

Toxic Release Inventory Dioxin and Dioxin-like Compounds Toxic Equivalency (TEQ) Data Files Format Documentation v10



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Introduction

On May 10, 2007, the Toxics Release Inventory Program issued a final rule expanding reporting requirements for the dioxin and dioxin-like compounds category. There are seventeen distinct members of this chemical category listed under TRI. The final rule requires that, in addition to the total grams released for the entire category, facilities must report the quantity for each individual member on a new Form R Schedule 1. EPA will then use the individual mass quantity data to calculate TEQ values that will be made available to the public along with the mass data. The final rule also removes the requirement to report the single distribution of compounds in the category.

EPA currently requires that facilities report, in grams, the total amount of dioxin and dioxin-like compounds released from the facility. When available, the facility must also provide a single “distribution,” showing how that total is divided among the individual dioxin and dioxin-like compounds. This single distribution must represent either total releases, or releases to the media (air, land, water) for which the facility has the best information.

Although useful, total releases are not the best measure of the actual toxicity of these compounds because each compound has its own level of toxicity. To account for how compounds vary in toxicity, we use weighted values called toxic equivalents (TEQs). To calculate TEQs, we assign a value describing how toxic each dioxin and dioxin-like compound is compared to the most toxic members of the category: 2,3,7,8-tetrachlorodibenzo-p-dioxin and 1,2,3,7,8-pentachlorodibenzo-p-dioxin.

Expressing data for dioxin and dioxin-like compounds as TEQs allows the public to understand the toxicity of releases and waste management at facilities that report under the TRI program. For example, a facility releasing 3 grams of some combination of dioxin and dioxin-like compounds may or may not be of greater interest than a facility releasing 1 gram of a different combination. However, a facility releasing 3 grams TEQ of dioxins is of greater environmental importance than one releasing 1 gram TEQ to the same environmental medium (e.g., air, land, water).

TEQs will allow the public to make more informed environmental decisions within their communities. Expressing dioxin releases and waste management information in grams TEQ will also permit easier comparisons between TRI data and other EPA and international data.

Data Files

Six data files are being made available to represent the Dioxin and Dioxin-like Compound TEQ and individually reported mass quantity data. The individual mass quantity data or congener data is taken directly from the new *Schedule One* form that was introduced in reporting year 2008. The TEQ data is calculated from the individual mass quantity data and associated Toxic Equivalency Factors (TEFs). This data is complex. Breaking it down into six data files is an attempt to divide it into logic components that can be used to better understand it and to make the process of calculating the TEQ values transparent and re-creatable. In addition, in an effort to bring context, greater understanding and the ability to relate the data to other data elements, some of the files contain data from parts of the standard Form R.

Providing data in one large national file as well as individual state files has been a common practice for TRI when disseminating its data. However, for the new Schedule One Dioxin and Dioxin-like compound data and the resulting TEQ data, TRI will not be providing individual state files. TRI will only disseminate one set of files, each representing the entire country (i.e. national files). The reason for this is that the national files containing the data are small and will easily fit within a standard spreadsheet application. Users can easily load and delete any unwanted data at their discretion.

The files being provided include the following:

| Number | Title | File Name |
|--------|------------------------------------|-----------------------------|
| 1 | The Toxic Equivalency Factors File | TEF_2010_v10.txt |
| 2 | The Schedule One Congener Data | Congener_2010_v10.txt |
| 3 | The TEQ Data File | TEQ_2010_v10.txt |
| 4 | The Water Congener Data File | Water_Congener_2010_v10.txt |
| 5 | The Water TEQ Data File | Water_TEQ_2010_v10.txt |
| 6 | The Transfer Detail Data File | Transfers_2010_v10.txt |

The File Descriptions section below describes the contents of each file. The Record Layouts section below lists the detailed data fields, their data type and specific definition.

File Descriptions

1. The Toxic Equivalency Factors File

File Name: TEF_2010_v10.txt
Format: ASCII Text, Comma delimited

Description: This file lists the 17 individual chemicals or congeners that comprise a dioxin or dioxin-like compound along with the toxic equivalency factors (TEFs) that are included in the calculation the TEQ values. This file, like all the other files in this set, is an ASCII text file with TAB delimiters. See the record layout in the “Record Layout” section below. This file contains the TEFs values as of reporting year 2010.

2. The Schedule One Congener Data File

File Name: Congener_2010_v10.txt
Format: ASCII Text, Comma delimited

Description: This file lists the individual mass quantity or congener data as reported on the Schedule One. Each row is identified uniquely by a TRI Facility Id, a Document Control Number and a Congener Number. The format of the file is similar to File1 of the Basic Plus Format and the Basic File format (two formats TRI that uses to disseminates standard Form R data in). All quantities are reported in grams. The file includes data elements in the following categories:

- Facility Name, Address, Latitude & Longitude Coordinates and NAICS codes
- Chemical identification and classification information
- On-site Release quantities as reported on the Schedule One (Section 5)
- The Publicly Owned Treatment Works (POTW) transfer quantity from the Schedule One (Section 6.1)
- Summed Off-site Transfer quantity totals for release/disposal and further waste management calculated from the Schedule One (Section 6.2) data
- Summary Pollution Prevention quantities as reported on the Schedule One (Section 8)

This file only lists an on-site water release total (section 5.3) for each congener. The individual mass quantity amounts for specific water bodies that make up the water release total are listed in the Water Congener Data file. The off-site transfer data is summed by type of waste management (i.e. M66 - RCRA Subtitle C Surface Impoundment). The individual/detailed transfer amounts along with the off-site transfer locations are listed in the Transfer Details Data file.

3. The TEQ Data File

File Name: TEQ_2010_v10.txt
Format: ASCII Text, Comma delimited

Description: This file has the same format as the Schedule One Congener Data file described above. It lists the TEQ data that has been calculated from congener data (as reported on the Schedule One) and the TEF values. Each row is identified uniquely by a TRI Facility Id, a Document Control Number. There is only one TEQ value per medium (i.e. one On-site Fugitive Air Release value) as opposed to the 17 congener values per medium in the Congener Data File. The format of the file is similar to File1 of the Basic Plus Format and the Basic File format (two formats TRI that uses to disseminates standard Form R data in). All quantities are reported in grams. The file includes data elements in the following categories:

- Facility Name, Address, Latitude & Longitude Coordinates and NAICS codes
- Chemical identification and classification information
- On-site Release quantities as reported on the Schedule One (Section 5)
- The Publicly Owned Treatment Works (POTW) transfer quantity from the Schedule One (Section 6.1)
- Summed Off-site Transfer quantity totals for release/disposal and further waste management calculated from the Schedule One (Section 6.2) data
- Summary Pollution Prevention quantities as reported on the Schedule One (Section 8)

This file only lists the TEQ value for total water releases (section 5.3). The individual TEQ amounts for specific water bodies that make up the water release total are listed in the Water TEQ Data file. The off-site transfer data is summed by type of waste management (i.e. M66 - RCRA Subtitle C Surface Impoundment). The individual/detailed transfer TEQ amounts along with the off-site transfer location are listed in the Transfer Details file.

4. The Water Congener Data File

File Name: Water_Congener_2010_v10.txt

Format: ASCII Text, Comma delimited

Description: The Water Congener Data file lists the individually reported mass grams for each congener of on-site water releases to each water body reported on the Form R. Each row is identified uniquely by a TRI Facility Id, a Document Control Number and Congener Number. Up to ten bodies of water are displayed (note: no TRI facility has ever reported releases to more than 9 water bodies). However, in reporting year 2010, the maximum number of water bodies reported by any facility on a Dioxin or Dioxin-like compound submission was four.

In addition to the individually reported mass grams for each congener to a water body, the file also lists the total amount of each congener reported to all water bodies. The file also repeats (from the Schedule One Congener data file) the total transfers of each congener to Publicly Owned Treatment Works (POTWs) and lists the names and addresses of up to two POTWs the waste was transferred to.

All quantities are reported in grams. The file includes data elements in the following categories:

- Facility Name, Address, Latitude & Longitude Coordinates and NAICS codes
- Chemical identification and classification information
- On-site Water Releases to individual water bodies as reported on the Schedule One (Section 5.3)
- Total On-site Water Releases for each congener as totaled from Schedule One (Section 5.3)
- The Publicly Owned Treatment Works (POTW) transfer quantity from the Schedule One (Section 6.1.A)
- The Names and Addresses of up to two POTWs that the congener amount was transferred to as reported on the Form R (Section 6.1.B)

5. The Water TEQ Data File

File Name: Water_TEQ_2010_v10.txt
Format: ASCII Text, Comma delimited

Description: The Water TEQ Data file lists the calculated TEQ values for each on-site water release to each water body reported on the Form R. Each row is identified uniquely by a TRI Facility Id and a Document Control Number. Up to ten bodies of water are displayed (note: no TRI facility has ever reported releases to more than 9 water bodies). However, in reporting year 2010, the maximum number of water bodies reported by any facility on a Dioxin or Dioxin-like compound submission was four.

