



Establishing and Managing an Effective Cross-Connection Control Program

Who Should Read This Guide?

This publication is intended to guide public water systems in the implementation and management of cross-connection-control programs.¹ This guide is intended for those who work in a public water system (PWS, sometimes called *public water supplier*) in Texas—for example, a water district, a water supply corporation, or a city-owned or investor-owned system. In the text, “you” refers to the PWS and its staff members; “program” is short for ‘cross-connection control program.’

Members of the general public—customers of such water systems—will also find answers in this guide to many questions they may have about cross-connection control programs.

Please note that this publication is for general guidance only and does not take the place of any rules or regulations governing cross-connection control and backflow prevention.

Authority

State Rules

Title 30 of the Texas Administrative Code, Chapter 290 (30 TAC 290), gives public water systems the legal authority and responsibility to implement cross-connection control policies, require customer-service inspections, and require protection using approved backflow-prevention assemblies. TCEQ rules place the primary responsibility on the PWS for recognizing and evaluating hazards within its distribution system. Once a hazard is identified, the PWS must ensure that the PWS is protected from contamination by that hazard. The PWS may terminate water service anywhere an unprotected health hazard is found and should restore service only when the health hazard no longer exists or after it has been properly isolated from the PWS. More information on hazards follows in the section on Backflow Prevention Assemblies.

¹ While the rules do not specifically mandate development of a “program,” any public water system effectively protecting its distribution system from cross-connections and backflow in accordance with TCEQ regulations is actually managing a cross-connection control program.

Plumbing Codes

The Plumbing License Law (Title 8, Texas Occupations Code, Chapter 1301) requires all municipalities with a population of 5,000 or greater to adopt a plumbing code; smaller municipalities and other types of PWSs may voluntarily adopt a plumbing code. The two plumbing codes that are authorized to be adopted in the state of Texas are the International Plumbing Code and the Uniform Plumbing Code. These codes are revised every three years. Depending on the particular code and year of revision adopted, the requirements related to cross-connection control and backflow prevention in the code may differ from TCEQ rules.

Your Own Rules

Every PWS is required to adopt a plumbing ordinance, plumbing regulations, or a service agreement with provisions for proper enforcement to prohibit cross-connections and other unacceptable plumbing practices. An example of a service agreement appears in Appendix B. TCEQ personnel can supply an example plumbing ordinance upon request. A PWS may also satisfy this requirement by adopting either of the plumbing codes recognized by the Texas State Board of Plumbing Examiners: the International or the Uniform Plumbing Code.

PWSs serve a wide variety of customers throughout Texas. The potential cross-connections found in a rural area can be very different from those found in an urban setting. Each PWS should carefully consider the types of hazards that may be present in its distribution system before adopting a plumbing ordinance, regulations, or service agreement. It may be necessary to include specific verbiage tailored to a category of potential hazards in the ordinance, regulations, or agreement. For example, if a PWS supplies water to residential customers who use an auxiliary water supply for lawn irrigation, the PWS may specify what type of backflow prevention is required for those customers. While TCEQ rules generally address the hazard posed by auxiliary water supplies, specific requirements adopted in the ordinance, regulations, or agreement may make enforcement of the requirements easier and more straightforward.

The TCEQ considers its rules to be **minimum** standards. If a PWS writes and adopts a plumbing ordinance, regulation, or service agreement that is more stringent than TCEQ rules and regulations, customers and contractors must follow the more stringent requirements. Similarly, if a PWS supplies water in an area that has adopted more stringent requirements than TCEQ rules, the more stringent requirements must be followed. Note that an investor-owned utility has only limited authority to adopt more stringent requirements than the TCEQ rules.

