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NetDMR

Data Import Specification

Version 1

April 13, 2009

Import DMRs

As an external user with signatory or edit access, you can enter data for one or more DMRs using the import functionality by uploading a file that conforms to the Import DMR file specifications. The import file can contain data to start data entry of a DMR that you have not yet edited, alter in-process DMRs, and/or correct previously submitted DMRs. NetDMR will populate the DMR using the data contained in the file. NetDMR will validate the import file and flag any errors. You must still use the NetDMR interface to acknowledge soft errors, provide information such as the Principal Executive Officer, and sign a completed DMR.

Import DMR Format

The DMR import file must be in comma separated value format (csv) and be saved with an extension of '.txt', or a '.txt' file that is zipped according the PKWare zip format and saved with an extension of '.zip' CSV files can be readily created using a program such as Microsoft Excel. The import format will allow you to specify all of the parameter data that you would otherwise enter using the NetDMR Edit DMR functionality. You will still need to use the NetDMR Edit DMR functionality to acknowledge soft errors and enter DMR level information such as the Principal Executive Officer. The following fields are listed in the order in which they must appear for each row in the import file.

Import DMR File Specifications							
#	Grouping	Header	Short Description	Full Description	Example	Type	Required
1	DMR	permitted_feature_id	Permitted Feature ID	The alphanumeric identifier or name assigned by a permit issuing organization to identify a permitted unit, feature, or process	LVW	alphanumeric string 100 characters or less	y
2		limit_set_txt	Limit Set Designator	The unique identifier for a particular grouping of limits for a given outfall or discharge point for reporting purposes	A	alphanumeric string 50 characters or less	y
3		mped_txt	Monitoring Period End Date (yyyy-mm-dd)	The Monitoring Period End Date (MPED) for a given DMR.	2008-03-31	Date in YYYY-MM-DD Format	y
4	Parameter	parameter_cd	Parameter Code	The unique code identifying the parameter within the pollutant	TRB6J	string 5 characters or less	y
5		monitor_location_cd	Monitoring Location Code	The code that the monitoring location at which the monitoring requirement (and effluent limit if limited) applies.	RW	string 3 characters or less	y
6		season_num	Season Number	Unique number between 0 and 12 inclusive that identifies a particular seasonal limit for the same parameter within a single limit start and end date.	1	Integer between 1 and 12 inclusive	y
7	Quant 1	quant_1_nodi_cd	Quantity 1 Nodi Code	The unique code for no discharge indicator values of DMR	W	string 3 characters or less	
8		quant_1_qualifier_txt	Quantity 1 Qualifier Text	The qualifier of the numeric condition. It specifies whether the condition is greater than, less than, and/or equal to the NumericConditionValue. This field may also indicate if the value is estimated (E) or too numerous to count (T) when applicable.	=	one of: =,<=,>,<,>,T,E	
9		quant_1_sample_num	Quantity 1 Sample Value	Value	3.75	Number, not more than 8 characters including decimal point and +/- sign but excluding comma separators. Maximum of 7 digits to the right of the decimal point.	
10		quant_1_effluent_num	Quantity 1 Effluent Value	Value	3.75	Number, , not more than 8 characters including decimal point and +/- sign but excluding comma separators. Maximum of 7 digits to the right of the decimal point.	Not Applicable (NA)

Import DMR File Specifications							
#	Grouping	Header	Short Description	Full Description	Example	Type	Required
11	Quant 2	quant_2_nodi_cd	Quantity 2 Nodi Code	The unique code for no discharge indicator values of DMR	W	String 3 characters or less	
12		quant_2_qualifier_txt	Quantity 2 Qualifier Text	The qualifier of the numeric condition. It specifies whether the condition is greater than, less than, and/or equal to the NumericConditionValue. This field may also indicate if the value is estimated (E) or too numerous to count (T) when applicable.	=	One of: =,<=,>,<,>,T,E	
13		quant_2_sample_num	Quantity 2 Sample Value	Value	3.75	Number, not more than 8 characters including decimal point and +/- sign but excluding comma separators. Maximum of 7 digits to the right of the decimal point.	
14		quant_2_effluent_num	Quantity 2 Effluent Value	Value	3.75	Number, not more than 8 characters including decimal point and +/- sign but excluding comma separators. Maximum of 7 digits to the right of the decimal point.	NA
15	Quant UOM	quant_uom_cd	Quantity Unit Of Measure Code	Unit of measure abbreviation	MBTU/hr	String 15 characters or less	
16	Conc 1	conc_1_nodi_cd	Concentration 1 Nodi Code	The unique code for no discharge indicator values of DMR	W	String 3 characters or less	
17		conc_1_qualifier_txt	Concentration 1 Qualifier Text	The qualifier of the numeric condition. It specifies whether the condition is greater than, less than, and/or equal to the NumericConditionValue. This field may also indicate if the value is estimated (E) or too numerous to count (T) when applicable.	=	One of: =,<=,>,<,>,T,E	
18		conc_1_sample_num	Concentration 1 Sample Value	Value	3.75	Number, not more than 8 characters including decimal point and +/- sign but excluding comma separators. Maximum of 7 digits to the right of the decimal point.	

