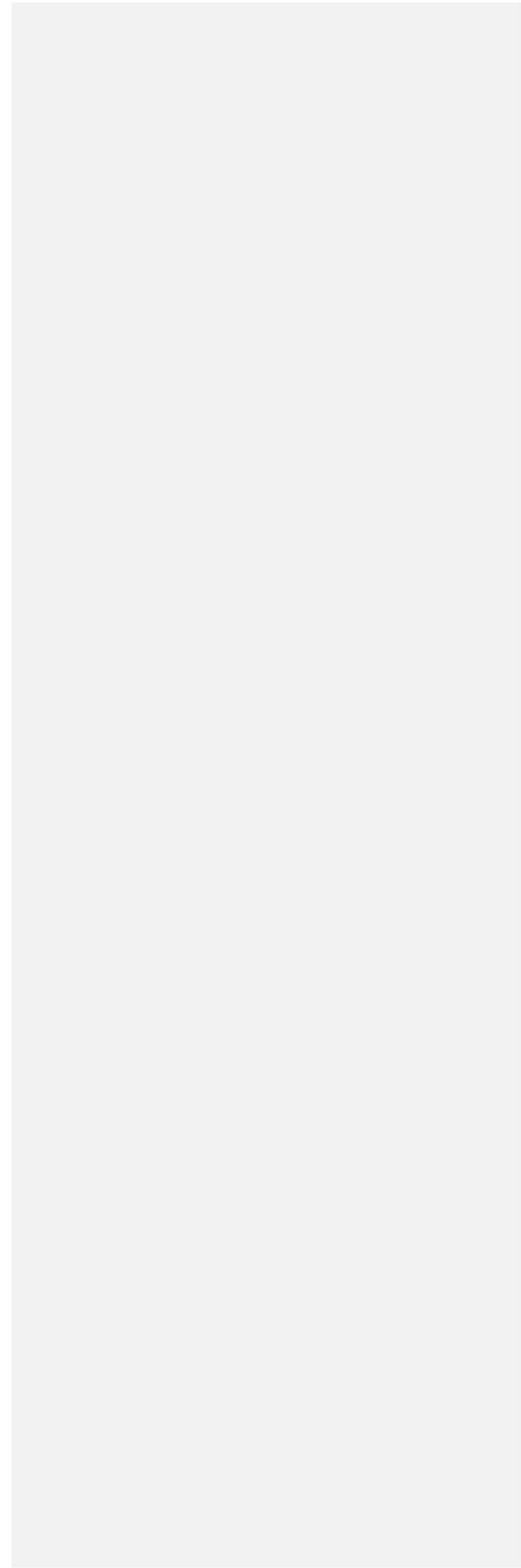
<u>File</u>	<u>Example</u>	<u>Description of Contents</u>	<u>Form R or A Reference</u>
Type 5	CA_5_2013_v13.txt	Additional Information on Source Reduction, Recycling and Pollution Control	Part I (sections 1,3,4,5) Part II (section 8.11)

The Basic Plus Data Files are identified (named) by state, file\_type, reporting year and version number.

File Name = State + File\_Type + Reporting Year + Version number

For example, the file “CA\_1\_2013\_v13.txt” contains the Facility, Chemical identification,

Chemical uses, On-site Releases and Management, Off-site Transfers and Summary Information (File Type 1) for all facilities located in California (CA) for reporting year 2013. The version number is "v13". The "v13" signifies that the file was created with Reporting Year 2013 data.



Similarly, the file “CA\_2a\_2013\_v13.txt” contains Reporting Year 2013 Detailed Source Reduction Activities and Methods data for the state of California. It was created with Reporting Year 2013 data.

In addition to the set of files for each state, there are also 2 more file sets. There is a Federal file set (FED\_1\_2013\_v13.txt, FED\_2A\_2013\_v13.txt, etc.) which contains data for all government owned and operated federal sites. A third set of files, known as the National Data File set, contains all the TRI data (for all States and US Territories) for a specific year. The national data files are named US\_1\_2013\_v13.txt, US\_2A\_2013\_v13.txt, etc.

Many of the data elements described in the Basic Plus Data Files documentation refer to the TRI Form R and Form A Certification Statement. These are the forms that facilities use to submit data to the TRI Program. The TRI Reporting Forms and Instructions document contains the actual forms and the complete instructions for filling them out. The Reporting Forms and Instructions is available at <http://www2.epa.gov/toxics-release-inventory-tri-program/tri-reporting-forms-and-instructions>. Complete lists of values for many of the data fields in the Basic Plus Data Files can be found in this document.

