massachusetts water works association

www.masswaterworks.org

January 25, 2016

MassDEP Drinking Water Program
Regulatory Comments
One Winter Street, 5th floor
Boston, MA 02108

RE: Comments on Proposed Changes to 310 CMR 22.00
VIA email to program.director-dwp@state.ma.us

To Whom It May Concern:

Massachusetts Water Works Association (MWWA) has reviewed the proposed changes to the Massachusetts Department of Environmental Protection's (MassDEP) Drinking Water Regulations, 310 CMR 22.00, and would like to offer the following written comments. MWWA represents over 1,100 members of the public water supply profession throughout the Commonwealth. We would like to commend MassDEP and the Drinking Water Program (DWP) staff for working with the Safe Drinking Water Act Advisory Committee on the revisions being proposed. MWWA participates on the committee and was pleased that we were able to advise MassDEP throughout the process. We found the process very constructive and hope that MassDEP continues this same form of outreach on regulatory matters into the future.

MWWA understands that MassDEP is under a very tight time frame to promulgate the Revised Total Coliform regulations to be in compliance with the United States Environmental Protection Agency's (EPA) deadline. It is unfortunate that MassDEP has come right up against the deadline and MWWA has no doubt this is due in large part to the reduction in DWP staff. As MassDEP rolls out new regulations, Massachusetts public water systems must get up to speed quickly to remain in compliance with the rules. We fear that technical assistance needed by water systems to comply with the new regulations may be compromised by the reduced staffing. We urge the Baker Administration and Commissioner Suuberg to quickly move to backfill some of positions that the DWP has lost over the years.

Our specific comments are as follows and are based on the redline version of the comments dated 9/4/15:

310 CMR 22.02—Definitions (Pgs. 1-16):

- Chemical Feed System: MWWA suggests that MassDEP replace the word "pure" with potable, as some might consider any chemical addition taking away from the purity of water.

- Clean Compliance History: Would it be appropriate to include in the definition that it is a 12-month look back?

- Contract Operator Compliance Notice: MWWA suggests eliminating the detail of what the responsibilities are and stop at "…form to be provided by the Department."

- Level 1 Assessment and Level 2 Assessment: These definitions seem rather long although we understand they mimic the language in the Federal Register. Can the definitions be shortened because in later sections of the regulations it explicitly states what must be looked at during each assessment?

- Substantial Modification: By definition it includes nearly any change to a water system. We appreciate MassDEP has a policy that further defines what is considered substantial. Could that policy be referred to in the regulations?

- Zone I: MWWA suggests that New Hampshire's definition may be better and we request that MassDEP review it and consider it instead. (Partially pasted below and the full text can be found at: http://des.nh.gov/organization/commissioner/legal/rules/documents/env-dw302.pdf
    - "Env-Dw 302.06 Sanitary Protective Area
      (a) The purpose of the sanitary protective area is to provide an area in the immediate vicinity of the well within which there is minimal risk of groundwater contamination.
      (b) The sanitary protective area shall be a circle, centered on the well, with a radius based on the permitted production volume of the well as set forth in Table 302-1:
      Table 302-1 Sanitary Protective Area Radii
      Permitted Production Volume (gallons in a 24-hour period)
      Radius
      less than 14,400 150 feet
      14,401 to 28,800 175 feet
      28,801 to 57,599 200 feet
      57,600 to 86,400 250 feet
      86,401 to 115,200 300 feet
      115,201 to 144,000 350 feet

greater than 144,000 400 feet
(c) When more than one well is inside a sanitary protective area, then the individual sanitary protective areas for these wells shall be based on the combined permitted production volume of each production well unless it is proven the wells are not interconnected…"

- Dissolved Air Floatation also needs to be defined.

- At the next revision MassDEP might consider whether they need to define redundant well in 310 CMR 22.00 as they have in 310 CMR 36.00

MWWA is suggesting modifications to the following definitions which are necessary for changes that we are suggesting later in our comments relative to 310 CMR 22.11B:

- Direct Responsible Charge means accountability for and performance of active, daily on-site operation of the Treatment Facility or Distribution System, or a major segment of the Treatment Facility or Distribution System where shift operation is not required. Where shift operation is required "Direct Responsible Charge" shall mean accountability for and performance of active, daily on-site operation of an operating shift, or a major segment of the operation of the Treatment Facility or Distribution System.

- Primary Operator means any individual who is certified by the Board of Certification of Drinking Water Supply Facilities and has a grade certificate at least equal to the class of the Treatment Facility or Distribution System at which he or she is employed. The Primary Operator shall be the individual who has direct supervision and responsibility for charge of the operation of a Treatment Facility and/or Distribution System, who has active field supervision of the respective operation or who is required in the performance of their normal duties to give responsible, technical advice and supervision of the technical aspects rather than only general administrative supervision of the Treatment Facility and/or Distribution System and spends their working hours within the Public Water System and is knowledgeable of the Massachusetts Drinking Water Regulations, guidelines and policies. The Primary Operator of the facility shall hold a "Full Operator" status and cannot hold an "Operator-in-Training" certificate as defined in 236 CMR 4.05.

- Satellite Facility means a Treatment Facility which is controlled and monitored by an appropriately certified operator working within the same Public Water System.

- Secondary Operator means any individual who is certified by the Board of Certification of Operators of Drinking Water Supply Facilities and has an operator's license not less than one grade lower than the classification of the Treatment Facility or Distribution System at which they are employed. For Class III Treatment Facilities or higher, the Secondary Operator must also have at least six months working experience in a Class II Treatment Facility or higher. A Secondary Operator shall be in Direct Responsible Charge during periods of time when the

Primary Operator is temporarily absent or is not scheduled for duty. The Secondary Operator may hold an Operator-in-Training certificate as defined in 236 CMR 1.00 through 5.00.

- Treatment Facility means a Public Water System location where the addition of any chemical or use of any treatment process to alter the physical, biological or chemical quality of source water, including treatment consisting only of Disinfection, is used for the production of drinking water for public consumption.

310 CMR 22.03—Compliance

- Pg. 16 -- (2) "A Supplier of Water, upon request by the Department, shall sample and analyze its water for any parameter, at any location and frequency, deemed necessary to prevent the pollution of and secure the sanitary protection of waters used as sources of water supply and to ensure the delivery of a fit and pure water supply to all consumers, in accordance with 310 CMR 22.00. All results of such sampling and analysis shall be reported to the Department as directed and in accordance with 310 CMR 22.00. A Supplier of Water that fails to report such results to the Department as directed, and in accordance with 310 CMR 22.00, shall be presumed to have failed to conduct such monitoring." The word "pure" should be replaced with potable. What happens if the report is lost or misplaced by MassDEP staff, is there a discussion before a Notice of Noncompliance (NON) is issued? Can a consultation with the PWS and DEP be required before an unnecessary NON or public notice is required? Retraction of a NON or other immature/improperly issued public notice is difficult and needlessly undermines public confidence.

