NetDMR User's Guide

How to Complete and Submit Electronic Discharge Monitoring Reports



Water Quality Division 700 NE Multnomah

700 NE Multnomah
Portland, OR 97232
Phone: 503-229-6400
Contact: NetDMR Support
www.oregon.gov/DEQ

DEQ is a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.



Alternative formats Documents can be provided upon request in an alternate format for individuals with disabilities or in a language other than English for people with limited English skills. To request a document in another format or language, call DEQ in Portland at 503-229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696; or email deqinfo@deq.state.or.us .

Contents

Executive Summary	iv
What are the two versions of NetDMR?	5
How do I use NetDMR?	5
Find your permit and available DMRs	5
Enter basic facility information and no data form option	6
Decoding the parameter data table	7
Enter parameter measurements or statistics	7
Interpreting and reporting laboratory analysis results	9
Guide to DMR codes and terminology	10
Monitoring location codes	10
Season identification codes	10
No data indicator (NODI) codes	11
Monitoring types	13
How do I calculate summary statistics?	14
How do I enter <i>E. coli</i> results in NetDMR?	17
How do I report BOD and TSS mass loads in NetDMR?	19
How do I enter excess thermal load into NetDMR?	22
How do I report intermittent discharges?	25
How do I report recycled water use?	26
How do I attach data to the eDMR?	26
Other important information	27
How do I sign and submit the eDMR?	29
How do I correct a DMR?	31
How do I report noncompliance?	33
What if I have Mutual Agreement and Order interim limits?	34
Frequently asked questions	35

Executive Summary

Oregon DEQ has developed this guide to help permittees use U.S. Environmental Protection Agency's web-based NetDMR tool. This guide supplements EPA's NetDMR User Guide (see link below) and is based on the questions we received. Although permit monitoring requirements have not changed, reporting via the NetDMR user interface is different than reporting via paper DMR forms. The biggest difference is that NetDMR requires online reporting of summary statistic values. This guide contains basic information on these calculations. DEQ's *Quality Assurance Guidance for Self-Monitoring Laboratories (NPDES and WPCF)*, *January 2019* contains information on calculating summary statistics when the results are less than the quantitation or detection limits. The individual monitoring results are attached to the NetDMR submittal.

This guide will walk you through the following tasks:

- Accessing DMRs for data entry
- Interpreting the codes, terminology and layout of the NetDMR data entry screens
- Reporting certain types of laboratory analysis results
- Calculating summary statistics
- Handling special parameters
- Signing and submitting eDMRs
- Reporting noncompliance
- Finding answers to frequently asked questions

For more information and guidance, as well as additional support, please refer to our e-reporting website, visit EPA's NetDMR Support Portal, or contact DEQ's NetDMR Support Team.

EPA's NetDMR User Guide https://usepa.servicenowservices.com/oeca_icis?id

=kb article view&sysparm article=KB0014611

Oregon DEQ's eReporting Website https://www.oregon.gov/deq/wq/wqpermits/

Pages/NPDES-E-Reporting.aspx

EPA's NetDMR Support Portal https://usepa.servicenowservices.com/oeca icis?id

=netdmr_homepage

Oregon DEQ's NetDMR Support Team NetDMRSupport@deq.oregon.gov

503-229-6400

DEQ Quality Assurance Guidance for Self-

Monitoring Laboratories (NPDES and

WPCF), January 2019

https://www.oregon.gov/deq/FilterPermitsDocs/qa

guidanceSML.pdf

What are the two versions of NetDMR?

NetDMR Test is a test system that mirrors EPA's official site where DMR data are entered, called NetDMR Production. The Test instance is just for practice. Any DMRs submitted in NetDMR Test have no legal standing, do not fulfill your NPDES reporting requirement, and cannot be made to fulfill your NPDES reporting requirement. You may use NetDMR Test to train staff.

NetDMR Production is where you officially submit your DMR data; the system generates and stores the official copy of record, replacing your paper submission. DEQ approves permit access for signatories in production, and signatories approve other users to have view, edit, and permit administrator privileges. If the signatory for a permit changes due to staff turnover, you must notify DEQ to revoke the former signatory's access, and the new signatory will need to create a NetDMR account and sign a subscriber agreement for your permit.

DEQ recommends that you access NetDMR through EPA's NetDMR Support Portal (https://usepa.servicenowservices.com/oeca_icis?id=netdmr_homepage). This portal provides information about the status of the system and updates. The main button "Login to NetDMR" takes you to NetDMR Production. There are links to NetDMR Test and other useful sites at the bottom of the page.

How do I use NetDMR?

Find your permit and available DMRs

- 1. Use the search screen to select the DMRs you want to edit.
- 2. If you have more than one Permit ID, choose the Permit ID for which you want to enter DMR data and click Update. You can continue to refine your DMR search by facility, permitted feature, discharge, monitoring period, and which user last edited a DMR. Choose the Status Ready for Data Entry and click Search to see the selected DMRs.
- 3. If you only have one Permit ID, choose the Status Ready for Data Entry and click Search.
- 4. On the DMR/COR Search Results page, select the DMR for which you want to enter data and click Go.

4 Q DMR/COR Search Results

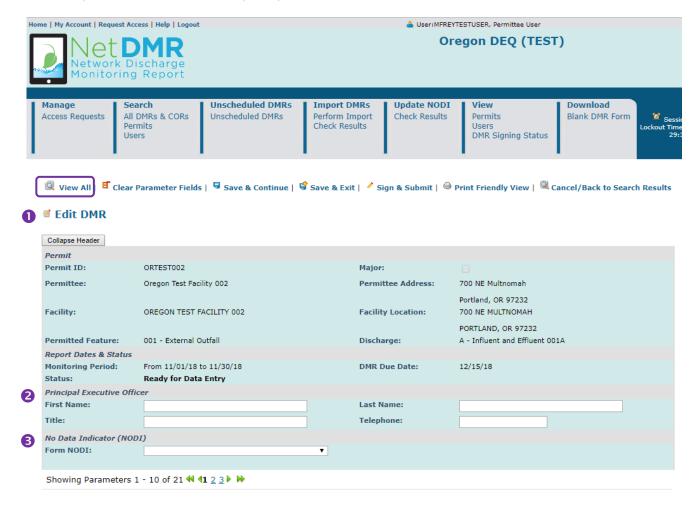


Next Step(s)	Permit ID	<u>Facility</u>	Permitted Feature	<u>Discharge</u> <u>#</u>	Discharge Description	Monitoring Period End Date	Scheduled/ Unscheduled	DMR Due Date	<u>Status</u>
Edit DMR ✓ Go	ORTEST002	OREGON TEST FACILITY 002	001	001-A	Influent and Effluent 001A	08/31/18	Scheduled	09/15/18	Ready for Data Entry
Edit DMR ✓ Go	ORTEST002	OREGON TEST FACILITY 002	001	001-A	Influent and Effluent 001A	07/31/18	Scheduled	08/15/18	Ready for Data Entry

Enter basic facility information and no data form option

- 1. On the **Edit DMR** page, you will find basic information about your permit, permitted feature, discharge and monitoring period.
- 2. Fill in the Principal Executive Officer name and contact information.
- 3. If you had no data for the permitted feature for the discharge type specified, you can use the form-wide No Data Indicator (**Form NODI**) to select the appropriate code explaining why data will not be submitted.

Before you apply a Form NODI Code, be sure you are viewing all parameters on one page by clicking **View All** at the top of the page. Otherwise, NetDMR will apply the Form NODI Code to one page only and you will see an error when you try to submit.