In addition to the individually reported TEQ values to each water body, the file also lists the total TEQ amount that was released to all water bodies. The file also repeats (from the TEQ Data file) the total TEQ transfers amount to Publicly Owned Treatment Works (POTWs) and lists the names and addresses of up to two POTWs the waste was transferred to.

All quantities are reported in grams. The file includes data elements in the following categories:

- Facility Name, Address, Latitude & Longitude Coordinates and NAICS codes
- Chemical identification and classification information
- Off-site Water Release TEQ values to individual water bodies calculated from the Schedule One (Section 5.3)
- The Total On-site Water Release TEQ to all water bodies as totaled from Schedule One (Section 5.3)
- The Publicly Owned Treatment Works (POTW) TEQ transfer amount from the Schedule One (Section 6.1.A)
- The Names and Addresses of up to two POTWs that the TEQ amount was transferred to as reported on the Form R (Section 6.1.B)

6. The Transfer Details Data File

File Name: Transfers_2010_v10.txt
Format: ASCII Text, Comma delimited

Description: The Transfer Detail Data File lists the Congener Amounts, TEQ value and location details of all Off-site Dioxin Transfers for the reporting year. It displays each individual transfer of Dioxin and Dioxin-like compounds from the reporting facility to an off-site location for disposal or further waste management. It lists the type of waste transfer code and description of the transfer (i.e. M66 - RCRA Subtitle C Surface Impoundment). It also lists the individually reported congener amounts for each transfer, the calculated TEQ value and the total transfer amount as reported on the Form R. Finally, it lists the name, address and RCRA number of the off-site location that the waste was transferred to.

Note that there can be multiple transfers to the same off-site location. And, there can also be multiple transfers to the same location for the same purpose. In other words, it's possible to have the same type of transfer (i.e. the same M-code) going to one off-site location listed several times (presumably with different quantities being transferred each time).

All quantities are reported in grams. The file includes data elements in the following categories:

- Facility Name, Address, Latitude & Longitude Coordinates and NAICS codes
- Chemical identification and classification information
- Individually reported mass grams of each Off-site Transfer as reported on the Schedule One (Section 6.2)
- TEQ values for each Off-site Transfer calculated from the Schedule One (Section 6.2)
- Total Grams reported for each transfer as reported on the Form R (Section 6.2)
- The Name, Address and RCRA number of destination of each off-site transfer from the Form R (Section 6.2)

Zeroes in the Data

The *TRI Dioxin and Dioxin-like Compounds Toxic Equivalency (TEQ) Data Files* were created to be loaded into different tools such as spreadsheets, databases and statistical applications. Some of those tools require numeric data be populated with a number (and not a blank) in order for the functionality of the tool to work correctly. For instance, to total a column in many spreadsheet applications all rows in that column must contain a number and not be blank.

In light of this, zeroes have been input into the *TRI Dioxin and Dioxin-like Compounds Toxic Equivalency (TEQ) Data Files* in places where numeric data was blank. There are two instances where this normally occurs.

The first instance occurs when facilities report “NA” or “Not Applicable” for a quantity on the Form R. Reporting “NA” means that the release or waste management quantity is not possible for that facility. For example, if a facility is not located near a water body, it will not have the ability to release any of the chemical to water. Therefore, in section 5.3 of the form R (or section 5.3 of the Schedule One) where facilities are asked to enter their on-site water releases, the facility would enter “NA” because the release is not possible. See the Toxic Chemical Release Reporting Forms and Instructions at <http://www.epa.gov/tri/report/index.htm> for more information on the use of NA in TRI reporting.

The second case where zeroes have been substituted for blanks occurs when facilities do not respond to quantity questions on the form R and leave them blank. This occurs most often with the submission of paper forms. Data submitted via the TRI automated reporting tools (i.e. TRI-ME web) do not allow for blanks in quantity data reporting. They require the submitter to enter a number or indicate “NA”.

“NA” in the Data

The value “NA” may appear in some data elements in the six files that contain the Dioxin and Dioxin-like Compound TEQ and individually reported mass quantity data. “NA” stands for not applicable. In the context of TRI reporting, this means that it was not possible for the reporting facility to have this type of release or transfer. As an example, if a facility had no underground injection wells at its location, it would not be possible for that facility to have either underground injection releases to class I or class II-V wells. So, that facility would check the NA box in part II, section 5.4.1 and 5.4.2 of the Form R. As mentioned above in the section entitled “Zeroes in the Data”, zeroes would be substituted into the on-site release amounts for those two elements for the purpose of doing calculations (sums, averages, etc) if the data were loaded into spreadsheet, databases or other similar tools.

Other On-line Tools for Accessing TEQ Data

Besides these data files, users can also query the TRI Dioxin and Dioxin-like Compounds Congener and Toxic Equivalency (TEQ) data on-line in the TRI section of EPA's Envirofacts Data Warehouse. The Schedule One data and calculated TEQ values can be viewed as a supplement to the Form R display for reporting year 2010 dioxin and dioxin-like data. This query can be found at http://www.epa.gov/enviro/html/tris/reports/tri_formr_qry.html.

In addition, there are also three queries/reports in the TRI EZ-Query section of Envirofacts that allow users to access the Congener and TEQ data for On-site Releases, Off-site Transfers and Production Related Waste data. These reports correspond to section 5, 6 and 8 of the Schedule One respectively. The TRI EZ-Query section of Envirofacts can be found at <http://www.epa.gov/enviro/html/tris/ez.html>. The specific reports can be found at these locations:

On-site Releases:

http://oaspub.epa.gov/enviro/ez_column.list?database_type=TRI_EZ&table_name=V_TRI_FRMSD1_ONST

Off-site Transfers:

http://oaspub.epa.gov/enviro/ez_column.list?database_type=TRI_EZ&table_name=V_TRI_OFST

Production Related Waste:

http://oaspub.epa.gov/enviro/ez_column.list?database_type=TRI_EZ&table_name=V_TRI_FMSD1_PRDWST

Record Layouts

The record layouts for the TRI Dioxin and Dioxin-like Compounds Toxic Equivalency (TEQ) Data appear in the next section. There are eight columns in the layout format. The first column (identified by the column heading '#') is a sequential field number identifier. The second column, "Field" is the name of the data field as it will appear in the data file. Many of the field names begin with a section reference, such as "5.1 - Fugitive Air". The "5.1" represents the section of the Form R where the data came from. Many users find the data fields easier to use when they are prefaced with the section number.

The third and fourth columns, "Maximum Length" and "Data Type", specify the maximum length and the data type of the field. The "Maximum Length" column also indicates the format of numeric data. Comma notation is used for numbers that may contain decimals. For example, a "Maximum Length" value of "22,7" indicates that the number can be 22 digits long with 7 digits to the right of the decimal point. There are two possible values for the "Data Type". They are 'C' for Character/Text data and 'N' for numeric data.

The fifth, sixth and seventh columns under the "Reference" heading indicate the "Form", "Part" and "Section" of where the data originates from. There are three possible values for the "Form" column. They are:

| Value | Description |
|-------|---|
| R | Data Element taken from the Form R |
| S | Data Element taken from the Schedule One |
| Blank | Data Element obtained from another source other than the Form R or Schedule One |

Refer to the "Toxic Chemical Release Reporting Forms and Instructions" documentation at <http://www.epa.gov/tri/report/index.htm> for more information on the Form R and Schedule One.

The "Definition" column gives a description of each data element and provides notes about its origin and use. There are several data fields that represent totals in the data file. The "Definition" column tells which data fields are added together to obtain the totals.

This file format can be loaded easily into several common desk top products. Two products that many users have are Microsoft Excel and Access. Appendices A and B provide instructions for loading these files into those two products.