- Pg.17 -- (8) MWWA would like to discuss language related to health assessments and guidelines from the Office of Research and Standards (ORS). We feel these are often defacto Maximum Containment Levels (MCLs) that MassDEP ends up enforcing without having gone through the MCL promulgation process.

- Pg. 17 -- (10) MWWA believes that Voluntary Samples and process control samples should be excluded from needing to be submitted to MassDEP. This paragraph should be revised to indicate that only those samples required and taken to determine compliance with 310 CMR 22.00 should be submitted to MassDEP. Does MassDEP really want the results of jar tests on hourly aluminum readings from clarifier effluent?

- Pg. 17 -- (10)(b)-Chain of Custody-MWWA would like a better explanation as to why MassDEP is including this section in the regulations? There should be some time period stipulated that the Chains of Custody need to be held.

- Pg. 18 -- (15) Requests for Information.

"(b) No Person shall fail to provide any information requested within the time specified by the Department pursuant to 310 CMR 22.03(15)(a). MWWA feels this language is too broad. What if a PWS simply does not have the information? We suggest amending this language by stating: "(b) No Person shall fail to provide any existing available information requested within a mutually agreed upon time pursuant to 310 CMR 22.03(15)(a)."

- Pgs. 18-19 -- (18) False, Inaccurate, Incomplete or Misleading Statements. "(a) No Person shall make, nor allow or cause any other Person to make, any false, inaccurate, incomplete or misleading statement in any submission required by 310 CMR 22.00, or by any permit, order, approval, certification or registration issued pursuant to M.G.L. c. 111, § 160, or 310 CMR 22.00."

  "(b) No Person shall make, nor allow or cause any other Person to make, any false, inaccurate, incomplete or misleading statement in any record, report, plan, file, log, register or other document which such Person is required to keep by the terms of a permit, order, approval, certification or registration issued pursuant to M.G.L. c. 111, § 160, or 310 CMR 22.00."

  MWWA knows that in the past there were questions on the Annual Statistical Report which prevented a supplier from moving forward until some information was entered. If a supplier filled in a field, for instance with a zero, to move forward, by the literal interpretation of the regulation they could be subject to enforcement for making an inaccurate or false statement. MWWA would recommend some discretion language be added to these sections to ensure that a situation as described above would not become a reality.

- Pg. 19 -- (19) Orders. "Without Limitation, the Department may issue such orders as in its opinion may be necessary to prevent the pollution and to secure the sanitary protection of all waters used as sources of water supply and to ensure the delivery of a fit and pure water supply to all consumers. Such orders may include, but shall not be limited to, orders requiring Persons to cease any activity which is in violation of M.G.L. c. 111, § 160, or 310 CMR 22.00 or to carry out activities necessary to bring such Person into compliance." MWWA feels that "Without limitation" and "in its opinion" are too broad and should be stricken. Also the word "pure" should be replaced with potable. Staff indicated that this language is being inserted in regulation across the department, is MassDEP in a position to utilize this authority to assist water suppliers in their protection of their sources?

310 CMR 22.04-Construction, Operation and Maintenance of Public Water Systems

- Pg. 19 -- (1)(c) "the Supplier of Water has the technical, managerial and financial capacity to operate and maintain the Public Water System in compliance with 310 CMR 22.00, and each National Primary Drinking Water Regulation in effect,

at the time of the Department's determination of the system's capacity and in effect in the foreseeable future." MWWA suggests adding a time frame rather than saying "foreseeable future;" perhaps "in the next five years" would be a more appropriate threshold.

- Pg. 20 –The Guidelines and Policies for Public Water Systems are not regulation and do not go through the same process that the promulgation of regulations requires. It is inappropriate for MassDEP to essentially make the Guidelines and Policies regulatory by stating in these two sections 22.04(5) and 22.04(7) that the Department may require water systems to demonstrate compliance with them. We suggest MassDEP strike reference to the Guidelines and Policies for Public Water Systems in these two sections and potentially elsewhere they are referenced in the regulations. Should MassDEP believe that parts of the Guidelines and Policies need to be incorporated into the regulations so that it can ensure compliance, then MassDEP should amend the regulations to include the specific language from the Guidelines and Policies in the regulations and follow the proper regulatory adoption process just as MassDEP is doing with the Chemical Control Strategy and Appendix M. At present, water systems would have to accept the Guidelines and Policies as regulation if changes are not made. This approach is not acceptable as Guidelines and Policies have been unilaterally developed by the MassDEP and have not followed the regulatory adoption process.

- Pg. 22 -- (13)(a)(7) it is stated that Emergency Response Plans shall be prepared to address potential or actual emergencies including: "Potential or imminent threat of chemical or microbiological contamination of the water supply over limits specified by 310 CMR 22.00, including, without limitation, any standards specific to an individual Public Water System established pursuant to a health assessment as provided in 310 CMR 22.03(8)." The Office of Research and Standards establishes contaminant limits outside of any known or established public process. These proposed regulations require water systems to take actions in response to health assessments. "Health assessment" is not defined in the regulations and it should be so that the process that ORS undertakes for determining if a contaminant is considered a risk will be understood.

- Pg. 23 -- (13) (c) "Each water supplier must implement the Emergency Response Plan established in accordance with 310 CMR 22.04(13)(a) and (b), including without limitation the provisions for annual training of staff and local partners in the implementation of such plan in the event of a potential or actual Emergency." MWWA believes there are discrepancies in the way regions are interpreting the training requirements, especially in terms of who is required to attend and what the material has to cover. MassDEP should consider being more specific and it should just be limited to operations staff. We also suggest that MassDEP revisit

the requirement of 10 hours of annual training as it may be too onerous for water systems, or make it over a three-year period instead of annually.

- Pg. 23 -- (14)(b)(1)(a) MWWA has heard that the requirement for chlorine analyzers may be too costly for some of the very small systems and while there is provision in (b) for exemption, there is sometimes inconsistency between the regions on the approval of the waiver; MassDEP should address this with the regions.

310 CMR 22.05-Maximum Microbiological Contaminant Levels, Monitoring Requirements and Analytical Methods

- MWWA requests that MassDEP resolve the conflicting issues between the Groundwater Rule, Total Coliform Rule (TCR) and the Consumer Confidence Rule regarding public notification of fecal positives in source water for systems with 4-log removal. MWWA believes that raw water positives should not have to be reported if the water that is delivered to the consumer is appropriately treated. Notifying customers of fecal positives where no public health situation exists undermines the public's confidence in their drinking water. Since the federal rule does not require source water monitoring, we request MassDEP strike this requirement from the regulations. Samples that are not required by federal rule, and do nothing to better protect public health, are an additional financial burden for systems.

- Pg. 24 -- (1) (a) Indicates that sampling which occurs at storage facilities does not count towards the required number of distribution system samples. This is a change from the current TCR regulations and does not appear to be referenced in the Federal RTCR regulations. As long as storage facilities are a part of the water distribution system (not before the first customer) they provide a clean, controlled, accessible sample location that is representative of the distribution system water quality. We request that MassDEP change this to allow storage tanks to count towards the minimum samples required.

