



Massachusetts Department of Environmental Protection - Drinking Water Program  
**CT Determination for Unfiltered Systems**

**SWTR  
B**

**I. PWS INFORMATION:**

PWSID#:  PWS Name:  PWS Town:   
 Treatment Plant Name:  Reporting Period → Month:  Year:   
 Disinfectant<sup>1</sup>:  Sequence of Disinfectant Application:  1<sup>st</sup>  2<sup>nd</sup>  3<sup>rd</sup>  4<sup>th</sup>  5  6<sup>th</sup>

**II. DAILY REPORTING: Measurements taken during peak hourly flow.**

Day	Peak Hourly Flow <sup>2</sup> (gpm)	Disinfectant Concentration <sup>3</sup> C (mg/L)	Disinfectant Contact Time <sup>4</sup> T (min.)	CT calc (= C x T)	pH <sup>5</sup>	Water Temp <sup>6</sup> (°C)	CT <sup>7</sup> 99.9	Inactivation Ratio <sup>8</sup> (CT calc /CT 99.9)	Inactivation Ratio <sup>9</sup> < 1.0
1									<input type="checkbox"/> Yes
2									<input type="checkbox"/> Yes
3									<input type="checkbox"/> Yes
4									<input type="checkbox"/> Yes
5									<input type="checkbox"/> Yes
6									<input type="checkbox"/> Yes
7									<input type="checkbox"/> Yes
8									<input type="checkbox"/> Yes
9									<input type="checkbox"/> Yes
10									<input type="checkbox"/> Yes
11									<input type="checkbox"/> Yes
12									<input type="checkbox"/> Yes
13									<input type="checkbox"/> Yes
14									<input type="checkbox"/> Yes
15									<input type="checkbox"/> Yes
16									<input type="checkbox"/> Yes
17									<input type="checkbox"/> Yes
18									<input type="checkbox"/> Yes
19									<input type="checkbox"/> Yes
20									<input type="checkbox"/> Yes
21									<input type="checkbox"/> Yes
22									<input type="checkbox"/> Yes
23									<input type="checkbox"/> Yes
24									<input type="checkbox"/> Yes
25									<input type="checkbox"/> Yes
26									<input type="checkbox"/> Yes
27									<input type="checkbox"/> Yes
28									<input type="checkbox"/> Yes
29									<input type="checkbox"/> Yes
30									<input type="checkbox"/> Yes
31									<input type="checkbox"/> Yes

- Use a separate form for each disinfectant/sampling point. Enter disinfectant and sequence position, e.g. "ozone/1<sup>st</sup>" or "ClO<sub>2</sub>/3<sup>rd</sup>". If more than one disinfectant sampling point, you must also complete SWTR Form C and calculate the cumulative inactivation ratio SUM (CTcalc/CT99.9) to determine compliance.
- Peak hourly flow means the highest pumpage *hour* during the day, not the absolute peak flow at any instant.
- The residual disinfectant concentration(s) ("C") of the water before or at the first customer must be measured each day during peak hourly flow.
- The disinfectant contact time(s) ("T") must be determined for each day during peak hourly flow. The time *T* used in calculating *CT*, is the time it takes the water, during peak hourly flow, to move between the point of disinfection application and the point at which the residual is measured.
- If the system uses free chlorine, the pH of the disinfected water must be measured at least once per day at each chlorine residual disinfectant concentration sampling point during peak hourly flow.
- The temperature of the disinfected water must be measured at least once per day at each residual disinfectant concentration sampling point during peak hourly flow.
- Use Inactivation Tables at 310 CMR 22.20A for unfiltered sources.
- The inactivation ratio (CTcalc/CT99.9) is determined before or at the first customer during peak hourly flow and if the (CTcalc/CT99.9) is < 1.0, the 99.9% *Giardia lamblia* inactivation requirement has not been achieved.
- More than one "Yes" response above indicates a SWTR Treatment Technique violation. Enter inactivation ratio detail of each "Yes" value indicated above on SWTR – Form E

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

PWS Authorized Signature: \_\_\_\_\_

Date: \_\_\_\_\_ Title: \_\_\_\_\_

In accordance with 310 CMR 22.15(2), if mailing paper reports, TWO copies of this report must be received by your MassDEP Regional Office no later than 10 days after the end of the month in which the results are received or no later than 10 days after the end of the monitoring period, whichever is sooner. Please note: Electronic reporting (eDEP) deadline is the same as above.