

ORDINANCE NO. 89-58-5

41-00410

AN ORDINANCE providing for the control of back flow and cross-connections.

THE CITY OF JOHN DAY, OREGON ORDAINS AS FOLLOWS:

Section 1. Cross-Connection Control - General Policy  
Purpose: The purpose of this ordinance is:

- 1.1 To protect the public potable water supply of the City of John Day from the possibility of contamination or pollution by isolating within the customer's internal distribution system(s) or the customer's private water system(s) such contaminants or pollutants which could back flow into the public potable water system(s) and,
- 1.2 To promote the elimination or control of existing and future cross-connections, actual or potential, between the customer's in-plant potable water system(s) and non-potable water system(s) plumbing fixtures and industrial piping system(s) and,
- 1.3 To comply with Oregon Administrative Rules for public water systems pertaining to cross-connection control requirements.

Section 2. Definitions

- 2.1 "Air Gap" means the physical vertical separation between the free flowing discharge end of a potable water supply pipeline, faucet or fixture and the overflow rim of an open or non-pressure receiving vessel (tank). Physical separations must be at least twice the diameter of the inlet pipe, but never less than one inch. An approved air gap if properly maintained may be installed where the substance which could back flow is hazardous to health.
- 2.2 "Approved" means accepted by the Oregon State Health Division and the City as meeting an applicable specification stated or cited in this ordinance.
- 2.3 "Auxiliary Water Supply" means any supply of water used to augment the supply of water obtained from the public water supply which serves the premises in question. These auxiliary waters may include but not limited to wells, springs, rivers or "used waters" that has originated from the public water supply and have deteriorated in quality. These waters may be contaminated or polluted and constitute an unacceptable water source over which the water purveyor does not have sanitary control.

- 2.4 "AWWA" means American Water Works Association.
- 2.5 "Back Flow" means the reversal of the normal direction of flow of water caused by either back pressure or back siphonage.
- 2.6 "Back Pressure" means the flow of water or other liquids, mixtures or substances under pressure into the distribution pipes of a potable water supply system from any source other than the intended source. Booster pumps, elevated tanks, boilers or other means may result in a pressure greater than the supply pressure.
- 2.7 "Back Siphonage" means the flow of water or other liquids, mixtures or substances into the distribution pipes of a potable water supply from any source other than the intended source caused by the reduction of pressure in the public water supply system. Breaks in water mains, low water main pressure due to high demand, and fire fighting are causes of back siphonage.
- 2.8 "Back Flow Preventer" means an assembly, device or means designed to prevent back flow of water, liquid, mixtures or substances. The term "approved back flow prevention assembly" shall mean an assembly that has been manufactured in full conformance with the standards established by the AWWA and approved for use in Oregon by the State Health Division.
- 2.9 "City" means City of John Day. "City Water System" (also referred to as public water system) means all or any part of the facilities for transporting, storing, pumping, treating, distributing or providing water to water service connections and servicing fire hydrants.
- 2.10 "Contamination" means an impairment of the quality of the potable water by sewage, industrial fluids or waste liquids, compounds or other materials to a degree which create an actual or potential hazard to the public health through exposure to disease organisms or substances which may cause harmful physiological effects.
- 2.11 "Cross-Connection" means any physical connection or arrangement of piping or fixtures between two otherwise separate piping systems one of which contains potable water and the other non-potable water or industrial fluids through which or because of which back flow may occur into the potable water system, whether such can be separated by a valve(s) or not. Bypass connections, jumper connections or any other plumbing arrangements in which it is possible to introduce into any part of the potable water system any polluted or contaminated water, fluid or substance are considered cross-connections.

