Massachusetts Department of Environmental Protection - Drinking Water Program Stage 2 Disinfection By-Products Rule (DBPR) Quarterly Compliance Worksheet

| 1281000 | Springfield Water & Sewer Commission | Springfield & Ludlow | | | |
|--------------------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------------|--|--|--|
| PWSID: | PWS Name: | City/Town: | | | |
| ● COM ○ NTNC | Monitoring Frequency: Quarterly Annual or less | Monitoring Type: Routine Reduced | | | |
| CERTIFICATION: I certify under per law that I am the person authorize | ed to fill out | ○ Q2: Apr-Jun ○ Q3: Jul-Sep | | | |
| this form and the information con herein is true, accurate and comp | | | | | |
| best extent of my knowledge. | Primary Operator Signature: | Date: | | | |

SYSTEMS USING CHLORINATION or CHLORAMINATION - COMPLETE TABLES A, B & C

A. CHLORINE RESIDUAL COMPLIANCE

| | Month | Year | # Samples | Monthly Avg (ppm) | Quarterly Avg (ppm) | | |
|----|-----------|------|-----------|-------------------|---------------------|------------------------------------------------------------------|--------|
| | January | 2020 | 306 | 0.77 | | Min# of Cl ₂ distribution samples required per Month: | 266 |
| Q1 | February | 2020 | 286 | 0.61 | 0.65 | (Same location and frequency as TCR distribution sites). |). 200 |
| | March | 2020 | 309 | 0.58 | | Minimum # of distribution samples tested in any month: | 286 |
| | April | 2020 | 299 | 0.59 | | | 200 |
| Q2 | May | 2020 | 305 | 0.61 | 0.62 | Collected < Minimum # of distribution samples? | NO |
| | June | 2020 | 303 | 0.65 | | If Yes, then Failure to Monitor Violation for period. | 1. INC |
| | July | 2020 | 309 | 0.76 | | Running Annual Average (RAA) | 0.64 |
| Q3 | August | 2020 | 304 | 0.67 | 0.70 | (Average of 4 Quarterly Averages): | 0.04 |
| | September | 2020 | 301 | 0.66 | | Chlorine MRDL (ppm): | 4.0 |
| | October | 2020 | 308 | 0.60 | | | 4.0 |
| Q4 | November | 2020 | 298 | 0.61 | 0.61 | Was Chlorine MRDL exceeded? | NO |
| | December | 2020 | 314 | 0.62 | | If Yes, then MRDL violation for period. | NO |

B. TTHM COMPLIANCE

| Sample Location | Q1 (Jan - Mar) | | Q2 (Apr - Jun) | | Q3 (Jul - Sep) | | Q4 (Oct - Dec) | | OEL ¹ | LRAA |
|----------------------------------------|----------------|---------|----------------|------|----------------|------------------------------------|----------------|---------------|------------------|------|
| Sample Location | Date | ppb | Date | ppb | Date | ppb | Date | ppb | Q4 | LNAA |
| 10081- Chapin St Pump Station | 3/3/2020 | 46.8 | 6/3/2020 | 68.1 | 9/1/2020 | 62.3 | 12/1/2020 | 68.2 | 66.7 | 61.3 |
| 10082 -1400 State St Vibra/PV Hospital | 3/3/2020 | 38.9 | 6/3/2020 | 54.4 | 9/1/2020 | 53.3 | 12/1/2020 | 56.4 | 55.1 | 50.7 |
| 10074 - 833 Page Blvd | 3/3/2020 | 37.8 | 6/3/2020 | 53.3 | 9/1/2020 | 52.5 | 12/1/2020 | 54.2 | 53.6 | 49.4 |
| 10087- 322 Main Street | 3/3/2020 | 38.1 | 6/3/2020 | 55.5 | 9/1/2020 | 53.7 | 12/1/2020 | 52.1 | 53.4 | 49.8 |
| 10083- North Main Fire Station | 3/3/2020 | 37.3 | 6/3/2020 | 55.7 | 9/1/2020 | 53.2 | 12/1/2020 | 54.2 | 54.3 | 50.1 |
| 10085 - Center Street Fire Station | 3/3/2020 | 44.0 | 6/3/2020 | 62.7 | 9/1/2020 | 58.4 | 12/1/2020 | 62.9 | 61.7 | 57.0 |
| 10086 - 1043 Sumner Ave | 3/3/2020 | 42.1 | 6/3/2020 | 58.5 | 9/1/2020 | 52.0 | 12/1/2020 | 59.5 | 57.4 | 53.0 |
| 10075- Catalina Pump Station | 3/3/2020 | 42.7 | 6/3/2020 | 69.0 | 9/1/2020 | 57.4 | 12/1/2020 | 62.8 | 63.0 | 58.0 |
| | MCL = 8 | 0 (ppb) | Was OEL e | | exceeded?" | ? ¹ NO Was MCL exceeded | | CL exceeded?: | NO | |