1. The Toxic Equivalency Factors File

| Field Documentation for the "Toxic Equivalency Factors" File | | | | | | |
|--|--------------------------------|------------|-----------|-----------|---------|---|
| # | Field | Max Length | Data Type | Reference | | Definition |
| | | | | F o r m | P a r t | |
| 1 | Year | 4 | C | | 1 | The Reporting Year - Year the chemical was released or managed as waste |
| 2 | Congener Number | 2 | C | | | The congener sequence or sort number. Range of values {1 to 17}. |
| 3 | Congener CAS# | 9 | C | | | The Chemical Abstract Service Number of the chemical or chemical compound category |
| 4 | Congener Name | 70 | C | | | Name of the Congener or Dioxin Compound Abbreviation for the Congener Toxic Equivalency Factor (TEF) denotes a dioxin compound's toxicity relative to 2,3,7,8-TCDD which is assigned the maximum toxicity designation of one. Other dioxin compounds are given equal or lower numbers, with each number roughly proportional to its toxicity relative to that of 2,3,7,8-TCDD. TEFs, developed by the World Health Organization (WHO), are used to calculate the Toxic Equivalency (TEQ) of the Dioxin and Dioxin-like compounds reported to TRI. TEQs are calculated by multiplying the grams data for each reported member of the category by its TEF value and then summing the results. The year the World Health Organization (WHO) issued the TEF value. |
| 5 | Congener Abbreviation | | C | | | |
| 6 | Toxic Equivalency Factor (TEF) | 10,7 | N | | | |
| 7 | TEF Year | 4 | C | | | |

2. The Schedule One Congener Data File

Note: Each row is identified uniquely by a TRI Facility Id, a Document Control Number and a Congener number.

| Field Documentation for the "Schedule One Congener Data" file | | | | | | | |
|---|---------------------|------------|-----------|-----------|---------|------------|--|
| # | Field | Max Length | Data Type | Reference | | Definition | |
| | | | | F o r m | P a r t | | |
| 1 | Year | 4 | C | R | I | 1 | The Reporting Year - Year the chemical was released or waste managed |
| 2 | TRI Facility ID | 15 | C | R | I | 4.1 | The TRI Facility Identification Number assigned by EPA/TRI |
| 3 | Facility Name | 62 | C | R | I | 4.1 | Facility Name |
| 4 | Street Address | 62 | C | R | I | 4.1 | Street Address where facility is located |
| 5 | City | 28 | C | R | I | 4.1 | City Name where facility is located |
| 6 | County | 25 | C | R | I | 4.1 | County Name where facility is located |
| 7 | ST | 2 | C | R | I | 4.1 | State Abbreviation where the facility is located |
| 8 | ZIP | 9 | C | R | I | 4.1 | ZIP code where facility is located. Either 5 or 9 characters. No hyphens. |
| 9 | Latitude | 9,6 | N | | | | Facility Latitude represented as decimal data |
| 10 | Longitude | 10,6 | N | | | | Facility Longitude represented as decimal data |
| 11 | Primary NAICS | 6 | C | R | I | 4.5 | Primary North American Industry Code System (NAICs) code that represents the Facility's primary Business activity. |
| 12 | NAICS 2 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 13 | NAICS 3 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 14 | NAICS 4 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 15 | NAICS 5 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 16 | NAICS 6 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 17 | Parent CO Name | 60 | C | R | I | 5.1 | Name of Parent Company. |
| 18 | Parent CO DB NUM | 9 | C | R | I | 5.2 | Parent Company's Dun & Bradstreet Number. |
| 19 | Doc_Ctrl_Num | 13 | C | | | | The Document Control Number is a unique ID that is assigned to each form. |
| 20 | Chemical | 70 | C | R | II | 1.2 | Name of Chemical |
| 21 | CAS # / Compound ID | 9 | C | R | II | 1.1 | The Chemical Abstract Service Number of the chemical or chemical compound category |
| 22 | Congener Number | 2 | C | | | | The congener sequence or sort number. Range of values {1 to 17}. |

| Field Documentation for the "Schedule One Congener Data" file | | | | | | |
|---|------------------------------------|------------|-----------|-----------|---------|---|
| # | Field | Max Length | Data Type | Reference | | Definition |
| | | | | F o r m | P a r t | |
| 23 | Congener CAS# | 9 | C | | | The Chemical Abstract Service Number of the congener or dioxin compound |
| 24 | Congener | 70 | C | | | Name of the Congener or Dioxin Compound |
| 25 | Clean Air Act Chemical | 3 | C | | | Indication if the chemical is a Clean Air Act Chemical (Yes or No) |
| 26 | Classification | 6 | C | | | Classification of the chemical. Values are as follows: |
| | | | | | | TRI - Standard TRI Chemical |
| | | | | | | PBT - Persistent Bioaccumulative Toxic Dioxin - Dioxin or Dioxin-like Compound |
| 27 | Metal | 3 | C | | | Indication if the chemical is a metal (Yes or No) |
| 28 | Metal Category | 1 | C | | | Category of Metal. Values are either 1, 2, 3, or 4 for metals. See Appendix A for definitions and lists of Chemicals that belong to each category |
| 29 | Carcinogen | 3 | C | | | Indication if the chemical is a carcinogen (Yes or No) |
| 30 | Form Type | 1 | C | | | The form the data was submitted on. Values are: |
| | | | | | | A – Form A |
| | | | | | | R – Form R |
| 31 | Unit of Measure | 6 | C | | | The units of measure the chemical is displayed in (Grams or Pounds) |
| 32 | 5.1 - Fugitive Air | 22,7 | N | S | 5.1 | On-site Fugitive Air Releases |
| 33 | 5.2 - Stack Air | 22,7 | N | S | 5.2 | On-site Stack Air Releases |
| 34 | 5.3 - Water | 22,7 | N | S | 5.3 | On-site Water Releases |
| 35 | 5.4.1 - Underground Class I | 22,7 | N | S | 5.4.1 | On-site Underground Injection Releases to Class I Wells |
| 36 | 5.4.2 - Underground Class II-V | 22,7 | N | S | 5.4.2 | On-site Underground Injection Releases to Class II-V Wells |
| 37 | 5.5.1A - RCRA C Landfills | 22,7 | N | S | 5.5.1A | On-site RCRA C Landfills Releases |
| 38 | 5.5.1B - Other Landfills | 22,7 | N | S | 5.5.1B | On-site Other Landfills Releases |
| 39 | 5.5.2 - Land Treatment | 22,7 | N | S | 5.5.2 | On-site Land Treatment Releases |
| 40 | 5.5.3A - RCRA Surface Impoundment | 22,7 | N | S | 5.5.3A | On-site RCRA Surface Impoundment Releases. |
| 41 | 5.5.3B - Other Surface Impoundment | 22,7 | N | S | 5.5.3B | On-site NON-RCRA/Other Surface Impoundment Releases. |
| 42 | 5.5.4 - Other Disposal | 22,7 | N | S | 5.5.4 | On-site Other Disposal Releases |
| 43 | On-site Release Total | 22,7 | N | | | Total Releases On-site for a chemical at a facility. This is a summation of all releases in section 5 (fields 32 through 42). |

Field Documentation for the "Schedule One Congener Data" file

| # | Field | Max Length | Data Type | Reference | | Definition |
|----|-------------------------|------------|-----------|-----------|---------------|---|
| | | | | F o r m | S e c t i o n | |
| 44 | 6.1 - POTW | 22,7 | N | S | 6.1 | The total amount of transfers to a Publicly Owned Treatment Works (POTW). |
| 45 | 6.2 - M10 | 22,7 | N | S | 6.2 | Off-site Storage |
| 46 | 6.2 - M41 | 22,7 | N | S | 6.2 | Off-site Solidification/Stabilization for Metals and Metal Compounds Only |
| 47 | 6.2 - M62 | 22,7 | N | S | 6.2 | Off-site Wastewater Treatment (Excluding POTWs) for Metals and Metal Compounds Only |
| 48 | 6.2 - M81 | 22,7 | N | S | 6.2 | Off-site Underground Injection to Class I Wells. |
| 49 | 6.2 - M82 | 22,7 | N | S | 6.2 | Off-site Underground Injection to Class II-V Wells. |
| 50 | 6.2 - M66 | 22,7 | N | S | 6.2 | Off-site Subtitle C Surface Impoundment. |
| 51 | 6.2 - M67 | 22,7 | N | S | 6.2 | Off-site Other Surface Impoundment. |
| 52 | 6.2 - M64 | 22,7 | N | S | 6.2 | Off-site Other Landfills. |
| 53 | 6.2 - M65 | 22,7 | N | S | 6.2 | Off-site RCRA Subtitle C Landfill. |
| 54 | 6.2 - M73 | 22,7 | N | S | 6.2 | Off-site Land Treatment |
| 55 | 6.2 - M79 | 22,7 | N | S | 6.2 | Off-site Other Land Disposal |
| 56 | 6.2 - M90 | 22,7 | N | S | 6.2 | Off-site Other Off-site Management |
| 57 | 6.2 - M94 | 22,7 | N | S | 6.2 | Off-site Transfer to Waste Broker – Disposal |
| 58 | 6.2 - M99 | 22,7 | N | S | 6.2 | Off-site Unknown |
| 59 | Off-Site Release Total | 22,7 | N | | | The Off-site Release Total equals the sum of M10 + M41 + M62 + M64 + M65 + M73 + M79 + M90 + M94 + M99 + M40 (if the chemical is a category 1,3 or 4 metal) + M61 (if the chemical is a category 1,3 or 4 metal) + (6.1 POTW - Metals and Metal Compounds Only) |
| 60 | 6.2 - M20 | 22,7 | N | S | 6.2 | Off-site Solvents/Organics Recovery |
| 61 | 6.2 - M24 | 22,7 | N | S | 6.2 | Off-site Metals Recovery |
| 62 | 6.2 - M26 | 22,7 | N | S | 6.2 | Off-site Other Reuse or Recovery |
| 63 | 6.2 - M28 | 22,7 | N | S | 6.2 | Off-site Acid Regeneration |
| 64 | 6.2 - M93 | 22,7 | N | S | 6.2 | Off-site Transfer to Waste Broker – Recycling |
| 65 | Off-Site Recycled Total | 22,7 | N | | | The sum of M20 + M24 + M26 + M28 + M93 |
| 66 | 6.2 - M56 | 22,7 | N | S | 6.2 | Off-site Energy Recovery |
| 67 | 6.2 - M92 | 22,7 | N | S | 6.2 | Off-site Transfer to Waste Broker for Energy Recovery |
| 68 | Off-Site Recovery Total | 22,7 | N | | | The sum of M56 + M92 |
| 69 | 6.2 - M40 | 22,7 | N | S | 6.2 | Off-site Solidification/Stabilization |
| 70 | 6.2 - M50 | 22,7 | N | S | 6.2 | Off-site Incineration/Thermal Treatment |
| 71 | 6.2 - M54 | 22,7 | N | S | 6.2 | Off-site Incineration/Insignificant fuel value |
| 72 | 6.2 - M61 | 22,7 | N | S | 6.2 | Off-site Waster Treatment (Excluding POTW) |
| 73 | 6.2 - M69 | 22,7 | N | S | 6.2 | Off-site Other Waste Treatment |
| 74 | 6.2 - M95 | 22,7 | N | S | 6.2 | Off-site Transfer to Waste Broker - Waste Treatment |
| 75 | Off-Site Treated Total | 22,7 | N | | | The sum of M40 + M50 + M54 + M61 + M69 + M95 |

