

**DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT**

**Water Quality Control Commission**

**REGULATION NO. 11 - COLORADO PRIMARY DRINKING WATER REGULATIONS**

**5 CCR 1002-11**

*[Editor's Notes follow the text of the rules at the end of this CCR Document.]*

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**11.1 AUTHORITY AND PURPOSE**

**11.1(1) Authority**

The Water Quality Control Commission has promulgated the *Colorado Primary Drinking Water Regulations* pursuant to sections 24-4-104, 24-4-105, 25-1.5-101, 25-1.5 Part 2, 25-1-109, 25-1-114, 25-1-114.1, and 25-8-202, Colorado Revised Statutes.

**11.28 STORAGE TANK RULE**

**11.28(1) Applicability and Definitions**

- (a) All public water systems that use finished water storage tanks must comply with the requirements specified in this rule..
- (b) "COMPREHENSIVE INSPECTION" means an internal and external storage tank inspection to identify sanitary defects that covers all aspects of the condition of the storage tank including but not limited to sanitary, structural, and coating systems conditions, as well as security and safety concerns.
- (c) "FINISHED WATER STORAGE TANK" means a tank or vessel owned by the supplier that is located downstream of the entry point and is not pressurized at the air water interface. Pressurized storage tanks are not included in the definition of finished water storage tanks.
- (d) "PERIODIC INSPECTION" means a visual external storage tank inspection that is typically performed by the supplier to identify evident sanitary defects (e.g., lack of screens on vents).

**11.28(2) Written Plan for Finished Water Storage Tank Inspections Requirements**

- (a) The supplier must develop and maintain a written plan for finished water storage tank inspections which must include all of the following:
  - (i) An inventory of finished water storage tank(s) including all of the following information for each finished water storage tank:
    - (A) Tank type and construction materials (e.g., elevated, buried, etc.).
    - (B) Volume in gallons.
    - (C) Approximate dimensions.
    - (D) Location.

- (E) Number of inlets, outlets, overflows, hatches, and vents.
- (F) Coating systems.
- (G) Date put in service.
- (H) Rehabilitation and major maintenance history.
- (ii) The methods for performing and documenting periodic and comprehensive inspections for each finished water storage tank including identification of qualified personnel to perform periodic and comprehensive inspections.
- (iii) The schedule for performing periodic and comprehensive inspections for each finished water storage tank. The supplier may conduct inspections more frequently than the minimum requirements listed below.
  - (A) Periodic inspections of each finished water storage tank must be performed at least twice each calendar year.
    - I. For systems operating year-round, in order for a periodic inspection to be considered as applying toward the minimum number of two per year, the periodic inspections must be separated by at least two (2) calendar months but not more than eight (8) calendar months on a continuous year-to-year basis.
    - II. For seasonal systems, a periodic inspection must be completed during Department-approved start-up procedures as specified in 11.16(6)(a) and at least once while serving water to the public. There must be at least 30 days between the first inspection at start-up and the last periodic inspection within a calendar year.
  - (B) Comprehensive inspections of each finished water storage tank must be scheduled and performed at least every five calendar years or on an alternative schedule.
  - (C) If the supplier schedules periodic or comprehensive inspections on an alternative schedule, the supplier must provide justification for the alternative schedule in the written plan for finished water storage tank inspections. The justification for the alternative schedule must be acceptable to the Department.
- (iv) The timelines for correcting typical storage tank sanitary defects that the supplier will use to develop corrective action schedules. The supplier must at least address timelines for the following typical sanitary defects: improper screening or protection on vents and overflows, inadequate hatches, and unprotected openings.
- (b) The written plan for finished water storage tank inspections is subject to Department review and revision.

**11.28(3) Treatment Technique Requirements for Storage Tanks**

- (a) The supplier is prohibited from using uncovered finished water storage tanks.
  - (i) "UNCOVERED FINISHED WATER STORAGE TANK" means a tank, reservoir, or other facility used to store water that will undergo no further treatment except residual disinfection and that is open to the atmosphere.

