



**WATTS BAR UTILITY DISTRICT**

P. O. Box 910 - Kingston, TN 37763 - Phone: 865-270-8070 - Fax: 865-270-8073 - [www.wbud.org](http://www.wbud.org)

February 1, 2010

**The letter has been issued to:**

This letter is invalid. Must be issued by  
WBUD.

This letter is to inform that you must install and maintain an approved **reduced pressure principle backflow prevention assembly** on your water service at the meter or “premises isolation.” This action is taken in accordance with the Federal Safe Drinking Water Act, Tennessee Code Annotated 68-221-701 through 68-221-718, State of Tennessee Department of Environment and Conservation (TDEC), Division of Water Supply Regulations 1200-5-1-.17(6), and Watts Bar Utility District (WBUD) Cross Connection Control Policies and Program.

Under these Policies and Programs, WBUD has the primary responsibility of protecting the public potable water from backflow of dangerous substances, pollution, or contamination, which would endanger the public health or physically damage the public water system.

This letter does not address internal protection requirements. WBUD suggests you contact the agency or agencies having jurisdiction to ensure your water system complies with plumbing codes. WBUD however, does not accept responsibility to guarantee that all cross connections will be protected or for cross connections that may be created in the future, due to repair or alterations made in your water system.

It is necessary to shut off the flow of water through a backflow prevention assembly during the time it is being tested and/or repaired. If the complete interruption of water through as given service is critical to your operation, WBUD recommend you install backflow prevention assemblies in parallel. This will allow one assembly to continue serving water while the other is being tested or repaired. A check should be made with your engineer or plumber to be sure that assemblies are properly sized for desired flows.

Note that installation of a backflow prevention assembly will prevent release of on-site pressure to the utility water mains. Therefore, it is important that the temperature/pressure relief valve and/or thermal expansion tank be properly installed to relieve any excessive increase in on-site pressure due to hot water heating systems or other activities.

All devices installed must be evaluated and approved by the **Foundation for Cross Connection Control and Hydraulic Research of the University of Southern California**. The list may be obtained by contacting the cross connection manager of Watts Bar Utility District and the assemblies listed thereon have been adopted by WBUD as the only assemblies approved for use on the water lines under WBUD’s jurisdiction.

Failure to comply with this letter will result in water service discontinued until you have complied with this letter. The discontinuance of your water service until you have so complied is required by WBUD's Policies and Programs.

**WBUD must inspect installation of the Backflow Device to ensure it is installed to State and WBUD policy, Installation Criteria, and/or specifications.**

For additional information regarding this matter you may either write to Wesley J. Barger at Watts Bar Utility District, P. O. Box 910, Kingston TN, 37763 or telephone 800-882-5099 between the hours of 9 a.m. to 4 p.m. Please contact Wesley J. Barger as soon as the work is done or if, for any reason, you cannot comply with the **time frame** installation period or for clarification of any cross connection control requirements discussed in this letter.

**Information on Backflow Devices**

1. Backflow Devices

- a. When determined by WBUD, an approved backflow prevention device shall be installed on each water service line and un-metered fire line at the customer's premises (**premises isolation**); *at the water meter, no further than five (5) feet (unless WBUD grants a variance), or un-metered fire line stub out*; but in all cases, **before the first branch line leading off the service line.**
  - i. Lawn irrigation systems can be located at the house, outside not inside, but must be accessible at all times.
- b. For new installations, the manager or is designated agent shall determine the type of backflow prevention device that will be required.  
(RPBP or RPDA, will be the primary device required)
- c. All backflow devices shall be of the type approved by the Tennessee Department of Environment and Conservation, WBUD, and University of Southern California. The installation and maintenance of backflow prevention devices shall be at the expense of the owner or occupant of the premises. The backflow devices shall be testable and must be a Reduce Pressure or a Reduce Pressure Detector Assembly.
- d. All required devices shall be installed in accordance with the provisions of this policy, by a person certified by the Tennessee Department of Environment and Conservation, Division of Drinking Water Supply, or its successor. Certification shall be for *completion of special training and demonstration of competency in the installation, maintenance and testing of backflow prevention devices*. Evidence of current certification shall be required at the time of permit application and installation. **Only licensed sprinkler contractors may install, repair or test backflow prevention devices on fire protection systems.**
- e. All devices shall be installed in accordance with the manufacturer's instructions and shall possess appropriate test cocks, fittings and caps required for the testing of the device. All fittings shall be of brass construction, unless otherwise approved by WBUD, and shall permit direct connection to department test equipment.
- f. The entire device, including valves and test cocks (**with adapters**), shall be easily accessible for testing and repair.

