

Acceptable Annual Water Supply Start-up Procedures for Seasonal Public Water Systems

January 2016

According to the Revised Total Coliform Rule (40 CFR 141.857) all seasonal Public Water Systems (PWS) must demonstrate completion of a State-approved start-up procedure, prior to serving water to the public. A seasonal system is defined as a non-community water system that is operated in three or fewer calendar quarters per calendar year. A facility operator of a seasonal PWS must ensure that an acceptable annual start-up procedure, as described below, is completed before the PWS can open and serve water to the public. The procedures described may also be applicable to systems that do not operate year round but are not considered seasonal (e.g. PWS open for 10 – 11 months) and non-public water systems.

Only the start-up procedure(s) that are specified for the facility's potable water system type may be used. Start-up procedures must be completed at least 15 days prior to opening for the season.

**Certification that an acceptable start-up procedure was performed must be submitted to the local health department, along with a copy of any pre-season coliform samples and disinfectant residuals that were collected.*

General Start- up Procedure

Annual Water Supply Start-up Disinfection Procedure

All water mains that are not subject to continuous water use shall be disinfected by completely filling to remove all air pockets, flushing the main to remove particulates, and filling the main with potable water. The potable water shall then be chlorinated by feeding liquid hypochlorite at a constant rate such that the water will not have less than a 25 ppm free chlorine residual throughout the facility water system. After a 24-hour holding period there must be a free chlorine residual of not less than 10 ppm throughout the facility water system.

Acceptable Alternate Start-up Procedures (water system type specific)

A. Water System Type: On-site Water System Using Chlorine Disinfection

1. Flush the well (when applicable) and chlorine contact tanks by running water from a tap nearest the water supply source until the water appears to be free of particulates and discoloration.
2. Install the chlorination equipment and ensure that it is operational.
3. Flush all water lines thoroughly utilizing continuous chlorination until a free chlorine residual of at least 2.0 ppm is measured at all taps in the distribution system. Shut off all taps

and allow the water to remain undisturbed in the water lines for 24 hours. Evaluate the system for leaks and pressure loss.

4. If the pressure (20 psi minimum) and chlorine residual (0.2 ppm minimum) are acceptable, flush the distribution system again until the water appears to be free of particulates and discoloration. Confirm that a free chlorine residual of at least 0.2 ppm is present in the distribution system and then shut off all taps and allow the water to remain undisturbed for another 24 hours.

*If the system was unable to maintain adequate pressure or a free chlorine residual, correct the problem and repeat steps 2 and 3 before continuing.

5. After 24 hours, (48 hours total), flush each tap and confirm that a free chlorine residual of at least 0.2 ppm but less than 4.0 ppm is present. Collect at least one water sample for Total Coliform¹ analysis from a representative point in the distribution system for each water source. Submit the sample(s) to a laboratory certified by the New York State Department of Health (NYSDOH). Water sample analysis reports must be submitted to the Local Health Department (LHD) prior to opening for the season.

B. Water System Type: On-site Water System Using Ultra-violet (UV) Disinfection

1. Flush the well by running water from a tap nearest the well until the water appears free of particulates and discoloration.
2. Install the ultra-violet disinfection equipment and ensure that it is operational.
3. Flush all water lines on the system with UV treated water until the water appears to be free of particulates and discoloration, and the distribution system is completely filled with treated water. Shut off all taps and allow the water to remain undisturbed in the water lines for 24 hours. Evaluate the system for leaks and pressure loss.
4. If the pressure (20 psi minimum) is acceptable, flush the distribution system again until the water appears to be free of particulates and discoloration.

*If a problem was discovered regarding maintaining adequate pressure, correct the problem and repeat step three (3) before continuing.

5. Collect at least one water sample for Total Coliform¹ analysis from a representative point in the distribution system and submit the sample to a laboratory certified by the NYSDOH. Water sample analysis reports must be submitted to the LHD prior to opening for the season.

C. Water Source: On-site Water System with disinfection waiver

1. Flush the well by running water from a tap nearest the well until the water appears free of particulates and discoloration.

and allow the water to remain undisturbed in the water lines for 24 hours. Evaluate the system for leaks and pressure loss.

4. If the pressure (20 psi minimum) and chlorine residual (0.2 ppm minimum) are acceptable, flush the distribution system again until the water appears to be free of particulates and discoloration. Confirm that a free chlorine residual of at least 0.2 ppm is present in the distribution system and then shut off all taps and allow the water to remain undisturbed for another 24 hours.

*If the system was unable to maintain adequate pressure or a free chlorine residual, correct the problem and repeat steps 2 and 3 before continuing.

5. After 24 hours, (48 hours total), flush each tap and confirm that a free chlorine residual of at least 0.2 ppm but less than 4.0 ppm is present. Collect at least one water sample for Total Coliform¹ analysis from a representative point in the distribution system for each water source. Submit the sample(s) to a laboratory certified by the New York State Department of Health (NYSDOH). Water sample analysis reports must be submitted to the Local Health Department (LHD) prior to opening for the season.