Choosing a Premises-Isolation or Internal Protection Program

Under TCEQ rules, a PWS must require any residence or establishment with an actual or potential contamination hazard to have an air gap or backflow-prevention assembly at the meter (known as *premises isolation* or *containment*) or an adequate internal cross-connection control program (also known as *hazard isolation*) [30 TAC 290.44(h)(1)(A, B)]. Many PWSs require **both** backflow

protection at the meter **and** an internal cross-connection control program. An internal cross-connection control program protects not only the public water distribution from actual or potential contamination hazards, but also the water users at that location. However, internal programs can be compromised without the knowledge of the PWS staff, which is one reason why a PWS may require both backflow protection at the meter and an internal cross-connection control program.

Assemblies used for health-hazard protection, whether installed at the meter or internally, must be tested upon installation and once a year by a licensed backflow-prevention-assembly tester. If a PWS relies solely on an internal program at a residence or establishment where actual or potential health hazard cross-connections are present, the TCEQ **strongly recommends** that the system conduct or mandate reinspections, at least annually, to ensure that unprotected cross-connections have not been installed at that location since the initial inspection. Since TCEQ regulations relating to reinspection are limited, the agency recommends that a PWS adopting a reinspection requirement adopt the requirement as an ordinance or other legally binding mechanism.

Coordination with other Authorities

When a PWS supplies water to customers inside incorporated areas where a plumbing code has been adopted, PWSs frequently coordinate cross-connection control with a building- or plumbing-inspection department. Due to the shared responsibility for cross-connection control, it is important for everyone involved to develop written protocols for sharing information and storing records and for delineating where one department's jurisdiction ends and the other department's jurisdiction begins. Open lines of communication and a good working relationship among all the staffs are essential.

Outside city limits and outside incorporated areas, PWS personnel usually do not have the support of a plumbing-inspection department. In this case, the full responsibility of the cross-connection control program rests on the PWS.

Backflow-Prevention Assemblies

An effective cross-connection-control program must include appropriate means to prevent backflow, often by installing mechanical backflow-prevention assemblies.

Who can install backflow-prevention assemblies?

While TCEQ rules address who can **test and repair** backflow-prevention assemblies, the regulations of the Texas State Board of Plumbing Examiners determine who can **install** such assemblies. Licensed plumbers can install backflow-prevention assemblies, but exemptions in the Plumbing License Law allow other individuals to install assemblies in specific cases. See the flowchart in Appendix A for detailed information regarding who is authorized to install backflow-prevention assemblies.

Which Type of Assembly to Use

TCEQ rules distinguish between health and non-health hazards. A health hazard (or contaminant) involves any substance that can cause death, illness, or the spread of disease. A non-health hazard (or pollutant) involves any substance that constitutes a nuisance, or would be aesthetically objectionable if introduced into the public water supply. For protection from a health hazard, the following types of mechanical backflow prevention assemblies may be used:

- reduced pressure principle backflow prevention assembly (RP or RPBA)
- pressure-vacuum breaker (PVB)
- atmospheric vacuum breaker (AVB)

RPs and PVBs are testable; AVBs are not testable. Thus, RPs and PVBs may be preferable to AVBs in almost every situation. For protection from a non-health hazard, any of the previously mentioned assemblies may be used, or a double-check-valve backflow-prevention assembly (DCVA) may be used.

The TCEQ does not endorse nor recommend the installation of backflow-prevention assemblies at **all** service connections. A typical residential building that has no special water-using equipment or processes rarely needs premises-isolation backflow protection. However, residences that have an auxiliary water supply on-site, such as a well, must install an RP or isolate the potable-water plumbing from the auxiliary-water plumbing through an air gap. A partial list of facilities where health hazards are commonly found appears at 30 TAC 290.47(i).

Any hazard must be isolated from the drinking-water supply regardless of when the hazard was first created or the site constructed. Many PWS customers believe that, if their residence or facility was constructed before the TCEQ's adoption of regulations for cross-connection control, then they are not subject (i.e., they are "grandfathered") to the regulations. That is not true. There are no "grandfather" clauses that apply to cross-connection control.

Who purchases the backflow-prevention assembly and who pays for the installation?