- Pg. 26 -- (1)(a)(3)(b). The statement of … "A Supplier of Water shall take at least the minimum number of required samples even if the Public Water System has had an E. coli MCL violation or has exceeded the coliform Treatment Technique triggers in 310 CMR 22.05(4)(a)." is confusing and can be mis-interpreted. The way it is written leaves room for the supplier to forgo sampling later in the month if the number of required samples in their sampling plan has been satisfied by repeat samples.

- Pg. 34 -- (g)(1) "….shall provide notification to the Department by calling the Department's Emergency notification telephone number and using any other electronic reporting tool designated by the Department, or other Department designated numbers. …." MWWA suggests that you should not require electronic reporting or change "and" to "or".

- Pg. 35 -- (4)(a) “Treatment Technique triggers. A Supplier of Water shall conduct assessments in accordance with 310 CMR 22.05(4)(b) after exceeding any Treatment Technique trigger in 310 CMR 22.05(4)(a)1. or 2.; and shall notify the Department as soon as possible but no later than five calendar days after the collection date of the sample that triggered the assessment.” The Federal RTCR does not speak to the 5 day timeframe so this should be removed.

- Pg. 36 -- (b)(1)(b) Level 2 Assessments conducted by Dept. approved parties. MassDEP indicated to its Safe Drinking Water Act Advisory Committee that they will allow public water systems to do their own Level 2 Assessments and in the instance of an E. coli positive, that MassDEP staff will accompany the system in the evaluation. MassDEP indicated that a certified operator at the same grade as the classification of the system would be eligible to complete the assessment. We would just caution MassDEP that a secondary operator may be a licensed operator at one grade lower than the classification of the system. As MassDEP moves forward with implementation, they should allow the primary or secondary operator, or an operator at the same grade as the classification of the system, to do the Level 2 assessment.

- Pg. 37 -- (4)(b)(3)(a) stipulates that the Level 1 assessment must be submitted no later than 30 days after the collection date. A system might not know it has tripped the trigger until the end of the month once all their sampling is complete so having a requirement based on the collection date is confusing.

- Pg. 43 -- (12)(a)(4) requires the supplier to report monitoring violations to MassDEP within 48 hours after discovering the violation. MWWA recommends changing that to 10 days as that was what was required in the Federal RTCR.

- Pg. 45 -- “The Department will review and revise as necessary the perchlorate MCL within six years of its promulgation taking into account new data on health effects, sources and occurrence, Treatment Techniques and associated issues, analytical feasibility and any other relevant information.” This language should be eliminated as it is now outdated and it is expected that EPA will be undertaking a review.

310 CMR 22.11B-PWS Certified Operator Staffing Requirements

- Pgs. 89-97 -- In 2011, MWWA worked with MassDEP to look at the Operator staffing section and make changes based on advances in technology for automated operations. MWWA feels some refinement is needed to what is being proposed in 22.11B in order to capture the intent of what the workgroup was recommending. MWWA is concerned that there is a lack of consistency in Section 22.11B of the regulations with respect to the uses of the terms “facility” and “system” and the fact that both terms could be subject to various

interpretations based on who is reading the regulations. In order to make it very clear, we are suggesting the following:

- A definition for a "Treatment Facility" needs to be added to 310 CMR 22.02 so that subsequent sections of 22.11B which reference "facility" or "system" can be clarified thereby eliminating unnecessary confusion by referring directly to a Treatment Facility, Distribution System or Public Water System

- The definition of "Satellite Facility" should be better defined by MassDEP in 310 CMR 22.02 to match its intended usage in 22.11B. A Satellite Facility is a Treatment Facility operated from within a staffed Public Water System and not just from a "facility" because facility is not defined. Simply stated, we want to ensure that MassDEP's regulations provide for a reasonable allowance of today's technology as it is possible to have fully automated monitoring, operation and control of what is happening in any part of a Public Water System through advanced SCADA technology and remote communications and controls.

- To be more concise and clear, there are several locations where the term "operated" should be replaced with the word "staffed." We recommend these changes given the fact that "operation" can be achieved automatically, manually, locally or remotely. When required, the physical presence of an operator is appropriately identified in the section.

Given that Public Water Suppliers are facing increased staffing challenges introduced by ever evolving treatment requirements and face the same inevitable budget pressures and staffing constraints that MassDEP is presently realizing, they should be able to leverage technology without sacrificing any public health protection. In fact, we believe within the past 10-20 years this technology has not only increased operational efficiencies but has increased the protection of public health and safety by providing real-time monitoring and controlling of not only critical systems but all systems and processes. We have rewritten the section and are providing the full text in redline/strikeout as Attachment 1 to our comments.

- Pg. 90 -- (4) Classification of Public Water Systems: MWWA is very concerned that the new classification system may cause some systems to be out of compliance if their current operators do not have the appropriate grade license should their treatment facility be reclassified. MassDEP has indicated to MWWA that there will be a policy to grandfather existing operators who work at these facilities. MWWA believes this is the appropriate course of action given that nothing has changed with respect to their operation of the system with the regrading on paper of the treatment facility.

- Pg. 96 -- Why is slow sand filtration called out separately? Would it not be classified as a Grade 1-4 Treatment facility above?

- Pg. 96 -- (5)(i)(2) VSS systems with certain treatment will now need Treatment OIT license; MWWA believes that lime contacting should not require an OIT Treatment license.

310 CMR 22.13-Variances

- Pg. 97-- MWWA believes MassDEP should allow for variances of Office of Research and Standards Guidelines (ORSG's), not just MCL's.

310 CMR 22.13A- Small System Variances

- Pg. 100 -- MWWA believes MassDEP should allow for variances of Office of Research and Standards Guidelines (ORSG's), not just MCL's.

310 CMR 22.15- General Reporting Requirements

- Pg. 104 -- (1)(b) replace "which indicates nitrate levels in excess of 10 mg/l" and replace with "which exceeds the Nitrate MCL as described in 22.06(13)(f)." MCL compliance based on average of two samples not one single sample.

- Pg. 104 -- (1)(c) – reporting by phone AND using any other electronic reporting tool (see comment made above that it should be and/or or eliminate electronic reporting).

- Pg. 104 -- (2) "Unless a shorter reporting period is prescribed elsewhere in 310 CMR 22.00, the Supplier of Water shall report to the Department the results of every test, measurement or analysis the Supplier of Water is required by 310 CMR 22.00 to make within the shorter of the following time periods: (a) the first ten days following the month in which the results are received or (b) the first ten days following the end of the required monitoring period as stipulated by the Department." This historic language (specifically the underlined language) should be revisited to reduce the reporting burden to the water supplier without adding any value to the regulator. Most compliance monitoring and tracking take place on a quarterly basis, submitting results and tabulations to meet the *shorter of the following time periods* requirements means submitting piecemeal information and creates a tracking and paperwork hurdle. There are already notification requirements if a result is above the MCL in place in 22.15 (1)(a) therefore, it is not necessary to receive the reports within 10 days of the results being received. Furthermore, MWWA recommends changing 10 days to at least 14 days after the end of the compliance period for reporting.

