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Council Bill No. 98-110-A

ORDINANCE NO. 98-649-O

AN ORDINANCE REGULATING WATER SUPPLY CROSS CONNECTIONS AND PROTECTING THE WATER SUPPLY OF THE CITY FROM CONTAMINATION DUE TO CROSS CONNECTIONS, DECLARING AN EMERGENCY.

The City of Talent ordains as follows:

**Section 1. DEFINITIONS:**

**Approved Backflow Prevention Assembly or Backflow Assembly or Assembly** - An assembly to counteract back pressure or prevent back siphonage. This assembly must appear on the list of approved assemblies issued by the Oregon Health Division.

**Types:**

**Air Gap** - A physical separation between the free-flowing discharge end of a potable water supply piping and/or appurtenance and an open or non pressure-receiving vessel, plumbing fixture or other device. An "approved air-gap separation" shall be at least double the diameter of the supply pipe measured vertically above the overflow rim of the vessel, plumbing fixture or other device, in no case less than one inch.

**Reduced Pressure Principle Backflow Prevention Assembly or Reduced Pressure Principle Assembly or RP Assembly or RP** An assembly containing two, independently-acting, approved check valves together with a hydraulically-operated, mechanically independent pressure differential relief valve located between the check valves and at the same time below the first check valve. The assembly shall include properly located test locks and tightly closing shut-off valves at the inlet and outlet ends of the assembly.

**Reduced Pressure Principle Detector Backflow Prevention Assembly or Reduced Pressure Detector or RPDA** - An assembly composed of a line-size approved, reduced pressure principle assembly with a bypass containing a specific water meter and an approved reduced pressure principle backflow prevention assembly in accordance with Oregon Administrative Rule 333-061-0070. The meter shall register accurately in cubic feet for very low rates of flow.

**Double Check Valve Backflow Prevention Assembly or Double Check Assembly or Double Check or DC** - An assembly which consists of two,

independently-operating check valves which are spring-loaded or weighted. The assembly comes complete with a shut-off valve on each side of the checks, as well as test rocks to test the checks for tightness.

**Double Check Detector Backflow Prevention Assembly or Double Check Detector Assembly or DCDA** - An assembly composed of a line-size approved double check assembly with a bypass containing a specific water meter and an approved double check valve assembly in accordance with Oregon Administrative Rule 333-061-0070. The meter shall register accurately in cubic feet for very low rates of flow.

**Pressure Vacuum Breaker Backflow Prevention Assembly or Pressure Vacuum Breaker or PVB** - An assembly which provides protection against back siphonage, but does not provide adequate protection against back pressure backflow. The assembly is a combination of a single check valve with an air inlet valve and can be used with downstream shut-off valves. In addition, the assembly has suction and discharge shut-off valves and test cocks which allows the full testing of the assembly.

**Auxiliary Water Supply** - Any water source other than the public water system including irrigation water sources.

**Backflow** - The flow in the direction opposite to the normal flow or the introduction of any foreign liquids, gases, or substances into the City's water system.

**Back pressure** - Any elevation of pressure in the downstream piping system above the supply pressure at the point of consideration which would cause, or tend to cause, a reversal of the normal direction of flow and the introduction of fluids, mixtures or substances from any source other than the intended source.

**Back siphonage** - The flow of water or other liquids, mixture or substances into the distribution pipes of a potable water supply system from any source other than its intended source caused by a sudden reduction of pressure in the potable water supply system.

**Boresight or Boresight to Daylight** - Providing adequate drainage for backflow prevention assemblies installed in vaults through the use of an unobstructed drain pipe.

**BPA** - Any Backflow Prevention Assembly approved by City rules, regulations or ordinances, or Oregon Administrative Rule 333-061-0070.

**City** - The City of Talent, Oregon or its designee.

**City Water System** - The system, owned and operated by the City of Talent, for providing piped water for human consumption to the public.

**Confined Space** - An area that has limited entry and exit, is large enough for a person to enter, and was not designed for continuous occupancy.

**Contamination** - The entry or presence in a public water supply system of any substance which may be harmful to health or the quality of the water.

**Cross-Connection** - Any unprotected actual or potential (direct or indirect) connection or physical arrangement through which it is possible to introduce into any part of the drinking water system any used water or substance other than the intended potable water.

**Degree of Hazard** - The low or high hazard classification that shall be attached to all actual or potential cross-connections.

**High Hazard** - The classification assigned to an actual or potential cross-connection where a substance which, if allowed to backflow into the City water system, could cause illness or death.

**Low Hazard** - The classification assigned to an actual or potential cross-connection that could allow a substance which, if allowed to backflow into the City water system, could be objectionable but not dangerous to one's health.