Decoding the parameter data table

- 1. Farther down the **Edit DMR** page is a table of parameters for which you need to report. This is list is customized to your facility's permit, so the specific parameters, sample type, frequency and summary statistics will differ from the example shown. It should match the parameters, sample types, frequencies and statistics you reported in the past using paper DMRs.
- 2. The **Edit DMR** page is sorted by parameter code by default, but you can sort by parameter name if you wish.
- 3. The following information is listed for each parameter:
 - 1. Parameter Code (5-digit numeric code)
 - 2. Parameter Name
 - 3. Monitoring Location Code
 - 4. Season ID
 - 5. No Discharge Indicator Code (NODI)

These codes are defined on page 10 for your reference. Codes that are specific to your permit are defined on the bottom of the **Edit DMR** page under **DMR Comments**.



DMR Comments

Q = No resample required or Resample log mean > 126 #/100ml; R = Resample log mean <= 126 #/100ml; O = Stream Flow < 60 cfs; P = Stream Flow > 60 cfs; C = Stream Flow > 96 cfs; T = < 2.9 MGD; U = > 2.69 MGD;

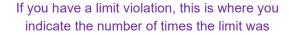
Enter parameter measurements or statistics

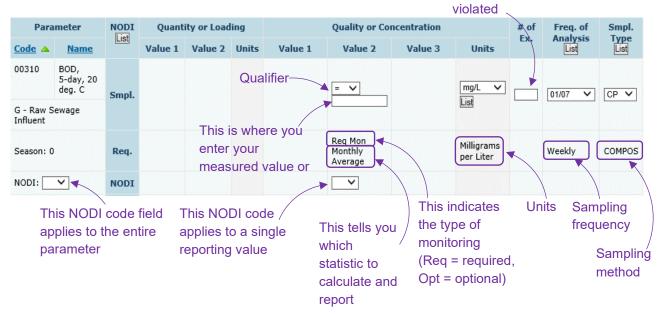
1. In the **Value** columns that have fields for data entry, type the value of the measurement or statistic using the units specified in the **Units** column. Choose the correct data qualifier that corresponds with your laboratory analysis result:

> Greater than >= Greater than or equal to = Equal to < Less than <= Less than or equal to E Estimate

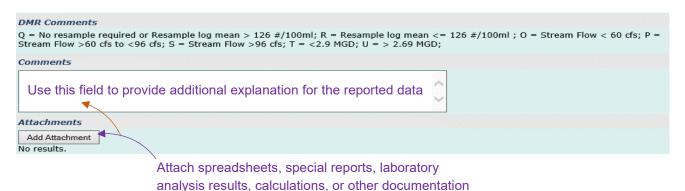
2. If your discharges violated a limit more than one time during the reporting period, enter the number of sample results that violated the limit in the **Number of Excursions (# of Ex.)** field.

See Interpreting and Reporting Laboratory Analysis Results on p. 9 for more information about how to report data based on laboratory analysis method limits and analysis results.





- 3. If there was no data for the specified parameter, location and season, choose the appropriate no data indicator code from the **NODI** pull-down list. You can assign a NODI code for individual values or for an entire parameter/row.
- 4. Add comments in the **Comments** field if needed, e.g., if NODI code 8 is used for any of the parameters or if you want to explain any violations.
- 5. Attach additional files if specified in your permit, such as to report daily values in an Excel spreadsheet or show certain calculations.



Interpreting and reporting laboratory analysis results

Analytical methods are associated with two values that affect the way data are entered in NetDMR:

- Quantification Limit (QL, MRL or LOQ) is the minimum level, concentration, or quantity of an analyte that can be reported with a specific degree of confidence.
- **Detection Limit** (DL) is the minimum measured concentration of a substance that can be distinguished from a method blank with 99% confidence.

Report analysis value

QL

Report estimated value with data qualifier "E." Use DL for load calculations and report load values with data qualifier "E."

Report DL with "<" qualifier. Use DL for load calculations and report load values with "<" qualifier.

The figure to the right explains how to report laboratory analysis results that are below the method's QL or DL. The next section describes special reporting needed when the permit limit is less than the QL.

Special reporting when the permit limit is less than the QL

As a standard procedure, DEQ includes a **QL compliance limit** when the permit's calculated limit is less than the quantification limit. NetDMR is set up with the QL compliance limit instead of the calculated limit. However, in some cases, DEQ has omitted a QL compliance limit in the permit, and NetDMR is set up with the calculated limit.

In these cases, reporting either the estimated value or "<DL" will trigger a false violation because the reported values are greater than the limit. To avoid triggering these false violations, enter one of the following, as applicable:

• When results are less than the OL and above the DL

• When results are less than the DL

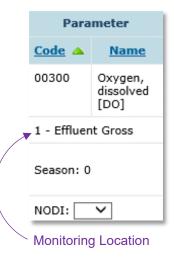
Use NODI code Q – Not Quantifiable
Use NODI code B – Below Detection Limit

Guide to DMR codes and terminology

Monitoring location codes

The table below contains examples of common monitoring location codes. Your permit may contain different monitoring location codes:

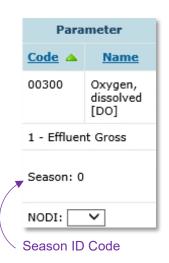
Code	Description
0	Intake
1	Effluent Gross
2	Effluent Net
5	
	Upstream Monitoring
6	Downstream Monitoring
7	Intake from Stream
G	Raw Sewage Influent
GW	Groundwater
Н	During Manufacturing
l	Intake from Well
K	Percent Removal
RW	Receiving Water
Z	Instream Monitoring
0	See Comments
Q	See Comments. Unless otherwise noted, use Q for reporting original samples without violations, or when daily limit for E. coli is exceeded and resample is greater than 126#/100ml.
R	See Comments. Unless otherwise noted, use R when daily limit for E. coli is exceeded and resample is less than 126#/100ml.
SC	See Comments
Т	See Comments
U	See Comments
V	See Comments. Unless otherwise noted, V indicates 7-day moving average.
W	See Comments. Unless otherwise noted, W indicates weekly monitoring.



Season identification codes

The table below contains examples of common season ID codes. Your permit may contain different season ID codes:

Code	Description
0	Year-Round Monitoring
1	Monitoring Reported During the Dry Months
2	Monitoring Reported During the Wet Months
Other	Monitoring Period Specified by the Permit



No data indicator (NODI) codes

There will be instances where you will not have a value to report in a field in your DMR. NetDMR uses No Data Indicator (NODI) codes to represent the reason that a value is not reported. It is important to use the correct NODI code for your circumstances, because several codes flag a violation in the system and require follow-up or correction afterward. NODI codes may only be used if you do not have data. If you have data, you must report the value and may not use a NODI code.

Below are the different categories of NODI codes with notes on when they should be used. A color-coded quick-reference guide is also included for your convenience.

NODI codes indicating compliance

Monitoring is not required in certain situations. Choose the NODI code that best describes the situation. You do not need to attach a memo or special report when using these codes.



NODI code 2	Operation Shutdown. Use if the facility was shut down and there was no discharge. You can use this code for the entire DMR.
NODI code 7	No Influent. Use for influent parameters only.
NODI code 9	Conditional Monitoring – Not Required This Period. Only use this code if NetDMR contains conditional monitoring, such as E. coli resampling (see page 17), daily mass load limit exemption (see page 19), or other reporting that is only required under certain circumstances.
NODI code A	General Permit Exemption – For use by general permit holders only. Individual permit holders may not use this code.
NODI code B	Below Detection Limit/No Detection. Only use in the special case when the limit is less than the QL, DEQ did not include a QL compliance limit in the permit, and the result is less than the DL. (See page 9).
NODI code C	No Discharge. Use for only effluent parameters if the facility was operational but did not discharge.
NODI code I	Land Applied
NODI code Q	Not Quantifiable. Only use in the special case when the limit is less than the QL, DEQ did not include a QL compliance limit in the permit, and the result is greater than the DL and less than the QL. (See page 9).
NODI code W	Dry Lysimeter/Well
NODI code Y	State-specific No Data Indicator -Valid. Permittees may not use this code.

