



MISSOURI DEPARTMENT OF NATURAL RESOURCES
 WATER PROTECTION PROGRAM – PUBLIC DRINKING WATER BRANCH
MONTHLY UV OPERATION REPORT

1. PUBLIC WATER SYSTEM NAME		PWS ID		2. MONTH / YEAR	
ADDRESS		TELEPHONE NUMBER WITH AREA CODE		EMAIL ADDRESS	
CITY		ZIP CODE		COUNTY	
3.	4.	5.	6.	7.	8.
Unit	Total Run Time (hrs)	Total Volume (MG)	Dosage (mJ/cm²)	Number of Off-Specification Events	Total Off-Specification Volume (MG)
9. TOTAL VOLUME OF OFF-SPECIFICATION WATER PRODUCED (MG) [A]			10. TOTAL VOLUME OF WATER PRODUCED (MG) [B]		
11. PERCENT OF OFF-SPECIFICATION WATER PRODUCED ((A)/[B]*100)			12. PERCENT OF OFF-SPECIFICATION WATER PRODUCED <5 PERCENT		
			<input type="checkbox"/> YES <input type="checkbox"/> NO		
13. Of the _____ sensors, _____ have been checked for calibration and _____ were within the acceptable range of tolerance.					
14. The following reactors had a sensor correction factor		Unit	Sensor correction factor		
15. COMMENTS					
16. NAME OF PERSON PREPARING REPORT		17. SIGNATURE OF RESPONSIBLE OFFICIAL		DATE	

INSTRUCTIONS FOR COMPLETING MONTHLY UV OPERATION REPORT

This form must be completed and forwarded to the Missouri Department of Natural Resources, Water Protection Program - Public Drinking Water Branch, P.O. Box 176, Jefferson City, MO 65102-0176 as soon as the water system's monthly monitoring is completed, but in no case later than the 10th day of the month following the month for which monitoring was done

1. **Address Block** - Complete the name, 7-digit public water system identification number and address of the public water system.
2. **Month** - Enter the month and year for which the monitoring was completed.
3. **Unit** - Enter the unit name/number identifying each UV reactor unit.
4. **Total Run Time** (hrs) – Enter the total number of hours that each UV reactor unit was operating.
5. **Total Volume** (MG) – Enter the total volume of water passing through each UV reactor unit in million gallons.
6. **Dosage** (mJ/cm²) – Enter the lowest UV dosage delivered by each UV reactor unit in millijoules per square centimeter. (This will be below the dosage required for log removal if there was an off-specification event.)
7. **Number of Off-Specification Events** – Enter the number of off-specification events for each UV reactor unit. An off-specification event is when the actual dosage drops below the required dosage for log removal. (The required dosages for log removal are provided in the table below.)

UV Dose Requirements (mJ/cm²)

Target Pathogen	Log Inactivation							
	0.5	1.0	1.5	2.0	2.5	3.0	3..5	4.0
Cryptosporidium	1.6	2.5	3.9	5.8	8.5	12	15	22
Giardia	1.5	2.1	3.0	5.2	7.7	11	15	22
Virus	39	58	79	100	121	143	163	186

8. **Total Off-Specification Volume** (gal) – Enter the total volume of off-specification water produced by each UV reactor unit in million gallons.
9. **Total Volume of Off-Specification Water Produced** (MG) – Enter the total sum of the volumes entered in column 8. This is the value for [A].
10. **Total Volume of Water Produced** (MG) – Enter the total sum of the volumes entered in column 5. This is the value for [B].
11. **Percent of Off-Specification Water Produced** – Divide [A] by [B]. Then multiply that number by 100. For example: if [A] = 2 and [B] = 150, then $2 \div 150 \times 100 = 1.33$ percent
12. **Facility Meets Off-Specification Requirement** – If item 11 is less than 5 percent, mark yes. If item 11 is greater than 5 percent, mark no.
13. **Sensor Calibration** - Enter the number of sensors, how many were checked for calibration, and how many were within the acceptable range of tolerance.
14. **Sensor Correction Factor** – Enter the unit name/number identifying each UV reactor unit and the corresponding sensor correction factor if applicable.
15. **Comments** – Enter any additional comments.
16. **Name of Person Preparing Report** – Enter the name of the person who prepared the report.
17. **Signature of Responsible Official** – Signature of responsible official.