### 1.1 Detailed Description: File Type 5

File Type 5 contains additional information that facilities elect to submit on their source reduction, recycling or pollution control activities for specific chemicals. The submission of this information is optional. Only facilities that submit information via an electronic means (TRI-ME web, TRI-ME desktop with CDX submission or diskette submission) can provide this information.

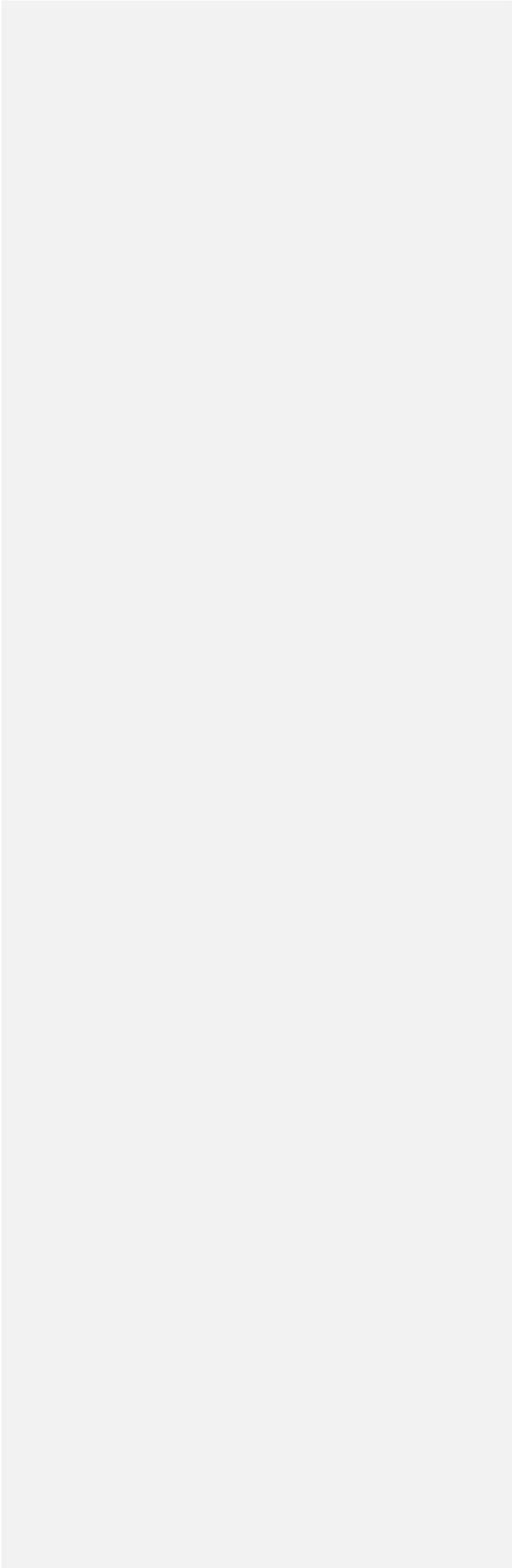
Commented [SS1]: Update this paragraph?

The information is provided in a free form text field with a maximum of 4,000 characters. Other information including Facility and Chemical Identification information is also included in the file. Only chemical submissions that have this additional information about sources reduction will be included in the file.