NODI codes indicating noncompliance

Some NODI codes will flag a violation when used. The DMR must include a memo explaining the circumstances, as specified in Schedule F of your permit (Noncompliance Reporting Requirements).

NODI code 6	State-specific No Data Indicator – Invalid. Permittees may not use this code.
NODI code E	Failed to sample/required analysis not conducted. Use when monitoring data is not available for any reason other than that described by another NODI code.
NODI code P	Laboratory Error or Invalid Test. Use when data from resampling or additional monitoring is not available due to laboratory QA/QC failures when proper laboratory lab procedures were followed. Also use when data from resampling or additional monitoring is not available because proper laboratory lab procedures were not followed.

NODI codes indicating compliance that trigger DEQ review

Using NODI codes shaded in yellow indicates compliance with the permit but requires DEQ confirmation. The DMR must include a memo explaining the circumstances or a special report.

NODI code 3	Special Report Attached. Only use if a special report is needed to show compliance. Do not use if permit limits are not achieved. Generally used for flow-based effluent limits, such as excess thermal loads (see page 22).
NODI code F	Insufficient Flow for Sampling. Only use when monitoring was not conducted because of insufficient flow.
NODI code N	Not Constructed. Only use when monitoring was not conducted because the treatment system has not yet been constructed.
NODI code T	Environmental Conditions – Monitoring Not Possible. Use when monitoring was not conducted because of weather-related conditions, including frozen conditions, fire conditions, natural disaster, and if extreme weather creates unsafe conditions for collecting ambient samples

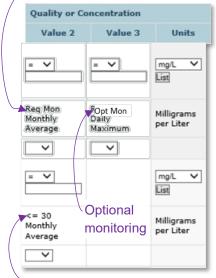
Quick reference guide to NODI codes

Code	Description		
2	Operation shutdown		
3	Special report attached		
6	State-specific No Data Indicator – Invalid DO NOT USE		
7	No influent		
9	Conditional monitoring – not required this period		
Α	General permit exemption DO NOT USE		
В	Below detection limit/no detection		
С	No discharge		
E	Failed to sample/required analysis not conducted		
F	Insufficient flow for sampling		
I	Land applied		
N	Not constructed		
Р	Laboratory Error or Invalid Test		
Т	Environmental Conditions – Monitoring Not Possible		
Q	Not-quantifiable		
W	Dry lysimeter/well		
Υ	State-specific No Data Indicator – Valid DO NOT USE		
Notes: Codes in green rows indicate compliance and will not trigger a violation. Codes in orange rows indicate noncompliance and will trigger a violation. Codes in yellow rows do not automatically trigger a violation, but DEQ will review supplemental information to determine if a violation has occurred. Codes in gray rows should not be used.			

Monitoring types

Code	Description
Required	Monitoring that must be supplied when included on your DMR but the supplied values will not be compared to a limit. Failure to include these values will result in a violation.
Optional	Monitoring that when listed on your DMR is optional for reporting and the values reported will not be compared to a limit. Failing to supply these values will not result in a violation.
Limit- Based	Monitoring that is required and will be evaluated against a permit limit. These values will result in a violation if they are not reported or if the limit is exceeded.

Required monitoring



Limit-based monitoring shows a qualifier with a numeric value

How do I calculate summary statistics?

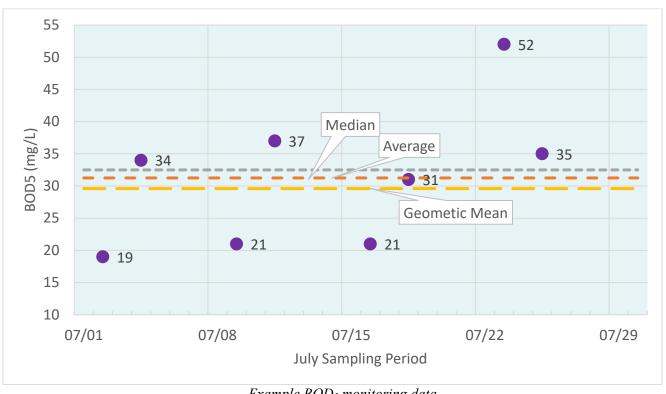
NetDMR is only set up to accept summary statistics, not raw data collected more frequently than monthly. As a result, permittees need to perform calculations on raw data to enter into the eDMR. Below are instructions for calculating common NetDMR summary statistics, including sample calculations for an example BOD5 dataset.

Example data

Below is an example dataset for BOD₅ effluent concentration that demonstrates how common summary statistics are calculated for the NetDMR data entry fields. The sampling frequency is two times per week, and the effluent limit is 45 mg/L.

Date	Day	Measured Value		
7/3	Tue	19.0		
7/5	Thu	34.0		
7/10	Tue	21.0		
7/12	Thu	37.0		
7/17	Tue	21.0		
7/19	Thu	31.0		
7/24	Tue	52.0		
7/26	Thu	35.0		

Example BODs sampling data



Example BOD₅ monitoring data

Example calculations

Monthly Average

The sum of all values in the month divided by the number of values. If one or more of your values is below the detection limit, use a value of 0 in the calculation.

$$= \frac{19 + 34 + 21 + 37 + 21 + 31 + 52 + 35}{8}$$
$$= 31.25$$

Median

When arranged in ascending order, the median is the middle value of an odd number of values or the average of the two middle values of an even number of values.

Samples arranged in order: Two middle values 19 21 21 [31 34] 35 37 52

Because the set of values below is even-numbered, the median is the average of the two middle values:

$$\frac{(31+34)}{2} = 32.5$$

Geometric Mean

Multiply all values and calculate the nth root of the product. If one or more of your values is below the detection limit, see DEQ's *Guidance for Self Monitoring Laboratories (NPDES and WPCF)*.

=
$$\sqrt[8]{19 \times 34 \times 21 \times 37 \times 21 \times 31 \times 52 \times 35}$$

= 29.6

Daily Minimum

The lowest sample result for a day occurring in the reporting period. Record the smallest single figure. The minimum for the example data set is 19.

Daily Maximum

The highest sample result for a day occurring in the reporting period. Record the largest single figure. The maximum for the example data set is 52.

Rolling Seven-Day Average

A rolling seven-day average is requested in some permits for temperature and excess thermal load. The rolling average is calculated each day by averaging the most recent seven values in a data set.

Day
$$\begin{bmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 \end{bmatrix} = 8$$

 $\frac{23 + 19 + 34 + 21 + 37 + 21 + 31}{7} = 26.6$
Day $\begin{bmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \end{bmatrix}$
 $\frac{19 + 34 + 21 + 37 + 21 + 31 + 30}{7} = 27.6$

Mass Loading

The total amount of a pollutant discharged in the effluent over a period of time. It is calculated based on flow and pollutant concentration.