- g. Reduced Pressure Backflow Prevention devices shall be located a minimum of twelve (12") inches plus the nominal diameter of the device above either; 1) the floor, 2) the top of opening(s) in the enclosure or 3) maximum flood level, whichever is higher. Maximum height above the floor surface shall not exceed sixty (60") inches.
  - h. Devices shall be protected from freezing, vandalism, mechanical abuse, and from any corrosive, sticky, greasy, abrasive or other damaging environment.
  - i. Approved Backflow devices for sizes 2 ½" – 10", Ames Series 5000CIV Reduced Pressure Detector Assemblies or Watts Series 909RPDA Reduced Pressure Detector Assemblies, or equal.
    - i. The Detectable Meter must be a Badger Model 25, 70, or 170, and must have a RTR register with a 3' lead wire. In most cases, the meter will be a ¾" Badger Meter, model 25 with RTR register with a 3' lead wire. The meter shall register in gallons.
  - j. Approved Backflow devices for 2" and smaller not used for fire protection/un-metered water, shall be a Reduced Pressure Backflow Preventor.
  - k. After installation, the Backflow Device shall be tested by a person having a valid Certificate of Competency in Testing and Evaluation of Backflow Prevention Assemblies issued by the Division of Water Supply. The results shall be faxed or mailed to WBUD not later than 30 days after installation.
  - l. The person testing the backflow device shall fax, mail, or hand deliver a copy of the Certificate of Competency in Testing and Evaluation of Backflow Prevention Assemblies to WBUD.
  - m. **Note:** All assemblies approved for use in WBUD system must be approved by the foundation for Cross Connection Control and Hydraulic Research at the University of Southern California.
2. Enclosures:
- a. 5052-H32 aluminum, or an approved equal material, with a minimum of 1.5" factory manufactured polyisocyanurate insulation in the walls and roof. For backflow prevention devices 2-1/2" and larger, the enclosure shall be constructed of 5052-H32 aluminum, or an approved equal material, with a minimum of 1.5" factory manufactured polyisocyanurate insulation in the walls and 3" factory manufactured polyisocyanurate insulation in the roof.
  - b. The complete assembly, including valve stems and hand wheels, shall be protected by being inside the enclosure.
  - c. To provide access for backflow prevention devices up to and including two (2") inches, the enclosure shall be completely removable. Access for backflow prevention devices 2-1/2" and larger shall be provided through a minimum of two access panels. The access panels shall be of the same height as the enclosure and shall be completely removable. All access panels shall be provided with built-in locks.

- d. The enclosure shall be mounted to a concrete pad as specified by the manufacturer, but in no case less than four (4") inches thick. The enclosure shall be constructed, assembled and/or mounted in such a manner that it will remain locked and secured to the pad even if any outside fasteners are removed. All hardware and fasteners shall be constructed of 300 series stainless steel.
  - e. 5. Heating equipment, if required, shall be designed and furnished by the manufacturer of the enclosure to maintain an interior temperature of +40°F with an outside temperature of -30°F and a wind velocity of 15 miles per hour.
  - f. **If the customer wants to lock the enclosure, the customer shall contact WBUD for a combination lock. The lock will be provided by WBUD at no additional cost. The combination will also be provided to the customer by WBUD.**
- 3. The Backflow Device and Enclosure must be inspected and approved by WBUD.
  - 4. The backflow device will be tested at least annually by WBUD. If the device fails, it will be repaired or replaced at the customer's expense. Once the Backflow Device has been repaired or replaced, the customer must have the backflow device tested before putting it back in service. The backflow device must be repaired or replaced within 30 days after failing an inspection. After the backflow device has been repaired or replaced it must meet section 1(k) and 1(l) of this letter.
  - 5. There is a monthly fee that is added to the monthly water bill for a one (1) test annually by WBUD. See Schedule of Rates and Charges
  - 6. The information provided above is a ***brief*** summary of the specs and policy of WBUD and is intended for a quick reference guide for contractors and customers installing an approved backflow device. A full copy of the specs and policy is provided upon written request, a nominal fee will be charged for the copies.
  - 7. This letter of information is only valid for **60 days** from the date above. If you are past the 60 days from the date above, you must be re-issued another letter of information.

Sincerely

Cross Connection Manager