- Pg. 104 -- (5) Regarding the electronic submission of the Annual Statistical Report, MWWA believes that MassDEP should allow hardship exemptions for reasons aside from lack of internet access or service.

- Pg. 105 -- (8) What constitutes a “Local Drinking Water Health Advisory”? This term should be defined in the definitions section.

- Pg. 105 -- (8)(b) Given that Water Management Act permits now require all permittees to implement water use restrictions based on certain triggers, we do not feel it is appropriate to suggest that the supplier consider requesting a declaration of water supply Emergency….” A water supply Emergency should really only apply when there are system capacity issues. MWWA recommends revising this section to reflect that.

- Pg. 106 -- (9)(b)(1)(f) A pattern of unusual customer complaints should not need to be reported within 2 hours as it is not an emergency.

- Pg. 107 -- (e) (2) “A list and description of all Emergency response training provided to system personnel and local partners during the year.” MWWA made the comment above and the same concern applies to this section about making it clear who is required to attend rather than just stating “personnel.”

310 CMR 22.16A-CCR Reporting Requirements

- Pg. 133 -- (8) MassDEP should specify that that E. coli reporting is based on the total number of E. coli positive samples in the finished water, not in the raw water if the system has sufficient treatment.

- Pg. 154 -- Language for Manganese—MWWA believes that the language provided for CCR reporting is too lengthy and a distinction needs to be made between the language required when you are just at the SMCL versus the language required at the ORSG or if exceeding the health advisory. There is no other secondary contaminant (or regulated contaminant for that matter) with as high a word count as Manganese. MWWA requests MassDEP revise the table accordingly.

310 CMR 22.20A- Surface Water Treatment Rule

- Pg. 162 -- (5)(a)(2) “...Instruments used for continuous monitoring must be calibrated with a grab sample at least every five days…” MWWA suggests that “calibrated” be replaced with “verified.” Calibration is more involved (time consuming and costly) than merited every five days.

310 CMR 22.20G-Long Term Two Enhanced Surface Water Treatment Rule

- MWWA has questions on the one-year water quality monitoring program that appears to have been added for UV systems to be conducted "prior to validation testing". Is this an EPA suggested or required addition? Is prototype testing on standard models acceptable or do the actual units, after fabrication, have to be tested? The language for the one-year monitoring program seems to favor the latter.

- In areas of 22.20G the word "people" was stricken and the word "individuals" was inserted, but individuals is not defined in 22.02. MassDEP may want to define individuals or change to Persons which is defined.

310 CMR 22.23- Use of Non-Centralized Treatment Devices and Bottled Water

- Pgs. 199-200 -- MWWA believes that the language related to point of use and point of entry devices is best dealt with in the plumbing code and not in 310 CMR 22.00.

310 CMR 22.26-Groundwater Rule

- MWWA requests that MassDEP resolve the conflicting issues between the Groundwater Rule, Total Coliform Rule (TCR) and the Consumer Confidence Rule regarding public notification of fecal positives in source water for systems with 4-log removal. MWWA believes that raw water positives should not have to be reported if the water that is delivered to the consumer is appropriately treated. Notifying customers of fecal positives where no public health situation exists undermines the public's confidence in their drinking water. Since the federal rule does not require source water monitoring, we request MassDEP strike this requirement from the regulations. Samples that are not required by federal rule and do nothing to better protect public health are an additional financial burden for systems.

Other Comments:
On March 31, 2015 Governor Baker issued Executive Order 562 (EO 562) and directed all Commonwealth agencies to undertake a thorough review of their regulations, addressing very specific criteria, by March 31, 2016. 310 CMR 22.00 is a complex regulation and MassDEP has indicated in their regulatory review work plan that they are proposing to amend the regulation for "Federal conformity required for primacy of Revised Total Coliform Rule." Given the pressing need to get the Revised Total Coliform Rule promulgated by the April 1, 2016 federal deadline, we support moving these amendments forward. However, MWWA does still expect MassDEP to comply with the Governor's directive in EO 562 in a timely manner after promulgation of this package. We would appreciate it if MassDEP could articulate the schedule by which the EO 562 review of the entirety of 310 CMR 22.00 will be complete.

When the EO 562 process commences for the entirety of 310 CMR 22.00, MWWA would like MassDEP to strongly consider forming a workgroup to look specifically at 310

CMR 22.22 Cross Connections Distribution System Protection. MWWA feels that attention needs to be paid to the differing regulatory interpretations that systems encounter on the requirements and components of a residential cross connection control program.

MWWA appreciates the opportunity to submit these comments and we would be happy to meet with MassDEP staff should they have any questions or need further clarification on any of the comments we have submitted.

With Water Works Pride,

Jennifer A. Pederson
Executive Director

Enclosure: Attachment 1

Attachment 1

Amend the following definitions of 310 CMR 22.02 as follows:

22.02: Definitions

Direct Responsible Charge means accountability for and performance of active, daily on-site operation of the ~~facility~~ Treatment Facility or Distribution S~~s~~ystem, or a major segment of the Treatment ~~f~~Facility or Distribution ~~s~~ System where shift operation is not required. Where shift operation is required "Direct Responsible Charge" shall mean accountability for and performance of active, daily on-site operation of an operating shift, or a major segment of the operation of the Treatment ~~f~~Facility or Distribution ~~s~~System.

Primary Operator means any individual who is certified by the Board of Certification of Drinking Water Supply Facilities and has a grade certificate at least equal to the class of the ~~corresponding facility~~Treatment Facility or Distribution System at which he or she is employed. The Primary Operator shall be the individual who has direct supervision and responsibility for charge of the operation of a ~~facility~~ Treatment Facility and/or Distribution Systems who has active field supervision of the respective operation or who is required in the performance of their normal duties to give responsible, technical advice and supervision of the technical aspects rather than only general administrative supervision of the ~~treatment~~ Treatment Facility and/or ~~d~~Distribution System ~~of the water supply~~ and spends their working hours within the Public Water System at the ~~treatment facility or performing distribution system duties~~ and is knowledgeable of the Massachusetts Drinking Water Regulations, guidelines and policies. The Primary Operator of the facility shall hold a "Full Operator" status and cannot hold an "Operator-in-Training" certificate as defined in 236 CMR 4.05.

Satellite Facility means a ~~treatment~~ Treatment F~~f~~acility which is ~~operated and~~ controlled and monitored by an appropriately certified operator ~~from another staffed facility that is part of the~~working within the same Public Water System.

Secondary Operator means any individual who is certified by the Board of Certification of Operators of Drinking Water Supply Facilities and has an operator's license not less than one grade lower than the classification of the Treatment ~~f~~Facility or Distribution System at which they are employed. For Class III ~~treatment~~ Treatment ~~facilities~~ Facilities or higher, the Secondary Operator must also have at least six months working experience in a Class II ~~treatment facility~~Treatment Facility or higher. ~~A Secondary Operator shall be an individual who spends their working hours at the treatment facility as the shift supervisor or performs distribution system duties as a foreman or assistant superintendent and is knowledgeable of 310 CMR 22.00: *Drinking Water*, guidelines and policies.~~ A Secondary Operator shall be in Direct Responsible Charge during periods of time when the Primary Operator is temporarily absent or is not scheduled for duty. The Secondary Operator may hold an Operator-in-Training certificate as defined in 236 CMR 1.00 through 5.00.