Mass loading
$$\left(\frac{lb}{day}\right)$$

= $Q(MGD) \times C\left(\frac{mg}{L}\right) \times 8.34$

Where: Q = flow

C = concentration

8.34 = unit conversion factor

Percent of Samples over Limit

The number of samples over the limit divided by the total number of samples.

$$= \frac{1 \text{ sample over limit}}{8 \text{ samples total}} \times 100$$

Percent Removal Efficiency

Calculate the monthly average influent and effluent concentrations and determine percent removal using the following formula:

$$= \frac{Influent \ conc. - Effluent \ conc.}{Influent \ conc.} \times 100$$

Monthly average influent concentration = 300 mg/L Monthly average effluent concentration = 30.3 mg/L

$$= \frac{300 - 30.3}{300} \times 100$$

= 89.9%

Weekly Average/Maximum Weekly Average

- Some permit limits are expressed as a weekly average or maximum weekly average. First calculate a weekly average for each week using all samples taken within each week. Only full weeks are used when calculating weekly average values. A full week begins on Sunday and ends on Saturday. Values from the previous month may be required for calculation of the weekly average for the first week of the month. If the last week of month is not a full week, the weekly average for that week is not reported for that month. Enter the highest weekly average as the maximum weekly average.
- If you sample twice per week, the month begins on a Thursday, and the first sample of the week was in a prior month, use the last sample of the previous month and the first sample of the current month to calculate the first week's average.
- If the two samples of the last week are in different months, no value is reported for that week. The two samples will be reported as a full week in the following month.
- If you sample weekly or once every two weeks, enter the highest sample value for the month as the maximum weekly average.

Example Weekly Average Calculations

	Date	Day	Measured Value	Weekly Average
	2/20	Tue	22.0	
	2/22	Thu	29.0	25.5
	2/27	Tue	23.0	21.0
	3/1	Thu	19.0	21.0
Report last	3/6	Tue	34.0	27.5
week in	3/8	Thu	21.0	21.5
February on	3/13	Tue	37.0	29.0
March DMR.	3/15	Thu	21.0	29.0
Use 2/27	3/20	Tue	31.0	30.5
sample to	3/22	Thu	30.0	30.5
calculate the	3/27	Tue	35.0	43.5
first weekly	3/29	Thu	52.0	43.3
average in				
March.				

Maximum weekly average is determined by calculating each's week's average concentration as described above and reporting the highest weekly average.

How do I enter E. coli results in NetDMR?

E. coli limits in NPDES permits

National Pollutant Discharge Elimination System permits for facilities that discharge into freshwater require *E. coli* monitoring and reporting. The limits are:

- Must not exceed a monthly geometric mean of 126 organisms/100 mL.
- No single sample may exceed 406 organisms/100 mL.

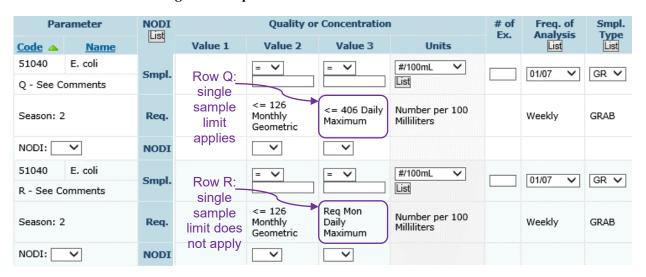
However, the permittee may demonstrate compliance with the single sample limit if:

- Resampling is done within the time specified by the permit (typically a minimum of five consecutive resamples at four-hour intervals beginning within 28 hours after the original sample was taken); AND
- The geometric mean of the resamples is less than or equal to 126 organisms/100 mL. All resamples that meet quality control requirements must be included in the calculation.

Reporting E. coli in NetDMR

NetDMR has two rows for reporting *E. coli* monitoring results: row Q and row R. Note that the monthly limit is the same in both rows Q and R, but the daily maximum (single sample) limit is not included on row R.

You must report data in only one row. **Do not enter monitoring results in both rows Q and R. Enter NODI** code 9 - Conditional Monitoring - Not Required This Period in the unused row.



Enter data in Row Q and NODI code 9 in Enter data in Row R and NODI code 9 in Row R if: Row Q only if: Resampling was not performed, regardless of One or more result is greater than whether any limits are exceeded; OR 406 organisms/100mL, AND Resampling was performed, but did not meet the Resampling was conducted in accordance with resampling requirements in the permit; OR permit requirements; AND Resampling was performed and the geometric The geometric mean of each resampling event is mean of one or more of the resampling events is less than 126 organisms/100mL. GREATER than 126 organisms/100mL.

When is an E. coli special report required?

You must attach a special report to the NetDMR submittal whenever resampling is conducted. The report must include the results of all resamples and the geometric mean of these resamples. All *E. coli* monitoring done within the allowable resampling period specified in the permit must be included in the geometric mean, including any monitoring conducted after the initial high sample and prior to the beginning of resampling. For instance, if a facility monitors *E. coli* daily and the resampling began after the next day's regular monitoring, the result from the regular monitoring must be included in the geometric mean for determining a violation of the high single sample. Also, the monthly geometric mean must be calculated using all *E. coli* monitoring results that meet quality assurance and quality control requirements. This includes all results that exceed the single sample limit and all resample results.

What do I need to include in the *E. coli* special report?

Your E. coli resampling special report must contain the following:

- 1. Resample Results and Calculations: For each resampling event, include a table with all results taken after the high sample within the period allowed by the permit and calculation of the geometric mean of these results, AND
- 2. Calculation of Monthly Geometric Mean: A table with all E. coli results that pass QA/QC, including the result that exceeded the daily limit and the resample results, with the calculation of the geometric mean of all these values.

Example *E. coli* resampling special report

In this example, the resample results are less than 126 organisms/100 mL. Enter NODI code 9 in row Q and enter the data in row R. The monthly geometric mean is 14.5 organisms/100mL and the daily maximum is >2420 organisms/100 mL. For the monthly geometric mean calculation, ">2420" is replaced with the value 2420, and the resample values are also included.

		Date	Time	Result	Geomean
Original Samp	le	9/7/18	8:00	>2420.0	
	Γ	9/8/18	10:05	13.0	
		9/8/18	2:10	11.0	
Resamples -		9/8/18	6:05	8.6	7 5
-		9/8/18	10:01	50.0	
		9/9/18	2:06	28.5	17.7
Daily	1	9/1/18			
•	2	9/2/18			
	3	9/3/18			
	4	9/4/18			
	5	9/5/18		8.6	
	6	9/6/18		344.8	
	7	9/7/18		2420.0	
	8	9/8/18			
	9	9/9/18			
	10	9/10/18			
	11	9/11/18		15.6	
	12	9/12/18		24.1	
	13	9/13/18		49.6	
	14				
	15				
	16				
	17	9/17/18			
	18			3.1	
	19			2.0	
	20			3.0	
	21	9/21/18			
	22	9/22/18			
	23	9/23/18			
	24				
	25				
	26			1.0	
	27	9/27/18		2.0	
	28			6.3	
	29				
	30	9/30/18	4	47.5	
	Mor	nthly Geom	etric Mean	14.5	

Example: E. coli resampling special report.

How do I report BOD and TSS mass loads in NetDMR?

Mass limits specify the quantity of a pollutant that is discharged by a facility over a specified amount of time, e.g., pounds per day. Mass limits include monthly, weekly, and daily summary statistics. To determine compliance with mass limits, first calculate the daily load in lbs/day by multiplying the concentration (in mg/L) by the total daily flow (in million gallons per day) on the same day, and include a unit conversion factor of 8.34. Calculate the weekly and monthly averages based on the daily mass loads during the reporting period (e.g., week or month).

For example, a facility is required to collect two samples per month for total suspended solids (TSS) analysis and report the average weekly and monthly loads. The flow and concentration for the two days are as follows:

Week	TSS Concentration	Flow	Calculation	Load
1	10 mg/L	0.78 MGD	10 x 0.78 x 8.34	65.0 lbs/day
2	No sample	_	_	_
3	< 2.0 mg/L	0.85 MGD	<2.0 x 0.85 x 8.34	<14.2 lbs/day
4	No sample	_	_	-

The maximum weekly average load is 65.0 lbs/day. The monthly average load is <39.6 lbs/day ((65.0 + 14.2)/2).