| Field Documentation for the "Schedule One Congener Data" file | | | | | | |
|---|------------------------------------|------------|-----------|-----------|---------|---|
| # | Field | Max Length | Data Type | Reference | | Definition |
| | | | | Form | Section | |
| 76 | Total Off-site Managed | 22,7 | N | | | The sum of Off-site Recycled, Recovery and Treated totals |
| 77 | Total Releases | 22,7 | N | | | The total on and off-site releases from sections 5 and 6 |
| 78 | 8.1a - On-site Contained Releases | 22,7 | N | S | 8.1a | The total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills and other landfills MINUS any on-site release or disposal due to catastrophic events |
| 79 | 8.1b - On-site Other Releases | 22,7 | N | S | 8.1b | The total other on-site disposal via Air Fugitive, Air Stack, Water, Class II-V Underground Injection Wells, Land Treatment, RCRA Subtitle C Surface Impoundments, Other Surface Impoundments and Other On-site Disposal MINUS any on-site release or disposal due to catastrophic events |
| 80 | 8.1c - Off-site Contained Releases | 22,7 | N | S | 8.1c | The total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills and other landfills MINUS any on-site release or disposal due to catastrophic events |
| 81 | 8.1d - Off-site Other Releases | 22,7 | N | S | 8.1d | The total other on-site disposal via Air Fugitive, Air Stack, Water, Class II-V Underground Injection Wells, Land Treatment, RCRA Subtitle C Surface Impoundments, Other Surface Impoundments and Other On-site Disposal MINUS any on-site release or disposal due to catastrophic events |
| 82 | 8.2 - Energy Recovery On-site | 22,7 | N | S | 8.2 | Amount of Energy Recovery On-site |
| 83 | 8.3 - Energy Recovery Off-site | 22,7 | N | S | 8.3 | Amount of Energy Recovery Off-site |
| 84 | 8.4 - Recycling On-Site | 22,7 | N | S | 8.4 | Amount of Recycling On-site |
| 85 | 8.5 - Recycling Off-Site | 22,7 | N | S | 8.5 | Amount of Recycling Off-site |
| 86 | 8.6 - Treatment On-site | 22,7 | N | S | 8.6 | Amount of Treatment On-site |
| 87 | 8.7 - Treatment Off-site | 22,7 | N | S | 8.7 | Amount of Treatment Off-site |
| 88 | 8.8 - One-time Release | 22,7 | N | S | 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processing. |
| 89 | Data Extracted On | 11 | C | NA | NA | Date the data was extracted. Format MM/DD/YYYY |

3. The TEQ Data File

Each row is identified uniquely by a TRI Facility Id, a Document Control Number.

| Field Documentation for the "TEQ Data" file | | | | | | | |
|---|---------------------|------------|-----------|-----------|---------------|------------|---|
| # | Field | Max Length | Data Type | Reference | | Definition | |
| | | | | F o r m | S e c t i o n | | |
| 1 | Year | 4 | C | R | I | 1 | The Reporting Year - Year the chemical was released or waste managed |
| 2 | TRI Facility ID | 15 | C | R | I | 4.1 | The TRI Facility Identification Number assigned by EPA/TRI |
| 3 | Facility Name | 62 | C | R | I | 4.1 | Facility Name |
| 4 | Street Address | 62 | C | R | I | 4.1 | Street Address where facility is located |
| 5 | City | 28 | C | R | I | 4.1 | City Name where facility is located |
| 6 | County | 25 | C | R | I | 4.1 | County Name where facility is located |
| 7 | ST | 2 | C | R | I | 4.1 | State Abbreviation where the facility is located |
| 8 | ZIP | 9 | C | R | I | 4.1 | ZIP code where facility is located. Either 5 or 9 characters. No hyphens. |
| 9 | Latitude | 9,6 | N | | | | Facility Latitude represented as decimal data |
| 10 | Longitude | 10,6 | N | | | | Facility Longitude represented as decimal data |
| 11 | Primary NAICS | 6 | C | R | I | 4.5 | Primary North American Industry Code System (NAICS) code that represents the Facility's primary Business activity. |
| 12 | NAICS 2 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 13 | NAICS 3 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 14 | NAICS 4 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 15 | NAICS 5 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 16 | NAICS 6 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 17 | Parent CO Name | 60 | C | R | I | 5.1 | Name of Parent Company. |
| 18 | Parent CO DB NUM | 9 | C | R | I | 5.2 | Parent Company's Dun & Bradstreet Number. |
| 19 | Doc_Ctrl_Num | 13 | C | | | | The Document Control Number is a unique ID that is assigned to each form. |
| 20 | Chemical | 70 | C | R | II | 1.2 | Name of Chemical |
| 21 | CAS # / Compound ID | 9 | C | R | II | 1.1 | The Chemical Abstract Service Number of the chemical or chemical compound category |
| 22 | Congener Number | 2 | C | | | | The value of this data element for TEQ data will be "TEQ" |
| 23 | Congener CAS# | 9 | C | | | | The value of this data element for TEQ data will be "N150". N150 is the general CAS number of Dioxins and Dioxin-like Compounds |

| Field Documentation for the "TEQ Data" file | | | | | | |
|---|------------------------------------|------------|-----------|-----------|---------|---|
| # | Field | Max Length | Data Type | Reference | | Definition |
| | | | | F o r m | P a r t | |
| 24 | Congener | 70 | C | | | The value of this data element for TEQ data will be "Dioxin - Toxic Equivalency (TEQ)" |
| 25 | Clean Air Act Chemical | 3 | C | | | Indication if the chemical is a Clean Air Act Chemical (Yes or No) |
| 26 | Classification | 6 | C | | | Classification of the chemical. Values are as follows: |
| | | | | | | TRI - Standard TRI Chemical |
| | | | | | | PBT - Persistent Bioaccumulative Toxic |
| | | | | | | Dioxin - Dioxin or Dioxin-like Compound |
| 27 | Metal | 3 | C | | | Indication if the chemical is a metal (Yes or No) |
| 28 | Metal Category | 1 | C | | | Category of Metal. Values are either 1, 2, 3, or 4 for metals. See Appendix A for definitions and lists of Chemicals that belong to each category |
| 29 | Carcinogen | 3 | C | | | Indication if the chemical is a carcinogen (Yes or No) |
| 30 | Form Type | 1 | C | | | The form the data was submitted on. Values are: |
| | | | | | | A – Form A |
| | | | | | | R – Form R |
| 31 | Unit of Measure | 6 | C | | | The units of measure the chemical is displayed in (Grams or Pounds) |
| 32 | 5.1 - Fugitive Air | 22,7 | N | S | 5.1 | On-site Fugitive Air Releases |
| 33 | 5.2 - Stack Air | 22,7 | N | S | 5.2 | On-site Stack Air Releases |
| 34 | 5.3 - Water | 22,7 | N | S | 5.3 | On-site Water Releases |
| 35 | 5.4.1 - Underground Class I | 22,7 | N | S | 5.4.1 | On-site Underground Injection Releases to Class I Wells |
| 36 | 5.4.2 - Underground Class II-V | 22,7 | N | S | 5.4.2 | On-site Underground Injection Releases to Class II-V Wells |
| 37 | 5.5.1A - RCRA C Landfills | 22,7 | N | S | 5.5.1A | On-site RCRA C Landfills Releases |
| 38 | 5.5.1B - Other Landfills | 22,7 | N | S | 5.5.1B | On-site Other Landfills Releases |
| 39 | 5.5.2 - Land Treatment | 22,7 | N | S | 5.5.2 | On-site Land Treatment Releases |
| 40 | 5.5.3A - RCRA Surface Impoundment | 22,7 | N | S | 5.5.3A | On-site RCRA Surface Impoundment Releases. |
| 41 | 5.5.3B - Other Surface Impoundment | 22,7 | N | S | 5.5.3B | On-site NON-RCRA/Other Surface Impoundment Releases. |
| 42 | 5.5.4 - Other Disposal | 22,7 | N | S | 5.5.4 | On-site Other Disposal Releases |
| 43 | On-site Release Total | 22,7 | N | | | Total Releases On-site for a chemical at a facility. This is a summation of all releases in section 5 (fields 32 through 42). |