**Mobile Units** - Any mobile equipment that uses water obtained through the City water system. Mobile units include but are not limited to, carpet-cleaning vehicles, water hauling vehicles, street-cleaning vehicles that use water, portable toilet-hauling and water-service vehicles and septic tank cleaning vehicles that use water.

**Nonresidential Use** - All uses not specifically included in residential uses defined below.

**Point of Use Isolation** - The appropriate backflow prevention within the consumer's water system at the point where the actual or potential cross connection exists.

**Premises** - Any property to which water is provided, including but not limited to, all improvements, mobile homes, and any other structures thereon.

**Premises Isolation** - The appropriate backflow prevention at the service connection between the public water system and the water user.

**Public Works** - The Public Works Department of the City of Talent responsible for

operation and maintenance of the Talent public water system.

**Representative of the City** - A person designated by the City of Talent to perform cross-connection control duties that shall include, but not be limited to, cross-connection inspections and water-use surveys.

**Residential Use** - Shall include, but is not limited to, single family dwellings, duplexes, multiplexes, housing and apartments where the individual units are each on a separate meter; or where two or more units are served by one meter and the units are full-time dwellings.

**Service Connection** - The portion of the water system that conveys water from the distribution main to the outlet side of the meter, or the inlet side of the BPA, whichever occurs first.

**Tester** - A person certified as a backflow prevention assembly tester and registered with the Oregon State Department of Health.

**Used Water** - Water supplied by the City Water System to a water user's system which has passed through a service connection or meter.

## **Section 2. PURPOSE:**

The purpose of this ordinance is to protect the water supply of the City of Talent from contamination or pollution due to any existing or potential cross-connections.

## **Section 3. CROSS CONNECTION REGULATION:**

No cross-connections shall be created, installed, used or maintained within the area served by the City, except in accordance with this ordinance. The cost of complying with this ordinance is the sole responsibility of the property owner.

BPA's shall be utilized at premises where a substance is handled that would be hazardous to health if introduced into the City water system. The BPA's shall be used in locations where an air gap is impractical.

## **Section 4. BACKFLOW PREVENTION ASSEMBLY (BPA) REQUIREMENTS:**

The following shall apply to all properties, where an actual cross-connection exists or a potential cross connection exists, which if connected would represent a hazard. The owner of the premises and/or the owner of the property are responsible for providing backflow protection in accordance with OAR 333-061-0070. The type and location of the BPA and elimination method shall be subject to approval by the City or its designee.

The property and/or premise owner assumes all responsibility for any damages resulting from installation, operation, and/or maintenance of any BPA.

In addition to other situations required by law or this ordinance, backflow protection shall be required or upgraded in each of the following specific circumstances:

- 1) The nature or extent of any activity of the premises, or the materials used in connection with any activity of the premises, or materials stored on the premises, representing a hazard to the City water system.
- 2) Cross-connections are present.
- 3) Intricate plumbing arrangements are present that make it impractical to ascertain whether cross-connections exist.
- 4) There is a history of cross-connections being established or reestablished.
- 5) Entry has been denied for cross-connection inspection.
- 6) Materials are being used such that, if backflow should occur, a health hazard could result.
- 7) An approved cross-connection survey report form has not been filed with the City as requested.
- 8) A fire sprinkler system using non potable piping material is connected to the City water system.
- 9) When a building is constructed on commercial premises, and the end use of such building is not determined or could change (such as, shopping malls and buildings with undetermined occupancy), a reduced pressure principle backflow prevention assembly shall be installed at the service connection.
- 10) If any water use on the premises changes, which increases the degree of hazard.
- 11) If it is determined the plumbing system has been changed without obtaining proper permits as required by the City.
- 12) Any building with a water storage tank.
- 13) A pressurized irrigation system is installed on the premises.

- 14) In special circumstances, when the customer is engaged in the handling of especially dangerous or corrosive liquids or industrial or process waters, the City may require the customer to eliminate certain plumbing or piping connections as an additional precaution and as a protection to the back flow protective devices.
- 15) All service connections two inches or larger.
- 16) An auxiliary water source exists on the property or is piped to the property.
- 17) Any mobile apparatus which uses the City's water from any premises within the water service area of the City.

**Section 5. BPA INSTALLATION REQUIREMENTS:**

The following requirements shall apply to the installation of BPA's.