Treatment Facility means a Public Water System location where the addition of any chemical or use of any treatment process to alter the physical, biological or chemical quality of source water, including treatment consisting only of Disinfection, is used for the production of drinking water for public consumption.

Amend 310 CMR 22.11B as follows:

22.11B: Public Water Systems Certified Operator Staffing Requirements

(1) Operation. Each Supplier of Water shall ensure that its Public Water System is ~~operated~~ staffed at all times

by a Primary and Secondary Operator for the treatment and distribution of drinking water, unless otherwise authorized in writing by the Department. Any Public Water System personnel who make decisions regarding the Public Water System's process control or operational integrity shall be certified pursuant to 236 CMR 1.00 through 5.00. Exemptions to this requirement are addressed in 310 CMR 22.11B(5). The Primary Operator shall be directly responsible for the operation of a ~~treatment facility~~Treatment Facility- and/or Distribution System. The Secondary Operator shall be directly responsible for the operation of a ~~treatment facility~~Treatment Facility and/or Distribution System or a major segment of the ~~facility~~Public Water System, during the temporary absence of the Primary Operator or during operational shifts when the Primary Operator is not scheduled to work. Persons exercising official general administrative duties such as city engineers exercising engineering design duties, elected water commissioners, clerks or administrative workers involved in customer relations, billing, payroll, timekeeping, *etc*. shall not be considered directly responsible for a Public Water System, unless otherwise authorized in writing by the Department.

(2) Staffing Requirements. In order to ensure the proper management, operation and maintenance of Public Water Systems, every Public Water System, except as provided in 310 CMR 22.11B(5), shall be operated as follows:

(a) Treatment - Primary Operator.

1. A Public Water System utilizing treatment shall be ~~operated~~ staffed, whenever the ~~treatment facility~~Treatment Facility is in operation, by a Primary Operator (*i.e*., a Certified Operator who has a grade certificate at least equal to the class of the ~~treatment facility~~Treatment Facility, as further defined in 310 CMR 22.02) who, except when temporarily absent, shall be:
   a. present at the ~~treatment facility~~Treatment Facility at least one seven-hour working shift each day for five days during each work week (meaning seven consecutive days); and
   b. available to respond in person to Emergencies at the ~~treatment facility~~Treatment Facility within one hour at all times when not present at the ~~treatment facility~~Treatment Facility.
2. A Supplier of Water may submit a written request for the Department to approve an alternative work schedule for the Primary Operator. The proposed alternative work schedule shall demonstrate that the Primary Operator will work at least 35 hours and at least four days each work week (as defined above) at the ~~treatment facility~~Treatment Facility to ensure its safe and proper operation.

(b) Treatment - Secondary Operator. A Public Water System utilizing treatment shall be ~~operated~~staffed, whenever the ~~treatment facility~~Treatment Facility is in operation, by a Secondary Operator (*i.e*., a Certified Operator who has a grade certificate not less than one grade lower than the classification of the ~~treatment facility~~Treatment Facility, as more fully defined in 310 CMR 22.02) who shall be:

1. present at the ~~treatment facility~~Treatment Facility on all working shifts when the Primary Operator is not required to be present; and
2. present at the ~~treatment facility~~Treatment Facility during any working shift when a Primary Operator is required to be present in accordance to 310 CMR 22.11B(2)(a)1. or 2., but is temporarily absent.

(c) Distribution - Primary Operator.

1. A Public Water System's Distribution System shall be ~~operated~~ staffed by a Primary Operator (*i.e.*, a Certified Operator who has a grade certificate at least equal to the class of the Distribution System, as more fully defined in 310 CMR 22.02) who, except for temporary absence, shall be:
   a. present at the Distribution System at least one seven-hour working shift each day for five days during each work week (as defined above); and
   b. available to respond in person to Emergencies with the Distribution System within one hour at all times when not present at the Distribution System.
2. A Supplier of Water may submit a written request for the Department to approve an alternative work schedule for the Primary Operator. The proposed alternative work schedule shall demonstrate that the Primary Operator will work at least 35 hours and at least four days each work week (as

defined above) at the Distribution System to ensure its safe and proper operation.

(d) Distribution - Secondary Operator. A Public Water System's Distribution System shall be ~~operated~~ staffed by a Secondary Operator (*i.e.*, a Certified Operator who has a certification not less than one grade lower than the classification of the Distribution System, as more fully defined in 310 CMR 22.02) who shall be:

1. present at the Distribution System on all working shifts when the Primary Operator is not required to be present; and
2. present at the Distribution System during any working shift when a Primary Operator is required to be present in accordance to 310 CMR 22.11B(2)(c)1. or 2., but is not present due to a temporary absence.

(e) Multiple Treatment Facilities.

1. A Supplier of Water whose Public Water System is classified as Grade 1T or 2T and consists of multiple ~~treatment~~ Treatment ~~facilities~~ Facilities shall not be required to staff each ~~treatment facility~~Treatment Facility individually.
2. A Supplier of Water whose Public Water System is classified as Grade 3T or 4T and consists of multiple Grade 3 or 4 ~~treatment~~ Treatment ~~facilities~~ Facilities shall staff each Treatment ~~f~~Facility individually, in accordance with its classification.
3. A Supplier of Water whose Public Water System is classified as Grade 3T or 4T and consists of a single Grade 3 or 4 ~~treatment facility~~Treatment Facility and one or more Grade 1 or 2 treatment facilities shall staff the higher grade ~~treatment facility~~Treatment Facility, but shall not be required to staff each lower grade ~~treatment facility~~Treatment Facility.

(f) Staffing and Comprehensive Operations Plan. A Supplier of Water, upon request from the Department, shall submit to the Department for review a "Staffing and Comprehensive Operations Plan" on a form provided by the Department and, if applicable, a Contract Operator Compliance Notice, demonstrating compliance with 310 CMR 22.11B(2).

(3) Primary and Secondary Operator Changes. Except for periods of temporary absence of no more than 30 days, whenever a Supplier of Water changes a Certified Operator responsible for primary or secondary supervision under 310 CMR 22.11B(1),

(a) the Supplier of Water shall report the change to the Department within seven days, thereafter;

(b) the Supplier of Water shall submit to the Department for review an updated "Staffing and Comprehensive Operations Plan" and, if applicable, a Contract Operator Compliance Notice, within 30 days of the change described in 310 CMR 22.11B(3)(a); and

(c) Unless otherwise authorized in writing by the Department, the Supplier of Water shall obtain a replacement Primary or Secondary Operator(s) of appropriate grade no later than 30 days from the date the current operator(s) ceases to perform the Primary or Secondary Operator duties.