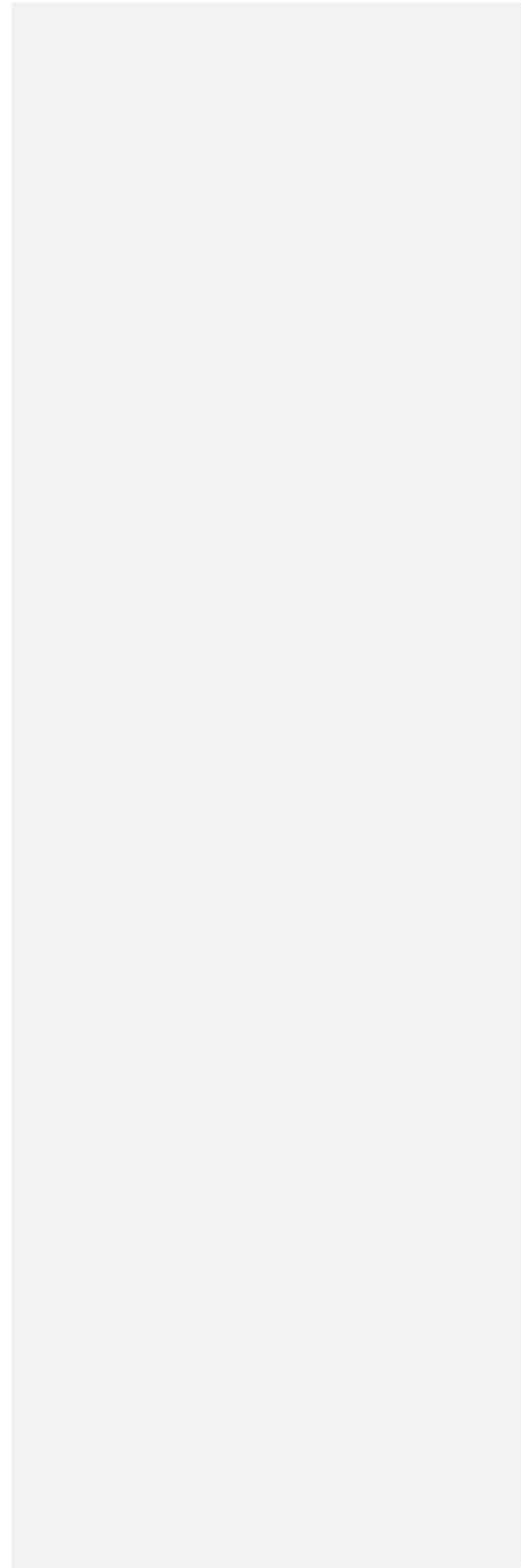
Part	Section	Description
I	1	Reporting Year
I	1	Revision Codes
I	4	Facility Identification Information
I	5	Parent Company Information
II	1	Chemical Identification Data
II	8.11	Additional Information on Source Reduction, Recycling and Pollution Control

**2.0 Noted Changes to this Year's TRI Basic Plus Data File**

**2.1 Part II, Section 8.11**



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### 3.0 Mapping the Form R/A Sections to each File

	Part I					Part II													Total Fields	
	1	2	3	4	5	1	2	3	4	5	6.1.A	6.1.B	6.2	6.2abc	7A	7B	7C	8		
File 5	*			*	*	*													P3	47

Notes:

- P1- Section 8, data elements (8.2.B, 8.4.B, 8.6.B).  
These data elements are Current Year Energy Recover, Recycled and Treated on-site quantities.
- P2 - Only 2.1 Trade Secret Indicator
- P3 - Only Additional Information (Section 8.11) that was submitted via electronic reporting (TRI-ME web, CDX or Diskette submissions)

#### Part & Section Definitions

Part	Section	Definition
I	1	Reporting Year
I		Revision Codes
I	2	Trade Secret
I	3	Certification
I	4	Facility Identification
I	5	Parent Company Info
II	1	Toxic Chemical Identity
II	2	Mixture Component Identity
II	3	Activities and Uses of the Toxic Chemical at the Facility
II	4	Maximum Amount of Chemical On-site at any time during the Calendar Year
II	5	Quantity of the Toxic Chemical Entering each Environmental Medium Onsite
II	6.1.A	Discharges to Publicly Owned Treatment Works (POTWs) - Total Transfer Quantity
II	6.1.B	Discharges to Publicly Owned Treatment Works (POTWs) - POTW name and location
II	6.2	Transfers to other Off-Site Locations - Name an location of Transfer site
II	6.2abc	Transfers to other Off-Site Locations - Total Transfer Quantities, Est.Basis, Type of Treatment/Disposal
II	7A	On-Site Waste Treatment Methods and Efficiency
II	7B	On-Site Energy Recovery Processes
II	7C	On-Site Recycling Processes
II	8	Source Reduction and Recycling Activities

## 4.0 Field Descriptions

The following sections contain the record structure for each of the Toxics Release Inventory (TRI) Basic Plus Data Files. The codes and definitions used in the following record descriptions are listed in the *Toxic Chemical Release Inventory Reporting Forms and Instructions* document.

The record descriptions in each of the following sections contain the following columns and information:

Column	Description
Number	The sequential number of the data element in the record
Field Name	The TRI System field name of the data element
Data Type	'C' for character data (alphanumeric) 'N' for numeric data 'D' for date
Description	A brief statement of what the data element represents along with its TRI System <i>Source</i> (in <b>Table Name</b> , Field Name format) and the Form R reference

The data fields in each of the seven files are delimited by Tab (a tab is placed between each data element).

The first record (row) of each file contains column headers or field names.