- 1) All BPA's shall be of a type and model approved by the Oregon Health Division and the City of Talent.
- 2) An assembly installer must obtain the required plumbing permits and have the installation inspected by the City.
- 3) All BPA's are required to have brass or plastic threaded pipe plugs installed in all test cocks. Galvanized plugs in test cocks are not allowed.
- 4) Assemblies must be installed at the point of delivery of the water supply. Assemblies shall be installed before any branch in the line. BPA's shall be installed on private property immediately adjacent to the property line. Alternative locations must be approved in writing by the City prior to installation. BPA's that must be installed or are located on City right-of-ways are the responsibility of the property owner. If a BPA must be located in City right of way, the following provisions will be followed.
  - a. A BPA required by the City may be installed upon or within any City right of way only if the owner proves, to the satisfaction of the City, there is no other feasible location for installing the assembly, and installing it in the right of way will not interfere with traffic or utilities. The City retains the right to approve the location, height, depth, enclosure, and other requisites of the assembly prior to its installation.
  - b. All encroachment permits required by the City to perform work in the right of way shall be obtained.

- c. A property owner shall, at the request of the City and at the owner's expense, relocate a BPA which encroaches upon any City right-of-way when such relocation is necessary for street, sidewalk, or utility construction or repairs for purposes of public safety.
- 5) The BPA shall be protected from freezing.
  - 6) No part of a reduced pressure principle BPA shall be submerged in water or installed in a location subject to flooding. If installed in a basement or a vault, adequate drainage shall be provided.
  - 7) Vertical installation of BPA's shall be restricted to those approved by the Oregon Health Division and must receive written City approval prior to installation.
  - 8) The BPA shall be readily accessible with adequate room and visibility for maintenance and testing. BPA's 2" and smaller shall have a minimum of 6" clearance on all sides of the BPA with a maximum depth of 12" below ground level, unless approved in writing by the City.
  - 9) All BPA's larger than 2" shall have a minimum clearance of 12" on the back side, 24" on the test cock side, 12" below the BPA and 6" above the BPA. These clearance standards apply to all assemblies installed in vaults, enclosures, and meter boxes.
  - 10) If written permission is granted to install a BPA inside a building, the BPA shall be available for inspection during the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday.
  - 11) BPA's installed inside a building, five feet or more above the floor shall be equipped with a rigid and permanently installed platform with railing constructed according to applicable building codes. This installation shall also meet the requirements set out by the U.S. Occupational Safety and Health Administration and the State of Oregon Occupational Safety and Health Codes.
  - 12) Installation of a BPA in a confined space requires specific safety procedures when performing tests and maintenance.
  - 13) Premises where interruption of water supply is important should be provided with two BPA's installed in parallel. They should be sized in such a manner that either BPA will provide the minimum water requirements while the two together will provide the necessary flow desired.
  - 14) All facilities that require continuous uninterrupted water service, and are

required to have a BPA, shall make provisions for the parallel installation of BPAs of the same type so that testing, repair and maintenance can be performed.

- 15) In the event a point-of-use BPA has not had the testing or repair done as required by this ordinance, a premises isolation BPA or approved air gap will be required.
- 16) Upon completion of any BPA installation, the City shall be notified by the property or premise owner. The City will then conduct an inspection. If the installation is approved by the City, the property or premise owner shall have the BPA tested by an authorized tester. Test results shall be provided to the City by the property or premise owner or tester. The testing and repairs of all assemblies are the financial responsibility of the property and/or premise owner.
- 17) All BPA's must be registered with the City. Registration shall consist of address of BPA, date of installation, manufacturers name, model, type, size, serial number, and initial test report.
- 18) Bypass lines are prohibited. Pipe fittings which could be used for connecting bypass lines shall not be installed.
- 19) BPA information nameplate and serial number must be attached to the BPA and be readily visible.
- 20) Pressure vacuum breaker BPA's may be utilized only in single zone irrigation systems.
- 21) BPA's shall be sized to provide an adequate supply of water and pressure for the premises being served. Consult manufacturers specifications for specific performance data such as flow characteristics. The City is not responsible for any water pressure drop associated with the installation of BPAs.
- 22) Variances from these specifications will be evaluated on a case by case basis. Any deviations must have prior written approval of the City.

#### **Section 6. INSPECTION, MAINTENANCE AND TESTING:**

- 1) A person who owns, operates, or manages premises where required BPA's are installed shall maintain such BPA's in proper working order at all times.
- 2) It is the responsibility of the property owner and premises owner to have all BPA's tested in accordance with this ordinance. The City shall inspect and



require testing of all BPA's in each of the following circumstances:

- a. Immediately after installation of the BPA.
- b. Whenever the BPA is moved.
- c. A minimum of once a year.
- d. Immediately after repairs.

BPA's may be required to be tested more frequently if the City determines this to be necessary based on such factors as the repair history of this BPA, circumstances on the premises, and the degree of hazard.

- 3) All BPA testing shall be performed by a backflow prevention assembly tester certified by the Oregon Health Division.
- 4) The City shall not be liable for damage resulting from testing.

#### **Section 7. MOBILE UNITS:**

Mobile units must obtain and maintain a current permit from the City before using any water. As a condition of issuing a permit, the City may require a fixed air gap or BPA to be mounted on the vehicle or its piping system.