- (b) The supplier must operate and maintain finished water storage tanks so that they are free of sanitary defects.
- (c) The supplier must perform periodic ~~and comprehensive~~ inspections of each finished water storage tank.
- ~~(d) The supplier must perform comprehensive inspections of each finished water storage tank. If a third party (e.g. diving company) performs a storage tank inspection, the supplier must interpret the inspection observations and properly identify sanitary defects.~~
- (~~ed~~) The supplier must implement the written plan for finished water storage tank inspections.
- (~~fe~~) If any sanitary defects are identified during a periodic or comprehensive inspection, the supplier must develop and implement a corrective action schedule for correcting each sanitary defect.
- (~~gf~~) The supplier must develop an inspection summary no later than 60 days after each completed inspection that includes all of the following information:
  - (i) The date and type of inspection performed.
  - (ii) Inspection findings and tank conditions.
  - (iii) Any sanitary defects identified during the inspection.
  - (iv) If sanitary defects are identified, the corrective action schedule for correcting sanitary defects.
  - (v) If sanitary defects are identified, the corrective actions completed and the associated completion dates.

**11.28(4) Violations of the Storage Tank Rule**

- (a) If the supplier fails to develop or maintain an acceptable written plan for finished water storage tank inspections, a storage tank rule violation occurs.
- ~~(b) If the supplier fails to perform or document the minimum number of periodic inspections, a storage tank rule violation occurs.~~
- (~~cb~~) ~~Per Section 11.35(2)(c), violations of the storage tank rule must be reported to the Division within 48 hours of the supplier becoming aware of them.~~ The following constitute treatment technique violations:
  - (i) The supplier uses an uncovered finished water storage tank.
  - ~~(ii) The supplier fails to perform or document at least one periodic inspection in a twelve month period.~~
  - ~~(iii) The supplier fails to perform or document comprehensive inspections.~~

- (iv~~iii~~) The supplier fails to implement the written plan for finished water storage tank inspections.
- (iv) The supplier fails to complete or document corrective action or follow a corrective action schedule for any sanitary defects identified during a periodic or comprehensive inspection.

**11.28(5) Response to Violations of the Storage Tank Rule**

- (a) In the event of a storage tank rule violation, the supplier must:
  - (i) Notify the department no later than 48 hours after the violation occurs.
  - (ii) Distribute Tier 3 public notice as specified in 11.33.
- (b) In the event of a treatment technique violation, the supplier must:
  - (i) Notify the Department no later than 48 hours after the violation occurs.
  - (ii) Distribute Tier 2 public notice as specified in 11.33.

**11.33 PUBLIC NOTIFICATION RULE**

**11.33(7) Public Notice Reporting Requirements**

No later than 10 calendar days after completing initial or repeat public notice requirements, the supplier must submit a certification that states that the supplier has fully complied with the public notice requirements.

- (a) The supplier must include a representative copy of each public notice distributed, published, posted, and/or made available to consumers and the media.

TABLE 11.33-VI TABLE OF STANDARD HEALTH EFFECTS LANGUAGE FOR PUBLIC NOTIFICATION

Contaminant	MCLG mg/L	MCL mg/L	Standard health effects language for public notification
<b>Other Treatment Techniques</b>			
Acrylamide	Zero	TT	Some people who drink water containing high levels of acrylamide over a long period of time could have problems with their nervous system or blood, and may have an increased risk of getting cancer.
Epichlorohydrin	Zero	TT	Some people who drink water containing high levels of epichlorohydrin over a long period of time could experience stomach problems, and may have an increased risk of getting cancer.
Backflow Prevention and Cross-Connection Control Rule	None	TT	<p><u>Uncontrolled cross connections can lead to a back pressure or siphonage event that may allow contaminants or disease-causing organisms to enter the drinking water, which can cause diarrhea, nausea, cramps, and associated headaches.</u></p> <p><del>Uncontrolled cross connections can lead to inadvertent contamination of the drinking water.</del>  <del>[THE SUPPLIER MUST ALSO INCLUDE THE FOLLOWING APPLICABLE SENTENCES.]</del>  <del>We have installed or permitted an uncontrolled cross connection.</del>  <del>We failed to notify the Department of a backflow contamination event.</del>  <del>We failed to complete the testing requirements for backflow prevention devices.</del>  <del>We failed to comply with the requirements for surveying our system for cross connections.</del></p>
<u>Storage Tank Rule</u>	<u>None</u>	<u>TT</u>	<p><u>Inadequately maintained storage tanks, identified through inspections, may allow contaminants or disease-causing organisms to enter the drinking water, which can cause diarrhea, nausea, cramps, and associated headaches.</u></p>