C. HAA5 COMPLIANCE

| Sample Location | Q1 (Jan | - Mar) | Q2 (Apr - Jun) | | Q3 (Jul - Sep) | | Q4 (Oct - Dec) | | OEL ¹ | LRAA |
|----------------------------------------|----------|---------|--------------------------------|------|----------------|------|--------------------|------|------------------|------|
| Sample Location | Date | ppb | Date | ppb | Date | ppb | Date | ppb | Q4 | LNAA |
| 10081- Chapin St Pump Station | 3/3/2020 | 49.2 | 6/3/2020 | 76.4 | 9/1/2020 | 52.3 | 12/1/2020 | 39.5 | 51.9 | 54.3 |
| 10082 -1400 State St Vibra/PV Hospital | 3/3/2020 | 45.5 | 6/3/2020 | 73.2 | 9/1/2020 | 54.2 | 12/1/2020 | 53.7 | 58.7 | 56.7 |
| 10074 - 833 Page Blvd | 3/3/2020 | 42.2 | 6/3/2020 | 62.9 | 9/1/2020 | 52.0 | 12/1/2020 | 54.2 | 55.8 | 52.8 |
| 10087- 322 Main Street | 3/3/2020 | 42.4 | 6/3/2020 | 74.1 | 9/1/2020 | 55.6 | 12/1/2020 | 51.0 | 57.9 | 55.8 |
| 10083- North Main Fire Station | 3/3/2020 | 42.7 | 6/3/2020 | 60.6 | 9/1/2020 | 53.3 | 12/1/2020 | 56.1 | 56.5 | 53.2 |
| 10085 - Center Street Fire Station | 3/3/2020 | 44.1 | 6/3/2020 | 80.3 | 9/1/2020 | 58.6 | 12/1/2020 | 52.9 | 61.2 | 59.0 |
| 10086 - 1043 Sumner Ave | 3/3/2020 | 41.9 | 6/3/2020 | 65.3 | 9/1/2020 | 56.1 | 12/1/2020 | 55.6 | 58.2 | 54.7 |
| 10075- Catalina Pump Station | 3/3/2020 | 46.1 | 6/3/2020 | 57.0 | 9/1/2020 | 46.5 | 12/1/2020 | 45.0 | 48.4 | 48.6 |
| | MCL = 6 | 0 (ppb) | Was OEL exceeded? ¹ | | | YES | Was MCL exceeded?: | | | NO |

D. IMPORTANT COMPLIANCE NOTES

- PWS has exceeded the OEL for TTHM and/OR HAA5 but is authorized to limit the scope of the OEL evaluation to reporting only. (Refer to letter regarding seasonal OEL exceedances)
- ¹OELs apply to systems sampling quarterly only.
- PWS has exceeded the OEL for TTHM and/OR HAA5 and must <u>complete and submit an Operational Evaluation</u>
 Report within 90 days of receipt of the analytical results (systems sampling quarterly only).
- **O** PWS continues to qualify for reduced monitoring based on LRAAs of TTHM and HAA5 (and TOC if applicable)

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O PWS **NO LONGER QUALIFIES** for reduced monitoring based on average concentrations of TTHM, HAA5 and/or TOC. (Refer to quarterly monitoring criteria on "Instructions" Tab)

| DEFINITIONS | | | | | | |
|-------------------------------------------|--------------------------------------------------------------------------------------------------|--|--|--|--|--|
| Monthly Average: | verage of all results within the current month. | | | | | |
| Quarterly Average: | Average of three monthly averages. | | | | | |
| Bupping Appual Average (BAA) | Average of 4 quarters (12 consecutive months). Average of this quarter and three prior | | | | | |
| Running Annual Average (RAA): | consecutive quarterly averages. | | | | | |
| Total # of Samples: | Total number of samples collected during the monitoring period. | | | | | |
| Locational Running Annual Average (LRAA): | RAA from the same sample location. Average of this quarter and three prior consecutive quarterly | | | | | |
| Locational Running Annual Average (LRAA): | averages at the same location. | | | | | |
| | Average of the two previous quarter's results and twice the current quarter's results | | | | | |

Note: Record and calculate all ND or < MDL results as the number 0 (zero).

COMMENTS: