

## **INSTRUCTIONS FOR COMPLETING THE MONTHLY OPERATING LOG (MOL) FOR THE CALCULATED DOSE APPROACH**

### **INSTRUCTIONS FOR COMPLETING LOG:**

This log is for one reactor. A separate log must be completed for each reactor each day the UV facilities are in operation and must be made available for review upon request.

#### **PUBLIC WATER SYSTEM INFORMATION**

PWS Name: Print or type name of public water system (PWS)

STU Name: Print or type source treatment unit (STU) name.

PWSID#: Enter the PWS ID number.

STUID#: Enter the STU ID number.

Reporting Period: Enter month and year in which data was collected.

Reactor Number: Enter the number of the reactor.

Maximum Validated Flow Rate: Enter the maximum flow rate which was validated and approved as part of the plan approval for the UV facilities. This will remain the same every month.

Minimum Validated UVT: Enter the minimum UVT which was validated and approved as part of the plan approval for the UV facilities. This will remain the same every month.

Target Log Inactivation: Enter the log inactivation credit the system is requesting. This should be the same every month and should be the credit indicated in the plan approval for the UV facilities.

Target Pathogen: Enter the name of the target pathogen (i.e. *Giardia*, *Cryptosporidium*, and/or Viruses). The target pathogen must be identified in the plan approval for the UV facilities.

Dose Required ( $D_{req'd}$ ): Enter the required dose from the UV dose table which can be found in Ohio Administrative Code (OAC) Rule 3745-81-68 (N).

The following correspond to each of the columns in the table.

#### **Operational Data:**

Run Time (hrs): Enter the total amount of time the UV reactor was operated during the day.

Total Flow Through Reactor (MG): Enter the total amount of water treated by the UV reactor during the day.

Dose Requirements:

$D_{\text{req'd}}$  (mJ/cm<sup>2</sup>) (Column [A] on the log): Enter the required dose from the UV dose table which can be found in OAC Rule 3745-81-68 (N).

Data at Daily Minimum Validated Dose:

Sensor Correction Factor (CF)\* (Column [B] on the log): If a sensor correction factor was needed, enter the sensor correction factor which was calculated on the UV Sensor CF Calibration Worksheet. If a sensor correction factor was not needed, enter "1" in Column [B].

\*[Note: A sensor correction factor is only necessary if the UV duty sensor fails the calibration criterion and cannot be replaced immediately. This is not for long term operation and the duty sensor must be replaced as quickly as possible.]

Calculated Dose (mJ/cm<sup>2</sup>) (Column [C] on the log): Enter the dose that is calculated by the validated PLC algorithm for the UV reactor.

Validation Factor (VF) (Column [D] on the log): Enter the validation factor, which is calculated by the validated PLC algorithm for the UV reactor.

Daily Minimum Validated Dose  $[C]/[VF][CF]$  (Column [D] on the log): Multiply the validation factor by the sensor correction factor in Column [B] and then divide this value by the calculated dose in Column [C]. The result is the daily minimum validated dose and this number should be entered in Column [D].

Flow Rate (MGD): Enter the maximum flow rate treated by the UV reactor during the day.

UVT (%): Enter the minimum UVT measured during the day.

UV Dose Adequacy Determination:

Is the validated dose in Column [D] greater than the required dose in Column [A]?  
Enter yes or no.

Total Off-Specification Volume:

Enter the total off-specification volume for the day. This number should be determined by completing the Monthly Operating Log: Off-Specification Worksheet.

Print the name and certification number of the Operator of Record, the signature of the Operator of Record, and the date the report was completed.