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<u>Failure to Correct a Significant Deficiency</u>	<u>None</u>	<u>TT</u>	<u>An uncorrected significant deficiency may allow contaminants or disease-causing organisms to enter the drinking water, which can cause diarrhea, nausea, cramps, and associated headaches.</u>
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## 11.38 SANITARY SURVEY RULE

### 11.38(1) Applicability and Definitions

- (a) For all public water systems, the supplier must comply with the requirements specified in this rule.
- (b) "SANITARY SURVEY" means an onsite review of a system's adequacy in producing and distributing safe drinking water. The review will include, but is not limited to, all of the following eight components and the related operation and maintenance practices of each:
  - (i) Source.
  - (ii) Treatment.
  - (iii) Distribution system.
  - (iv) Finished water storage.
  - (v) Pumps, pump facilities, and controls.
  - (vi) Monitoring, reporting, and data verification.
  - (vii) System management and operation.
  - (viii) Supplier compliance with all requirements of the *Colorado Primary Drinking Water Regulations*, Regulation 100, Water and Wastewater Facility Operators Certification Requirements, and any other Department-mandated requirements.

### 11.38(2) Sanitary Survey Requirements

- (a) Sanitary surveys must be performed by the Department or by a Department-approved third party.
- (b) The supplier must ensure that sanitary surveys are performed at the following frequencies:
  - (i) For non-community water systems, at least every five years.
  - (ii) For community water systems, at least every three years.
    - (A) The Department may reduce the frequency of sanitary surveys to no less frequently than every five years if the supplier meets all of the following:
      - (I) Provides 4-log treatment of viruses for all sources.
      - (II) Has an outstanding performance record, as determined by the Department and documented in previous sanitary surveys.
      - (III) Has had no total coliform MCL violations or total coliform monitoring violations since the last sanitary survey.
- (c) At the Department's request, the supplier must provide the Department with any information that will enable the Department or Department-approved third party to conduct a sanitary survey.

11.38(3) Requirements for Corrective Action for Significant Deficiencies (Treatment Technique Requirement)~~Treatment Technique Requirements for Corrective Action for Significant Deficiencies~~ or Violations Identified During a Sanitary Survey

- (a) If a significant deficiency or violation is identified during a sanitary survey, the supplier must implement corrective action as specified in this section, 11.38(3).
- (i) For groundwater systems with significant deficiencies, the supplier must implement one or more of the following corrective actions:
- (A) Correct all significant deficiencies.
- (B) Provide an alternative source of water.
- (C) Eliminate the source of contamination.
- (D) Provide treatment that reliably achieves at least 4-log treatment of viruses at the Department-approved location for the groundwater source.
- (ii) For groundwater systems with significant deficiencies, the Department may specify which corrective action specified in 11.38(3)(a)(i)(A-D) that the supplier must implement.
- (iii) The supplier must implement corrective action as approved by the Department for:
- (A) Surface water systems with significant deficiencies; and
- (B) All systems with violations.
- (b) The Department may specify interim measures, at any time, pending completion of corrective action to protect public health.
- (c) No later than 30 days after receiving written notice of significant deficiencies and/or violations, the supplier must consult with the Department regarding the appropriate corrective action and schedule, unless the Department specifies which corrective action the supplier must implement.
- (d) No later than 45 days after receiving written notice of significant deficiencies and/or violations, the supplier must submit a written corrective action plan to the Department for approval.
- (i) The corrective action plan must include the actions the supplier will take to address the significant deficiencies and/or violations and a proposed schedule for completing the actions.
- (e) Any changes the supplier makes to a Department-approved corrective action plan and schedule must be approved by the Department.
- (f) No later than 120 days, or earlier if required by the Department, after receiving written notice of significant deficiencies and/or violations the supplier must either:
- (i) Have completed the Department-approved corrective action plan including any Department-specified interim measures; or
- (ii) Be in compliance with the Department-approved corrective action plan and schedule including any Department-specified interim measures.