B. Water System Type: On-site Water System Using Ultra-violet (UV) Disinfection

1. Flush the well by running water from a tap nearest the well until the water appears free of particulates and discoloration.
2. Install the ultra-violet disinfection equipment and ensure that it is operational.
3. Flush all water lines on the system with UV treated water until the water appears to be free of particulates and discoloration, and the distribution system is completely filled with treated water. Shut off all taps and allow the water to remain undisturbed in the water lines for 24 hours. Evaluate the system for leaks and pressure loss.
4. If the pressure (20 psi minimum) is acceptable, flush the distribution system again until the water appears to be free of particulates and discoloration.

*If a problem was discovered regarding maintaining adequate pressure, correct the problem and repeat step three (3) before continuing.

5. Collect at least one water sample for Total Coliform¹ analysis from a representative point in the distribution system and submit the sample to a laboratory certified by the NYSDOH. Water sample analysis reports must be submitted to the LHD prior to opening for the season.

C. Water Source: On-site Water System with disinfection waiver

1. Flush the well by running water from a tap nearest the well until the water appears free of particulates and discoloration.

2. Flush all water lines on the system until the water appears to be free of particulates and discoloration, and the distribution system is completely filled with water. Shut off all taps and allow the water to remain undisturbed in the water lines for 24 hours. Evaluate the system for leaks and pressure loss.
3. If the pressure (20 psi minimum) is acceptable, flush the distribution system again until the water appears to be free of particulates and discoloration.


*If a problem was discovered regarding maintaining adequate pressure, correct the problem and repeat step 2 before continuing.

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4. Collect at least one water sample for Total Coliform¹ analysis from a representative point in the distribution system and submit the sample to a laboratory certified by the NYSDOH. Water sample analysis reports must be submitted to the LHD prior to opening for the season.

D. Water Source: Off-site Public Water System

1. Flush the seasonal use distribution lines with water from the approved off-site system until a detectable free chlorine residual* is present in the distribution system and the water appears to be free of particulates and discoloration. Shut off the taps and allow the water to remain in the lines undisturbed for 24 hours.
2. After 24 hours, flush each tap until the water appears to be free of particulates and discoloration, and confirm that a detectable free chlorine residual* is present in the distribution system. Shut off the taps and allow the water to remain in the lines undisturbed for another 24 hours.
3. After 24 hours, (48 hours total), flush each tap and confirm that a detectable free chlorine residual* is present in the distribution system. Collect at least one Total Coliform water sample from a representative point in the distribution system and submit it to a laboratory certified by the NYSDOH. Water sample analysis reports must be submitted to the LHD prior to opening for the season.

*If no residual appears after continued flushing, please notify the operator of the PWS and the LHD.



Footnote 1: At least one Total Coliform sample must be collected in the distribution system prior to serving water to the public. Additional representative sampling and subsequent lab report result submission may be required in accordance with requirements specified in applicable Parts of the State Sanitary Code (6, 7, 14, 15, and 17.)

Theresa Moore
Supervising PHE

Tyler Shaw
Env. Health Director

Lori Ballengee
Director

Laurie Hennessy
DPS

David Rahr
Accountant

January 4, 2018

To: Seasonal Water Systems

Re: Seasonal Water System Start-Up

According to our records your water system is currently seasonal in nature. The following items **MUST** occur before serving water to the public:

1. Conduct state-approved start-up procedures (see attached sheet)
2. Certify completion of state-approved start-up procedures (return this to our office)
3. Contact our office for sampling **PRIOR** to serving any water to the public

If you would like more information regarding the Revised Total Coliform Rule please visit the EPA website link <http://www.epa.gov/dwreginfo/revised-total-coliform-rule-and-total-coliform-rule>.

Please contact this office at (585) 268-9250 if you have any questions.

Sincerely,



Tyler J. Shaw, MHA
Environmental Health Director



Seasonal System Start-Up Procedure Certification Form

Public Water System Name: _____

Public Water System ID #: _____

The public water system named above hereby confirms that the appropriate start-up procedures were completed according to the "Acceptable Annual Water Supply Start-up Procedures for Seasonal Public Water Systems" document. These procedures were completed before serving any water to the public. Further, the system certifies that the information contained in this report is correct and consistent with all previous information submitted to the health department.

Certified by: Name: _____

Title: _____

Signature: _____

Date: _____

Please indicate which start-up procedure was used:

- General Start-Up Procedure
- Alternate A: On-site Water System Using Chlorine Disinfection
- Alternate B: On-site Water System Using Ultra-violet (UV) Disinfection
- Alternate C: On-site Water System with disinfection waiver
- Alternate D: Off-site Public Water System

Directions:

All seasonal water systems must submit this certification form before serving water to the public along with a copy of any pre-season coliform samples and disinfectant residuals that are collected to the local health department having jurisdiction.

Please Return To:
Allegany County DOH
7 Court Street
Belmont, New York 14813