| Field Documentation for the "TEQ Data" file | | | | | | |
|---|-------------------------|------------|-----------|------------------|---|---|
| # | Field | Max Length | Data Type | Reference | | Definition |
| | | | | F o r m | P a r t S e c t i o n | |
| 44 | 6.1 - POTW | 22,7 | N | S | 6.1 | The total amount of transfers to a Publicly Owned Treatment Works (POTW). |
| 45 | 6.2 - M10 | 22,7 | N | S | 6.2 | Off-site Storage |
| 46 | 6.2 - M41 | 22,7 | N | S | 6.2 | Off-site Solidification/Stabilization for Metals and Metal Compounds Only |
| 47 | 6.2 - M62 | 22,7 | N | S | 6.2 | Off-site Wastewater Treatment (Excluding POTWs) for Metals and Metal Compounds Only |
| 48 | 6.2 - M81 | 22,7 | N | S | 6.2 | Off-site Underground Injection to Class I Wells. |
| 49 | 6.2 - M82 | 22,7 | N | S | 6.2 | Off-site Underground Injection to Class II-V Wells. |
| 50 | 6.2 - M66 | 22,7 | N | S | 6.2 | Off-site Subtitle C Surface Impoundment. |
| 51 | 6.2 - M67 | 22,7 | N | S | 6.2 | Off-site Other Surface Impoundment. |
| 52 | 6.2 - M64 | 22,7 | N | S | 6.2 | Off-site Other Landfills. |
| 53 | 6.2 - M65 | 22,7 | N | S | 6.2 | Off-site RCRA Subtitle C Landfill. |
| 54 | 6.2 - M73 | 22,7 | N | S | 6.2 | Off-site Land Treatment |
| 55 | 6.2 - M79 | 22,7 | N | S | 6.2 | Off-site Other Land Disposal |
| 56 | 6.2 - M90 | 22,7 | N | S | 6.2 | Off-site Other Off-site Management |
| 57 | 6.2 - M94 | 22,7 | N | S | 6.2 | Off-site Transfer to Waste Broker – Disposal |
| 58 | 6.2 - M99 | 22,7 | N | S | 6.2 | Off-site Unknown |
| 59 | Off-Site Release Total | 22,7 | N | | | The Off-site Release Total equals the sum of M10 + M41 + M62 + M64 + M65 + M73 + M79 + M90 + M94 + M99 + M40 (if the chemical is a category 1,3 or 4 metal) + M61 (if the chemical is a category 1,3 or 4 metal) + (6.1 POTW - Metals and Metal Compounds Only) |
| 60 | 6.2 - M20 | 22,7 | N | S | 6.2 | Off-site Solvents/Organics Recovery |
| 61 | 6.2 - M24 | 22,7 | N | S | 6.2 | Off-site Metals Recovery |
| 62 | 6.2 - M26 | 22,7 | N | S | 6.2 | Off-site Other Reuse or Recovery |
| 63 | 6.2 - M28 | 22,7 | N | S | 6.2 | Off-site Acid Regeneration |
| 64 | 6.2 - M93 | 22,7 | N | S | 6.2 | Off-site Transfer to Waste Broker – Recycling |
| 65 | Off-Site Recycled Total | 22,7 | N | | | The sum of M20 + M24 + M26 + M28 + M93 |
| 66 | 6.2 - M56 | 22,7 | N | S | 6.2 | Off-site Energy Recovery |
| 67 | 6.2 - M92 | 22,7 | N | S | 6.2 | Off-site Transfer to Waste Broker for Energy Recovery |
| 68 | Off-Site Recovery Total | 22,7 | N | | | The sum of M56 + M92 |
| 69 | 6.2 - M40 | 22,7 | N | S | 6.2 | Off-site Solidification/Stabilization |
| 70 | 6.2 - M50 | 22,7 | N | S | 6.2 | Off-site Incineration/Thermal Treatment |
| 71 | 6.2 - M54 | 22,7 | N | S | 6.2 | Off-site Incineration/Insignificant fuel value |
| 72 | 6.2 - M61 | 22,7 | N | S | 6.2 | Off-site Waster Treatment (Excluding POTW) |
| 73 | 6.2 - M69 | 22,7 | N | S | 6.2 | Off-site Other Waste Treatment |
| 74 | 6.2 - M95 | 22,7 | N | S | 6.2 | Off-site Transfer to Waste Broker - Waste Treatment |
| 75 | Off-Site Treated Total | 22,7 | N | | | The sum of M40 + M50 + M54 + M61 + M69 + M95 |

| Field Documentation for the "TEQ Data" file | | | | | | |
|---|------------------------------------|------------|-----------|-----------|-----------------|---|
| # | Field | Max Length | Data Type | Reference | | Definition |
| | | | | F o r m | P a r t Section | |
| 76 | Total Off-site Managed | 22,7 | N | | | The sum of Off-site Recycled, Recovery and Treated totals |
| 77 | Total Releases | 22,7 | N | | | The total on and off-site releases from sections 5 and 6 |
| 78 | 8.1a - On-site Contained Releases | 22,7 | N | S | 8.1a | The total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills and other landfills MINUS any on-site release or disposal due to catastrophic events |
| 79 | 8.1b - On-site Other Releases | 22,7 | N | S | 8.1b | The total other on-site disposal via Air Fugitive, Air Stack, Water, Class II-V Underground Injection Wells, Land Treatment, RCRA Subtitle C Surface Impoundments, Other Surface Impoundments and Other On-site Disposal MINUS any on-site release or disposal due to catastrophic events |
| 80 | 8.1c - Off-site Contained Releases | 22,7 | N | S | 8.1c | The total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills and other landfills MINUS any on-site release or disposal due to catastrophic events |
| 81 | 8.1d - Off-site Other Releases | 22,7 | N | S | 8.1d | The total other on-site disposal via Air Fugitive, Air Stack, Water, Class II-V Underground Injection Wells, Land Treatment, RCRA Subtitle C Surface Impoundments, Other Surface Impoundments and Other On-site Disposal MINUS any on-site release or disposal due to catastrophic events |
| 82 | 8.2 - Energy Recovery On-site | 22,7 | N | S | 8.2 | Amount of Energy Recovery On-site |
| 83 | 8.3 - Energy Recovery Off-site | 22,7 | N | S | 8.3 | Amount of Energy Recovery Off-site |
| 84 | 8.4 - Recycling On-Site | 22,7 | N | S | 8.4 | Amount of Recycling On-site |
| 85 | 8.5 - Recycling Off-Site | 22,7 | N | S | 8.5 | Amount of Recycling Off-site |
| 86 | 8.6 - Treatment On-site | 22,7 | N | S | 8.6 | Amount of Treatment On-site |
| 87 | 8.7 - Treatment Off-site | 22,7 | N | S | 8.7 | Amount of Treatment Off-site |
| 88 | 8.8 - One-time Release | 22,7 | N | S | 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processing. |
| 89 | Data Extracted On | 11 | C | | | Date the data was extracted. Format MM/DD/YYYY |

4. The Water Congener Data File

Each row is uniquely identified by a TRI Facility Id, a Document Control Number and Congener Number.