If the permit only requires one sample per month and no additional monitoring is done, calculate the daily load using the single concentration value and the total daily flow for that day. Report this load in NetDMR as the daily maximum, weekly maximum, and monthly average load.

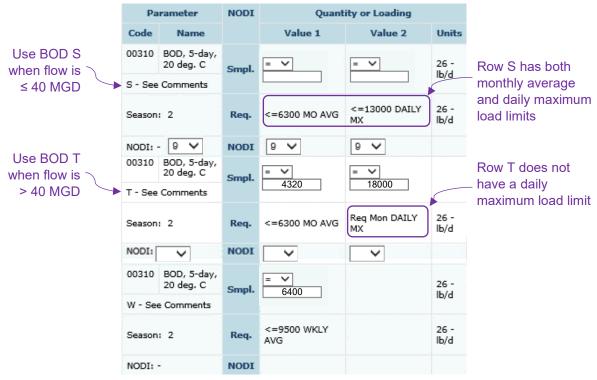
How do I report a daily mass limit suspension in NetDMR?

Many permits suspend the daily BOD and TSS mass limits on high flow days, typically twice the average daily dry weather flow. NetDMR setups for these permits have two rows to report daily mass load. The rows are distinguished by unique Monitoring Location Codes (MLCs), which are defined in the DMR comments section of every NetDMR screen. While various pairs of MLCs can be used, DEQ typically sets up NetDMR with row S for standard reporting and row T for reporting daily mass limit suspensions. However, be sure to refer to the DMR comments to determine which row to use for each situation. NOTE: The mass limit suspension applies to the daily mass limit only. The monthly and weekly averages are calculated using all data. Always use Row W to report the maximum weekly average BOD and TSS load and concentration (see p. 12 for instructions on how to calculate and report weekly statistics).

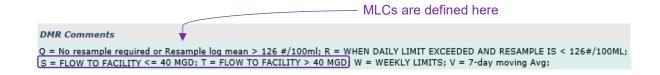
The highest daily value or values must be reported for both time periods: 1) daily flow is less than the suspension flow, and 2) daily flow is greater than the suspension flow. The following are some scenarios:

- 1) All BOD and TSS monitoring was done when the daily flows were <u>less</u> than the suspension flow: Report mass values on the row that has a daily limit (typically S) and enter NODI 9 on the other row.
- 2) All BOD and TSS monitoring was done when the daily flows were **greater** than the suspension flow: Report mass values on the row without a daily limit (typically T) and enter NODI 9 on the other row.
- 3) BOD and/or TSS monitoring was done on days that were greater than and less than the suspension flow: Report the same monthly average in both rows using all the data. Report the maximum daily mass value from days when the flow is less than the suspension flow on the row with the daily mass limit (typically S). Report the maximum daily mass value from days when the flow is less than the suspension flow on the row with the daily mass limit (typically row T).

Below is an example eDMR data entry screen showing the suspended daily BOD mass load limit when facility flow is >40 MGD. In the following example, the daily mass limit is suspended when flows are greater than 40 MGD and the flow was greater than 40 MGD on every day that monitoring was conducted. The highest daily mass BOD load of 20,000 lbs/d is entered into BOD row T. This is not an exceedance and does not need to be acknowledged when submitting the eDMR.



Example NetDMR screen for BOD parameters



Other BOD and TSS NetDMR setups

Some permits have three or more flow criteria with different limits for each. The flow ranges and their corresponding Monitoring Location Codes are defined in the DMR Comments section of every NetDMR data entry screen. When you have multiple rows to report BOD/TSS measurements, use the row that corresponds with the facility's daily maximum flow on the day the measurement was taken. Report *NODI Code 9* in the other rows to ensure there are no blank data entry fields when you submit the eDMR.

How do I report when BOD and CBOD data does not meet the minimum DO residual or DO depletion?

DEQ permits state that if quality control checks do not meet acceptance criteria, the results must be reported, but not used in calculations, such as monthly average and mass loading. This condition only applies to the standard (glucose-glutamic acid), blank (dilution water), and seed control quality check. Monitoring that does not meet the minimum DO residual or DO depletion QC checks must be reported and used in all calculations:

- If none of the BOD bottles met the residual DO criteria of at least 1.0 mg/L, report the result of the most diluted sample with the > data qualifier. The daily mass limits are calculated based on this value and are qualified with >. Likewise, the monthly and weekly averages are qualified with >.
- If none of the BOD bottles met the DO depletion criteria of at least 2.0 mg/L, report the result of the least diluted sample with the < data qualifier. The daily mass limits are calculated based on this value and are qualified with <. Likewise, the monthly and weekly averages are qualified with <.

For more information, see DEQ fact sheet <u>Reporting Biochemical Oxygen Demand Results</u>. Also, see information about QA/QC failures on p. 27.

How do I enter excess thermal load into NetDMR?

DEQ permits specify several different methods for calculating excess thermal load (ETL) limits. ETL limits may be expressed as an absolute limit for a given time period, or a calculated limit using flows, temperatures, or other parameters. Typically, the absolute limit is based on the low-flow critical case and is listed as Option A, while the calculated flow-based limit is listed as Option B (and sometimes Option C when temperature or other parameters are included). An example is shown below:

Option A - No stream flow monitoring

Parameter	Limitations		
Excess Thermal Load during	Shall not exceed a rolling seven-day average of		
April 1–June 30	274 million Kcals/day		
July 1–August 31	238 million Kcals/day		
September 1–October 31	208 million Kcals/day		

Options B and C – Stream flow monitoring needed to comply with thermal limits

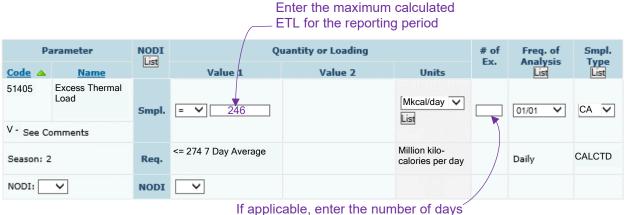
The thermal limit may be calculated on a daily basis when river flows are reported by using the formulas provided in your permit. While *Option A* will have the same limit throughout the listed time period, *Options B and C* will have a different calculated limit every day. Depending on the permit conditions, a permittee can choose which option they wish to use.

What does this look like in NetDMR?

NetDMR is designed for parameters that have the same limit throughout the listed time period. In the example below, the excess thermal load limit is 274 million kcal/day. Instructions on how to enter data are provided below. Data entry will vary depending on the option selected and whether the limit was exceeded.

Option A

When Option A is chosen, data entry is straightforward. Calculate the ETL for each day of the reporting period and enter the maximum ETL value for the month into NetDMR as you would with any other parameter. If the thermal limit was exceeded, enter the number of days the limit was violated in the # of Ex. box.



If applicable, enter the number of days the thermal limit was exceeded.

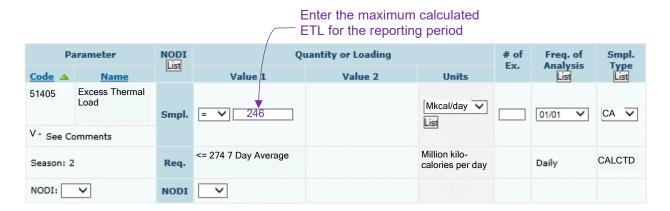
Option B or C

NetDMR requires a single limit and does not have provisions for calculated limits. NetDMR does however, allow the permit holder to submit a special report with these calculations.

The following examples show how to enter the ETL depending on whether the thermal limits are exceeded.