- (g) No later than 30 days after completing any corrective action under 11.38(3), the supplier must notify the Department of the completed corrective action.

#### **11.38(4) Treatment Technique Violation and Response for Corrective Action**

- (a) If the supplier fails to comply with the requirements specified in 11.38(3) for a significant deficiency, a corrective action treatment technique violation occurs.
- (b) In the event of a corrective action treatment technique violation, the supplier must:
- (i) Notify the Department no later than 48 hours after the violation occurs.
  - (ii) Distribute Tier 2 public notice as specified in 11.33.

#### **11.38(5) Special Public Notice Requirements**

- (a) For non-community groundwater systems, if the supplier fails to complete corrective action for significant deficiencies, under 11.38(3), within one year of receiving written notice of significant deficiency, or earlier if required by the Department, the supplier must distribute special public notice to inform consumers of the uncorrected significant deficiency.
- (i) The special public notice must include all of the following:
    - (A) The nature of the significant deficiency and the date the significant deficiency was identified by the Department.
    - (B) The Department-approved plan and schedule for corrective action, including interim measures, progress to date, and any interim measures completed.
    - (C) For systems supplying a large proportion of non-English speaking consumers, as determined by the Department, the supplier must include one or more of the following:
      - (I) Information in the appropriate language(s) regarding the importance of the special public notice.
      - (II) A telephone number or address where the consumer may contact the supplier to obtain a translated copy of the special public notice or request assistance in the appropriate language.
  - (ii) The supplier must redistribute the special public notice annually until the significant deficiency is corrected.
- (b) For non-community water systems with significant deficiencies that have been corrected, if required by the Department, the supplier must distribute special public notice to inform consumers of the significant deficiencies, how the deficiencies were corrected, and the dates of correction.

### **11.39 BACKFLOW PREVENTION AND CROSS-CONNECTION CONTROL RULE**

#### **11.39(1) Applicability and Definitions**

- (a) All public water systems must comply with the requirements specified in this rule.

- (b) “ACTIVE DATE” means the first day that a backflow prevention assembly or backflow prevention method is used to control a cross connection in each calendar year.
- (c) “BACKFLOW” means the reverse flow of water, fluid, or gas caused by back pressure or back siphonage.
- (d) “BACKFLOW PREVENTION ASSEMBLY” means any mechanical assembly installed at a water service line or at a plumbing fixture to prevent a backflow contamination event, provided that the mechanical assembly is appropriate for the identified contaminant at the cross connection and is an in-line field-testable assembly.
- (e) “BACKFLOW PREVENTION ASSEMBLY ANNUAL TESTING COMPLIANCE RATIO” means the number of backflow prevention assemblies tested during the calendar year divided by the number of backflow prevention assemblies installed at a cross connection that were used during the calendar year.
- (f) “BACKFLOW PREVENTION METHOD” means any method and/or non-testable device installed at a water service line or at a plumbing fixture to prevent a backflow contamination event, provided that the method or non-testable device is appropriate for the identified contaminant at the cross connection.
- (g) “BACKFLOW PREVENTION METHOD ANNUAL INSPECTION COMPLIANCE RATIO” means the number of backflow prevention methods inspected during the calendar year divided by the number of backflow prevention methods installed at a cross connection that were used during the calendar year.
- (h) “CERTIFIED CROSS-CONNECTION CONTROL TECHNICIAN” means a person who possesses a valid Backflow Prevention Assembly Tester certification from one of the following approved organizations: American Society of Sanitary Engineering (ASSE) or the American Backflow Prevention Association (ABPA). If a certification has expired, the certification is invalid.
- (i) “CONTROLLED” means having a properly installed, maintained, and tested or inspected backflow prevention assembly or backflow prevention method that prevents backflow through a cross connection.
- (j) “SINGLE-FAMILY-RESIDENTIAL” means:
  - (i) A single living unit that is supplied by its own separate service line; or
  - (ii) Multiple living units where each individual living unit is supplied by a separate service line; or
  - (iii) Two separate single living units supplied by a common service line.
- (k) “SURVEY COMPLIANCE RATIO” means the total number of connections surveyed, including the number of all non-single-family-residential connections to the public water system with the most protective backflow prevention assembly or method that was not surveyed as specified in 11.39(2)(c), divided by the total number of non-single-family-residential connections to the public water system and connections within the supplier’s waterworks.
  - (i) The supplier is not required to include any non-single-family-residential connections identified after October 31 of the calendar year in the total number of non-single-family-residential connections to the public water system until the following calendar year.

