



Illinois Environmental Protection Agency

2520 West Iles Avenue • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Monthly Certification to Allow Inactivation Credit Utilizing Ultraviolet Light

Name of Public Water Supply: _____

Facility ID: IL _____

Month: _____ Year: _____

Requesting Credit for: _____ \log_{10} *G. Lamblia* _____ \log_{10} *C. Pavrum*
_____ 40 mJ/cm² MS2 RED (groundwater only)

The following are needed to insure that the water passing through the UV reactors is on-specification. If any of these answers are no, the reactors are considered to be off-specification. Include any water not meeting the following in the off-specification calculations.

Requirement	Yes	No	Comments/Explanation
Was the UV Intensity monitored continuously and recorded every 4 hours?	<input type="checkbox"/>	<input type="checkbox"/>	
Was the validated dose greater than the required dose ?	<input type="checkbox"/>	<input type="checkbox"/>	
Was the validated dose monitored continuously and recorded every 4 hours?	<input type="checkbox"/>	<input type="checkbox"/>	
Was the flow rate through each reactor monitored continuously and recorded every 4 hours?	<input type="checkbox"/>	<input type="checkbox"/>	
Have the flow meters/totalizing meters been calibrated monthly?	<input type="checkbox"/>	<input type="checkbox"/>	
Were all duty sensors calibrated monthly with a reference sensor?	<input type="checkbox"/>	<input type="checkbox"/>	
Have all reference sensors been calibrated annually?	<input type="checkbox"/>	<input type="checkbox"/>	
Was the UVT duty/online meter(s) calibrated weekly? Were the meters within the acceptable range?	<input type="checkbox"/>	<input type="checkbox"/>	
Were any UV reactor components replaced this month? Were they equal or better than the original components?	<input type="checkbox"/>	<input type="checkbox"/>	

Complete the following off-specification information.

Requirement	Yes	No	Comments/Explanation
Was there an off-specification event?	<input type="checkbox"/>	<input type="checkbox"/>	
If there was an off-specification event, was it monitored continuously and water volume recorded?	<input type="checkbox"/>	<input type="checkbox"/>	
Did the facility meet the minimum on-specification requirement of 95%? Complete the Compliance Certification at the end of the checklists.	<input type="checkbox"/>	<input type="checkbox"/>	

The following questions deal with maintenance of the UV reactors.

Requirement	Yes	No	Comments/Explanation
Were the lamps on and off cycles monitored and recorded?	<input type="checkbox"/>	<input type="checkbox"/>	
Was time the lamps were in service (energized) monitored and recorded?	<input type="checkbox"/>	<input type="checkbox"/>	
Were the total hours each ballast was energized monitored and recorded?	<input type="checkbox"/>	<input type="checkbox"/>	
Were the total hours each quartz sleeve was in operation monitored and recorded?	<input type="checkbox"/>	<input type="checkbox"/>	
Were the total hours each duty sensor was in operation monitored and recorded?	<input type="checkbox"/>	<input type="checkbox"/>	
Was the water's UVT monitored continuously and recorded every 4 hours?	<input type="checkbox"/>	<input type="checkbox"/>	
Was the water prior to the UV reactors sampled for the following parameters weekly and recorded monthly: iron, calcium, hardness, pH, and oxygen reduction potential?	<input type="checkbox"/>	<input type="checkbox"/>	
Was the power draw per UV reactor monitored continuously and recorded every 4 hours?	<input type="checkbox"/>	<input type="checkbox"/>	

Compliance Certification (from your Summary UV Monthly Report)

Total volume of "Off-Specification" Water Produced during this Month (mgd)(A): _____

Total volume of Water Produced during this Month (mgd)(B): _____

"Off-Specification" Water Produced as a % of volume of Water Produced (A/B * 100): _____

Facility Meets "Off-Specification" Requirement (<5% of Volume on a Monthly Basis) (Y/N): Yes No

Submit a copy of this certification along with the Summary Monthly Report Form, Daily Operating Log for Calculated Dose, and Off-specification Calculation Worksheets to your IEPA regional office. Submit a copy of this certification to IEPA/BOW/CAS. Be advised that other monthly reports and information are required under your construction permit and must be available to the Agency on demand.

I certify that the information in this report is complete and accurate to the best of my knowledge:

Signature of ROINC: _____ Date: _____

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

This Agency is authorized to require this information under 415 ILCS 5. Failure to disclose this information may result in a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This has been approved by the Forms Management Center.

Section 611. Table J: UV Dose Table for Cryptosporidium, Giardia lamblia and Virus Inactivation Credit.

Log Credit	UV Dose (mJ/cm ³)		
	Cryptosporidium	Giardia lamblia	Virus
0.5	1.6	1.5	39
1.0	2.5	2.1	58
1.5	3.9	3.0	79
2.0	5.8	5.2	100
2.5	8.5	7.7	121
3.0	12	11	143
3.5	15	15	163
4.0	22	22	186