| Field Documentation for the "Water Congener Data" file | | | | | | | |
|--|--------------------------|------------|-----------|-----------|---------|------------|--|
| # | Field | Max Length | Data Type | Reference | | Definition | |
| | | | | F o r m | P a r t | | |
| 1 | Year | 4 | C | R | I | 1 | The Reporting Year - Year the chemical was released or waste managed |
| 2 | TRI Facility ID | 15 | C | R | I | 4.1 | The TRI Facility Identification Number assigned by EPA/TRI |
| 3 | Facility Name | 62 | C | R | I | 4.1 | Facility Name |
| 4 | Street Address | 62 | C | R | I | 4.1 | Street Address where facility is located |
| 5 | City | 28 | C | R | I | 4.1 | City Name where facility is located |
| 6 | County | 25 | C | R | I | 4.1 | County Name where facility is located |
| 7 | ST | 2 | C | R | I | 4.1 | State Abbreviation where the facility is located |
| 8 | ZIP | 9 | C | R | I | 4.1 | ZIP code where facility is located. Either 5 or 9 characters. No hyphens. |
| 9 | Latitude | 9,6 | N | | | | Facility Latitude represented as decimal data |
| 10 | Longitude | 10,6 | N | | | | Facility Longitude represented as decimal data |
| 11 | Primary NAICS | 6 | C | R | I | 4.5 | Primary North American Industry Code System (NAICS) code that represents the Facility's primary Business activity. |
| 12 | NAICS 2 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 13 | NAICS 3 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 14 | NAICS 4 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 15 | NAICS 5 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 16 | NAICS 6 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 17 | Parent Company Name | 60 | C | R | I | 5.1 | Name of Parent Company. |
| 18 | Parent Company DB Number | 9 | C | R | I | 5.2 | Parent Company's Dun & Bradstreet Number. |
| 19 | Doc_Ctrl_Num | 13 | C | | | | The Document Control Number is a unique ID that is assigned to each form. |
| 20 | Chemical | 70 | C | R | II | 1.2 | Name of Chemical |
| 21 | CAS #/Compound ID | 9 | C | R | II | 1.1 | The Chemical Abstract Service Number of the chemical or chemical compound category |
| 22 | Congener No. | 2 | C | | | | The congener sequence or sort number. Range of values {1 to 17}. |

| Field Documentation for the "Water Congener Data" file | | | | | | |
|--|------------------------|------------|-----------|-----------|-----------------------|---|
| # | Field | Max Length | Data Type | Reference | | Definition |
| | | | | F o r m | P a r t S e c t i o n | |
| 23 | Congener CAS# | 9 | C | | | The Chemical Abstract Service Number of the congener or dioxin compound |
| 24 | Congener | 70 | C | | | Name of the Congener or Dioxin Compound |
| 25 | Unit of Measure | 6 | C | | | The units of measure the chemical is displayed in (Grams or Pounds) |
| 26 | 5.3.1 Stream 1 Name | 70 | C | R | II 5.3.1 | The name of the first receiving stream or water body |
| 27 | 5.3.1 Stream 1 Release | 21,7 | N | S | II 5.3.1 | Releases to the first receiving stream or water body |
| 28 | 5.3.2 Stream 2 Name | 70 | C | R | II 5.3.2 | The name of the second receiving stream or water body |
| 29 | 5.3.2 Stream 2 Release | 21,7 | N | S | II 5.3.2 | Releases to the second receiving stream or water body |
| 30 | 5.3.3 Stream 3 Name | 70 | C | R | II 5.3.3 | The name of the third receiving stream or water body |
| 31 | 5.3.3 Stream 3 Release | 21,7 | N | S | II 5.3.3 | Releases to the third receiving stream or water body |
| 32 | 5.3.4 Stream 4 Name | 70 | C | R | II 5.3.4 | The name of the fourth receiving stream or water body |
| 33 | 5.3.4 Stream 4 Release | 21,7 | N | S | II 5.3.4 | Releases to the fourth receiving stream or water body |
| 34 | 5.3.5 Stream 5 Name | 70 | C | R | II 5.3.5 | The name of the fifth receiving stream or water body |
| 35 | 5.3.5 Stream 5 Release | 21,7 | N | S | II 5.3.5 | Releases to the fifth receiving stream or water body |
| 36 | 5.3.6 Stream 6 Name | 70 | C | R | II 5.3.6 | The name of the sixth receiving stream or water body |
| 37 | 5.3.6 Stream 6 Release | 21,7 | N | S | II 5.3.6 | Releases to the sixth receiving stream or water body |
| 38 | 5.3.7 Stream 7 Name | 70 | C | R | II 5.3.7 | The name of the seventh receiving stream or water body |
| 39 | 5.3.7 Stream 7 Release | 21,7 | N | S | II 5.3.7 | Releases to the seventh receiving stream or water body |
| 40 | 5.3.8 Stream 8 Name | 70 | C | R | II 5.3.8 | The name of the eighth receiving stream or water body |

| Field Documentation for the "Water Congener Data" file | | | | | | | |
|--|--------------------------|------------|-----------|-----------|---------|------------|---|
| # | Field | Max Length | Data Type | Reference | | Definition | |
| | | | | Form | Section | | |
| 41 | 5.3.8 Stream 8 Release | 21,7 | N | S | II | 5.3.8 | Releases to the eighth receiving stream or water body |
| 42 | 5.3.9 Stream 9 Name | 70 | C | R | II | 5.3.9 | The name of the ninth receiving stream or water body |
| 43 | 5.3.9 Stream 9 Release | 21,7 | N | S | II | 5.3.9 | Releases to the ninth receiving stream or water body |
| 44 | 5.3.10 Stream 10 Name | 70 | C | R | II | 5.3.10 | The name of the tenth receiving stream or water body |
| 45 | 5.3.10 Stream 10 Release | 21,7 | N | S | II | 5.3.10 | Releases to the tenth receiving stream or water body |
| 46 | 5.3 Total Water Release | 21,7 | N | | | | Total Water release per congener |
| 47 | 6.1 POTW Transfer Amount | 21,7 | N | R | II | 6.1.B.1 | Total amount transferred to all Publicly Owned Treatment Works |
| 48 | 6.1 POTW A NAME | 62 | C | R | II | 6.1.B.1 | Name of the first publicly-owned treatment works facility (POTW) location to which the chemical was sent. |
| 49 | 6.1 POTW A ADDRESS | 62 | C | R | II | 6.1.B.1 | Address of the first publicly-owned treatment works facility (POTW) location to which the chemical was sent. |
| 50 | 6.1 POTW A CITY | 28 | C | R | II | 6.1.B.1 | City of the first publicly-owned treatment works facility (POTW) location to which the chemical was sent. |
| 51 | 6.1 POTW A COUNTY | 25 | C | R | II | 6.1.B.1 | County of the first publicly-owned treatment works facility (POTW) location to which the chemical was sent. |
| 52 | 6.1 POTW A STATE | 2 | C | R | II | 6.1.B.1 | State of the first publicly-owned treatment works facility (POTW) location to which the chemical was sent. |
| 53 | 6.1 POTW A ZIP | 14 | C | R | II | 6.1.B.1 | ZIP of the first publicly-owned treatment works facility (POTW) location to which the chemical was sent. |
| 54 | 6.1 POTW B NAME | 62 | C | R | II | 6.1.B.2 | Name of the second publicly-owned treatment works facility (POTW) location to which the chemical was sent. |
| 55 | 6.1 POTW B ADDRESS | 62 | C | R | II | 6.1.B.2 | Address of the second publicly-owned treatment works facility (POTW) location to which the chemical was sent. |
| 56 | 6.1 POTW B CITY | 28 | C | R | II | 6.1.B.2 | City of the second publicly-owned treatment works facility (POTW) location to which the chemical was |

| Field Documentation for the "Water Congener Data" file | | | | | | |
|--|-------------------|------------|-----------|-----------|---------|---|
| # | Field | Max Length | Data Type | Reference | | Definition |
| | | | | F o r m | P a r t | |
| | | | | | | sent. |
| 57 | 6.1 POTW B COUNTY | 25 | C | R | II | 6.1.B.2 County of the second publicly-owned treatment works facility (POTW) location to which the chemical was sent. |
| 58 | 6.1 POTW B STATE | 2 | C | R | II | 6.1.B.2 State of the second publicly-owned treatment works facility (POTW) location to which the chemical was sent. |
| 59 | 6.1 POTW B ZIP | 14 | C | R | II | 6.1.B.2 ZIP of the second publicly-owned treatment works facility (POTW) location to which the chemical was sent. |
| 60 | Data Extracted On | 11 | C | | | Date the data was extracted. Format MM/DD/YYYY |

5. The Water TEQ Data File

Each row is identified uniquely by a TRI Facility Id and a Document Control Number.