- (l) "UNCONTROLLED" means not having a properly installed and maintained and tested or inspected backflow prevention assembly or backflow prevention method, or the backflow prevention assembly or backflow prevention method does not prevent backflow through a cross connection.

**11.39(2) Backflow Prevention and Cross-Connection Control Program Requirements**

- (a) The supplier must develop a written backflow prevention and cross-connection control program. The written backflow prevention and cross-connection control program must include all of the following:
  - (i) The supplier's process for conducting surveys.
  - (ii) The supplier's legal authority to perform a survey of a customer's property to determine whether a cross connection is present unless the supplier controls all non-single-family-residential connections to the public water system with the most protective backflow prevention assembly or backflow prevention method.
  - (iii) The process the supplier will use to select a backflow prevention assembly or backflow prevention method to control a cross connection.
  - (iv) The supplier's legal authority to install, maintain, test, and inspect backflow prevention assemblies and/or backflow prevention methods and/or require customers to install, maintain, test, and inspect backflow prevention assemblies and/or backflow prevention methods.
  - (v) The process the supplier will use to track the installation, maintenance, testing, and inspection of all backflow prevention assemblies and backflow prevention methods used to control cross connections.
  - (vi) The process the supplier will use to ensure backflow prevention assemblies are tested by a Certified Cross-Connection Control Technician.
- (b) The Department may review and revise the written backflow prevention and cross-connection control program.
- (c) The supplier must survey all non-single-family-residential connections to the public water system to determine if the connection is a cross connection unless the supplier controls that connection with the most protective backflow prevention assembly or backflow prevention method. The supplier must survey all connections within the supplier's waterworks to determine if the connection is a cross connection.
  - (i) If the supplier identifies a cross connection during a survey, the supplier must determine the type of backflow prevention assembly or backflow prevention method to control the cross connection.
  - (ii) If the supplier becomes aware of a single-family-residential connection to the public water system that is a cross connection, the supplier must determine the type of backflow prevention assembly or backflow prevention method to control the cross connection.
  - (iii) The supplier must achieve the survey compliance ratios as specified in Table 11.39-I.

TABLE 11.39-I Survey Compliance Ratio	
Compliance Date	Compliance Ratio
By December 31, 2016	Greater than 0.60

<u>By December 31, 2017</u>	<u>Greater than 0.70</u>
<u>By December 31, 2018</u>	<u>Greater than 0.80</u>
<u>By December 31, 2019</u>	<u>Greater than 0.90</u>
<u>By December 31, 2020</u>	<u>Greater than 0.90</u>
<u>By December 31, 2021 and each year after</u>	<u>1.0</u>

~~(iv) The supplier may apply to the Department for alternative survey compliance ratios for the compliance dates from December 31, 2016 through December 31, 2019 specified in Table 11.39-I.~~

~~(A) In the application, the supplier must include all of the following information:~~