Import DMR File Specifications							
#	Grouping	Header	Short Description	Full Description	Example	Type	Required
19		conc_1_effluent_num	Concentration 1 Effluent Value	Value	3.75	Number, not more than 8 characters including decimal point and +/- sign but excluding comma separators. Maximum of 7 digits to the right of the decimal point.	NA
20	Conc 2	conc_2_nodi_cd	Concentration 2 Nodi Code	The unique code for no discharge indicator values of DMR	W	String 3 characters or less	
21		conc_2_qualifier_txt	Concentration 2 Qualifier Text	The qualifier of the numeric condition. It specifies whether the condition is greater than, less than, and/or equal to the NumericConditionValue. This field may also indicate if the value is estimated (E) or too numerous to count (T) when applicable.	=	One of: =,<=,>,<,>,T,E	
22		conc_2_sample_num	Concentration 2 Sample Value	Value	3.75	Number, not more than 8 characters including decimal point and +/- sign but excluding comma separators. Maximum of 7 digits to the right of the decimal point.	
23		conc_2_effluent_num	Concentration 2 Effluent Value	Value	3.75	Number, not more than 8 characters including decimal point and +/- sign but excluding comma separators. Maximum of 7 digits to the right of the decimal point.	NA
24	Conc 3	conc_3_nodi_cd	Concentration 3 Nodi Code	The unique code for no discharge indicator values of DMR	W	String 3 characters or less	
25		conc_3_qualifier_txt	Concentration 3 Qualifier Text	The qualifier of the numeric condition. It specifies whether the condition is greater than, less than, and/or equal to the NumericConditionValue. This field may also indicate if the value is estimated (E) or too numerous to count (T) when applicable.	=	One of: =,<=,>,<,>,T,E	

Import DMR File Specifications							
#	Grouping	Header	Short Description	Full Description	Example	Type	Required
26		conc_3_sample_num	Concentration 3 Sample Value	Value	3.75	Number, not more than 8 characters including decimal point and +/- sign but excluding comma separators. Maximum of 7 digits to the right of the decimal point.	
27		conc_3_effluent_num	Concentration 3 Effluent Value	Value	3.75	Number, not more than 8 characters including decimal point and +/- sign but excluding comma separators. Maximum of 7 digits to the right of the decimal point.	NA
28	Conc UOM	conc_uom_cd	Concentration Unit Of Measure Code	Unit of measure abbreviation	MBTU/hr	String 15 characters or less	
29		excursions_num	Number of reported excursions	Number of reported excursions	2	Integer 0 or above	
30	Additional	freq_analysis_cd	Frequency of Analysis Code	The code that indicates the frequency with which the permittee must analyze the sampled data. The general format is XX/YY where XX= number of times sampled and YY = period of time sampled	01/8H	String 15 characters or less	y
31		sample_type_cd	Sample Type Code	The code that is the sampling method required by the permit to be used to provide measurement values on the DMR	CT	String 3 characters or less	y

CSV Format Specifications

The comma separated value (CSV) format recognized by NetDMR is based on the CSV specification outlined by the Internet Engineering Task Force (IETF) at <http://tools.ietf.org/html/rfc4180>.

1. Any line in the file beginning with the pound sign (#) is treated as a comment and will be ignored by the import.
2. The data for each parameter is located on a separate line, delimited by a line break (CRLF). For example:

```
aaa,bbb,ccc CRLF
zzz,yyy,xxx CRLF
```

3. The last record in the file may or may not have an ending line break. For example:

```
aaa,bbb,ccc CRLF
zzz,yyy,xxx
```

4. A header line must appear as the first line of the file with the same format as normal record lines. This header contains names corresponding to the fields in the file and contains the same number of fields as the records in the rest of the file. For example:

```
field_name,field_name,field_name CRLF
aaa,bbb,ccc CRLF
zzz,yyy,xxx CRLF
```

5. Within the header and each record, there can be one or more fields, separated by commas. Each line should contain the same number of fields throughout the file. Spaces are considered part of a field and should not be ignored. The last field in the record must not be followed by a comma. For example:

```
aaa,bbb,ccc
```

6. Each field may or may not be enclosed in double quotes. If fields are not enclosed with double quotes, then double quotes can not appear inside the fields. If surrounding double quotes are used, the initial double quote must immediately follow the comma delimiter separating the field from the previous field and the final double quote must immediately precede the comma separating the field from the next field. For example:

```
"aaa","bbb","ccc" CRLF
zzz,yyy,xxx
```

```
"aaa","b,bb","ccc" CRLF
```

zzz,yyy,xxx

7. If double-quotes are used to enclose fields, then a double-quote appearing inside a field must be escaped by preceding it with another double quote. For example:

"aaa","b""quoted""b","ccc"

8. Fields that do not contain any data can either be surrounded in double quotes or be empty. For example,

"a","b","c" CRLF

a,,c CRLF

a,"",c

Import DMRs

As an external user with signatory or edit access to a permit, you can use the **Import DMRs** page to import a properly formatted DMR data file. The file can contain data for only one permit (although it may cover multiple permitted features, limit sets, and monitoring periods for that permit). You can include in the file both new DMR data and corrections to in-process or previously submitted DMRs. The file can not be larger than twenty (20) megabytes (MB). To import a DMR file, follow these steps:

1. Prepare a properly formatted import file. The file must only contain data for one permit ID as NetDMR can only process DMRs for one permit in each import file.
2. Login to NetDMR with a Signatory or Edit User account.
3. Click **Perform Import** under the **Import DMRs** menu.
4. Click in the box next to Permit ID to select the permit with which the DMR is associated. This box is pre-populated with the list of permits to which you have access. This field is mandatory.
5. Click *Browse* and navigate to folder on your desktop, network, or other location that contains the import file. Click the file name and click Open to select the file to be imported. This field is mandatory.
6. Click in the box next to File Type to select the type of file being imported. Valid file types are "Text" and "Zip" files. This field is mandatory.
7. Click to select a Data Replacement Strategy. The strategy tells NetDMR how to handle the data in the import file. This field is mandatory
 - **Append Only** – The import can add data to an in-process DMR but can not overwrite the DMR's existing data.
 - **Append and Overwrite** – The import can both add data to and overwrite existing data in an in-process DMR.
8. Enter a description of the import file. This field is mandatory.
9. Click *Submit Import File* to initiate the import process. After you submit a file, NetDMR adds it to the import queue. You can monitor the status of the import request on the **Check DMR Import Results** page. After the DMR has been processed, NetDMR will notify you by email and make any errors available via the **Check DMR Import Results** page.