A PWS with qualified individuals on its staff (see Appendix A) may install the backflow-prevention assembly and charge the customer for its installation, plus an installation fee established by the PWS and approved by its governing body—or established by the TCEQ in the case of an investor-owned utility.

If a PWS requires the customer to purchase the backflow-prevention assembly and have it installed, the customer must:

- purchase the backflow prevention assembly after coordinating with PWS personnel to ensure that the proper assembly is selected
- select a qualified professional (see Appendix A) to install the backflow prevention assembly
- pay the professional for the service.

Testing, Inspection, Certification

Backflow Prevention Assembly Tests

TCEQ rules require that all mechanical backflow-prevention assemblies must be tested upon installation, and that assemblies installed to protect against health hazards must be tested annually [30 TAC 290.44(h)(4)]. Like all mechanical assemblies, backflow-prevention assemblies are subject to failure over time. Annual testing of installed backflow prevention assemblies ensures that they are operating properly. The form reproduced in Appendix C, which the licensed backflow-prevention-assembly tester (BPAT) must fill out and sign,² requires the licensed BPAT testing the assembly to certify whether its installation complies with manufacturer recommendations and local codes. If the PWS staff receives a form indicating improper installation of a backflow-prevention assembly, it must require reinstallation of the assembly in accordance with manufacturer recommendations and local codes.

Backflow-prevention assemblies must be properly installed, tested upon installation, maintained properly, and those installed to protect against health hazards must be tested annually. Licensed backflow-prevention-assembly testers (BPATs) are qualified to test and repair assemblies on any domestic, commercial, industrial, or irrigation service. BPATs may test and repair assemblies on fire lines only if they are permanently employed by an approved fire-line contractor. One exception is that a licensed BPAT employed by a property owner may test or repair an assembly located on the property if—

- the owner authorizes it
- the owner takes full responsibility for:
 - the required fire-protection measures during the test or repair
 - the correct restoration of the fire protection system.

Backflow-prevention assemblies should always be tested by a licensed BPAT after repair. While TCEQ regulations do not specifically require testing after repair, the practice is consistent with recommendations from the American Water Works Association, the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research, the American Society of Sanitary Engineers, and the International Association of Plumbing and Mechanical Officials.

Backflow-prevention-assembly testing procedures shall be in accordance with the latest edition of the University of Southern California's Foundation for Cross-Connection Control and Hydraulic Research standards.

Licensed BPATs must have their test gauges tested for accuracy at least once per year [30 TAC 290.44(h)(4)(B)].

Many smaller PWSs do not have licensed BPATs on staff. Instead, these PWSs notify customers when the backflow prevention assembly installed at their site is due for

² The BPAT forwards the signed original to the water provider, which is required to retain it.

testing. Frequently these letters include a list of local licensed BPATs, with a disclaimer that PWS staff does not endorse one BPAT over another. It is possible to use TCEQ's online operator-licensing database

<www.tceq.state.tx.us/goto/lic_reg_search> to create a list of local licensed BPATs. Some PWSs require BPATs testing assemblies in their service area to register with the PWS. This allows the PWS to ensure the BPAT's license is current, and that the BPAT's test gauge has been tested for accuracy within the last year.

For those PWSs that would like to have one or more licensed BPATs on staff, the TCEQ's Operator Licensing Section has information available regarding the BPAT license, including a list of approved training providers and approved courses for license renewal at <www.tceq.state.tx.us/goto/bpat_lic>, or contact Operator Licensing at 512-239-6133.

Who pays for the test of the backflow prevention assembly?

A PWS with a licensed BPAT on staff may test a backflow-prevention assembly and charge the customer a fee established by the PWS and approved by its governing body—or established by the TCEQ in the case of an investor-owned utility (IOU).

If a PWS requires the customer to submit a backflow-prevention-assembly test and maintenance form, the customer must:

- select a qualified professional to test the backflow prevention assembly and
- pay the professional for the service.