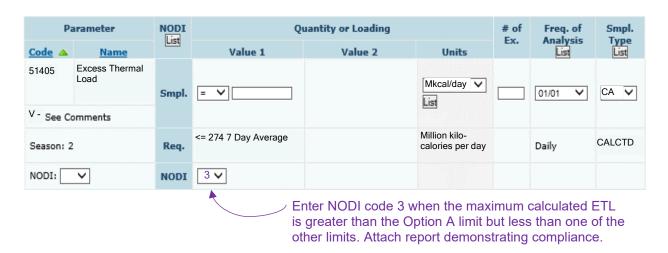
Maximum ETL is less than the Option A limit

If the maximum calculated ETL is *less than* the Option A thermal limit, enter the maximum calculated ETL value as you typically would. You do not need to submit a special report in this case.



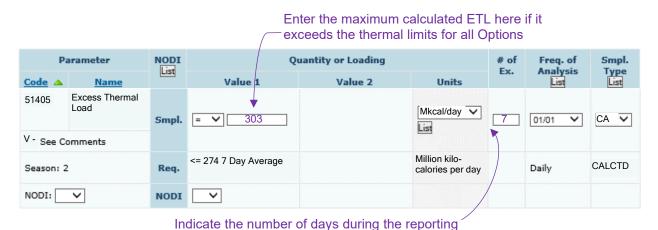
Maximum ETL is greater than the Option A limit but less than the Option B or C limits

If the maximum calculated ETL is *greater than* the Option A thermal limit but *less than* the calculated thermal limit for at least one of the other Options, enter NODI code 3 and attach a special report with the ETL limit calculations showing compliance with the Option. This will indicate that you are in compliance with the permit limits.



Maximum ETL is greater than the Option A, B, and C limits

If the maximum calculated ETL is *greater than* the Option A thermal limit and *greater than* the calculated thermal limits for all other Options, enter the maximum calculated ETL value. This will show as a violation in NetDMR. Indicate the number of days that the thermal limit was exceeded in the # of Ex. box. You must also submit a special report with the ETL limit calculations.



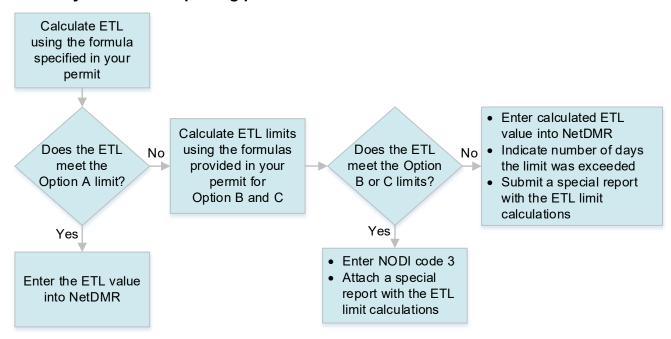
period that the thermal limit was exceeded

What supporting information do I need to include?

In all cases, include the daily ETL values on the attached daily data sheet. A sample ETL section is shown below.

Excess Thermal Load				
Eff Temp Max (°C)	7-Day Avg River (cfs)	Load Limit (Mkcals/d)	7-Day Avg ETL (Mkcal/d)	
23.8	24.1	1855	108	
24.0	24.1	1851	109	
24.0	24.1	1850	108	
24.2	24.1	1848	106	
24.3	24.1	1845	105	
24.1	24.0	1843	102	
23.7	24.0	1842	99	
23.6	24.0	1842	96	
23.7	24.0	1846	94	
24.2	24.0	1846	97	
24.7	24.1	1861	100	
24.9	24.1	1874	105	
24.9	24.2	1887	112	

Summary of the ETL reporting process



How do I report intermittent discharges?

DEQ recognizes the difficulty of monitoring intermittent discharges. To the maximum extent possible, the permit holder must manage the discharge so that the monitoring requirements in the permit can be met. Generally, the permit holder should follow an established monitoring schedule (e.g., Monday, Wednesday, Friday). However, if the discharge is intermittent, there may be no discharge on the scheduled sampling day. In these cases, DEQ expects the permit holder to monitor at least once per month and recommends the following guidelines for discharges that last less than one week:

Discharge Scenario	Minimum Monitoring Required		
Discharge occurs on some days during the work week.	Monitoring must be performed on discharge days as typically scheduled. Monitor at least once during the week.		
Discharge occurs on the weekend, but not during the work week prior to or after the weekend.	The permit holder must arrange to monitor on the weekend.		
Discharge begins before or after normal working hours (generally 8-5, 5 days a week)	The daily sample from the day before or day after may be considered representative of the discharge during the partial day discharge.		
	If discharge only occurs outside of normal working hours, the facility must arrange for off-hours monitoring, and at least one sample per week is expected for weekly or daily frequencies.		

Please note that it is a permit violation to manipulate effluent flow to either avoid required monitoring or reduce the reported effluent load.

How do I report recycled water use?

Recycled water reporting requirements must be included on an attachment (see below). Additionally, the recycled water rules have special summary statistics regarding total coliform results. Class A, B, and C recycled water requires the calculation and reporting of a "median based on results of the last seven days that analyses have been completed." The rule also establishes the minimum monitoring frequency (e.g., once per week for Class C). Therefore, compliance may be based on data over multiple monthly DMRs if the minimum monitoring is conducted (e.g., three monitoring events in one month and four monitoring events in the following month). If monitoring is conducted more frequently than required, compliance is still based on the last seven days of monitoring. If multiple samples are collected on a single day, report the median of the samples collected on a single day as one of the 7 samples. Report the maximum median in the "weekly average maximum" row of the DMR.

Class C recycled water also requires reporting if "two consecutive samples" exceed 240 organisms per 100 mL. This review will also be based over multiple monthly DMRs. The operator should note in the comments section of the DMR if two consecutive samples exceed 240 organisms per 100 mL.

How do I attach data to the eDMR?

Most permittees need to submit daily data and other data that is not available in the eDMR data entry forms (recycled water, for example). This type of data must be included with your submission as attachments. Click the **Add Attachment** button near the bottom of the NetDMR data entry screen:



The Add Attachment page will allow you to browse to and attach a file. Excel compatible spreadsheets are the preferred format for data submittal, though other formats are accepted. If all the required data for all outfalls is in one Excel workbook, attach this workbook to the DMR for outfall 001-A. Do not attach duplicate copies of the same workbook on other outfall DMRs (001-G, 002-A, etc.).

Note: file names for attachments cannot contain any spaces, and certain punctuation is prohibited. It is best to use simple file names when uploading eDMR attachments.

Add Attachment

Use this page to add an attachment to a DMR. Note that attachments may not be larger than 20 megabytes and the file name may not contain any of the following characters: . '[] `{} # % ^ (space). Fields marked with * are required.



Other important information

Measurement units

Sampling data must be converted and reported in proper units (e.g., flow in MGD, concentrations in mg/L, μ g/L, loading in lbs per day, etc.). The units are in a column in the eDMR and may be changed by selecting the needed unit from the drop down. In some cases the temperature and pH units cannot be changed. In general, BOD, TSS, ammonia, chlorine, nutrients, oil and grease, and dissolved oxygen are reported in mg/L. Metals and organics are typically reported in μ g/L.

Significant figures

Results must be reported using the same number of significant figures as the permit limit. For a complete discussion on the use of significant figures and rounding conventions in permitting, refer to: https://www.oregon.gov/deq/Filtered%20Library/SigFigsIMD.pdf.

Quality assurance and quality control (QA/QC)

All data gathered to meet monitoring and reporting requirements must be conducted in accordance with DEQ-approved analytical methods and validated by QA procedures. DEQ-approved analytical methods are defined in the permit under "general conditions." Unless otherwise noted in the permit, NPDES permit holders must use EPA approved methods listed in the most recent publication of 40 CFR Part 136. Please note that not all methods in Standard Methods for the Examination of Water and Wastewater are included in 40 CFR Part 136. Data from any additional monitoring of a required parameter that is based on approved analytical methods must also be included with the COR. A note must be added in the comments section at the bottom of the eDMR explaining the additional monitoring. The additional monitoring results must be attached if the results are not included in the comments section.