You can stop the import process by clicking *Cancel*. NetDMR will return you to the previous page without submitting a DMR file to import.

Import Validation


NetDMR automatically processes and validates each row in the import file. If an error is encountered in a row, no data from the row will be processed. Errors in one row do not affect the processing of previous or subsequent rows. NetDMR performs the following validations:

1. Each import file must contain data for only one permit number. You specify the permit number on the *Import DMRs* page.
2. Each row must be of the exact format specified in Import DMR Format and DMR Import File Contents.
3. Each row must contain data for the following fields to uniquely identify a parameter row in a DMR:
 - a. Permitted Feature ID
 - b. Limit Set Designator
 - c. Monitoring Period End Date (yyyy-mm-dd)
 - d. Parameter Code
 - e. Monitoring Location Code
4. Each row must relate to a parameter row of a DMR that exists in NetDMR
5. If you provide a NODI code for a row, the associated sample value and effluent values must be blank. For example, if a Concentration 1 NODI Code is provided in a row, data cannot be provided for the Concentration 1 Sample Value or the Concentration 1 Effluent Value for that same record.
6. All included codes for fields such as Parameter Code, Monitoring Location Code, NODI codes (Appendix A), Unit of Measure Codes (Appendix B), Frequency of Analysis Codes (Appendix C), and Sample Type Codes (Appendix D) must match the codes in an applicable reference table in the NetDMR database. NetDMR uses the same codes as ICIS-NPDES.
7. The Monitoring Period End Date must be specified in the format YYYY-MM-DD.
8. If provided, the Number of Excursions must be an integer ≥ 0 .
9. If provided, the Unit of Measure Code (Appendix B) must be appropriate for the specified parameter. The reference tables retrieved from ICIS-NPDES specify which unit codes are appropriate for each parameter code.





DMR Import Results

The *DMR Import Results* page summarizes the status of your DMR import requests. . As an external user with signatory or edit access to a permit, you can view these results by clicking **Check Results** under the **Import DMRs** menu. The following information is provided:

- **Transaction ID** – A NetDMR-generated identifier for the request.


- **Submission Date/Time** – The date/time you made the request to import the DMR on the *Import DMRs* page.
- **Permit ID** – The permit number to which the DMR data are being added.
- **Facility**– The name of the facility associated with the permit.
- **Import File** – The name of the import file.
- **Data Replacement Strategy** – Indicates if the data replacement strategy is “Append Only” or “Append and Overwrite”.
- **Description** – The description you provided for this import on the *Import DMRs* page.
- **Status** – The status of the DMR Import:
 - **Pending** – The import request is waiting in NetDMR’s import queue.
 - **In Process** – NetDMR is processing the import request.
 - **Failed** – NetDMR attempted to process the request but encountered fatal errors. No data were imported. Failed import requests are removed from the table after three months.
 - **Completed With Errors** – NetDMR processed the request and encountered non-fatal errors; some data were imported. Completed with errors import requests are removed after all of the DMRs created by this request are signed and submitted or deleted.
 - **Completed** – NetDMR processed the request without errors; all data were imported. Completed import requests are removed from the table after all of the DMRs created by this request are signed and submitted or deleted.
- **Log** – You can view the import log for each request by clicking the  icon. The import log contains detailed status and error messages generated during import processing.
- **Back** – Click the *Back* button to return to the previous page.

Up to ten import requests will be displayed in the table by default. If more than 10 import requests are available, you can navigate through the list by:

- Clicking a page number link to go to a specific page of import requests.
- Clicking the green forward arrow  to display the next page of import requests.
- Clicking the green back arrow  to view the previous page of import requests.
- Clicking the double green forward arrow icon  to display the last 10 import requests.
- Clicking the double green back arrow icon  to display the first 10 import requests.
- Clicking the View All link to show all import requests in the table on the same page with the default sort order applied
- Clicking the View Partial link to return from the View All display back to viewing 10 import requests at a time with the default sort order applied.

Click any underlined column title to sort the table rows in ascending or descending order by the information in that column.

DMR Import Log

The *DMR Import Log* page displays status and error messages generated during the processing of a DMR import request. As an external user with signatory or edit access to a permit, you can view the DMR Import Log by clicking the  log icon in the Log column on the *DMR Import Results* page. The DMR import request information is summarized in the table at the top of the page and the log entries are presented in the table at the bottom of the page.

DMR Import Request Information





- **Transaction ID** – A NetDMR-generated identifier for the request.
- **Submission Date/Time** – The date/time you made the request to import the DMR on the *Import DMRs* page.
- **Permit ID** – Permit number to which the DMR is being added.
- **Facility** – Name of the facility associated with the permit.
- **Import File** – The name of the import file.
- **Data Replacement Strategy** – Indicates if the data replacement strategy is “Append Only” or “Append and Overwrite”.
- **Description** – The description you provided for this import on the *Import DMRs* page.
- **Status** – The status of the DMR Import.
 - **Pending** – The import request is waiting in NetDMR’s import queue.
 - **In Process** – NetDMR is processing the import request.
 - **Failed** – NetDMR attempted to process the request but encountered fatal errors; no data were imported. Failed import requests are removed after three months.
 - **Completed With Errors** – NetDMR processed the request and encountered non-fatal errors; some data were imported. Completed with errors import requests are removed after all of the DMRs created by this request are signed and submitted or deleted.
 - **Completed** – NetDMR processed the request without errors; all data were successfully imported. Completed import requests are removed after all of the DMRs created by this request are signed and submitted or deleted.

DMR Import Log Entries

- **Date/Time** – The date and time the message was logged.
- **Error Type Code** – A category for each log message, Information or Error
 - **Error Code** – A NetDMR code useful for troubleshooting and technical support; this code is displayed for error messages only. See Appendix E for a complete listing of error codes.
 - **Description** – A plain English description of the status event or error.
 - **Back** – Click the *Back* button to return to the previous page.

Up to ten log messages will be displayed by default. If the import generated more than ten log messages, you can navigate through the log messages by:

- Clicking a page number link to go to a specific page of log messages.

- Clicking the green forward arrow  to display the next page of log messages.
- Clicking the green back arrow  to view the previous page of log messages.
- Clicking the double green forward arrow icon  to display the last 10 log messages.
- Clicking the double green back arrow icon  to display the first 10 log messages.
- Clicking the View All link to show all log messages in the table on the same page with the default sort order applied.
- Clicking the View Partial link to return from the View All display back to viewing 10 log messages at a time with the default sort order applied.

Click any underlined column title to sort the table rows in ascending or descending order by the information in that column.

Appendix A: NODI Codes

NODI Code	Description
1	Wrong Flow
2	Operation Shutdown
4	Discharge to Lagoon/Groundwater
5	Frozen Conditions
7	No Influent
8	Other (See Comments)
9	Conditional Monitoring - Not Required This Period
A	General Permit Exemption
B	Below Detection Limit/No Detection
C	No Discharge
D	Lost Sample/Data Not Available
E	Analysis Not Conducted/No Sample
F	Insufficient Flow for Sampling
G	Sampling Equipment Failure
H	Invalid Test
I	Land Applied
J	Recycled - Water-Closed System
K	Flood Disaster
L	DMR Received but not Entered
Q	Not Quantifiable
R	Administratively Resolved
S	Fire Conditions
V	Weather Related
W	Dry Lysimeter/Well
X	Parameter/Value Not Reported

Appendix B: Unit of Measure Codes

Unit Code	Short Description	Long Description	Too Numerous To Count Flag
00	bbl/mo	Barrels per Month	
01	kg/d	Kilograms per Day	
02	kg/kgal	Kilograms per 1000 Gallons	
03	Mgal/d	Million Gallons per Day	
04	deg C	Degrees Centigrade	
05	MBTU/hr	Million BTUs per Hour	
06	MBTU/d	Million BTUs per Day	
07	gal/d	Gallons per Day	
08	ft ³ /sec	Cubic Feet per Second	
09	JTU	Jackson Turbidity (Candle) Unit	
10	col unit (pc)	Color - Platinum Cobalt Unit	
11	uS/cm	Conductance-Micromhos per cm	
12	SU	Standard Units	
13	#/100mL	Number per 100 Milliliters	T
14	min	Minutes	
15	deg F	Degrees Fahrenheit	
16	m ³ /d	Cubic Meters per Day	
17	pCi/L	Picocuries per Liter	
18	ct/L	Counts per Liter	T
19	mg/L	Milligrams per Liter	
1A	dir deg N	Direction	
1B	cP	Centipoises	
1C	#/mL	Number per Milliliter	T
1D	cm	Centimeters	
1E	col unit	Color - Admi Units	
1H	10lb/yr	10 Pounds per Year	
1K	Fib/L	Fibers per Liter	
1L	mg/kg	Micrograms per Kilogram	
1N	bbl	Barrels	
1P	Fib/mL	Fibers per Milliliter	
1Q	time	Time (HHMM)	
1R	lb/kgal	Pounds per 1000 Gallons	
1S	c	Cycles	
1T	bbl/d	Barrels per Day	
1U	Ratio	Ratio	
1V	BTU/sec	BTUs per Second	
1W	kg/mo	Kilograms per Month	
1X	gal/hr	Gallons per Hour	
1Y	lb/hlb	Pounds per 100 Pounds	
1Z	pCi/mL	Picocuries per Milliliter	
20	ppm	Parts per Million	
21	ppb	Parts per Billion	
22	ppt	Parts per Trillion	
23	%	Percent	
25	mL/L	Milliliters per Liter	
26	lb/d	Pounds per Day	
27	ft	Feet	