(4) Classification of Public Water Systems. Each Public Water System shall be classified by the Department as either VND (Water Vending Machines), VSS (Very Small Systems), Treatment (I-T, II-T, III-T and IV-T), or Distribution (I-D, II-D, III-D, and IV-D). The increasing numerical class indicates an increasing complexity of operation and a higher level of training, knowledge, and experience required for operation. The certification grades for operators established in 236 CMR 3.02 and 236 CMR 3.04, shall correspond to the classification of the system as required under 310 CMR 22.11B(4). The overall classification of the Public Water System shall be equal to the classification of the numerically highest class unit within the ~~facility~~Public Water System.

(a) Rating Water Treatment Plants: A ~~Public Water System~~facility used by a Public Water System which adds any chemical or uses any treatment process, including treatment consisting only of Disinfection, shall be considered a ~~treatment facility~~Treatment Facility. The class of a Public Water System shall be established by adding together all rating values reflecting the complexity of operation for units which are present in the Treatment ~~f~~Facility, as set forth in 310 CMR 22.11B. Each unit process should have points assigned only

once.

1. [Reserved]
2. [Reserved]
3. [Reserved]
4. [Reserved]

Item	**Points Possible**
Size	
Design flow average day, or peak month's average day, whichever is larger (1 point per 0.5 MGD. Round up.) Design flow: Consider this to be the design capacity of the plant. Examples: 9.2 MGD = 19 points 4.7 MGD = 10 points (20 points maximum allowed)	1 - 20
Water Supply Sources (Rating based on public health significance)	
Seawater/ saltwater	0
Groundwater	0
Groundwater Under Direct Influence of Surface Water (GWUDI)	8
Surface Water	10
Average Raw Water Quality Variation - Applies to all sources (surface and groundwater). Key is the effect on treatment process changes that would be necessary to achieve optimized performance. x Little or no variation - no treatment provided except Disinfection (0 points) x Minor variation - *e.g.* "high quality" surface source appropriate for Slow Sand Filtration (1 point) x Moderate variation in chemical feed, dosage changes made: monthly (2 points),weekly (3 points), or daily (4 points) x Variation significant enough to require pronounced and/or very frequent changes (5 points) x Severe variation - source subject to non- point discharges, agricultural/ urban storm runoff, flooding (7 points) x Raw Water quality subject to agricultural or municipal waste point source discharges (8 points) x Raw Water quality subject to industrial waste pollution (10 points)	0 - 10
Raw Water quality is subject to:	
* Taste and/or odor for which treatment process adjustments are routinely made - ***see exceptions in Note 1 at end of table***	2
* Color > 15 CU (not due to precipitated metals) - ***see exceptions in Note 1 at end of table***	3
* Iron or/and manganese > SMCL: Fe (2 points), Mn (3 points) (3 points maximum allowed) - ***see exceptions in Note 1 at end of table***	2 - 3
* Algal growths for which treatment process adjustments are routinely made - ***see exceptions in Note 1 at end of table***	3
Chemical Treatment/Addition Processes	
Fluoridation	4
Disinfection/Oxidation (Note: Points are additive to a maximum of 15 points allowed for this category.) CHECK ALL THAT APPLY: * Chlorination: * Hypochlorites (5 points) ~ * If generated on site (add 1 point) ~ * Chlorine gas (8 points) ~ * Chloramination (10 points) ~ * Chlorine dioxide (10 points) ~ * Ozonation (10 points) ~ * UV Irradiation (2 points) ~ * Iodine, Peroxide, or similar (5 points) ~ * Potassium permanganate (4 points) ~ (If used with green sand filtration do not give 4 points)	0 - 15
pH adjustment for process control (*e.g.*, pH adjustment aids Coagulation)	4
Stability or Corrosion Control (If the same chemical is used for both Corrosion Control and pH adjustment, count points only once)	4

Item	Points Possible
Coagulation/Flocculation & Filter Aid	
Primary coagulant addition	6
Coagulant aid / Flocculant chemical addition (in addition to primary coagulant use)	2
Flocculation	2
Filter aid addition (Non-ionic/anionic polymers)	2
Clarification/Sedimentation	
Sedimentation (plain, tube, plate)	4
Contact Adsorption	6
Other clarification processes (air flotation, ballasted clarification, etc.)	6
Upflow clarification ("sludge blanket clarifier") - ***see Note 2 at end of table***	8
Filtration	
Granular media filtration (Surface Water/GWUDI) less than or equal to 3 gpm/sq ft	10
Granular media filtration (Surface Water/GWUDI) greater than 3 gpm/sq ft	20
Groundwater Filtration	6
Membrane Filtration * For compliance with a primary MCL, Treatment Technique, MRDL, Action Level or any standards specific to an individual Public Water System established pursuant to a health assessment as provided in 310 CMR 22.03(8) (10 points) * For compliance with a Secondary MCL regulation (6 points)	6 - 10
Diatomaceous Earth (pre-coat filtration)	10
Cartridge/bag	5
Pre-filtration (staged cartridges, pressure sand w/o Coagulation, etc.): add one point per stage to maximum of 3 points	1 - 3
Slow sand	5
Other Treatment Processes	
Aeration	3
Air stripping (including diffused air, packed tower Aeration)	5
Ion-exchange/softening	5
Green sand Filtration	10
Lime-soda ash softening (includes: chemical addition, mixing/flocculation/clarification/Filtration - do not add points for these processes separately)	20
Granular activated carbon filter (do not assign points when included as a bed layer in another filter)	5
Powdered activated carbon	2
Blending sources with significantly different water quality * To achieve MCL, MRDL, Action Level or any standards specific to an individual Public Water System established pursuant to a health assessment as provided in 310 CMR 22.03(8) (4 points)	2 - 4
Reservoir management employing chemical addition	2
Electrodialysis	15
Other: The Department may assign 2 to 15 additional points for processes not listed elsewhere in this table.	2 - 15
Residuals Disposal	
* Discharge to surface, sewer, or equivalent (0 points) * On-site disposal, land application (1 point) * Discharge to lagoon/drying bed, with no recovery/recycling – *e.g.* downstream outfall (1 point) * Backwash recovery/recycling: discharge to basin or lagoon and then to source (2 points) * Backwash recovery/recycling: discharge to basin or lagoon and then to Plant Intake (3 points)	0 - 3
Treatment Facility Characteristics	
Instrumentation - Use of SCADA or similar instrumentation systems to provide data, with: * Monitoring/alarm only, no process operation - plant has no automated shutdown capability (0 points) * Limited process operation - *e.g.* remote shutdown capability (1 point) * Moderate process operation - alarms and shutdown, plus partial remote operation of plant (2 points) * Extensive or total process operation - alarms and shutdown, full remote operation of plant possible (4 points)	0 - 4

Notes:

1 - Raw Water quality is subject to:

- Taste and/or odor for which treatment process adjustments are routinely made (2 points): 1) taste and/or odor issue has been identified in a pre-design report, etc., 2) a process has been installed to address, and 3) operational control adjustments are made at least seasonally. Do not give points for taste and/or odor when there is no specific additional impact on operation. *E.g.* if a system is already pre-chlorinating for Disinfection, give no points for taste and/or odor.
- Color > 15 CU (not due to precipitated metals) (3 points) with following exceptions. Color will be considered elevated and points assigned when levels exceed 75 Color Units (CU) for conventional filtration, 40 CU for Direct Filtration, or 15 CU for all other technologies, except Reverse Osmosis (no points given for color for Reverse Osmosis).
- Iron and/or manganese > SMCL: Fe (2 points), Mn (3 points) (3 points maximum allowed) with following exceptions. Iron and manganese levels will be considered elevated and points assigned if they are greater than the SMCL, except for applications of manganese greensand filters. For applications of manganese greensand filters, iron and manganese levels will be considered elevated when their combined level exceeds 1.0 mg/L or if manganese exceeds 0.3 mg/L (3 points allowed).
- Algal growths for which treatment process adjustments are routinely made (3 points): Raw Water will be considered subject to algae growths when treatment processes are specifically adjusted due to the presence of high levels of algae on at least a weekly basis for at least two months each year.

2 - Upflow clarification ("sludge blanket clarifier") – 8 points – Also known as sludge blanket clarification. Includes such proprietary units as Super-Pulsator. These units include processes for flocculation and Sedimentation. Important note: these are not the same as Adsorption clarifiers.

5. Point System: Water ~~treatment~~ Treatment ~~facilities~~ Facilities shall be classified according to the following points system:

Class I-T	30 Points and less
Class II-T	31 to 55 points
Class III-T	56 to 75 points
Class IV-T	76 points and greater

(b) Water Vending Machines with Treatment. Free standing vending machines consisting of filters with the addition of chemicals and/or Reverse Osmosis system shall be classified as follows:

2000 gal per day and less	Class I-VNDT
2001 gal per day to 5000	Class II-VNDT
5001 gal per day to 50000	Class III-VNDT
50001 gal per day and grater	Class IV-VNDT

(c) Rating Distribution Systems: Distribution Systems shall be rated according to the population served as follows except for Non-Community Water Systems:

500 and less	VSS (Very Small System)
501 to 1,500	Class I-D
1,501 to 15,000	Class II-D
15,001 to 50,000	Class III-D
50,001 and greater	Class IV-D

All Non-community Water Systems shall be classified as Very Small Systems (VSS) regardless of population served.

(d) Water Vending Machines without Treatment. Free standing vending machines consisting of filters,

and/or ultra-violet Disinfection systems with no chemical addition shall be classified as follows:

500 gal per day and less VND-ID (Water Vending Machine)

501 gal per day and more VND-IID

(e) Bulk or Bottled Water: Water that is treated to be distributed in bulk or as bottled water shall be classified as stated in 310 CMR 22.11B(4)(b) and (4)(d) unless otherwise authorized in writing by the Department.

(f) Specific Rating Values: The Department may establish a rating value for any system or unit not shown on the table. The Department may change the classification of a particular Treatment ~~f~~Facility when there are site-specific factors affecting the operation of the Public Water System or complexity of the treatment process.

(5) Exemptions: The Department may exempt any Supplier of Water from the requirements of 310 CMR 22.11B(1) and (2), as follows.

(a) The Department shall not grant any exemption unless the Supplier of Water demonstrates to the Department's satisfaction that:

1. due to compelling factors the Supplier of Water is unable to comply with the requirements of 310 CMR 22.11B(1) or (2);
2. the granting of the requested exemption will not result in an unreasonable risk to health or impair the quality of water which is being delivered to the Public Water System's consumers;
3. the Supplier of Water can ensure the proper ~~operation~~ staffing of the Public Water System and can detect any malfunctions in the operation of the ~~treatment facility~~Treatment Facility or Distribution System in the absence of the Primary Operator;
4. the Primary Operator is able to respond to Emergencies within a reasonable period of time. In no event shall an Emergency response time greater than one hour be deemed reasonable;
5. the Primary Operator is responsible for the operation of the Public Water System at all times whether or not present in person; and
6. any individual ~~utilized~~ employed by the Supplier of Water to operate the Public Water System and to detect any malfunctions in the operation of the Public Water System in the absence of the Primary Operator, is properly trained by, and is acting under the direction of, the Primary Operator.

(b) Staffing and Comprehensive Operations Plan: A Supplier of Water requesting an exemption under 310 CMR 22.11B(5) shall submit to the Department for review and approval a "Staffing and Comprehensive Operations Plan" for the Public Water System.

(c) Part-time Operation. With the prior written approval of the Department, a Supplier of Water whose Public Water System is classified as a I-D or I-T facility or less may reduce the staffing requirements of 310 CMR 22.11B(1) and (2) by ~~operating~~ staffing the Public Water System ~~facility~~ on a part-time basis. A Supplier of Water seeking a reduction in the staffing requirements shall be subject to the conditions listed at 310 CMR 22.11B(5)(a)1. through 6. and 310 CMR 22.11B(5)(b). The Primary and Secondary Operators or both may be allowed to staff~~operate~~ the ~~treatment facility~~Treatment Facility or Distribution System on a part-time basis.

(d) ~~Water Treatment Facility~~Public Water System - Automated Operations. Increased instrumentation, automation and SCADA systems may be used to reduce the number of on-site staff required during periods of routine operation. A Public Water System which has been designed for off-site monitoring may apply to the Department for an exemption from the requirements of 310 CMR 22.11B(1) and (2).

1. The Department shall use, but not be limited to, the following factors in making its determination to evaluate whether a Treatment ~~f~~Facility or Public Water ~~s~~System can reduce the number of staff required to operate a Treatment ~~f~~Facility or Public Water ~~s~~System:
   a. the complexity and type of the treatment process,
   b. the size of storage tanks and clearwells,
   c. the estimated length of time for water quality to deteriorate from a treatment process failure such that unsafe or impure levels of drinking water are present in the Distribution System,
   d. the variability of source water quality,

e. the degree of sophistication, reliability and control of the instrumentation monitoring and control system,

f. the location of the off-site monitoring site with respect to operator response and/or travel time to the ~~treatment facility~~Treatment Facility,

g. the adequacy of the Emergency response plan when alarms or out-of-range parameters are reported by Treatment ~~f~~Facility instrumentation,

h. the capabilities of a ~~system or~~Treatment ~~f~~Facility to be shut down during a critical alarm condition,

i. the ability of the Public Water S~~s~~ystem to provide at least 12 hours of safe water for the correction of a process malfunction,

j. the ability of improperly treated water to be flushed from the water Distribution System prior to the first customer without an interruption of water service,

k. demonstration that the Public Water ~~s~~System has adequate capacity to repair and maintain the automated controls or show that it has an agreement with a third party to do so, and

l. secured remote access.