Certification of Backflow-Prevention Assemblies

Valid reasons are critical for any restrictions a PWS place on which backflow-prevention assemblies it approves for use. For example, the color of the assembly is not a technically valid reason for not accepting its use in your area of jurisdiction. It is best to rely on approval or certification by an authority that specifically lists or approves backflow-prevention assemblies. Several U.S. organizations maintain standards for testing and certification of backflow-prevention assemblies, including:

- the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research
- the American Society of Sanitary Engineers
- the International Association of Plumbing and Mechanical Officials

The TCEQ rules (30 TAC 290) do not currently require certification of backflow-prevention assemblies. If a PWS would like to adopt a requirement or restriction identifying the specific backflow-prevention assemblies that can be installed in its service area, it should clearly state the requirement or restriction in its ordinance, regulations, or service agreement.

Customer-Service Inspections

It is essential that backflow-prevention assemblies be tested by licensed BPATs. But who is to determine when and if a backflow-prevention assembly is to be

installed in the first place? This is where the licensed customer-service inspector comes in. The inspector is trained to examine private water-distribution facilities to determine the presence of cross-connections, potential contamination hazards, and illegal materials containing lead, but is *not* permitted to perform plumbing inspections. A customer-service inspection is required at all new service connections, existing service connections where the PWS has reason to believe that cross-connections or other potential contamination hazards exist, and existing service connections where a material improvement, correction, or addition has been made to the private water distribution facilities [30 TAC 290.46(j)].

The results of the customer-service inspection (CSI) will determine what, if any, backflow prevention is required at a site. A PWS that has a premises-isolation program has the responsibility to require a backflow prevention assembly be installed at the meter if a hazard is present. A PWS that is responsible for internal protection must require installation of a backflow-prevention assembly at each point of water use where a hazard is present.

For those PWSs that do want to have one or more licensed inspectors on staff, TCEQ's Operator Licensing Section has information licensing of customer-service inspectors at <www.tceq.state.tx.us/goto/cust_serv_lic>.

Who pays for the customer-service inspection, and who sets the fee?

A PWS that requires an inspection by its own employees, or provides this service as part of its business, may either:

- charge a fee established by the PWS and approved by its governing body—or established by the TCEQ in the case of an investor-owned utility (IOU); or
- provide the service at no cost and then recoup the expenses through rates.

If a PWS requires the customer to arrange for a CSI to be conducted, the customer must:

- select a qualified professional (a plumbing inspector or water-supply-protection specialist licensed by the Texas State Board of Plumbing Examiners or a customer-service inspector licensed by the TCEQ) to conduct the inspection, and
- pay the professional for the service.

Defensible and Detailed Records

Record keeping is critical to a program. Backflow Prevention Assembly Test and Maintenance forms must be kept for at least three years, CSI certificates must be kept at least 10 years. Records must be detailed and defensible. A sample Backflow form appears in Appendix C; any changes from this sample form must be approved by TCEQ Central Office personnel. The TCEQ also provides a sample CSI certificate in 30 TAC 290.47(d). Any changes from this sample form must be approved by TCEQ Central Office staff (30 TAC 290.46(j)).

The sample Backflow Prevention Assembly Test and Maintenance form and CSI certificate provided by the TCEQ ensure that the records kept by a PWS show that the system is doing all it can to carry out an effective Program. Should, for example, there be a backflow incident in the jurisdiction of the PWS, the system needs to be able to show that it has done all it could to require CSIs and the appropriate backflow prevention assemblies be installed and tested as required.

Keeping track of all of the backflow prevention assemblies installed within a PWS's service area can be very difficult. Software which has been created specifically to help PWS staff with this task is available for purchase. An online search for this software will give PWS staff an idea of the options available. Search for terms such as *cross-connection control*, *backflow prevention*, *record keeping*, and *software*. An alternative is for the PWS staff to develop its own electronic tracking system by using a spreadsheet program.