| Field Documentation for the "Water TEQ Data" file | | | | | | | |
|---|--------------------------|------------|-----------|-----------|---------------|------------|--|
| # | Field | Max Length | Data Type | Reference | | Definition | |
| | | | | F o r m | S e c t i o n | | |
| 1 | Year | 4 | C | R | I | 1 | The Reporting Year - Year the chemical was released or waste managed |
| 2 | TRI Facility ID | 15 | C | R | I | 4.1 | The TRI Facility Identification Number assigned by EPA/TRI |
| 3 | Facility Name | 62 | C | R | I | 4.1 | Facility Name |
| 4 | Street Address | 62 | C | R | I | 4.1 | Street Address where facility is located |
| 5 | City | 28 | C | R | I | 4.1 | City Name where facility is located |
| 6 | County | 25 | C | R | I | 4.1 | County Name where facility is located |
| 7 | ST | 2 | C | R | I | 4.1 | State Abbreviation where the facility is located |
| 8 | ZIP | 9 | C | R | I | 4.1 | ZIP code where facility is located. Either 5 or 9 characters. No hyphens. |
| 9 | Latitude | 9,6 | N | | | | Facility Latitude represented as decimal data |
| 10 | Longitude | 10,6 | N | | | | Facility Longitude represented as decimal data |
| 11 | Primary NAICS | 6 | C | R | I | 4.5 | Primary North American Industry Code System (NAICS) code that represents the Facility's primary Business activity. |
| 12 | NAICS 2 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 13 | NAICS 3 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 14 | NAICS 4 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 15 | NAICS 5 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 16 | NAICS 6 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 17 | Parent Company Name | 60 | C | R | I | 5.1 | Name of Parent Company. |
| 18 | Parent Company DB Number | 9 | C | R | I | 5.2 | Parent Company's Dun & Bradstreet Number. |
| 19 | Doc_Ctrl_Num | 13 | C | | | | The Document Control Number is a unique ID that is assigned to each form. |
| 20 | Chemical | 70 | C | R | II | 1.2 | Name of Chemical |
| 21 | CAS #/Compound ID | 9 | C | R | II | 1.1 | The Chemical Abstract Service Number of the chemical or chemical compound category |
| 22 | Congener No. | 2 | C | | | | The value of this data element for TEQ data will be "TEQ" |
| 23 | Congener CAS# | 9 | C | | | | The value of this data element for TEQ data will be "N150". N150 is the general CAS number of Dioxins |

| Field Documentation for the "Water TEQ Data" file | | | | | | |
|---|------------------------|------------|-----------|-----------|----------|--|
| # | Field | Max Length | Data Type | Reference | | Definition |
| | | | | F o r m | P a r t | |
| | | | | | | and Dioxin-like Compounds |
| 24 | Congener | 70 | C | | | The value of this data element for TEQ data will be "Dioxin - Toxic Equivalency (TEQ)" |
| 25 | Unit of Measure | 6 | C | | | The units of measure the chemical is displayed in (Grams or Pounds) |
| 26 | 5.3.1 Stream 1 Name | 70 | C | R | II 5.3.1 | The name of the first receiving stream or water body |
| 27 | 5.3.1 Stream 1 Release | 21,7 | N | S | II 5.3.1 | Releases to the first receiving stream or water body |
| 28 | 5.3.2 Stream 2 Name | 70 | C | R | II 5.3.2 | The name of the second receiving stream or water body |
| 29 | 5.3.2 Stream 2 Release | 21,7 | N | S | II 5.3.2 | Releases to the second receiving stream or water body |
| 30 | 5.3.3 Stream 3 Name | 70 | C | R | II 5.3.3 | The name of the third receiving stream or water body |
| 31 | 5.3.3 Stream 3 Release | 21,7 | N | S | II 5.3.3 | Releases to the third receiving stream or water body |
| 32 | 5.3.4 Stream 4 Name | 70 | C | R | II 5.3.4 | The name of the fourth receiving stream or water body |
| 33 | 5.3.4 Stream 4 Release | 21,7 | N | S | II 5.3.4 | Releases to the fourth receiving stream or water body |
| 34 | 5.3.5 Stream 5 Name | 70 | C | R | II 5.3.5 | The name of the fifth receiving stream or water body |
| 35 | 5.3.5 Stream 5 Release | 21,7 | N | S | II 5.3.5 | Releases to the fifth receiving stream or water body |
| 36 | 5.3.6 Stream 6 Name | 70 | C | R | II 5.3.6 | The name of the sixth receiving stream or water body |
| 37 | 5.3.6 Stream 6 Release | 21,7 | N | S | II 5.3.6 | Releases to the sixth receiving stream or water body |
| 38 | 5.3.7 Stream 7 Name | 70 | C | R | II 5.3.7 | The name of the seventh receiving stream or water body |
| 39 | 5.3.7 Stream 7 Release | 21,7 | N | S | II 5.3.7 | Releases to the seventh receiving stream or water body |
| 40 | 5.3.8 Stream 8 Name | 70 | C | R | II 5.3.8 | The name of the eighth receiving stream or water body |
| 41 | 5.3.8 Stream 8 | 21,7 | N | S | II 5.3.8 | Releases to the eighth receiving stream or water body |

| Field Documentation for the "Water TEQ Data" file | | | | | | |
|---|--------------------------|------------|-----------|-----------|---------|---|
| # | Field | Max Length | Data Type | Reference | | Definition |
| | | | | F o r m | P a r t | |
| | Release | | | | | |
| 42 | 5.3.9 Stream 9 Name | 70 | C | R | II | 5.3.9 The name of the ninth receiving stream or water body |
| 43 | 5.3.9 Stream 9 Release | 21,7 | N | S | II | 5.3.9 Releases to the ninth receiving stream or water body |
| 44 | 5.3.10 Stream 10 Name | 70 | C | R | II | 5.3.10 The name of the tenth receiving stream or water body |
| 45 | 5.3.10 Stream 10 Release | 21,7 | N | S | II | 5.3.10 Releases to the tenth receiving stream or water body |
| 46 | 5.3 Total Water Release | 21,7 | N | | | Total Water release per congener |
| 47 | 6.1 POTW Transfer Amount | 21,7 | N | R | II | 6.1.B.1 Total amount transferred to all Publicly Owned Treatment Works |
| 48 | 6.1 POTW A NAME | 62 | C | R | II | 6.1.B.1 Name of the first publicly-owned treatment works facility (POTW) location to which the chemical was sent. |
| 49 | 6.1 POTW A ADDRESS | 62 | C | R | II | 6.1.B.1 Address of the first publicly-owned treatment works facility (POTW) location to which the chemical was sent. |
| 50 | 6.1 POTW A CITY | 28 | C | R | II | 6.1.B.1 City of the first publicly-owned treatment works facility (POTW) location to which the chemical was sent. |
| 51 | 6.1 POTW A COUNTY | 25 | C | R | II | 6.1.B.1 County of the first publicly-owned treatment works facility (POTW) location to which the chemical was sent. |
| 52 | 6.1 POTW A STATE | 2 | C | R | II | 6.1.B.1 State of the first publicly-owned treatment works facility (POTW) location to which the chemical was sent. |
| 53 | 6.1 POTW A ZIP | 14 | C | R | II | 6.1.B.1 ZIP of the first publicly-owned treatment works facility (POTW) location to which the chemical was sent. |
| 54 | 6.1 POTW B NAME | 62 | C | R | II | 6.1.B.2 Name of the second publicly-owned treatment works facility (POTW) location to which the chemical was sent. |
| 55 | 6.1 POTW B ADDRESS | 62 | C | R | II | 6.1.B.2 Address of the second publicly-owned treatment works facility (POTW) location to which the chemical was sent. |
| 56 | 6.1 POTW B CITY | 28 | C | R | II | 6.1.B.2 City of the second publicly-owned treatment works facility (POTW) location to which the chemical was sent. |

| Field Documentation for the "Water TEQ Data" file | | | | | | | |
|---|-------------------|------------|-----------|-----------|---------|------------|--|
| # | Field | Max Length | Data Type | Reference | | Definition | |
| | | | | F o r m | P a r t | | |
| 57 | 6.1 POTW B COUNTY | 25 | C | R | II | 6.1.B.2 | County of the second publicly-owned treatment works facility (POTW) location to which the chemical was sent. |
| 58 | 6.1 POTW B STATE | 2 | C | R | II | 6.1.B.2 | State of the second publicly-owned treatment works facility (POTW) location to which the chemical was sent. |
| 59 | 6.1 POTW B ZIP | 14 | C | R | II | 6.1.B.2 | ZIP of the second publicly-owned treatment works facility (POTW) location to which the chemical was sent. |
| 60 | Data Extracted On | 11 | C | | | | Date the data was extracted. Format MM/DD/YYYY |

6. The Transfer Details Data File

Each row is identified uniquely by a TRI Facility Id, a Document Control Number, a Sequence No. and an Off-site Amount Sequence.