Unit Code	Short Description	Long Description	Too Numerous To Count Flag
28	ug/L	Micrograms per Liter	
29	lbf/in	Pounds per Square Inch	
2A	Mgal/yr	Million Gallons per Year	
2B	in/hr	Inches per Hour	
2C	kg/kgg	Kilograms per 1000 Kilograms	
2D	in/d	Inches per Day	
2E	mOsm/kg	Milliosmols per Kilogram	
2F	tox acute	Acute Toxicity	
2G	tox chronic	Chronic Toxicity	
2H	Ci/d	Curies per Day	
2I	% mortality	Percent Mortality	
2J	kg/hr	Kilograms per Hour	
2K	lb/min	Pounds per Minute	
2L	kgal/d	1000 Gallons per Day	
2M	% sample comp	Percent Samples In Compliance	
2N	ton/d	Tons per Day	
2P	lb/Mgal	Pounds per Million Gallons	
2Q	mg/d	Milligrams per Day	
2R	lb/hr	Pounds per Hour	
2S	ppq	Parts per Quadrillion	
2T	% survival	Percent Survival	
2U	ug/d	Micrograms per Day	
2V	mEq/100g	Milliequivalents per 100 Gram Soil	
2W	m ³ /hr	Cubic Meters per Hour	
2X	m ³ /min	Cubic Meters per Minute	
2Y	m ³ /sec	Cubic Meters per Second	
2Z	m ³ /wk	Cubic Meters per Week	
30	MPN/100mL	Most Probable Number per 100ml	T
31	threshold #	Threshold Number	
32	ppk	Parts per Thousand	
33	BTU/hr	BTUs per Hour	
34	BTU/d	BTUs per Day	
35	g/d	Grams per Day	
36	g/L	Grams per Liter	
37	kg/L	Kilograms per Liter	
38	m/sec	Meters per Second	
39	ft/sec	Feet per Second	
3A	yd ³	Cubic Yards	
3B	FTU	Formazin Tur	
3C	BTU/min	BTUs per Minute	
3D	MPN/4g	MPN per 4 Grams of Total Solids	
3E	m ³ /mo	Cubic Meters per Month	
3F	m ³ /yr	Cubic Meters per Year	
3G	mlb/d	Thousandth Pounds per Day	
3H	g/m ³ /d	Grams per Square Meter per Day	
3I	lb/klb	Pounds per 1000 Pounds Production	
3J	klb/lb	1000 Pounds per Pounds Production	
3K	kg/ha	Kilograms per Hectare	
3L	pg/L	Picograms per Liter	

Unit Code	Short Description	Long Description	Too Numerous To Count Flag
3M	ng/L	Nanograms per Liter	
3P	lb/acr	Pounds per Acre	
3Q	g/yr	Grams per Year	
3R	Mgal	Million Gallons	
3S	mL/L/hr	Milliliters per Liter per Hour	
3T	% effect	Percent Effect	
3U	k/100mL	1000 Units per 100 Milliliters	T
3V	GBTU/hr	Billion BTUs per Hour	
3W	state class	State Class # A=1 B=2 None=0	
3X	table #	Table Number (2, 3 or 4)	
3Y	alt #	Alternate Number	
3Z	CFU/100mL	Colony Forming Units per 100ml	T
40	short ton/d	Short Tons per Day	
41	t/d	Metric Tons per Day	
42	lb/ton prod	Pounds per Ton of Production	
43	NTU	Nephelometric Turbidity Units	
44	kg/t prod	Kilograms per Metric Ton Production	
45	lb/hlf t prod	Pounds per Half-Ton of Production	
46	m	Meters	
47	kg/CFS/d	Kg per CFS of Streamflow per Day	
49	lb/CFS/d	Lbs per CFS of Streamflow per Day	
4A	t/yr	Metric Tons per Year	
4B	t/ha	Metric Tons per Hectare	
4C	MPN/g	Most Probable Number per Gram	
4F	t/ha/yr	Metric Tons per Hectar per Yr	
4G	pCi/d	Picocuries per Day	
4H	pCi/min	Picocuries per Minute	
4I	uW/cm3	Microwatts per Square Centimeter	
4J	CFU/g	Colonies per Gram Dry Weight	T
4K	#/mo	Discharges per Month	
4L	dil ratio	Dilution Ratio	
4M	g/g	Grams per Grams	
4N	pCi/g	Picocuries per Gram	
4P	bu	Bushels	
4Q	ton/acre	Tons per Acre	
4R	mEq/L	Milliequivalents per Liter	
4S	mW/cm2	Milliwatts per Square Centimeter	
4T	mW-sec/cm2	Milliwatt-Seconds per Square Centimeter	
4U	uW/cm2	Microwatt-Seconds per Square Centimeter	
4V	diverse index	Diversity Index	
4W	L/d	Liters per Day	
4X	# exceed	Number of Exceedances	
4Y	#/100L	Number per 100 Liters	T
4Z	# bat	Number of Batches	
50	lb/yr	Pounds per Year	
51	kg/yr	Kilograms per Year	
52	kg/bat	Kilograms per Batch	
53	gal/bat	Gallons per Batch	

Unit Code	Short Description	Long Description	Too Numerous To Count Flag
54	MW	Megawatts	
55	lb	Pounds	
56	kg	Kilograms	
57	gal	Gallons	
58	kft3	1000 Cubic Feet	
59	lb/wk	Pounds per Week	
5A	d	Days	
5B	min/d	Minutes per Day	
5C	Mgal/bat	Million Gallons per Batch	
5D	ton	Tons	
5E	bBTU/d	Billion Btus per Day	
5F	ton/yr	Tons per Year	
5G	mv	Millivolts	
5H	ton/mo	Tons per Month	
5I	CFU/g	Colonies per Gram	T
5J	#	Number	
5K	mi/h	Miles per Hour	
5L	mg/mo	Milligrams per Month	
5P	ng/kg	Nanograms per Kilograms	
5Q	# dis/d	Number of Discharges per Day	
5R	kcal/d	Kilocalorie per Day	
5S	acre-ft	Acre-Feet	
5T	cm/sec	Centimeters per Second	
5V	lbs/acre/day	Pounds per Acre per Day	
5W	in/mo	Inches per Month	
60	L	Liters	
61	in	Inches	
62	deg C/hr	Degrees Centigrade per Hour	
64	g/mL	Grams per Milliliter	
65	Ci/mL	Curies per Milliliter	
66	lb/bat	Pounds per Batch	
67	g/mL	Grams per Milliliter	
68	pCi/mg	Picocuries per Milligram	
69	mg/kg	Milligrams per Kilogram	
6B	#/40L	Number per 40 Liters	T
6C	Mlb	Million Pounds	
6D	ulb	Micro Pounds	
6E	ft3	Cubic Feet	
6F	% fertil	Percent Fertilization	
6G	tot # TAXA	Total Number Taxa	
6J	ulb/d	Micro Pounds per Day	
6K	um/sec	Conductance - Microohms per Second	
6L	nm	Nanometers	
6M	l/min	Liters per Minute	
6N	mjou/cm2	Millijoules per Centimeter Sqr	
6O	mrems/yr	Millirems per Year	
70	dry ton	Dry Tons	
71	Mlb/yr	Million Pounds per Year	
72	mg/m3	Milligrams per Square Meter	