A backflow incident qualifies as an accident that has a negative impact on the delivery of safe and adequate drinking water and must be reported to the TCEQ immediately (30 TAC 290.46(w)(5)). The TCEQ maintains a 24-hour toll-free number for the reporting of backflow incidents and other emergencies: 888-777-3186. Additionally, a detailed summary of any backflow incident should be submitted to:

Technical Review and Oversight Team (MC 159)
Texas Commission on Environmental Quality
PO Box 13087
Austin, TX 78711-3087

Education and Training

PWS-staff education is important to every aspect of a program. Training, a specific kind of education, is even more critical. Training gives an individual the critical information needed to carry out specific tasks. Specific personnel will require specific training, but the concepts of backflow, what a cross-connection is, and how water from a customer's premises can get into the potable-water supply are important concepts all personnel need to comprehend—among other reasons, so they know who to contact when particular situations arise. Here is one example:

Personnel at a particular PWS are briefly introduced to some of the concepts of cross-connection control. The meter readers, repair personnel, and anyone having a field job are requested to inform the program coordinator of any potential hazards they notice. A meter reader observes that large pieces of equipment are being brought into a facility for the first time. The coordinator makes inquiries and determines that the facility has totally changed the type of work it conducts, and will now be using contaminants under pressure for various processes. It will now need an RP installed at the meter.

This type of change ideally would be discovered through permitting of any remodeling or modification to the plumbing system. However, facilities do not always obtain a permit for every such change, even major ones.

Customer education is also a critical public-relations tool. Whenever a customer is required to spend money on anything, even if it is to protect public health, good public relations help the process go smoothly. Educating customers about the hazards of cross-connections and backflow will help them recognize the benefit of reducing their risk and liability and increase their willingness to help the PWS protect the potable-water system. Customers who understand cross-connection control can become allies in preventing further cross-connections at their facilities and in helping other customers in the jurisdiction accept the program.

The TCEQ central office has personnel available to answer questions about establishing a program or interpreting state rules and regulations. Contact the Water Supply Division at 512-239-4691 and ask to speak to someone about backflow-prevention and cross-connection control.

Where to Find More Information

From the TCEQ

By phone:

Public Drinking Water Section	512-239-4691
Utilities & Districts Section	512-239-4691
Operator Certification Section	512-239-6135
Publications	512-239-0028

By mail:

Public Drinking Water Section, MC 155
TCEQ
PO Box 13087
Austin TX 78711-3087

On the Web:

Go to <www.tceq.state.tx.us>, click on "Index," and choose "Public Drinking Water." Click on "Publications" to find *Rules and Regulations for Public Water Systems*, RG-195. Or, click on "Rules" and follow the link to 30 TAC 290D.

Also available from the TCEQ: *A Consumer's Guide to Backflow Prevention in Texas*, publication no. GI-411 (bilingual English-Spanish). Order at <www.tceq.state.tx.us/goto/publications> or call 512-239-0028.

Information about the TCEQ's Cross-Connection Control Program is available at <www.tceq.state.tx.us/goto/ccp/>.

From the Texas State Board of Plumbing Examiners (TSBPE)

By phone: 800-845-6584

On the Web: <www.tsbpe.state.tx.us>

Purchase a copy of a state-approved plumbing code**International Plumbing Code**

International Code Council Store
11711 West 85th Street
Lenexa, KS 66214
800-786-4452
<www.iccsafe.org>

Uniform Plumbing Code

IAPMO Order Desk
5001 East Philadelphia Street
Ontario, CA 91761
800-854-2766
<www.iapmostore.org>

Other Sources of Information about Cross-Connection Control:**American Society of Sanitary Engineering**

ASSE International Office
901 Canterbury, Suite A
Westlake, OH 44145
440-835-3040