2. The ~~treatment facility~~Treatment Facility or Distribution System shall include where applicable, but not limited to, instrumentation to continuously ~~-~~monitor, control, record and maintain historical data for critical processes at established regulatory compliance points such as:

a. water storage tank levels at the ~~treatment facility~~Treatment Facility and in the Distribution System,

b. chemical storage tank levels

c. disinfection equipment.

d. critical chemicals or treatment processes including, but not limited to:

i. pH,

ii. Turbidity,

iii. Disinfectant residual,

iv. fluoride (if using hydrofluorosilicic acid), or

v. surrogate measures as approved by the Department.

3. The ~~treatment facility~~Treatment Facility or Distribution System shall include where applicable, but not limited to, alarms to detect and notify operators in the event of a process failure or condition that could present a concern such as:

a. high and low water storage tank levels at the ~~treatment facility~~Treatment Facility and in the Distribution System,

b. critical chemicals including, but not limited to:

i. pH,

ii. Turbidity,

iii. Disinfectant residual,

iv. fluoride (if using hydrofluorosilicic acid), or

v. surrogate measures as approved by the Department

c. gaseous chlorine leaks,

d ozone leaks,

e. fire and intrusion,

f. power failures and generator operational status,

g. critical pumps and motors

h. bulk chemical tank volumes (high and low levels), and

i. loss of communication.

(e) 4T Systems: A Public Water System classified as 4T and meeting the requirements of 310 CMR 22.11B(5)(d), with the exception of ~~satellite~~ Satellite Facility or seasonal Treatment ~~f~~Facility as described in 310 CMR 22.11B(7), shall be staffed for a minimum of eight hours per day during the days when the

~~treatment facility~~Treatment Facility and/or filtration units are in operation. The Treatment ~~f~~Facility shall be staffed in accordance with the Treatment ~~f~~Facility classification.

(f) 3T Systems: A Public Water System classified as 3T and meeting the requirements of 310 CMR 22.11B(5)(d), with the exception of S~~s~~atellite Facility- or seasonal Treatment ~~f~~Facility as described in 310 CMR 22.11B(7), shall be staffed for a minimum of eight hours per day during the days when the ~~treatment facility~~Treatment Facility and/or filtration units are in operation, unless otherwise approved by the Department. The facility shall be staffed in accordance with the Treatment ~~f~~Facility classification.

(g) 2T System or Less: A Public Water System classified as 2T or less and meeting the requirements of 310 CMR 22.11B(5)(d), with the exception of S~~s~~atellite Facility or seasonal Treatment ~~f~~Facilities as described in 310 CMR 22.11B(7) shall be staffed for a minimum of four hours per day every Monday through Friday when the ~~treatment facility~~Treatment Facility is in operation, unless otherwise approved by the Department. The Treatment ~~f~~Facility shall be staffed in accordance with the Treatment ~~f~~Facility classification.

1. Weekend/Holiday Coverage: Each operating Treatment F~~f~~acility must be visited by a Certified Operator at least once per day on weekends and holidays.

(h) Slow Sand Filtration: A Slow Sand Filtration process meeting the requirements of 310 CMR 22.11B(5)(d) shall be staffed by the Primary Operator at a minimum of two hours per day every Monday through Friday when the Filtration process is in operation. Weekend/Holiday Coverage shall be in accordance with 310 CMR 22.11B(5)(g)1.

(i) Very Small Systems and Non-Community Water Systems.

1. A Secondary Operator is not required for Public Water Systems classified as a very small system (VSS), Transient Non-Community or Non-Transient Non-Community Water Systems. However, during the times when the Primary Operator is temporarily absent (*i.e.* absences not exceeding 30 days), a Certified Operator who has a certification which corresponds to the class of the facility or higher shall be retained during the absence of the Primary Operator to respond in the event of an Emergency. In no event shall an Emergency response time greater than one hour be deemed reasonable.
2. A Public Water System classified as a very small system (VSS), Transient Non-community or Non-transient Non-community Water System, utilizing one or more of the following treatment processes may be operated by a Primary Operator with a VSS Full license and an operator-in-training (OIT) treatment license equal to the classification of the treatment system:
   a. Disinfection (provided Disinfection is not required to meet the treatment requirements of 310 CMR 22.20A, 310 CMR 22.20D, 310 CMR 22.20F, 310 CMR 22.20G or 310 CMR 22.26),
   b. lime contactor,
   c. ion-exchange, or
   d. in-line bag or Cartridge Filter that is not providing pathogen removal.

(6) Contract Services

(a) A Supplier of Water may contract for the services of a Certified Operator to meet the requirements of 310 CMR 22.11B(1) and (2) provided that the Supplier of Water submits for the Department's review a Contract Operator Compliance Notice and "Staffing and Comprehensive Operations Plan" in accordance with 310 CMR 22.11B(5)(b), and in a format specified by the Department, within 30 days of execution of the contract.

(b) A Supplier of Water who contracts for the services of a Certified Operator shall ensure that the Certified Operator conducts, at a minimum, monthly on-site inspections. The Department may require more frequent inspections if it determines an increased frequency to be necessary based on the complexity of the Public Water System or compliance issues. During each inspection, the Certified Operator shall record the details of the inspection in writing. The Supplier of Water shall maintain all inspection forms and records on site for a minimum of five years from the date of the inspection and shall make them available to the Department upon request.

(7) Satellite Facility or Treatment ~~f~~Facility part of a Seasonal System: A staffed Public Water System~~s~~ which has ~~a staffed facility with~~ centralized ~~water treatment~~ operations meeting the requirements of 310 CMR 22.11B and has one or more Satellite Facilities or Treatment ~~f~~Facilities which are part of a Seasonal System may, subject to the Department's written approval, operate such Treatment ~~f~~Facilities from the staffed ~~facility~~Public Water System using remote control of key functions sufficient to permit normally unstaffed operation, provided that such ~~facilities~~Public Water Systems comply with the following:

(a) all requirements set forth in 310 CMR 22.11B(5)(d);

(b) all requirements set forth in 310 CMR 22.11B(5)(a)1. through 5.;

(c) all requirements set forth in 310 CMR 22.11B (5)(b). ;

(d) Treatment ~~f~~Facility maintenance, chemical deliveries and other actions requiring the physical presence of certified operators shall be provided on the basis of visits to such Treatment ~~f~~Facilities from the staffed ~~facility~~Public Water System; and

(e) each such Treatment ~~f~~Facility which is in operation shall be visited by a Certified Operator at least once per day to visually check and verify the local instrumentation readings between such Treatment ~~f~~Facilities and the centralized operations of the ~~local instrumentation at the~~ staffed ~~facility~~ Public Water System and, if applicable, between such Treatment ~~f~~Facilities and off-site instrumentation.

(8) Facility Verification: Before and after unstaffed operation periods, certified operators must check and confirm the validity and accuracy of data transmitted between the ~~treatment facility~~Treatment Facility and off-site location and make entry in the Treatment ~~f~~Facility log of any critical malfunctions. Critical ~~M~~malfunctions must be corrected prior to further unstaffed operation of the ~~treatment facility~~Treatment Facility or Distribution System.