4.1

**Type 5: Additional Information on Source Reduction, Recycling and Pollution Control**

<u>Mum.</u>	<u>Field Name</u>	<u>Type</u>	<u>Description</u>
1	TRIFID	C	Facility identification in the format zzzzznnnnnsssss where usually zzzzz = facility zip code, nnnnn = first five consonants of the name, and sssss = first five non-special characters in the street address. The three sections of the format were separated by hypens prior to RY 2006. <b>NOTE:</b> <i>The contents of this field is <u>not</u> changed to match facility ownership, or zip code changes. Rather, the TRI Facility ID identifies a specific geographical location which is also identified by the latitude and longitude of that location.</i> Source: <b>TRI_FACILITY.FACILITY_ID</b> Reference: Part I, Section 4.1
2	DOCUMENT CONTROL NUMBER	C	Unique identification number assigned to each submission by EPA. Format: TTYMMMMNNNNNC, where TT = document type YY = reporting year MMM = document type NNNNN= sequential number C = check digit Source: <b>TRI_REPORTING_FORM.DOC_CTRL_NUM</b> Format: (13 + RY + DOC_TYPE + SEQ_NUM + Check digit) Reference: NA (System generated)
3	CAS NUMBER	C	Chemical Abstracts Service (CAS) Registry Number for that unique chemical, or category code (for compounds). <b>NOTE:</b> <i>CAS number 999999999 is for sanitized trade secret submissions; CHEM_NAME displays the reported generic chemical name.</i> Source: <b>TRI_REPORTING_FORM.TRI_CHEM_ID</b> Reference: Part II, Section 1.1

<u>Mum.</u>	<u>Field Name</u>	<u>Type</u>	<u>Description</u>
4	CHEMICAL NAME		Name of the chemical or generic name if the chemical is claimed as a trade secret. <i>Source:</i> <b>TRI_REPORTING_FORM.CAS_CHEM_NAME</b> <i>Reference:</i> Part II, Section 1.2 or Part II, Section 1.3
5	CLASSIFICATION	C	Indicates the classification of the chemical. Chemicals can be classified as either a Dioxin or Dioxin-like compound, a PBT (Persistent, Bioaccumulative and Toxic) chemical or a general EPCRA Section 313 chemical. Values: {TRI, PBT, DIOXIN} where  TRI = General EPCRA Section 313 Chem.      PBT = Bioaccumulative and Toxic DIOXIN = Dioxin or Dioxin-like compound  <i>Source:</i> <b>TRI_CHEM_INFO.CLASSIFICATION</b> <i>Reference:</i> NONE
6	REPORTING YEAR	C	Calendar year in which the reported activities occur. <i>Source:</i> <b>TRI_REPORTING_FOMR.REPORTING_YEAR</b> <i>Reference:</i> Part I, Section 1
7	FACILITY NAME	C	Name of the reporting facility. <i>Source:</i> <b>TRI_FACILITY.FACILITY_NAME</b> <i>Reference:</i> Part I, Section 4.1
8	FACILITY STREET	C	Street address of the reporting facility. <i>Source:</i> <b>TRI_FACILITY.STREET_ADDRESS</b> <i>Reference:</i> Part I, Section 4.1
9	FACILITY CITY	C	City in which the reporting facility is located. <i>Source:</i> <b>TRI_FACILITY.CITY_NAME</b> <i>Reference:</i> Part I, Section 4.1
10	FACILITY COUNTY	C	County in which the reporting facility is located. <i>Source:</i> <b>TRI_FACILITY.COUNTY_NAME</b> <i>Reference:</i> Part I, Section 4.1
11	FACILITY STATE	C	Two-letter state code of the reporting facility. <i>Source:</i> <b>TRI_FACILITY.STATE_ABBR</b> <i>Reference:</i> Part I, Section 4.1

<u>Mum.</u>	<u>Field Name</u>	<u>Type</u>	<u>Description</u>
12	FACILITY ZIP CODE	C	ZIP code of the reporting facility. <i>Source:</i> <b>TRI_FACILITY.ZIP_CODE</b> <i>Reference:</i> Part I, Section 4.1
13	BIA_CODE	C	Three-letter code indicating the tribal land a facility is on. <i>Source:</i> <b>FACILITY.BIA_TRIBAL_CODE</b>
14	TRIBE	C	INDIAN_COUNTRY_NAME The name of the Tribe. <i>Source:</i> <b>V_INDIAN_COUNTRY.</b>
15	FEDERAL FACILITY IND	C	Code indicating whether a facility is Federal or not. Yes = Federal No = non-Federal or GOCO Value reported by facility. <i>Source:</i> <b>TRI_REPORTING_FORM.FEDERAL_FAC_IND</b> <i>Form R:</i> Part I Section 4.2c
16	GOCO FACILITY IND	C	Code indicating whether a facility is GOCO (Government-Owned, Contractor-Operated) facility or not: Yes = GOCO No = non-GOCO <i>Source:</i> <b>TRI_REPORTING_FORM.GOCO_FLAG</b> <i>Reference:</i> Form R: Part I Section 4.2d
17	PRIMARY SIC CODE	C	Primary four-digit Standard Industrial Classification (SIC) Code. <i>Source:</i> <b>TRI_SUBMISSION_SIC.SIC_CODE</b> <i>Reference:</i> Part I, Section 4.5a
18	SIC CODE 2	C	Second four-digit Standard Industrial Classification (SIC) Code entered by facility. <i>Source:</i> <b>TRI_SUBMISSION_SIC.SIC_CODE</b> <i>Reference:</i> Part I, Section 4.5b
19	SIC CODE 3	C	Third four-digit Standard Industrial Classification (SIC) Code entered by facility. <i>Source:</i> <b>TRI_SUBMISSION_SIC.SIC_CODE</b> <i>Reference:</i> Part I, Section 4.5c
20	SIC CODE 4	C	Fourth four-digit Standard Industrial Classification (SIC) Code entered by facility. <i>Source:</i> <b>TRI_SUBMISSION_SIC.SIC_CODE</b> <i>Reference:</i> Part I, Section 4.5d

<u>Mum.</u>	<u>Field Name</u>	<u>Type</u>	<u>Description</u>
21	SIC CODE 5	C	Fifth four-digit Standard Industrial Classification (SIC) Code entered by facility. <i>Source:</i> TRI_SUBMISSION_SIC.SIC_CODE <i>Reference:</i> Part I, Section 4.5e
22	SIC CODE 6	C	Sixth four-digit Standard Industrial Classification (SIC) Code entered by facility. <i>Source:</i> TRI_SUBMISSION_SIC.SIC_CODE <i>Reference:</i> Part I, Section 4.5f
23	NAICS ORIGIN	C	Indicates whether NAICS codes were reported or assigned. R = Reported A = Assigned
24	PRIMARY NAICS CODE	C	Primary six-digit North American Standard Industry Classification System (NAICS) Code. <i>Source:</i> TRI_SUBMISSION_NAICS.NAICS_CODE <i>Where:</i> primary_ind => 1 <i>Reference:</i> Part I, Section 4.5a
25	NAICS CODE 2	C	Second six-digit North American Standard Industry Classification System (NAICS) Code entered by facility. <i>Source:</i> TRI_SUBMISSION_NAICS.NAICS_CODE <i>Where:</i> naics_sequence_num = 2 <i>Reference:</i> Part I, Section 4.5b
26	NAICS CODE 3	C	Third six-digit North American Standard Industry Classification System (NAICS) Code entered by facility. <i>Source:</i> TRI_SUBMISSION_NAICS.NAICS_CODE <i>Where:</i> naics_sequence_num = 3 <i>Reference:</i> Part I, Section 4.5b
27	NAICS CODE 4	C	Forth six-digit North American Standard Industry Classification System (NAICS) Code entered by facility. <i>Source:</i> TRI_SUBMISSION_NAICS.NAICS_CODE <i>Where:</i> naics_sequence_num = 4 <i>Reference:</i> Part I, Section 4.5b
28	NAICS CODE 5	C	Fifth six-digit North American Standard Industry Classification System (NAICS) Code entered by facility. <i>Source:</i> TRI_SUBMISSION_NAICS.NAICS_CODE <i>Where:</i> naics_sequence_num = 5 <i>Reference:</i> Part I, Section 4.5b

<u>Mum.</u>	<u>Field Name</u>	<u>Type</u>	<u>Description</u>
29	NAICS CODE 6	C	Sixth six-digit North American Standard Industry Classification System (NAICS) Code entered by facility. <i>Source: TRI_SUBMISSION_NAICS.NAICS_CODE</i> <i>Where: naics_sequence_num = 6</i> <i>Reference: Part I, Section 4.5b</i>
30	LATITUDE	N	The Latitude value that best represents the facility according to EPA's Facility Registry System (FRS). In RY 2005, TRI stopped collecting the Latitude value and began obtaining it from FRS. Format: signed 2 digit whole number, 6 digit decimal positions (+nn.nnnnnn). <i>Source: EPA's Facility Registry System</i>
31	LONGITUDE	N	The Longitude value that best represents the facility according to EPA's Facility Registry System (FRS). In RY 2005, TRI stopped collecting the Longitude value and began obtaining it from FRS. (Format: signed 3 digit whole number, 6 digit decimal positions +nnn.nnnnnn). <i>Source: EPA's Facility Registry System</i>
32	D&B NR A	C	Unique identification number assigned by Dun and Bradstreet to the reporting facility. <i>Source: TRI_FACILITY_DB.DB_NUM</i> <i>Reference: Part I, Section 4.7a</i>
33	D&B NR B	C	Unique identification number assigned by Dun and Bradstreet to the reporting facility. <i>Source: TRI_FACILITY_DB.DB_NUM</i> <i>Reference: Part I, Section 4.7b</i>
34	RCRA NR A	C	Twelve-digit alphanumeric identifier assigned by EPA under the resource Conservation and Recovery Act. In RY 2005, TRI stopped collecting RCRA Ids and began obtaining them from EPA's Facility Registry System (FRS). <i>Source: EPA's Facility Registry System</i>
35	RCRA NR B	C	Twelve-digit alphanumeric identifier assigned by EPA under the resource Conservation and Recovery Act. In RY 2005, TRI stopped collecting RCRA Ids and began obtaining them from EPA's Facility Registry System (FRS). <i>Source: EPA's Facility Registry System</i>
36	NPDES NR A	C	Nine-digit alphanumeric identifier assigned to a facility under EPA's National Pollutant Discharge Elimination System. In RY 2005, TRI stopped collecting NPDES Ids and began obtaining them from EPA's Facility Registry System (FRS). <i>Source: EPA's Facility Registry System</i>

<u>Mum.</u>	<u>Field Name</u>	<u>Type</u>	<u>Description</u>
37	NPDES NR B	C	Nine-digit alphanumeric identifier assigned to a facility under EPA's National Pollutant Discharge Elimination System. In RY 2005, TRI stopped collecting NPDES Ids and began obtaining them from EPA's Facility Registry System (FRS). <i>Source: EPA's Facility Registry System</i>
38	UIC NR A	C	Underground injection identification number, assigned by EPA or the state, to a facility. In RY 2005, TRI stopped collecting UIC Ids and began obtaining them from EPA's Facility Registry System (FRS). <i>Source: EPA's Facility Registry System</i>
39	UIC NR B	C	Underground injection identification number, assigned by EPA or the state, to a facility. In RY 2005, TRI stopped collecting UIC Ids and began obtaining them from EPA's Facility Registry System (FRS). <i>Source: EPA's Facility Registry System</i>
40	PARENT COMPANY NAME	C	Name of the corporation or other business entity that owns or controls the reporting facility. <i>Source: TRI_FACILITY.PARENT_CO_NAME</i> <i>Reference: Part I, Section 5.1</i>
41	PARENT COMPANY D&B NR	C	Unique identification number assigned by Dun and Bradstreet to the parent company of the reporting facility. <i>Source: TRI_FACILITY.PARENT_CO_DB_NUM</i> <i>Reference: Part I, Section 5.2</i>
42	ADDITIONAL INFORMATION - SOURCE REDUCTION	C	Additional information on Source Reduction, Recycling and Pollution Control. <i>Source: TRI_ADDITIONAL_INFO.ADDITIONAL_TEST Form R: Part II, Section 8.11 (Electronic Submissions Only)</i>
43	ASSIGNED FED. FACILITY FLAG	C	Code indicating whether the Facility is federal or not. Assigned by TRI. Yes = Federal No = Non-Federal <i>Source: TRI_FACILITY.ASGN_FEDERAL</i>

<u>Mum.</u>	<u>Field Name</u>	<u>Type</u>	<u>Description</u>
44	PUBLIC CONTACT EMAIL	C	Email address of the individual at a TRI facility (reporter) who the public may contact if clarification of data is needed. <i>Source: TRI_REPORTING_FORM.PUBLIC_CONTACT_PERSON_EMAIL</i> <i>Reference: Part I, Section 4.4</i>
45	REVISION CODE 1	C	Code indicating the reason the Facility revised its data. Values: RR1 = New Monitoring Data RR2 = New Emission Factors RR3 = New Chemical Concentration Data RR4 = Recalculation(s) RR5 = Other Reason(s) <i>Source: TRI_REPORTING_FORM.Revision_Code_1</i>
46	REVISION CODE 2	C	Code indicating the reason the Facility revised its data. Values: RR1 = New Monitoring Data RR2 = New Emission Factors RR3 = New Chemical Concentration Data RR4 = Recalculation(s) RR5 = Other Reason(s) <i>Source: TRI_REPORTING_FORM.Revision_Code_1</i>
47	METAL_IND	C	Code indicating whether the is a metal or not. Yes = Metal No = Non-Metal <i>Source: TRI_CHEM_INFO.Metal_Ind</i>