#### **Section 8. MULTIPLE CONNECTIONS:**

Any premises to be served by multiple service connections shall be required to install a BPA or an approved air gap on each of the service lines to the premises. The assembly will be consistent with the degree of hazard that could occur in the event of a cross-connection.

#### **Section 9. THERMAL EXPANSION:**

The property owner shall maintain thermal expansion safety devices such as temperature and pressure relief valves on hot water heaters and boilers. The City is not responsible for the elimination or control of thermal expansion.

#### **Section 10. PRESSURE LOSS:**

The City is not responsible for any reduction in water pressure caused by the installation of a BPA. Oregon Health Division approved double check valve assembly shall have a maximum loss of 10 psi and reduced pressure backflow assemblies shall have a maximum loss of 24 psi.

### **Section 11. RESPONSIBLE PARTY:**

The property owner and/or premises owner is responsible for the installation, maintenance, testing and repair of all BPA's on the premises. When the tenants change, or if plumbing is altered in any way, it is the responsibility of the property and/or premises owner to notify the City.

### **Section 12. TESTER RESPONSIBILITIES:**

- 1) BPA testers shall have current backflow assembly tester and cross connection inspector certification from the Oregon State Health Division. BPA testers shall have liability insurance in the amount of \$500,000. If the employer holds the liability insurance, the tester may only test when working for the employer.
- 2) The tester shall be responsible for accurate testing of BPA's and shall submit complete reports thereof to the City no later than 30 days after the test has been completed.
- 3) Registration by BPA testers must include all test gauges to be used by said tester. Test gauges shall be listed by Registered Oregon Health Division numbers on tests and maintenance reports prior to being submitted.
- 4) Testers shall not change the design or operation characteristics of any BPA.
- 5) The tester must provide evidence to the City that the tester has successfully completed "Permit Confined-Space Entry Training" as specified by federal Occupational Safety and Health Administration Training Requirements.
- 6) City authorization to test may be revoked by the City if the tester has falsely, incompletely, or inaccurately reported BPA reports; or has used inaccurate gauges; or has used improper testing procedures; or has expired insurance; or is not in compliance with safety regulations or has a history of valid customer complaints.

### **Section 13. CODE COMPLIANCE:**

As a condition of water service, customers shall install, maintain and operate their piping, plumbing systems, and BPA's in accordance with the laws of the State of Oregon and the City of Talent. The following provisions apply:

- 1) The City shall have access to the premises during the hours of 8:00 a.m. to 5:00 p.m. If any water user refuses the City or its designee access to any areas of the premises, the user shall install a reduced pressure principle BPA at the service

connection to the premises at the users cost. Failure to install the BPA assembly shall result in termination of City services.

- 2) The customer must comply with state and federal laws governing the separation of dual water systems or installations of back flow protective devices to protect the public water supply from the danger of cross connections. Back flow protective devices must be installed as near the service as possible and shall be open to test and inspection by the City. Plans for installation of back flow protective devices must be approved by the City prior to installation.
- 3) Water service may be refused or discontinued to any premises where there exists a cross connection in violation of state or federal laws.
- 4) The service of water to any premise may be immediately discontinued by the City if any defect is found in the check valve installations or other protective devices, or if it is found that dangerous unprotected cross connections exist. Water service will not be restored until such defects are corrected.

**Section 14. PENALTY:**

Any person violating any provision of this ordinance shall, upon conviction thereof, be punished by a fine of not more than \$100.00. Each day's violation of this ordinance constitutes a separate violation.

**Section 15. SEVERABILITY:**

The sections and subsections of this ordinance are severable. The invalidity of one section or subsection shall not affect the validity of the remaining sections or subsections.

**Section 16. EMERGENCY CLAUSE:**

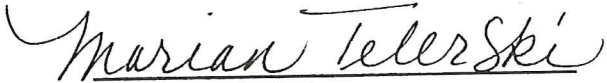
Inasmuch as the provisions of this ordinance are necessary for the immediate preservation of the peace, health and safety of the citizens of the City of Talent, an emergency is hereby declared to exist and this ordinance shall be in full force and effect immediately upon its passage by the Council and its approval by the Mayor of the City of Talent, Oregon.

Adopted as read by title only the 5th day of August, 1998 by the following vote:


AYES - 7      NAYS - 0      ABSENT - 0      ABSTAIN - 0

Signed by me, Marian Telerski, Council President in the absence of the Mayor, in

authentication of its adoption and passage the 6th day of August, 1998.

  
Marian Telerksi  
Council President

ATTEST:

  
Leahnette M. York  
City Administrator/Recorder

EFFECTIVE DATE: August 6, 1998