American Water Works Association

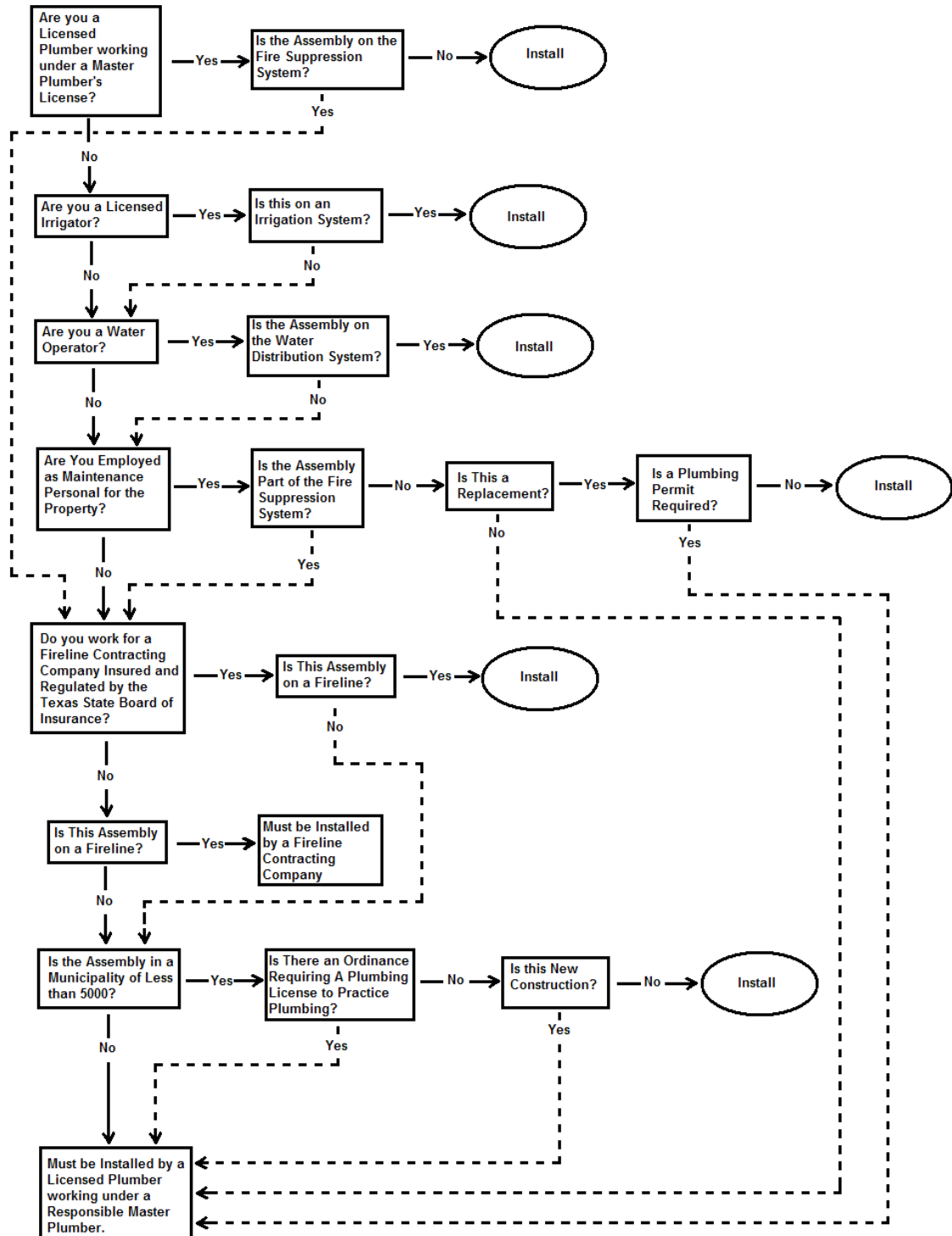
6666 West Quincy Ave.
Denver, CO 80235-3098
800-366-0107

Foundation for Cross-Connection Control and Hydraulic Research

University of Southern California
KAP-200 University Park MC-2531
Los Angeles, CA 90089-2531
866-545-6340

Portions of the text were taken from *The Essentials of a Cross-Connection Control Program*, a publication of the University of Southern California's Foundation for Cross-Connection Control and Hydraulic Research.