Unit Code	Short Description	Long Description	Too Numerous To Count Flag
73	toxic	Toxicity Units	
74	severity	Severity Units	
75	uCi/mL	Microcuries per Milliliter	
76	lb/mo	Pounds per Month	
78	gal/min	Gallons per Minute	
79	hr/d	Hours per Day	
7A	wet ton	Wet Tons	
80	Mgal/mo	Million Gallons per Month	
81	hr/wk	Hours per Week	
82	hr/mo	Hours per Month	
83	d/wk	Days per Week	
84	d/mo	Days per Month	
85	ft3/d	Cubic Feet per Day	
86	svol index	Sludge Volume Index	
87	lb/ft3	Lbs per Cu Ft Processed Waste	
88	occur/d	Occurrences per Day	
89	occur/wk	Occurrences per Week	
8A	hr	Hours	
8B	gal/acr	Gallons per Acre	
8D	gal/mo	Gallons per Month	
8E	gal/yr	Gallons per Year	
8F	Mgal/yr	Million Gallons per Year	
8G	gal/wk	Gallons per Week	
8H	Mgal/6mo	Million Gallons per 6 Months	
8I	Mgal/qtr	Million Gallons per Quarter	
8J	hr/qtr	Hours per Quarter	
8K	sec (time)	Seconds	
8L	gal/d/ft2	Gallons per Day per Square Foot	
90	lb/kgal	Pounds per 1000 Gallons	
91	in/wk	Inches per Week	
92	ft2	Square Feet	
93	occur/mo	Occurrences per Month	
94	*	*	
95	10/mL	10 per Milliliter	T
96	lb/bbl	Pounds per Barrel	
97	acr	Acres	
98	deg F/hr	Degrees Farenheit per Hour	
99	bbl/hr	Barrels per Hour	
9A	pass/fail	Pass=0 Fail=1	
9C	occur/yr	Occurrences per Year	
9D	pop serv	Population Served	
9E	occur/qtr	Occurrences per Quarter	
9F	yd3/d	Per Day	
9G	op info	Operator Information	
9M	low/high	0=Low 1=High	
9N	ebb/flood	0=Ebb 1=Flood	
9P	Y=1;N=0	Yes=1; No=0	
9Q	open/closed	Open = 1 Closed = 2	
9S	t/mo	Metric Tons per Month	

Unit Code	Short Description	Long Description	Too Numerous To Count Flag
9T	Mlb/da	Million Pounds per Day	
9U	lb/qtr	Pounds per Quarter	
9V	CFU	Colony Forming Units	
9W	MCFU	Million Colony Forming Units	T
9X	Y=0;N=1	Yes=0; No=1	

Appendix C: Frequency of Analysis Codes

Frequency of Analysis Code	Description
01/01	Daily
01/02	Once Every 2 Days
01/03	Once Every 3 Days
01/04	Once Every 4 Days
01/05	Once Every 5 Days
01/06	Once Every 6 Days
01/07	Weekly
01/08	Once Every 8 Days
01/09	Once Every 9 Days
01/10	Once Every 10 Days
01/11	Once Every 11 Days
01/12	Once Per 12 Days
01/13	Once Every 13 Days
01/14	Once Every 2 Weeks
01/21	Once Every 3 Weeks
01/28	Once Every 4 Weeks
01/2Y	Once Every 2 Years
01/30	Monthly
01/3H	Once Every 3 Hours
01/4M	Once Every 4 Months
01/4Y	Once Every 4 Years
01/5M	Once Every 5 Months
01/5Y	Once Every 5 Years
01/60	Once Every 2 Months
01/6M	Once Every 6 Months
01/7M	Once Every 7 Months
01/8H	Once Every 8 Hours
01/90	Quarterly
01/99	Instantaneous
01/9M	Once Every 9 Months
01/BA	Once Per Batch
01/BD	Once Before Discharge
01/DD	Once Per Daily Discharge
01/DM	Once Per Monthly Discharge
01/DQ	Once Every Dsc Quarter
01/DS	Once Per Discharge
01/DW	Once Per Weekly Discharge
01/EP	Once Every Permit Cycle
01/EV	Once Every Event
01/FA	Once Per Facility
01/HR	Once Every Hour
01/HV	Once Every Harvest
01/OC	Once Every Occurrence
01/RN	Once Per Rn Event
01/RP	Once Per Prt Period
01/SH	Once Per Shift
01/SN	Once Per Season
01/WD	Once Every Weekday

