

41-00837



# Springfield Utility Board WATER DIVISION STANDARD PROCEDURE

## CROSS CONNECTION CONTROL PROGRAM

## SECTION 515A Engineering

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FEB 10 2011  
FIELD SERVICES  
DRINKING WATER PROGRAM

### Location and Physical Description:

SUB recognizes that it has a responsibility to provide its customers a quality drinking water supply. The Cross Connection Program is designed so that SUB can take reasonable precautions to protect its water system from hazards originating on the premises of its customers that may degrade and contaminate the water in the public water supply system.

### Functional Description:

Springfield Utility Board (SUB) has had a formal Cross Connection Program since 1981. It is designed to follow the Oregon Department of Human Services Administrative Rules (OAR's) Section 333-061-0070 for Cross Connection Control. This structured program is a board approved policy that is directed by the Water Quality Manager who oversees the activities of the Cross Connection Control Specialist, Engineer Customer Service Rep and the Engineer Tech. The board policy and state rules regulate cross connections within the public water supply system where contaminated water may enter into the domestic water supply system.

**Water Quality Program Manager** – The Water Quality Program Manager reports to the Water Division Director and is responsible for the oversight of all cross connection control activities performed at the Springfield Utility Board. The Water Quality Program Manager directs and oversees the activities of the Cross Connection Control Inspector(s), the Engineer Customer Service Rep and the Engineer Tech for those portions of their job responsibilities that relate to the cross connection control program. The Water Quality Program Manager is responsible for the following duties:

1. Works with Water Division Director to ensure SUB's compliance with state rules and protecting public health.
2. Implements Board policy in compliance with Oregon Administrative Rules.
3. Evaluates and develops record keeping systems to ensure compliance with state rule requirements, SUB customer needs and legal documentation for protecting SUB customers.
4. Evaluates and plans for the program's budget needs.
5. Analyzes and evaluates program options to minimize cost to SUB customers.
6. Trains Water Division Cross Connection Inspector(s).

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7. Oversees and does inspections of SUB customer premises for cross connections and requires backflow prevention assemblies based on degree of hazard found.
8. Coordinates with neighboring water suppliers in the establishment of Regional Design Standards and periodic review and updates to the Standards.
9. When appropriate, provides written approval for exceptions to the regional design standards and inspects installations to assure compliance with the approved exceptions.
10. Oversees the compilation of data required for the annual cross connection control report and is the authorized signer of the annual report to the state.
11. Assists with cross connection education of customers and water division employees.
12. Coordinates SUB's cross connection control program with Plumbing Inspector, neighboring jurisdictions, AWWA and the Oregon Cross Connection Inspector's organization.

**Required Certifications:** Oregon Cross Connection Specialist

**Cross Connection Inspector** - One of SUB's Water Working Foremen is the designated cross connection inspector. Currently the Water Division has three additional personnel certified as Cross Connection Control Specialists. These people provide backup and support to the inspector. The cross connection inspector is required to be a certified Oregon Cross Connection Specialist, and it is recommended that he/she be an Oregon Certified Backflow Assembly Tester. The cross connection inspector reports to the Water General Foreman and to the Water Quality Manager. The cross connection inspector's duties include:

1. Works to ensure SUB's compliance with state rules and protecting public health.
2. Assists Water Quality Program Manager in prioritizing (high to low risk—industrial, commercial, public, residential) SUB customers by degree of hazard level.
3. Inspects SUB customer premises and requires backflow prevention assemblies based on the degree of hazard found on site.
4. Inspects Backflow Prevention Assembly installations for compliance with the Regional Design Standards.
5. When appropriate, provides written approval for exceptions to the Regional Design Standards and periodic review and updates to the Standards.
6. Organizes inspection schedules and customer contacts to facilitate an orderly completion of required inspections.
7. Fills out reports and forms (includes address, serial number, meter number, results found, backflow required, etc.) necessary to document the results of inspection and tests to maintain the cross connection control program.

**Cross Connection Inspector** Continued on Next Page →





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8. Participates in policy setting and makes recommendations to improve efficiencies in SUB's cross connection control program.
9. Coordinates with Plumbing Inspector.
10. Assists with cross connection education of customers and water division employees.
11. Assists with the design of forms needed for backflow program.
12. Completes other work as assigned or required.