Appendix A: Can I Install a Backflow-Prevention Assembly?



An accessible version of this chart is available at <tceq.texas.gov/goto/alt/rg478>.

Appendix B: Sample Service Agreement [from 30 TAC 290.47(b)]

- I. **PURPOSE.** The NAME OF WATER SYSTEM is responsible for protecting the drinking water supply from contamination or pollution which could result from improper private water distribution system construction or configuration. The purpose of this service agreement is to notify each customer of the restrictions which are in place to provide this protection. The utility enforces these restrictions to ensure the public health and welfare. Each customer must sign this agreement before the NAME OF WATER SYSTEM will begin service. In addition, when service to an existing connection has been suspended or terminated, the water system will not re-establish service unless it has a signed copy of this agreement.
- II. **RESTRICTIONS.** The following unacceptable practices are prohibited by State regulations.
 - A. No direct connection between the public drinking water supply and a potential source of contamination is permitted. Potential sources of contamination shall be isolated from the public water system by an air-gap or an appropriate backflow prevention device.
 - B. No cross-connection between the public drinking water supply and a private water system is permitted. These potential threats to the public drinking water supply shall be eliminated at the service connection by the installation of an air-gap or a reduced pressure-zone backflow prevention device.
 - C. No connection which allows water to be returned to the public drinking water supply is permitted.
 - D. No pipe or pipe fitting which contains more than 8.0% lead may be used for the installation or repair of plumbing at any connection which provides water for human use.
 - E. No solder or flux which contains more than 0.2 percent lead can be used for the installation or repair of plumbing at any connection which provides water for human use.
- III. **SERVICE AGREEMENT.** The following are the terms of the service agreement between the NAME OF WATER SYSTEM (the Water System) and NAME OF CUSTOMER (the Customer).
 - A. The Water System will maintain a copy of this agreement as long as the Customer and/or the premises is connected to the Water System.
 - B. The Customer shall allow his property to be inspected for possible cross-connections and other potential contamination hazards. These inspections shall be conducted by the Water System or its designated agent prior to initiating new water service; when there is reason to believe that cross-connections or other potential contamination hazards exist; or after any major changes to the private water distribution facilities. The inspections shall be conducted during the Water System's normal business hours.

- C. The Water System shall notify the Customer in writing of any cross-connection or other potential contamination hazard which has been identified during the initial inspection or the periodic reinspection.
 - D. The Customer shall immediately remove or adequately isolate any potential cross-connections or other potential contamination hazards on his premises.
 - E. The Customer shall, at his expense, properly install, test, and maintain any backflow prevention device required by the Water System. Copies of all testing and maintenance records shall be provided to the Water System.
- IV. ENFORCEMENT. If the Customer fails to comply with the terms of the Service Agreement, the Water System shall, at its option, either terminate service or properly install, test, and maintain an appropriate backflow prevention device at the service connection. Any expenses associated with the enforcement of this agreement shall be billed to the Customer.

CUSTOMER'S SIGNATURE: _____

DATE: _____

Appendix C: Sample Backflow Prevention Assembly Test and Maintenance Report [from 30 TAC 290.47(f)]

The following form must be completed for each assembly tested. A signed and dated original must be submitted to the public water supplier for recordkeeping purposes:

NAME OF PWS: _____
 PWS I.D.: # _____
 MAILING ADDRESS: _____
 CONTACT PERSON: _____
 LOCATION OF SERVICE: _____

The backflow prevention assembly detailed below has been tested and maintained as required by commission regulations and is certified to be operating within acceptable parameters.