~~(I) An explanation of why the supplier is unable to comply with the survey compliance ratios specified in Table 11.39-I.~~

~~(II) The proposed alternative survey compliance ratios for the compliance dates specified in Table 11.39-I.~~

~~(a) The proposed alternative survey compliance ratios must meet the survey compliance ratio of 1.0 by December 31, 2020 within a timeline specified by the department.~~

~~(III) A discussion of the supplier's strategy to achieve the proposed alternative survey compliance ratios and the survey compliance ratio of 1.0 within a timeline specified by the department. by December 31, 202~~

~~(B) The Department will only grant alternative compliance ratios for the compliance dates from December 31, 2016 through December 31, 2019.~~

~~(B) If the supplier receives written Department-approval for alternative survey compliance ratios, the supplier must comply with any Department-specified requirements in the approval.~~

### 11.39(3) Treatment Technique Requirements for the Control of Cross Connections

(a) If the supplier learns of a suspected or confirmed backflow contamination event, the supplier must notify and consult with the Department on any appropriate corrective measures no later than 24 hours after learning of the backflow contamination event.

(b) The supplier is prohibited from installing or permitting any uncontrolled cross connection to the distribution system or within the supplier's waterworks.

~~(c) The supplier must survey all non-single family residential connections to the public water system to determine if the connection is a cross connection unless the supplier controls that connection with the most protective backflow prevention assembly or backflow prevention method. The supplier must survey all connections within the supplier's waterworks to determine if the connection is a cross connection.~~

~~(i) If the supplier identifies a cross connection during a survey, the supplier must determine the type of backflow prevention assembly or backflow prevention method to control the cross connection.~~

- ~~(ii) If the supplier becomes aware of a single family residential connection to the public water system that is a cross connection, the supplier must determine the type of backflow prevention assembly or backflow prevention method to control the cross connection.~~
  - ~~(iii) The supplier must achieve the survey compliance ratios as specified in Table 11.39 I.~~
  - ~~(iv) The supplier may apply to the Department for alternative survey compliance ratios for the compliance dates from December 31, 2016 through December 31, 2019 specified in Table 11.39 I.~~
    - ~~(A) In the application, the supplier must include all of the following information:
      - ~~(I) An explanation of why the supplier is unable to comply with the survey compliance ratios specified in Table 11.39 I.~~
      - ~~(II) The proposed alternative survey compliance ratios for the compliance dates from December 31, 2016 through December 31, 2019 specified in Table 11.39 I.~~
        - ~~(a) The proposed alternative survey compliance ratios must meet the survey compliance ratio of 1.0 by December 31, 2020.~~
      - ~~(III) A discussion of the supplier's strategy to achieve the proposed alternative survey compliance ratios and the survey compliance ratio of 1.0 by December 31, 2020.~~~~
    - ~~(B) The Department will only grant alternative compliance ratios for the compliance dates from December 31, 2016 through December 31, 2019.~~
    - ~~(C) If the supplier receives written Department approval for alternative survey compliance ratios, the supplier must comply with any Department specified requirements in the approval.~~
- (c) If the supplier discovers an uncontrolled cross connection and a suspected or confirmed backflow contamination event has not occurred, the supplier must:
- (i) No later than 120 days after its discovery, install and maintain or require the customer to install and maintain a backflow prevention assembly or backflow prevention method at the uncontrolled cross connection, suspend service to the customer, or remove the cross connection.
    - (A) If the supplier is unable to meet the 120-day deadline, the supplier must consult with the Department and the Department may approve an alternative schedule.
    - (B) The supplier can either control cross connections discovered within a customer's water system by containment or containment by isolation.
      - (I) "CONTAINMENT" means the installation of a backflow prevention assembly or a backflow prevention method at any connection to the public water system that supplies an auxiliary water system, location, facility, or area such that backflow from a cross connection into the public water system is prevented.
      - (II) "CONTAINMENT BY ISOLATION" means the installation of backflow prevention assemblies or backflow prevention methods at all cross

connections identified within a customer's water system such that backflow from a cross connection into the public water system is prevented.