## Appendix A: List of Values

### Section 7A. On-Site Waste Treatment Methods and Efficiency

#### General Waste Stream

- 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 Methods (New list for Codes for RY 2006)

#### Air Emissions Treatment

- A01 Flare
- A02 Condenser
- A03 Scrubber
- A04 Absorber
- A05 Electrostatic Precipitator
- A06 Mechanical Separation
- A07 Other Air Emission Treatment

#### Chemical 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

#### Biological Treatment

- H081 Biological treatment with or without precipitation

#### Physical Treatment

- 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
- H124 Phase separation
- H129 Other treatment

**Section 7B. On-Site Energy Recovery Processes**

- U01 Industrial Kiln
- U02 Industrial Furnace
- U03 Industrial Boiler

**Section 7C. On-Site Recycling Processes**

- H10 Metal recovery (by retorting, smelting, or chemical or physical extraction)
- H20 Solvent recovery (including distillation, evaporation, fractionation or extraction)
- H39 Other recovery or reclamation for reuse (including acid regeneration or other chemical reaction process)

**Crosswalk for Section 7A, Column B. Waste Treatment Method (s) Sequence**

<b>Air Emissions Treatment (applicable to gaseous waste streams only) (No change - same as previous codes)</b>			
A01	Flare		
A02	Condenser		
A03	Scrubber		
A04	Absorber		
A05	Electrostatic Precipitator		
A06	Mechanical Separation		
A07	Other Air Emission Treatment		
<b>Previous Codes</b>		<b>New Codes (adapted from RCRA Hazardous Waste Management Codes)</b>	
<b>Biological Treatment:</b>			
B11	Aerobic	H081	Biological treatment with or without precipitation
B21	Anaerobic	H081	Biological treatment with or without precipitation
B31	Facultative	H081	Biological treatment with or without precipitation
B99	Other Biological Treatment	H081	Biological treatment with or without precipitation

Previous Codes		New Codes (adapted from RCRA Hazardous Waste Management Codes)	
<b>Chemical Treatment:</b>			
C01	Chemical Precipitation B Lime or Sodium Hydroxide	H071	Chemical reduction with or without precipitation
C02	Chemical Precipitation B Sulfide	H071	Chemical reduction with or without precipitation
C09	Chemical Precipitation B Other	H077	Other chemical precipitation with or without pre-treatment
C11	Neutralization	H121	Neutralization
C21	Chromium Reduction	H071	Chemical reduction with or without precipitation
C31	Complexed Metals Treatment (other than pH adjustment)	H129	Other treatment
C41	Cyanide Oxidation B Alkaline Chlorination	H073	Cyanide destruction with or without precipitation
C42	Cyanide Oxidation B Electrochemical	H073	Cyanide destruction with or without precipitation
C43	Cyanide Oxidation B Other	H073	Cyanide destruction with or without precipitation
C44	General Oxidation (including Disinfection) B Chlorination	H075	Chemical oxidation
C45	General Oxidation (including Disinfection) B Ozonation	H075	Chemical oxidation
C46	General Oxidation (including Disinfection) B Other	H075	Chemical oxidation
C99	Other Chemical Treatment	H129	Other treatment
<p>Incineration/Thermal Treatment: (Note: Only report combustion for the purposes of incineration/thermal treatment in Section 7A. If the method involves combustion for the purposes of energy recover, report as U01, U02, or U03 in Section 7B. If the method involves combustion for the purposes of materials recovery, report as H39 in Section 7C.)</p>			
F01	Liquid Injection	H040	Incineration B thermal destruction other than use as a fuel
F11	Rotary Kiln with Liquid Injection Unit	H040	Incineration B thermal destruction other than use as a fuel