**Required Certifications:** Oregon Cross Connection Specialist

**Recommended Certifications:** Oregon Cross Connection Tester

**Water Division Engineer Customer Service Rep** – The Engineer Customer Service Rep is the backflow coordinator and handles all the day-to-day duties that keep the paper flow moving. This person works closely with the Water Division Cross Connection Inspector to maintain accurate records. The duties include the following:

1. Works to ensure SUB's compliance with state rules and protecting public health.
2. Designs forms and paperwork needed for backflow program.
3. Meets with IT computer personnel to help design/maintain in-house computer program for tracking backflow prevention and cross connection control information and data.
4. Prepares the Annual Backflow Report for the Water Quality Program Manager to review, sign and send to the state.
5. Writes field check requests for Water Division Cross Connection Inspector.
6. Receives and records into the backflow computer database test slips from backflow testers.
7. Maintains a backflow tester file showing current state certification, calibration certification and insurance policy information.
8. Generates and mails monthly letters and reminder letters.
9. Makes courtesy phone calls before sending termination letters.
10. Answers customer's questions about their accounts and communicates with backflow testers.
11. Maintains file system and computer database for backflow test slips and other communication.
12. Participates in policy setting meetings and makes recommendations to improve efficiencies in SUB's Cross Connection Control Program.
13. Coordinates with Plumbing Inspector
14. Assists with cross connection education of customers and water division employees.

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15. Does research about various backflow policies and procedures.
16. Plans and facilitates meetings with all backflow employees to discuss work processes, procedures, paper flow and field/office coordination.

**Water General Foreman** – The Water General Foreman manages the Cross Connection Inspector(s) time and is responsible for assuring that all Water Division maintenance and construction activities are carried out in a manner that eliminates or minimizes the potential for backflow conditions to occur. Since the Cross Connection Inspector(s) position is currently budgeted as a part time position, the Water General Foreman allocates the time and resources for completing the backflow prevention tasks in a timely manner. The Water General Foreman coordinates the inspectors work tasks and schedule with the Water Quality Manager and inspector(s). The duties include the following:

1. Works to ensure SUB's compliance with state rules and protecting public health.
2. Managing and overseeing maintenance and construction activities to avoid backflow conditions in the water distribution system.
3. Scheduling time and resources for the Cross Connection Inspector to complete inspections of new services and backflow prevention assemblies, re-inspections of existing facilities and required record keeping.
4. Coordinating cross connection control program budget and tasks with Water Quality Manager, Cross Connection Inspector, Engineer Customer Service Rep and other water division personnel.
5. Assists with cross connection education of customers and water division employees.
6. Confirms there is an approved backflow plan before constructing a new service.

**Water Division Engineer Tech** – The Engineer Tech is responsible for reviewing the backflow design plans submitted for all industrial and commercial new construction projects to ensure that they meet SUB's design standards for cross connection control. The Engineer Tech reports to the Water Quality Manager for those portions of their job relating to the Cross Connection Control Program. His duties include the following:

1. Confirms with Water Quality Program Manager and Cross Connection Inspector the backflow requirements for each new service.
2. Reviews proposed site plan dimension drawings to determine that the proposed backflow assembly is correct in type, size, model and location for the project.
3. Provides comments and recommendations to the developer.
4. Insures that new services where backflow prevention assemblies have been required are not installed prior to receiving an approved backflow plan.

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5. Makes a copy of the portion of the site plan documents regarding backflow along with any other maps and/or comments that are pertinent and gives them to the Engineer Customer Service Rep who will create the backflow file for that address.

#### Safety Precautions:

1. Review Section 315 Vault Inspection and Safety Checks.
2. Review Confined Space Entry.
3. Review Personal Protective Equipment (PPE). Entering construction sites or opening assembly hot boxes and protective structures may require the use of PPE.
4. Some industrial sites require that all visitors pass a company safety program before access to the site is allowed. Verify requirements with property owner.
5. Access to some assembly locations on a property may be an issue (e.g. attics, crawl spaces or secured gates and locked yards). Review access for safety issues.
6. Review Hand Tool Use.

#### Routine Procedures:

The Cross Connection Program consists of: (1) recordkeeping, (2) identification and categorization of plumbing connections that may pose potential hazards to the public water system supply, (3) scheduling inspections of services and premises and identifying the hazards that may be present, (4) resolving any cross connection hazards that may be found, and (5) follow-up on a periodic basis to guarantee that problems do not reoccur.

#### References:

1. Springfield Utility Board Policies Chapter V Water Section II Cross Connection Policy 5-2-1
2. SUB Standard Construction Specifications
3. Regional Design Standards
4. Oregon Department of Human Services Administrative Rules (OAR) Section 333-061-0070 see also [www.oregon.gov/DHS/ph/dwp/rules.shtml](http://www.oregon.gov/DHS/ph/dwp/rules.shtml)

These procedures have been reviewed and approved by:

\_\_\_\_\_  
Director, Water Engineering / Operations

\_\_\_\_\_  
Date