TYPE OF ASSEMBLY

- | | |
|-----------------------------------------------------|-----------------------------------------------------------------|
| <input type="checkbox"/> Reduced Pressure Principle | <input type="checkbox"/> Reduced Pressure Principle—Detector |
| <input type="checkbox"/> Double Check Valve | <input type="checkbox"/> DoubleCheck—Detector |
| <input type="checkbox"/> Pressure Vacuum Breaker | <input type="checkbox"/> SpillResistant Pressure Vacuum Breaker |

Manufacturer _____ Size _____
 Model Number _____ Located At _____
 Serial Number _____

Is the assembly installed in accordance with manufacturer recommendations and/or local codes? _____

	Reduced Pressure Principle Assembly			Pressure Vacuum Breaker	
	Double Check Valve Assembly		Relief Valve	Air Inlet	Check Valve
	1st Check	2nd Check			
Initial Test	Held at _____ psid Closed Tight <input type="checkbox"/> Leaked <input type="checkbox"/>	Held at _____ psid Closed Tight <input type="checkbox"/> Leaked <input type="checkbox"/>	Opened at _____ psid Did not open <input type="checkbox"/>	Opened at _____ psid Did not open <input type="checkbox"/>	Held at _____ psid Leaked <input type="checkbox"/>
Repairs and Materials Used					
Test After Repair	Held at _____ psid Closed Tight <input type="checkbox"/>	Held at _____ psid Closed Tight <input type="checkbox"/>	Opened at _____ psid	Opened at _____ psid	Held at _____ psid

Test gauge used: Make/Model _____ SN: _____ Date Tested for Accuracy: _____
 Remarks: _____

The above is certified to be true at the time of testing.

Firm Name _____ Certified Tester _____
 Firm Address _____ Cert. Tester No. _____ Date _____
 Firm Phone # _____

- ★ TEST RECORDS MUST BE KEPT FOR AT LEAST THREE YEARS
- ★★ USE ONLY MANUFACTURER'S REPLACEMENT PARTS

Appendix D: Sample Customer Service Inspection Certificate [from 30 TAC 290.47(d)]

Name of PWS _____ PWS I.D.# _____

Location of Service _____

Reason for Inspection:

- New construction
- Existing service where contaminant hazards are suspected.....
- Major renovation or expansion of distribution facilities.....

I _____, upon inspection of the private water distribution facilities connected to the aforementioned public water supply do hereby certify that, to the best of my knowledge:

Compliance Non-compliance

<input type="checkbox"/>	<input type="checkbox"/>	1. No direct connection between the public drinking water supply and a potential source of contamination exists. Potential sources of contamination are isolated from the public water system by an air gap or an appropriate backflow prevention assembly in accordance with Commission regulations.
<input type="checkbox"/>	<input type="checkbox"/>	2. No cross-connection between the public drinking water supply and a private water system exists. Where an actual air gap is not maintained between the public water supply and a private water supply, an approved reduced pressure-zone backflow prevention assembly is properly installed and a service agreement exists for annual inspection and testing by a certified backflow prevention assembly tester.
<input type="checkbox"/>	<input type="checkbox"/>	3. No connection exists which would allow the return of water used for condensing, cooling or industrial processes back to the public water supply.
<input type="checkbox"/>	<input type="checkbox"/>	4. No pipe or pipe fitting which contains more than 8.0% lead exists in private water distribution facilities installed on or after July 1, 1988.
<input type="checkbox"/>	<input type="checkbox"/>	5. No solder or flux which contains more than 0.2% lead exists in private water distribution facilities installed on or after July 1, 1988.

I further certify that the following materials were used in the installation of the private water distribution facilities:

- Service lines: Lead Copper PVC Other
 Solder: Lead Lead Free Solvent Weld Other

I recognize that this document shall become a permanent record of the aforementioned Public Water System and that I am legally responsible for the validity of the information I have provided.

Remarks:

Signature of Inspector	Registration Number
Title	Type of Registration
Date	