Frequency of Analysis Code	Description
01/WL	Once Per Well
01/YR	Annual
02/01	Twice Per Day
02/02	Twice Per Week
02/07	Twice Every Week
02/12	Twice Every 12 Days
02/30	Twice Per Month
02/5Y	Twice Every 5 Years
02/90	Twice Every Quarter
02/BA	Twice Per Batch
02/DA	2 Days Every Week
02/DD	Twice Per Drawdown
02/DM	Twice Every Month
02/DS	Twice Per Discharge
02/DW	Twice Every Discharge Week
02/HR	Twice Every Hour
02/RP	Twice Per Rpt Period
02/SH	Twice Every Shift
02/SN	Twice Every Season
02/YR	Semiannual
03/01	Three Per Day
03/05	Three Every 5 Days
03/07	Three Per Week
03/08	Three Every 8 Days
03/12	3 Per 12 Hours
03/30	Three Per Month
03/5Y	Three Every 5 Years
03/6M	Three Every 6 Months
03/90	Three Every Quarter
03/BA	Three Every Batch
03/DS	Three Per Discharge
03/DW	3 Days Every Week
03/RP	Three Per Prt Period
03/SN	Three Per Season
03/YR	Three Per Year
04/01	Four Per Day
04/07	Four Per Week
04/30	Four Per Month
04/90	4 Times Every Quarter
04/BA	Four Every Batch
04/HR	4 Times Every Hour
04/RP	Four Per Rpt Period
04/SN	Four Per Season
04/YR	Four Per Year
05/01	Five Per Day
05/07	Weekdays
05/08	Five Every 8 Days
05/30	5 Times Every Month
05/90	Five Every Quarter
05/BA	Five Every Batch

Frequency of Analysis Code	Description
05/DW	5 Days Every Week
05/WK	Five Per Week
06/01	Six Per Day
06/07	Six Every Week
06/30	Six Per Month
06/90	Six Every Quarter
06/SH	6 Every Operating Shift
06/YR	Six Per Year
07/14	7 Per 2 Weeks
07/30	7 Times Every Month
07/WD	Weekly When Discharging
07/WK	Seven Per Week
08/01	Eight Every Day
08/30	Eight Every Month
08/BA	Eight Every Batch
09/01	Nine Per Day
09/30	Nine Per Month
09/99	See Permit
10/30	Ten Per Month
11/30	11 Per Month
12/01	12 Per Day
12/30	Twelve Per Month
13/30	13 Per Month
14/30	14 Per Month
15/30	15 Per Month
16/01	16 Per Day
16/30	16 Per Month
17/30	17 Per Month
18/01	18 Per Day
18/30	18 Per Month
19/30	19 Per Month
20/30	Twenty Per Month
21/30	21 Per Month
22/30	22 Per Month
23/30	23 Per Month
24/01	Hourly
24/30	24 Per Month
24/HR	24 Times Every Hour
25/30	25 Per Month
26/30	26 Per Month
27/30	27 Per Month
28/30	28 Per Month
29/30	29 Per Month
48/01	Every 1/2 Hour
60/HR	60 Per Hour
66/66	Wpc Plan
77/77	Contingent
88/88	Cleaning
99/99	Continuous
AL/EV	All Events

Frequency of Analysis Code	Description
AL/RN	Alternating Run
BI/WK	Biweekly
CL/OC	Chlorination/Occurrences
DL/DS	Daily When Discharging
ED/WL	End Of Well
ESTMT	Estimate
EV/2H	Every 2 Hours
LF/PT	Life Of The Permit
MEASD	Measured
MM/WD	Monthly When Discharging
N/A	Not Applicable
N/R	Not Reported
REPT	Report
WH/DS	When Discharging
WH/MN	Measured When Monitor
XX/XX	Frequency as Reported

Appendix D: Sample Type Codes

Sample Type Code	Description
01	COMP-1
02	COMP-2
03	COMP-3
04	COMP-4
05	COMP-5
06	COMP-6
08	COMP-8
10	COMP10
12	COMP12
16	COMP16
1H	AVG-1H
20	COMP20
22	BATCH
24	COMP24
28	COMP28
2H	AVG-2H
3G	3GR/HR
4C	4DA24C
4H	AVG-4H
5G	5GR45M
72	COMP72
96	COMP96
99	COMPWK
AH	HRDALL
C3	CS0-3
C6	CS0-60
C9	CS0-90
CA	CALCTD
CG	CMPGRB
CN	CONTIN
CP	COMPOS
CR	CK REQ
CS	CORSAM
CT	CERTIF
CU	CURVE
DA	DAILAV
DS	DISCRT
ES	ESTIMA
FI	FLOIND
G2	GRAB-2
G3	GRAB-3
G4	GRAB-4
G5	GRAB-5
G6	GRAB-6
G7	GRAB-7

Sample Type Code	Description
G8	GRAB-8
G9	GRAB-9
GH	5GR24H
GM	GRAB10
GR	GRAB
IM	IMERSN
IN	INSTAN
IS	INSITU
IT	IMRSTB
MC	MATHCL
MF	MAGFLO
MP	MATHCP
MS	MEASRD
MT	METER
NA	NOT AP
NR	NOTRPT
OC	OCCURS
PC	PMPCRIV
PF	PARFLU
PL	PMPLOG
R4	RNG-4A
RA	RAGUAGE
RC	RCORDR
RD	RNG-DA
RE	RECORD
RF	RCDFLO
RG	RANG-C
RP	REPRES
RT	RCOTOT
S1	SQBTH1
S2	SQBTH2
S3	SQBTH3
SB	SQBCHR
SC	SC0-15
SD	SURFSP
SE	SNGLES
SM	SUMATN
SR	SGLRDG
SS	STAT-SH
ST	STATIC
TI	TIMEMT
TM	TOTALZ
UN	UNKNOWN
VI	VISUAL
WE	WEIR