All EPA-approved methods contain QA/QC procedures, including investigation and corrective actions for QC failures. It is not acceptable to regularly fail QC for any parameter. Failure to follow the QA procedures, including failure to implement corrective actions, is a violation of Schedule F of your permit.

Resampling requirement

If QA/QC requirements are not met, the permittee must re-sample if time permits. DEQ recommends sampling early in monitoring period to allow time for resampling (e.g., sample the first week of the month for once-permonth monitoring). Resampling is not required if the next required monitoring occurs prior to completing resampling for the prior analysis. For example, if the permit requires twice weekly BOD monitoring, there is no time to resample because the test takes five days. However, if the permit requires BOD monitoring once per month, there is time for a resampling if the first sample was collected during the first week of the month.

Reporting QA/QC failures

Sampling data not validated by QA procedures must be reported (and clearly noted) but not used in the calculations required by the permit, unless inadequate data are available from other sampling events.

- If the minimum monitoring frequency is met through resampling and/or additional monitoring, use only data with passing QC for reporting in NetDMR and attach a memo to the COR regarding the data that did not pass QC validation.
- If the minimum monitoring frequency is not met with validated data, but there is validated data during the monitoring period, use only validated data for reporting. In this case, attach a report to the COR describing why the minimum monitoring frequency was not met.
- If there is insufficient monitoring data during the monitoring period, the non-validated data must be reported and used in the calculations for that period. For instance, if only one sample was collected during a week and that sample did not meet QA/QC requirements, the results are reported as the daily and weekly concentration result. The non-validated concentration also must be used to calculate the daily and

weekly loadings. In these cases, the data is qualified with "E" in NetDMR, and you must include a note in the comments section at the bottom of the eDMR about the QA/QC failure and the corrective actions that have been or will be taken to prevent future failures.

Special reporting requirements for BOD and CBOD test QC failures

Special reporting requirements are needed for biochemical oxygen demand tests because it is a bioassay. Standard Methods identifies five critical quality control checks for biochemical oxygen demand tests (BOD and CBOD). See section above for reporting BOD and CBOD data does not meet the minimum DO residual or DO depletion. These are not considered "QA/QC failures" for reporting purposes.

The following are instructions for reporting data when specific QC checks are not met:

- **Dilution water blank exceeds 0.20 mg/L.** Report data qualified with "E." Include the data in all calculations.
- Glucose-Glutamic Acid is outside acceptable limits. Discard all data from seeded samples and include a separate report with this data. For unseeded samples, report data qualified with "E" and include data in all calculations if replicates are within 30%. Otherwise discard all data from these samples.
- Replicates exceed 30% difference. Report data qualified with "E." Include data in all calculations.
- Seed Control samples do not meet criteria. Discard all data from seeded samples and include a separate report with this data. For unseeded samples, report data qualified with "E" and include data in all calculations if replicates are within 30%. Otherwise discard all data from these samples.

How do I sign and submit the eDMR?

Before the eDMR can be submitted it must be properly signed by an authorized person or representative. This may be a principal executive officer or ranking elected official or their designated representative(s). NetDMR will capture the date the eDMR was signed and submitted. The person signing the DMR is accountable for assuring that the information submitted has been properly gathered and evaluated and certifies it is true, accurate, and complete to the best of their knowledge. Be aware that there are significant penalties for knowingly submitting false information. The role for signing DMRs in NetDMR is the permit administrator or the signatory.

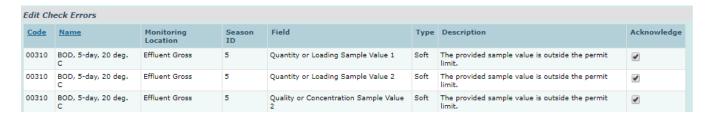
NetDMR user roles and access

Role	Manage Access	View DMR CORs	Download Blank DMRs	Edit DMRs	Sign & Submit DMRs
Edit		✓	✓		
View		✓	✓		
Signatory		✓	✓	✓	✓
Permit Admin. w/Signatory	✓	✓	✓	✓	✓
Permit Admin. w/Edit	✓	✓	✓	✓	
Permit Admin. w/View	✓	✓	✓		

A person is a duly authorized representative and may sign and submit DMRs only if the subscriber agreement in NetDMR is submitted electronically or by mail to DEQ, and the authorization specifies an individual or position having responsibility for the overall operation of the system, such as plant manager, supervisor, superintendent or equivalent responsibility. When an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the system, a new subscriber agreement must be submitted to DEQ. Subscriber agreements are populated in NetDMR when access to the permit is requested.

To submit your eDMR:

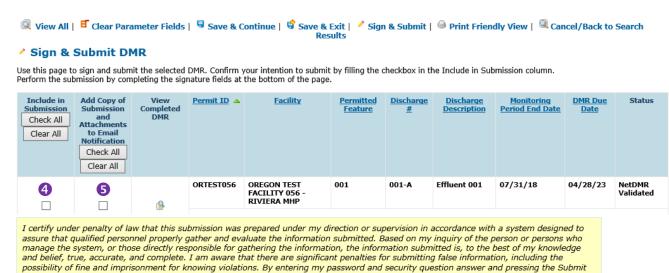
1. Select **Save & Continue** at the top or bottom of any NetDMR data entry screen. If there are any violations or errors, you will need to acknowledge each one with a ✓.



- 2. Click **Save & Exit** and go back to the **COR Search** page. The status of the DMR will now say "NetDMR Validated." Click **Go** under **Edit DMR** to return to the Edit DMR page.
- 3. On the Edit DMR page, click Sign & Submit, which will take you to the Sign & Submit DMR page.



- 4. On the **Sign & Submit DMR** page, check the box in the **Include in Submission** column next to the eDMR you are ready to submit.
- 5. For your recordkeeping, you can choose to add copies of the submission and attachments to the notification email you will receive.
- 6. To complete the submission, enter your CDX password, answer the security question, and choose Submit. Take care with your CDX password and security questions. If you enter them incorrectly three times, CDX will lock you out of your account.



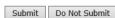
By entering my password and security question answer and pressing the Submit button, I agree that:

1. I am Signatory Name.

button, I agree that:

- I have not violated any term in my Electronic Signature Agreement.
- I am otherwise without any reason to believe that the confidentiality of my password has been compromised now or at any time prior to this submission.
- 4. I have the authority to submit these data on behalf of the listed facilities.
- 5. This action constitutes an electronic signature equivalent to my written signature.
- I understand that this attestation of fact pertains to the implementation, oversight, and enforcement of a federal environmental program and must be true to the best of my knowledge.

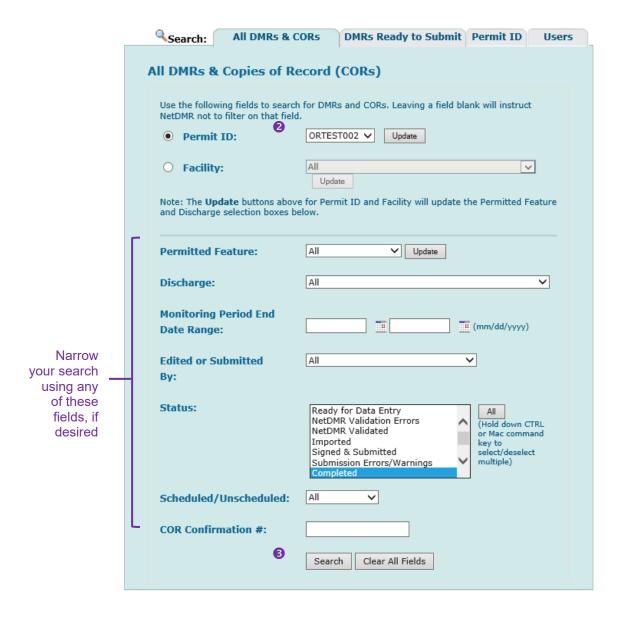
Password



How do I correct a DMR?