| Field Documentation for the "Transfer Details Data" file | | | | | | | |
|--|--------------------------|------------|-----------|-----------|---------|------------|--|
| # | Field | Max Length | Data Type | Reference | | Definition | |
| | | | | F o r m | P a r t | | |
| 1 | Year | 4 | C | R | I | 1 | The Reporting Year - Year the chemical was released or waste managed |
| 2 | TRI Facility ID | 15 | C | R | I | 4.1 | The TRI Facility Identification Number assigned by EPA/TRI |
| 3 | Facility Name | 62 | C | R | I | 4.1 | Facility Name |
| 4 | Street Address | 62 | C | R | I | 4.1 | Street Address where facility is located |
| 5 | City | 28 | C | R | I | 4.1 | City Name where facility is located |
| 6 | County | 25 | C | R | I | 4.1 | County Name where facility is located |
| 7 | ST | 2 | C | R | I | 4.1 | State Abbreviation where the facility is located |
| 8 | ZIP | 9 | C | R | I | 4.1 | ZIP code where facility is located. Either 5 or 9 characters. No hyphens. |
| 9 | Latitude | 9,6 | N | | | | Facility Latitude represented as decimal data |
| 10 | Longitude | 10,6 | N | | | | Facility Longitude represented as decimal data |
| 11 | Primary NAICS | 6 | C | R | I | 4.5 | Primary North American Industry Code System (NAICS) code that represents the Facility's primary Business activity. |
| 12 | NAICS 2 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 13 | NAICS 3 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 14 | NAICS 4 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 15 | NAICS 5 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 16 | NAICS 6 | 6 | C | R | I | 4.5 | Supplemental NAICS code representing other business activities of the facility |
| 17 | Parent Company Name | 60 | C | R | I | 5.1 | Name of Parent Company. |
| 18 | Parent Company DB Number | 9 | C | R | I | 5.2 | Parent Company's Dun & Bradstreet Number. |
| 19 | Doc_Ctrl_Num | 13 | C | | | | The Document Control Number is a unique ID that is assigned to each form. |
| 20 | Chemical | 70 | C | R | II | 1.2 | Name of Chemical |
| 21 | CAS #/Compound ID | 9 | C | R | II | 1.1 | The Chemical Abstract Service Number of the chemical or chemical compound category |
| 22 | Unit of Measure | 6 | C | | | | The units of measure the chemical is displayed in (Grams or Pounds) |

| Field Documentation for the "Transfer Details Data" file | | | | | | | |
|--|----------------------------------|------------|-----------|-----------|---------|------------|---|
| # | Field | Max Length | Data Type | Reference | | Definition | |
| | | | | Form | Section | | |
| 23 | Waste Management Code | 3 | C | R | II | 6.2 | A three character code that identifies the type of Waste Management that was used for the off-site transfer. Matches to field 24, Waste Management Description. |
| 24 | Waste Management Description | 80 | C | | | | Description of the process that was used for the waste management of the chemical |
| 25 | Category of the Waste Management | 16 | C | | | | Category of the Waste Management. Categories include {Energy Recovery, Recycling, Release/Disposal and Treatment} |
| 26 | Sequence No. | 9 | C | | | | A number that represents sequence in which the facility listed the off-site transfer locations on their form R |
| 27 | Off-site Amount Sequence | | | | | | A number that represents the sequence in which the facility listed the individual transfers to a single off-site transfer location. |
| 28 | Release NA | 3 | C | | | | Indicates whether off-site transfers are or are not possible for the facility and chemical. Values = {Yes,No} |
| 29 | Dioxin Congener 1 | 22,7 | N | S | | 6.2 | Amount of congener #1, 2,3,7,8-Tetrachlorodibenzo- p-dioxin (CAS# 001746016) transferred off-site |
| 30 | Dioxin Congener 2 | 22,7 | N | S | | 6.2 | Amount of congener #2, 1,2,3,7,8-Pentachlorodibenzo- p-dioxin (CAS# 040321764) transferred off-site |
| 31 | Dioxin Congener 3 | 22,7 | N | S | | 6.2 | Amount of congener #3, 1,2,3,4,7,8-Hexachlorodibenzo- p-dioxin (CAS# 039227286) transferred off-site |
| 32 | Dioxin Congener 4 | 22,7 | N | S | | 6.2 | Amount of congener #4, 1,2,3,6,7,8-Hexachlorodibenzo- p-dioxin (CAS# 057653857) transferred off-site |
| 33 | Dioxin Congener 5 | 22,7 | N | S | | 6.2 | Amount of congener #5, 1,2,3,7,8,9-Hexachlorodibenzo- p-dioxin (CAS# 019408743) transferred off-site |
| 34 | Dioxin Congener 6 | 22,7 | N | S | | 6.2 | Amount of congener #6, 1,2,3,4,6,7,8-Heptachlorodibenzo- p-dioxin (CAS# 035822469) transferred off-site |
| 35 | Dioxin Congener 7 | 22,7 | N | S | | 6.2 | Amount of congener #7, 1,2,3,4,6,7,8,9-Octachlorodibenzo- p-dioxin (CAS# 003268879) transferred off-site |
| 36 | Dioxin Congener 8 | 22,7 | N | S | | 6.2 | Amount of congener #8, 2,3,7,8-Tetrachlorodibenzofuran 2,3,7,8-TCDF (CAS# 051207319) transferred off-site |
| 37 | Dioxin Congener 9 | 22,7 | N | S | | 6.2 | Amount of congener #9, 1,2,3,7,8-Pentachlorodibenzofuran 1,2,3,7,8-PeCDF (CAS# 057117416) transferred off-site |
| 38 | Dioxin Congener 10 | 22,7 | N | S | | 6.2 | Amount of congener #10, 2,3,4,7,8-Pentachlorodibenzofuran 2,3,4,7,8-PeCDF (CAS# 057117314) transferred off-site |
| 39 | Dioxin Congener 11 | 22,7 | N | S | | 6.2 | Amount of congener #11, 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,4,7,8-HxCDF |

| Field Documentation for the "Transfer Details Data" file | | | | | | |
|--|-----------------------|------------|-----------|-----------|---------|--|
| # | Field | Max Length | Data Type | Reference | | Definition |
| | | | | Form | Section | |
| | | | | | | (CAS# 070648269) transferred off-site |
| 40 | Dioxin Congener 12 | 22,7 | N | S | 6.2 | Amount of congener #12, 1,2,3,6,7,8-Hexachlorodibenzofuran 1,2,3,6,7,8-HxCDF (CAS# 057117449) transferred off-site |
| 41 | Dioxin Congener 13 | 22,7 | N | S | 6.2 | Amount of congener #13, 1,2,3,7,8,9-Hexachlorodibenzofuran 1,2,3,7,8,9-HxCDF (CAS# 072918219) transferred off-site |
| 42 | Dioxin Congener 14 | 22,7 | N | S | 6.2 | Amount of congener #14, 2,3,4,6,7,8-Hexachlorodibenzofuran 2,3,4,6,7,8-HxCDF (CAS# 060851345) transferred off-site |
| 43 | Dioxin Congener 15 | 22,7 | N | S | 6.2 | Amount of congener #15, 1,2,3,4,6,7,8-Heptachlorodibenzofuran 1,2,3,4,6,7,8-HpCDF (CAS# 067562394) transferred off-site |
| 44 | Dioxin Congener 16 | 22,7 | N | S | 6.2 | Amount of congener #16, 1,2,3,4,7,8,9-Heptachlorodibenzofuran 1,2,3,4,7,8,9-HpCDF (CAS# 055673897) transferred off-site |
| 45 | Dioxin Congener 17 | 22,7 | N | S | 6.2 | Amount of congener #17, 1,2,3,4,6,7,8,9-Octachlorodibenzofuran 1,2,3,4,6,7,8,9-OCDF (CAS# 039001020) transferred off-site |
| 46 | Calculated TEQ | 22,7 | N | | | The Calculated Toxics Equivalency Value. This value is calculated by summing the product of each reported congener amount by its Toxic Equivalency Factor. |
| 47 | Total Transfer | 22,7 | N | R II | 6.2 | The total amount of transfers of the chemical off-site as listed on the Form R, in section 6.2. This amount should also be equal the sum of the congeners. |
| 48 | Off Site Name | 62 | C | R II | 6.2 | Name of the Off-site transfer location |
| 49 | Off Site Address | 62 | C | R II | 6.2 | Address of the off-site transfer location |
| 50 | Off Site City | 28 | C | R II | 6.2 | City where the off-site transfer site is located |
| 51 | Off Site County | 25 | C | R II | 6.2 | County where the off-site transfer site is located |
| 52 | Off Site State | 2 | C | R II | 6.2 | State where the off-site transfer site is located |
| 53 | Off Site Province | 25 | C | R II | 6.2 | Province (non-US) where the off-site transfer site is located |
| 54 | Off Site ZIP | 14 | C | R II | 6.2 | ZIP code of the off-site transfer location |
| 55 | Off Site Country Abbr | 3 | C | | | 3 character Country Abbreviation of where the off-site transfer site is located. Examples = {USA, MEX, CAN, etc.} |
| 56 | Off Site Country | 25 | C | | | Full name of the country where the off-site transfer site is located |

| Field Documentation for the "Transfer Details Data" file | | | | | | | |
|--|---------------------|------------|-----------|-----------|---------|------------|--|
| # | Field | Max Length | Data Type | Reference | | Definition | |
| | | | | F o r m | P a r t | | |
| 57 | RCRA Num | 12 | C | R | II | 6.2 | The Resource Conservation and Recovery Act (RCRA) number of the off-site transfer location |
| 58 | Controlled Location | 12 | C | R | II | 6.2 | Indication of whether the off-site transfer location is under the control of the reporting facility. Values = {Yes,No} |
| 59 | Data Extracted On | 11 | C | | | | Date the data was extracted. Format MM/DD/YYYY |