F19	Other Rotary Kiln	H040	Incineration B thermal destruction other than use as a fuel
F31	Two Stage	H040	Incineration B thermal destruction other than use as a fuel
F41	Fixed Hearth	H040	Incineration B thermal destruction other than use as a fuel
Previous Codes		New Codes (adapted from RCRA Hazardous Waste Management Codes)	
F42	Multiple Hearth	H040	Incineration B thermal destruction other than use as a fuel
F51	Fluidized Bed	H040	Incineration B thermal destruction other than use as a fuel
F61	Infra-Red	H040	Incineration B thermal destruction other than use as a fuel
F71	Fume/Vapor	H040	Incineration B thermal destruction other than use as a fuel
F81	Pyrolytic destructor	H040	Incineration B thermal destruction other than use as a fuel
F82	Wet air oxidation	H076	Wet air oxidation
F83	Thermal Drying/Dewatering	H122	Evaporation
F99	Other Incineration/Thermal Treatment	H040	Incineration B thermal destruction other than use as a fuel
Physical Treatment:			
P01	Equalization	H129	Other treatment
P09	Other blending	H129	other treatment
P11	Settling/clarification	H123	Settling or clarification
P12	Filtration	H123	Settling or clarification
P13	Sludge dewatering (non-thermal)	H101	Sludge treatment and/or dewatering
P14	Air flotation	H124	Phase separation
P15	Oil skimming	H124	Phase separation
P16	Emulsion breaking B thermal	H124	Phase separation
P17	Emulsion breaking B chemical	H124	Phase separation
P18	Emulsion breaking B other	H124	Phase separation
P19	Other liquid phase separation	H124	Phase separation

P21	Adsorption B Carbon	H082	Adsorption
P22	Adsorption B Ion exchange (other than for recovery/reuse)	H082	Adsorption
P23	Adsorption B Resin	H082	Adsorption
P29	Adsorption B Other	H082	Adsorption
P31	Reverse Osmosis (other than for recovery/reuse)	H129	Other treatment
P41	Stripping B Air	H083	Air or steam stripping
P42	Stripping B Steam	H083	Air or steam stripping
Previous Codes		New Codes (adapted from RCRA Hazardous Waste Management Codes)	
P49	Stripping B Other	H083	Air or steam stripping
P51	Acid Leaching (other than for recovery/reuse)	H129	Other treatment
P61	Solvent Extraction (other than for recovery/reuse)	H129	Other treatment
P99	Other Physical Treatment	H129	Other treatment
Solidification/Stabilization:			
G01	Cement processes (including silicates)	H111	Stabilization or chemical fixation prior to disposal
G09	Other Pozzolonic Processes (including silicates)	H111	Stabilization or chemical fixation prior to disposal
G11	Asphaltic Techniques	H111	Stabilization or chemical fixation prior to disposal
G20	Thermoplastic Techniques	H111	Stabilization or chemical fixation prior to disposal
G99	Other Solidification Processes	H111	Stabilization or chemical fixation prior to disposal

## Appendix B: Chemical Classifications

Category 1 Metals
ANTIMONY
ANTIMONY COMPOUNDS
ARSENIC
ARSENIC COMPOUNDS
BERYLLIUM
BERYLLIUM COMPOUNDS
CADMIUM
CADMIUM COMPOUNDS
CHROMIUM
CHROMIUM COMPOUNDS (EXCEPT CHROMITE ORE MINED IN THE TRANSVAAL REGION)
COBALT
COBALT COMPOUNDS
COPPER
COPPER COMPOUNDS
LEAD
LEAD COMPOUNDS
MANGANESE
MANGANESE COMPOUNDS
MERCURY
MERCURY COMPOUNDS
NICKEL
NICKEL COMPOUNDS
SELENIUM
SELENIUM COMPOUNDS
SILVER
SILVER COMPOUNDS
THALLIUM
THALLIUM COMPOUNDS
VANADIUM COMPOUNDS
ZINC COMPOUNDS

Category 3 Metals
BARIUM
BARIUM COMPOUNDS

Category 2 Metals
ALUMINUM OXIDE (FIBROUS FORMS)
ALUMINUM PHOSPHIDE
ASBESTOS (FRIABLE)
BIS(TRIBUTYLTIN) OXIDE
BORON TRICHLORIDE
BORON TRIFLUORIDE
C.I. DIRECT BLUE 218
C.I. DIRECT BROWN 95
FENBUTATIN OXIDE
FERBAM
IRON PENTACARBONYL
LITHIUM CARBONATE
MANEB
METIRAM
MOLYBDENUM TRIOXIDE
OSMIUM TETROXIDE
POTASSIUM BROMATE
SODIUM NITRITE
THORIUM DIOXIDE
TITANIUM TETRACHLORIDE
TRIBUTYLTIN FLUORIDE
TRIBUTYLTIN METHACRYLATE
TRIPHENYLTIN CHLORIDE
TRIPHENYLTIN HYDROXIDE
ZINEB

Category 4 Metals
ALUMINUM ( FUME OR DUST )
VANADIUM ( EXCEPT WHEN CONTAINED IN AN ALLOY )
ZINC ( FUME OR DUST )