You can correct and resubmit an eDMR via NetDMR if you discovered an error in data entry or a problem in the attachment.

- 1. Log into NetDMR Production at https://cdx.epa.gov/.
- 2. From the All DMRs & CORs tab, select your Permit ID from the dropdown and click Update.
- 3. Specify other search fields, such as date range or status, if desired, and click Search.



4. Under **DMR/COR Search Results**, find the DMR that you want to correct. Choose **Correct DMR** in the dropdown under **Next Step(s)** and click **Go**.

DMR/COR Search Results



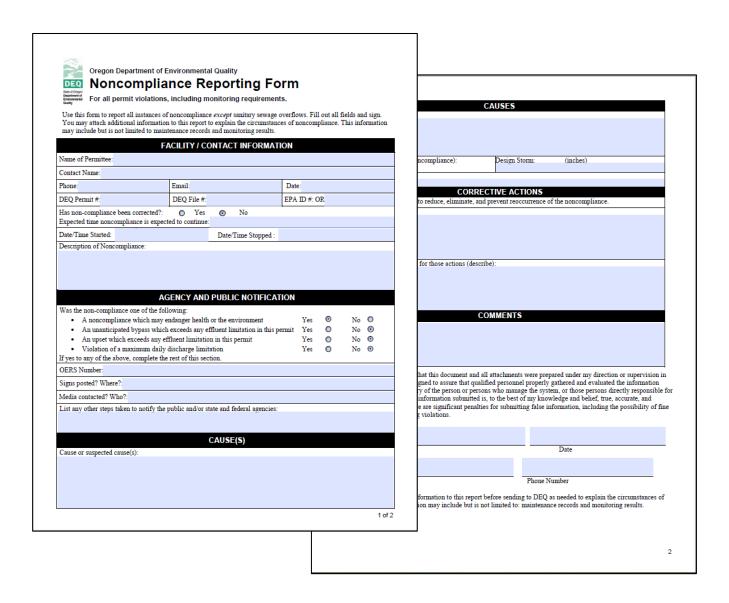
- 5. In the **Edit DMR** screen, you can add, delete, or update parameter values, NODI codes, comments, and file attachments.
- 6. Once corrections have been made, choose Save & Continue and Sign & Submit as usual.

If you are not the signatory, choose Save & Exit. The signatory needs to search for the DMR as instructed in Steps 2 and 3 above and choose Correct DMR as in Step 4 to sign and submit the modified DMR.



How do I report noncompliance?

Any non-compliance during a reporting period will require that the permittee signatory acknowledge the non-compliance prior to submitting the eDMR. A brief explanation describing the cause and corrective actions taken should also be included in the comments section at the bottom of the eDMR. A hard copy report needs to be sent to the DEQ regional office. A copy of the report may also be attached to the eDMR submission. DEQ has a Noncompliance Reporting Form (shown below) that can be used for this purpose: https://www.oregon.gov/deq/FilterDocs/NoncomplianceReportForm.pdf.



What if I have Mutual Agreement and Order interim limits?

What is a Mutual Agreement and Order?

A Mutual Agreement and Order settles past violations and may address future permit violations when the permittee needs additional time to construct the facilities required to correct the violations. The orders establish a compliance schedule for the needed treatment system improvements and include interim limits which trigger DEQ enforcement. The orders also include specified stipulated penalties for failure to comply with the agreed-to schedule and for exceeding interim limits specified in the order.

Do MAO interim limits replace permit limits in NetDMR?

Permit limits only are set up in NetDMR. MAO interim limits do not replace permit limits. Accordingly, any permit limit exceedance will result in a "soft error" in NetDMR, even if the reported value is less than the order's interim limit.

What do I need to do if the permit limits are exceeded?

Schedule F of the permit requires permit holders to submit a report with additional information for all instances of noncompliance. Exceeding a permit limit is a noncompliance, whether or not there is a mutual agreement and order. If the permit holder has an order with interim limits, the noncompliance report must still report any exceedances of permit limits, including the cause of the exceedances and steps taken or planned to prevent a reoccurrence. The noncompliance report should also state whether the interim limits were exceeded or not. Permit limit noncompliance reports are due with the monthly discharge monitoring report.

When reporting in NetDMR, the permit holder must acknowledge the permit limit exceedance. The permit holder should also include a comment about the order's interim limits and whether or not they were also exceeded. The comment should include the case number of the order.

How are permit limit exceedances resolved?

If the permit limits are exceeded, but the interim limits are not, DEQ will amend EPA's Integrated Compliance Information System to link the exceedances to the mutual agreement and order, resolving the violation. If the interim limits are exceeded, DEQ might issue a penalty demand notice for the stipulated penalties.

Frequently asked questions

My facility sometimes doesn't discharge at all in a month. How do I record that in NetDMR?

If your facility does not discharge during the month, you must enter NODI Code C - No Discharge at the top of the NetDMR data entry screen and submit. Please note that NetDMR will generate a soft error if you submit a DMR using NODI Code C before the end date of the monitoring period.

How do I obtain an unscheduled DMR in NetDMR, so I can enter data for a month when sampling was conducted?

In NetDMR, go to the **Unscheduled DMRs** tab, select your permit number from the drop down menu, and push **Update**. Select your Permitted Feature and Limit Set for your DMR month. Press **Submit** and the Unscheduled DMR will come up.

How do we report daily monitoring and calculations?

Permittees may need to submit data that they collect such as daily data or data from multiple outfalls, or data and calculations needed for summary statistics. These options are not available in the DMR data entry slots. This information can be included with your eDMR as an attachment (see p. 22 for instructions on how to attach files to your eDMR). If in doubt, please contact your DMR reviewer or the DEQ NetDMR Support Desk.

When I enter my DEQ permit number, why does it say that my permit is not in the system?

The NetDMR system uses EPA Permit ID numbers to identify permits. Therefore, anyone who uses their DEQ permit number to look up a permit will receive the "permit not in the system" message. If you enter your EPA Permit ID number (OR00XXXXX), you will see that your permit is indeed available in NetDMR for testing.

Our facility has more than one permit, so why can I only find one permit in NetDMR?

Due to the volume of permits that DEQ needs to enter into NetDMR, we are taking a phased approach. Please refer to the schedule on our webpage to see when your other permits are likely to be processed, or contact the DEQ NetDMR Support Desk at (503) 229-6400 or NetDMRSupport@deq.state.or.us.

What if my eDMR doesn't include all of my reporting requirements?

If you notice any errors in how your permit was set up once you are able to use the system, let your DMR reviewer know to get the issue resolved.

How do we submit data for other sampling and monitoring locations such as recycled water reuse and biosolids monitoring?

In NetDMR, spreadsheet and text files can be attached and submitted, along with the parameter values added to the Web form. Check with your DMR reviewer to see if they would like you to attach additional data files with your NetDMR submissions.

How do I report recycled water parameters?

Enter data into an Excel spreadsheet and attach it to the eDMR.

Need more help?

EPA's NetDMR Support Portal: https://usepa.servicenowservices.com/

oeca_icis?id=netdmr_homepage

Oregon DEQ's NetDMR Support Team: NetDMRSupport@deq.oregon.gov

503-229-6400

Oregon DEQ's eReporting Website: https://www.oregon.gov/deq/wq/wqpermits/Pages/

NPDES-E-Reporting.aspx