

NOTES

STEP ONE TOC Removal Requirements

As water quality conditions fluctuate the system can alternate between the "enhanced coagulation" and "alternative compliance criteria" and this form accommodates this in the compliance determination calculation. Note it is the monthly averages of the specified parameters that determine whether an "alternative compliance criteria" can be applied. Details of the reporting requirements for both are given below.

Reporting Requirements for systems monitoring monthly or quarterly for Total Organic Carbon (TOC) under the disinfection byproduct precursor requirements §141.132(d) and **required to meet enhanced coagulation or softening requirements** §141.135(b)(2) or (3).

- a. The number of paired (source water and treated water, prior to continuous disinfection) samples taken during the last quarter.
- b. The location, date & result of each paired sample & associated source water alkalinity taken during the last quarter (cols. A, B, & C.)
- c. For each month in the reporting period that paired samples were taken, the arithmetic average of the percent reduction of TOC for each paired sample (col. D) and the required TOC removal (col. E). This allows system to take more than one paired set per month. If using the excel version of the form this calculation is done automatically.
- d. Enter the required % removal in column E as specified below

Required Percent Removal of TOC (enter in Column E)			
Source Water TOC mg/l From Column B	Source Water Alkalinity mg/l as CaCO ₃ From Column C		
	0 to 60	>60 to 120	>120
>2.0 to 4.0	35.0 %	25.0 %	15.0 %
>4.0 to 8.0	45.0 %	35.0 %	25.0 %
>8.0	50.0 %	40.0 %	30.0 %

- e. Record in Column G the result of the calculation determining compliance with the TOC percent removal requirements. Done automatically on the excel version based on the monthly averages.
- f. Whether the system is in compliance with the percent removal requirements for the last four quarters. In compliance if the running annual average calculated quarterly is greater than or equal to 1.0 and out of compliance if the running annual average is less than 1.0

Reporting Requirements for systems monitoring monthly or quarterly for Total Organic Carbon (TOC) under the disinfection byproduct precursor requirements §141.132(d) & **meeting one or more of the alternative compliance criteria** §141.135(b)(2) or (3)

- a. The number of paired (source water and treated water, prior to continuous disinfection) samples taken during the last quarter.
- b. The locations date & result of each paired sample & the associated alkalinity taken during the last quarter. (Cols. A, B, & C.)
- c. For the relevant month record in column F the code and specified value for the applicable alternative compliance criteria given in the table below. The alternative compliance criteria are based on the monthly averages and not a single result, unless only one sample is routinely taken.

Criteria	Code	Value:- The monthly average for
source water TOC is less than 2.0mg/l	A	source water TOC as mg/l
treated water TOC is less than 2.0mg/l	B	treated water TOC as mg/l
softening removes at least 10mg/l of magnesium hardness	C	the magnesium hardness removed as mg/l
the source water SUVA prior to treatment is less than or equal to 2.0L/mg-m	D	source water SUVA as L/mg-m
the finished water SUVA is less than or equal to 2.0L/mg-m	E	finished water SUVA as L/mg-m
enhanced softening lowers alkalinity below 60mg/l (as CaCO ₃)	F	alkalinity (as CaCO ₃)

- d. Enter a value of **1.0** in the D/E Ratio column (col. G)
- e. Whether the system is in compliance with the percent removal requirements for the last four quarters.
In compliance if the running annual average calculated is greater than or equal to 1.0
Out of compliance if the running annual average is less than 1.0

Compliance Determination (Section H of Form)

The last two rows of the form are for recording of the monthly compliance determination values for the last twelve months and the calculation of the running annual average in the final column. If using the excel version of the form compliance is automatically determined once the monthly values have been entered.

1.1 STEP TWO TOC Removal Requirements

If step one TOC removal requirements or the alternative compliance criteria cannot be achieved then the purveyor shall apply to the Bureau of Safe Drinking Water for approval of alternative minimum TOC removal requirements in accordance with 40CFR 141.135(b)(4). If the application is approved the Bureau of Safe Drinking Water will specify minimum TOC removal and reporting requirements. If the application is denied then the purveyor shall comply with the "Step one" TOC removal requirements.