- (C) The supplier must ensure that all installed backflow prevention assemblies used to control cross connections are tested by a Certified Cross-Connection Control Technician upon installation.
  - (D) The supplier must ensure that all installed backflow prevention methods used to control cross connections are inspected by the supplier or a Certified Cross-Connection Control Technician upon installation.
- (d) The supplier must ensure that backflow prevention assemblies used to control cross connections are tested annually by a Certified Cross-Connection Control Technician and maintained. The supplier must achieve the backflow prevention assembly annual testing compliance ratios as specified in Table 11.39-II.

<u>Compliance Date</u>	<u>Annual Compliance Ratio</u>
By December 31, 2016	Greater than 0.50
By December 31, 2017	Greater than 0.60
By December 31, 2018	Greater than 0.70
By December 31, 2019	Greater than 0.80
<b>By December 31, 2020</b>	<b>Greater than 0.80</b>
By December 31, 202 <del>0</del> <sup>1</sup> and each year after	Greater than 0.90

- (i) No later than ~~126~~<sup>120</sup> days after the supplier is notified of a failed test, the supplier must ensure that the backflow prevention assembly that produced the failed test is repaired or replaced and tested, service is suspended to the customer, or the cross connection is removed.
    - (A) If the supplier is unable to meet the ~~126~~<sup>120</sup>-day deadline, the supplier must consult with the Department and the Department may approve an alternative schedule.
  - (ii) Beginning January 1, 202~~2~~<sup>4</sup>, for each backflow prevention assembly not tested during the previous calendar year, the supplier must ensure the backflow prevention assembly is tested no later than 90 days after the active date of the backflow prevention assembly in the following calendar year.
    - (A) If the supplier is unable to meet the 90-day deadline, the supplier must consult with the Department and the Department may approve an alternative schedule.
- (e) The supplier must ensure that backflow prevention methods used to control cross connections are inspected annually by the supplier or a Certified Cross-Connection Control Technician and maintained. The supplier must achieve a backflow prevention method annual inspection compliance ratio of greater than (>) 0.90.
- (i) No later than ~~126~~<sup>120</sup> days after the supplier is notified of an inadequate backflow prevention method, the supplier must ensure that the inadequate backflow prevention method is repaired or replaced, service is suspended to the customer, or the cross connection is removed.

- (A) If the supplier is unable to meet the ~~1260~~ 90-day deadline, the supplier must consult with the Department and the Department may approve an alternative schedule.
- (ii) Beginning January 1, 2017, for each backflow prevention method not inspected during the previous calendar year, the supplier must ensure the backflow prevention method is inspected no later than 90 days after the active date of the backflow prevention method in the following calendar year.
  - (A) If the supplier is unable to meet the 90-day deadline, the supplier must consult with the Department and the Department may approve an alternative schedule.
- (f) The supplier must control or remove any uncontrolled cross connection or ensure that any cross connection is controlled no later than 10 days after being ordered in writing by the Department.

**11.39(4) Backflow Prevention and Cross-Connection Control Program Annual Written Report**

- (a) Beginning in 2017, the supplier must develop a written backflow prevention and cross-connection control program report for the previous calendar year that includes all of the following information:
  - (i) Total number of non-single-family-residential connections to the public water system and connections within the supplier's waterworks.
    - (A) The supplier is not required to include any non-single-family-residential connections identified after October 31 of the calendar year in the total number of non-single-family-residential connections to the public water system until the following calendar year.
  - (ii) Total number of connections surveyed to determine if cross connections are present.
  - (iii) Survey compliance ratio.
  - (iv) Total number of identified cross connections.
  - (v) Number of uncontrolled cross connections identified during the calendar year.
    - (A) Number of identified uncontrolled cross connections that were controlled within 120 days of discovery.
    - (B) Number of identified uncontrolled cross connections that were not controlled within 120 days of discovery.
  - (vi) Number of backflow prevention assemblies installed at cross connections that were used during the calendar year.
  - (vii) Number of backflow prevention methods installed at cross connections that were used during the calendar year.
  - (viii) Number of connections where service was suspended as specified in 11.39(3) during the calendar year.
  - (ix) Number of backflow prevention assemblies used to control cross connections that were tested by a Certified Cross Connection Control Technician during the calendar year.
  - (x) Backflow prevention assembly annual testing compliance ratio.

- (xi) Beginning January 1, 2021, the number and location of backflow prevention assemblies not tested during the calendar year covered by the report.
  - (xii) Number of backflow prevention methods used to control cross connections that were inspected during the calendar year.
  - (xiii) Backflow prevention method annual inspection compliance ratio.
  - (xiv) Beginning January 1, 2017, the number and location of backflow prevention methods not inspected during the calendar year covered by the report.
- (b) For each calendar year, the supplier must complete the annual backflow prevention and cross-connection control program report no later than May 1 of the following calendar year.

**11.39(5) Compliance Determinations for Backflow Prevention and Cross-Connection Control**

- (a) Compliance with the survey treatment technique requirement is based on the survey compliance ratio.
- (i) The supplier is not required to include any non-single-family-residential connections identified after October 31 of the calendar year in the total number of non-single-family-residential connections to the public water system until the following calendar year.
- (b) Compliance with the backflow prevention assembly testing treatment technique requirement is based on the backflow prevention assembly annual testing compliance ratio.
- (c) Compliance with the backflow prevention method inspection treatment technique requirement is based on the backflow prevention method annual inspection compliance ratio.

**11.39(6) Violations for Backflow Prevention and Cross-Connection Control**

- (a) The following constitute backflow prevention and cross-connection control treatment technique violations:
- (i) The supplier fails to notify the Department of any suspected or confirmed backflow contamination event as specified in 11.39(3)(a).
  - (ii) The supplier installs or permits an uncontrolled cross connection.
  - ~~(iii) The supplier fails to achieve the survey compliance ratio specified in 11.39(3)(c) or the Department-approved alternative survey compliance ratios.~~
  - (iii) The supplier discovers an uncontrolled cross connection and fails to comply with the requirements specified in 11.39(3)(c).
  - (iv) The supplier fails to achieve the annual backflow prevention assembly testing compliance ratio specified in 11.39(3)(d).
  - (v) The supplier fails to comply with the backflow prevention assembly failed test requirements specified in 11.39(3)(d)(i).
  - (vi) The supplier fails to comply with the backflow prevention assembly testing requirements specified in 11.39(3)(d)(ii).



- (viii) The supplier fails to achieve the backflow prevention method inspection compliance ratio specified in 11.39(3)(e).
  - ~~(viii)~~ The supplier fails to comply with the backflow prevention method inadequate method requirements specified in 11.39(3)(e)(i).
  - (ix) The supplier fails to comply with the backflow prevention method inspection requirements specified in 11.39(3)(e)(ii).
  - (xi) The supplier fails to comply with a written order from the Department specified in 11.39(3)(f).
- (b) The following constitute backflow prevention and cross-connection control violations:
- (i) The supplier fails to develop or implement a written backflow prevention and cross-connection control program as specified in 11.39(2).
  - ~~(ii) The supplier fails to achieve the survey compliance ratio specified in 11.39(2)(c) or the Department-approved alternative survey compliance ratios.~~
  - (iii) The supplier fails to complete an annual backflow prevention and cross-connection control program report as specified in 11.39(4).

**11.39(7) Response to Violations for Backflow Prevention and Cross-Connection Control**

- (a) In the event of a backflow prevention and cross-connection control treatment technique violation, the supplier must:
- (i) Notify the Department no later than 48 hours after the violation occurs.
  - (ii) Distribute Tier 2 public notice as specified in 11.33.
- (b) In the event of a backflow prevention and cross-connection control violation, the supplier must:
- (i) Notify the Department no later than 48 hours after the violation occurs.
  - (ii) Distribute Tier 3 public notice as specified in 11.33.