



Total Organic Carbon (TOC) Quarterly Operating Report

PWS INFORMATION - Section 1		LABORATORY INFORMATION - Section 2	
PWS Name:		Parameter	Analytical Lab
STU Name:		TOC:	Lab ID
PWSID#	STU#:	Alkalinity:	
* SUVA and Magnesium only applies to those PWS using alternate compliance criteria		*SUVA:	
		*Magnesium:	

SAMPLE INFORMATION - Section 3	
Please check mark the quarter you are reporting the TOC value monitoring results for:	<input type="checkbox"/> January, February, March <input type="checkbox"/> April, May, June <input type="checkbox"/> July, August, September <input type="checkbox"/> October, November, December
Please print the year of the quarter you are reporting for:	200_

Section 4

Please report the TOC values for each month below. For instructions on how to calculate the TOC value, see the back of this form. NOTE: If you are using alternative TOC compliance criteria (ATC) please find the ATC code on the back of the form and place that code in the column provided.

Month	TOC value	ATC (value = 1.0)	Value used for compliance calculation
Sum total			
Average (sum total divided by 3)			
If your PWS has been assigned an alternative removal percentage by the Ohio EPA based on jar testing, enter that percentage here:			

Section 5

I certify under penalty of law that I have personally examined and am familiar with the data submitted in this MOR; that the data in this report is true, accurate and complete; and I am aware that falsification thereof could result in the imposition of fines and penalties including revocation of my certification as a public water system operator.

Name of Certified Operator and Certification Number	Signature of Responsible Official	Date
Name:	Signature:	Date:

Instructions for Completing the TOC Quarterly Operating Report (EPA 5115)

Purpose: EPA Form 5115 is required for public water systems that use surface water and have conventional filtration and must report their total organic carbon percent removal levels in accordance with the Ohio Administrative Code 3745-81-77. Each section of the form is explained in detail below:

Section 1: - Public water systems (PWS) must fill in their name, idnumber (ID#), source treatment unit idnumber (STU#) and STU name. Questions regarding any of this information can be answered by your Ohio EPA District Office.

Section 2: - PWS must include the name and certification number of the laboratory performing their analyses.

Section 3: - Check the appropriate quarter of the year in which the samples were collected. Also include the year in which the samples were collected.

Section 4: - Calculate the monthly total organic carbon (TOC) value based on monitoring results for TOC and place those values in the appropriate column. To calculate this value, see the example below:

Total Organic Carbon (TOC) Compliance Calculation Example

A “paired” sample set must be used for calculating the monthly TOC value. This paired set consists of samples analyzed for TOC at the source and at the point of combined filter effluent. It also consists of a sample analyzed for total alkalinity at the source. If you choose to report more paired samples than what is required, the TOC value you calculate for the month must be the average of the TOC values for all of the individual paired samples.

For example, during January, the PWS had the following analyses:

Source Total Alkalinity	65 mg/L
TOC source	4 mg/L
TOC finished	2 mg/L

Step 1 - calculate the percent of TOC removed through the treatment process:

$$1 - \frac{2 \text{ mg/L Finished TOC}}{4 \text{ mg/L Source TOC}} \times 100 = 50\% \text{ TOC removed}$$

If the treated water TOC is greater than the source water TOC concentration, enter a negative value for the percent TOC removed. If your source water TOC concentration is less than 2.0 mg/L, you may use the ATC. If your source water TOC concentration is 2.0 mg/L or greater, you must use the TOC removal table to determine a TOC value.

Step 2 - find the amount of TOC removal required from the chart found in 3745-81-77 (F):

SOURCE-WATER TOC, MG/L	SOURCE-WATER ALKALINITY, MG/L AS CaCO ₃		
	0 - 60 (PER CENT)	> 60 - 120 (PER CENT)	> 120 ³ (PER CENT)
>2.0-4.0	35.0	25.0	15.0
>4.0-8.0	45.0	35.0	25.0
>8.0	50.0	40.0	30.0

Step 3 - calculate the TOC value for each paired sample reported by dividing the actual monthly percentage of TOC removed by the percent of TOC removal required:

$$\frac{50\% \text{ TOC removed}}{25\% \text{ TOC removal required}} = 2.0 \text{ TOC value}$$

Step 4 - Report the TOC value in the TOC value column in Section 4. To determine if you are qualified to use an alternative TOC compliance criterion (ATC), which will enable you to use and report a monthly TOC value of 1.0, see the chart below:

CODE	Alternative TOC Compliance Criteria (ATC)
A	In any month that the system's treated or source water TOC level, measured according to rule 3745-81-27 of the Administrative Code, is less than 2.0 mg/l, the system may assign a monthly value of 1.0
B	In any month that a system practicing softening removes at least 10 mg/l of magnesium hardness (as CaCO ₃), the system may assign a monthly value of 1.0
C	In any month that the system's finished water SUVA, measured according to rule 3745-81-27 of the Administrative Code, is ≤ 2.0 l/mg-m, the system may assign a monthly value of 1.0
D	In any month that the system's source water SUVA, measured according to rule 3745-81-27 of the Administrative Code, is ≤ 2.0 l/mg-m, the system may assign a monthly value of 1.0
E	In any month that a system practicing enhanced softening lowers alkalinity below 60 mg/L (as CaCO ₃), the system may assign a monthly value of 1.0

If you are able to use an ATC, enter the appropriate letter code in the ATC Code column in Section 4. If no ATC applies, enter an "X". For each month, determine the higher of the TOC value and the ATC (if applicable) and enter that number into the column titled "Value used for Compliance Calculation." Add the three numbers in this column and report that sum in the "Sum total" block. Divide the sum total by 3 and report that value in the "Average" block. For all calculations on this operating report, report to one decimal place.

Section 5 - Sign the report and then date it. Mail the report to your Ohio EPA District Office no later than the tenth of the month following the end of each calendar quarter.

Section 6 - Include analyses data in section 6 on the back of form 5115.

If you have any questions regarding this report, please contact your local district office.

<p style="text-align: center;">Ohio EPA Southeast District Office 2195 Front St. Logan, OH 43138 Phone (740) 385-8501</p>	<p style="text-align: center;">Ohio EPA Northwest District Office 347 North Dunbridge Rd. Bowling Green, OH 43402 Phone (800)-686-6930</p>
<p style="text-align: center;">Ohio EPA Southwest District Office 401 E. Fifth St. Dayton, OH 45402-2911 Phone (937) 285-6357</p>	<p style="text-align: center;">Ohio EPA Northeast District Office 2110 East Aurora Road Twinsburg, OH 44087 Phone (330) 963-1200</p>
<p style="text-align: center;">Ohio EPA Central District Office 3232 Alum Creek Drive Columbus, Ohio 43207 Phone: (614) 728-3778</p>	