Appendix E: Import Error Codes

Error Type	Error Message
Concentration UOM	The Concentration Unit Of Measure "XYZ" is not in the valid UOM listing for this parameter.
Concentration UOM	The Concentration Unit Of Measure is present but no Permit limit exists for either Concentration.
DMR Not Found	No matching DMR record was found.
Error on Line	Error reading the line "X"
Excursion Number	The Excursion Number "X" is not greater then 0.
Excursion Number	The Excursion Number "X" is not a valid integer.
File Access Failed	Failed to access the uploaded file.
Freq of Analysis	The Frequency of Analysis Record "X" is not a valid code in NetDMR.
Insufficient Columns	Incorrect number of fields. There should be 31 fields
Limit Set ID	The Limit Set ID is a required field but was blank.
Limit Set ID	The Limit Set ID "X" is not valid for Permit "XYZ"
Limit Set ID	The Limit Set ID is "X" long and can only be 50 characters long.
Monitoring Location	The Monitoring Location is "X" long and can only be 3 characters long.
Monitoring Location	The Monitoring Location is a required field but was blank.
Monitoring Location	The Monitoring Location "XYZ" is not a valid Monitoring Location in the NetDMR system.
MP End Date	The Monitoring Period End Date "XYZ" is not valid for Permit "ABC"
MP End Date	The Monitoring Period End Date must be in YYYY-MM-DD format.
Overwrite Error	The Quantity 2 Value field would overwrite an existing value, but the import has been marked as append only (no overwrites).
Overwrite Error	The Concentration Unit of Measure field would overwrite an existing value, but the import has been marked as append only (no overwrites).
Overwrite Error	The Concentration 3 NODI field would overwrite an existing value, but the import has been marked as append only (no overwrites).
Overwrite Error	The Concentration 2 Value field would overwrite an existing value, but the import has been marked as append only (no overwrites).
Overwrite Error	The Quantity 2 NODI field would overwrite an existing value, but the import has been marked as append only (no overwrites).

Error Type	Error Message
Overwrite Error	The Effluent Quantity 1 Value field would overwrite an existing value, but the import has been marked as append only (no overwrites).
Overwrite Error	The Quantity 1 Value field would overwrite an existing value, but the import has been marked as append only (no overwrites).
Overwrite Error	The Effluent Quantity 2 Value field would overwrite an existing value, but the import has been marked as append only (no overwrites).
Overwrite Error	The Effluent Concentration 1 Value field would overwrite an existing value, but the import has been marked as append only (no overwrites).
Overwrite Error	The Concentration 1 Value field would overwrite an existing value, but the import has been marked as append only (no overwrites).
Overwrite Error	The Quantity 1 NODI field would overwrite an existing value, but the import has been marked as append only (no overwrites).
Overwrite Error	The Excursion Number field would overwrite an existing value, but the import has been marked as append only (no overwrites).
Overwrite Error	The Sample Type field would overwrite an existing value, but the import has been marked as append only (no overwrites).
Overwrite Error	The Concentration 2 NODI field would overwrite an existing value, but the import has been marked as append only (no overwrites).
Overwrite Error	The Concentration 3 Value field would overwrite an existing value, but the import has been marked as append only (no overwrites).
Overwrite Error	The Quantity Unit of Measure field would overwrite an existing value, but the import has been marked as append only (no overwrites).
Overwrite Error	The Effluent Concentration 2 Value field would overwrite an existing value, but the import has been marked as append only (no overwrites).
Overwrite Error	The Concentration 1 NODI field would overwrite an existing value, but the import has been marked as append only (no overwrites).
Overwrite Error	The Frequency of Analysis field would overwrite an existing value, but the import has been marked as append only (no overwrites).
Overwrite Error	The Effluent Concentration 3 Value field would overwrite an existing value, but the import has been marked as append only (no overwrites).
Parameter Code	The Parameter Code is a required field but was blank.
Parameter Code	The Parameter Code is "X" long and can only be 5 characters long.
Parameter Code	The Parameter Code "XYZ" is not a valid parameter in the NetDMR system.

Error Type	Error Message
Parameter Value	No matching parameter value was found.
Permitted Feature ID	The permitted feature id is "X" long and can only be 100 characters long.
Permitted Feature ID	The permitted feature "XYZ" is not valid for Permit "ABC"
Permitted Feature ID	The permitted feature is a required field but was blank.
Quantity UOM	The Quantity Unit Of Measure "XYZ" is not in the valid UOM listing for this parameter.
Quantity UOM	The Quantity Unit Of Measure is present but no Permit limit exists for either Quantity.
Sample Type	The Sample Type Record "XYZ" is not a valid code in NetDMR.
Season Number	The Season Number "X" is not a valid number between 0 and 12 inclusive.
Season Number	The Season Number is a required field but was blank.
Too Many Errors	More then 90% of the lines in the file contained errors so the processing of this file has stopped.
Wrong Privileges	The user does not have edit rights to the specified permit.
"XYZ" Effluent	The "XYZ" Effluent value "X" is not a number.
"XYZ" Effluent	The "XYZ" Effluent Number is present even though no permit limit is set for "XYZ"
"XYZ" Effluent	The "XYZ" Effluent Number is present even though a NODI code is provided for "XYZ"
"XYZ" NODI	The "XYZ" NODI code provided of "ABC" is not a valid NODI code in the NetDMR system
"XYZ" NODI	The "XYZ" NODI code is present even though no permit limit is set for "ABC"
"XYZ" Qualifier	The "XYZ" Qualifier text "ABC" is not valid. It must be one of "D"
"XYZ" Qualifier	The "XYZ" Qualifier code "ABC" is present even though no permit limit is set for "XYZ"
"XYZ" Qualifier	The "XYZ" Qualifier code is present even though a NODI code is provided for "XYZ"
"XYZ" Sample	The "XYZ" Sample Number is present even though no permit limit is set for "XYZ"
"XYZ" Sample	The "XYZ" Sample value "ABC" is not a number.
"XYZ" Sample	The "XYZ" Sample Number is present even though a NODI code is provided for "XYZ"