- 2.12 "Customer" means any person, firm or corporation granted water service by the City.
- 2.13 "Customer Line" means the extension of pipe, valves and fittings leading from the water meter into the premises served.
- 2.14 "Customer System" means all or any part of the network of pipes, fixtures and plumbing for distributing water on the premises being served past the utility systems meter.
- 2.15 "Double Check Valve Assembly" (DCVA) means an assembly of two independently acting check valves with shutoff valves on each side of the check valves and test cocks for testing the water tightness of each check valve. This assembly is designed for low hazard applications.
- 2.16 "Hazard" - Degree of - The term is derived from the evaluation of the potential risk to public health and the adverse effect of the hazard upon the public water system. The degree of hazard is referred to as low hazard, moderate hazard and high hazard.
- 2.17 "Pollution means the presence of any foreign substance (organic, inorganic, radiological, physical or biological) in water which tends to degrade its quality so as to constitute a hazard or impair the usefulness or quality of the water to a degree which adversely and unreasonably affect such waters for domestic use.
- 2.18 "Premises" means any building, structure, improvement or parcel of land which now or some future time receive water service from the City.
- 2.19 "Reduced Pressure Zone Back Flow Preventer" (RPZ) means an assembly for preventing back flow which has two independent check valves, a differential relief valve located between the two check valves, two shut-off valves, one on the upstream side and one on the downstream of the check valves and four test cocks for testing the water tightness of the check valves and the operation of the relief valve. This assembly is designed for high hazard applications.
- 2.20 "Vacuum Breakers" Two types of vacuum breakers are the atmospheric type (AVB) and the pressure type (PVB). The difference between the two devices is that the pressure vacuum breaker is spring loaded to assist the device in opening. Both devices open the pipeline to atmosphere in the event of back siphonage conditions only. Neither device is approved for back pressure conditions. Their primary purpose is to protect the water system from cross-connections due to submerged inlets, such as irrigation systems and tank applications. Shut-off valves cannot be installed downstream of atmospheric devices but

can be on pressure devices. The devices must be installed above the highest downstream piping.

- 2.21 "Water - Potable" means any water which according to State Health and Federal Standards is safe for human consumption.
- 2.22 "Water - Non-Potable" means water which is not safe for human consumption or which is of questionable potability.
- 2.23 "Water-Purveyor" means the owner or operator of the public potable water system supplying water for public use.
- 2.24 "Water-Service Connection" means the terminal end of the City water system to which a water meter is attached i.e. where the water purveyor loses jurisdiction and sanitary control over the water at its point of delivery to the customers water system. There shall be no unprotected take offs from the service line ahead of any water meter. Service connections shall also include all other temporary or emergency water service connections from the city water system.
- 2.25 "Water-User" means any person using any part of the City water system.

### Section 3. Responsibility

- 3.1 Water System - The water system shall be considered made up of two parts: The utility system and the customer system.
- 3.2 The City shall maintain the utility system facilities which include sources, storage, transmission and distribution mains and service lines and supply potable water to the service connection (point of delivery) of quality meeting the requirements of the Oregon State Health Division and the National Safe Drinking Water Act PL 93-523 or its successor.
- 3.3 The customer system shall be maintained by the water user including the plumbing system(s) within their premises beginning at the utility or system meter and not give cause for any contaminants or pollutants to be introduced that could back flow or back siphon into the public potable water system.
- 3.4 If, in the judgement of the City's designated representative an approved back flow prevention assembly is required at the customers water service connection or within the customers private water system for the protection of the public potable water system due to the back flow/ back siphonage potential of contaminants or pollutants, the City's designated representative shall give notice in writing to said customer to install such approved assembly(s) at the customers own expense; and failure, refusal or inability on the part of the customer to install, have tested and

maintain said assembly(s) shall constitute a ground for discontinuing water service to the premises until such requirements have been satisfactorily met.

Section 4. Policy

- 4.1 No water service connection to any premises shall be installed or maintained by the City unless the public water supply is protected as required by state laws and regulations and this Ordinance No. 89-58-5. Service of water to any premises shall be discontinued by the City if a back flow prevention assembly required by this Ordinance No. 89-58-5 is not installed, tested and maintained, or if it is found that a back flow prevention assembly has been removed, bypassed, or if an unprotected cross-connection exists on the premises. Service will not be restored until such conditions or defects are corrected.
- 4.2 The customers system should be open for inspection at all reasonable times to authorized representatives of the City to determine whether cross-connections or other structural or sanitary hazards exist. When such a condition becomes known the City shall deny or immediately discontinue water service to the premises by providing for a physical break in the service line until the customer has corrected the condition(s) in conformance with state and city statutes relating to plumbing and water supplies and the regulations adopted pursuant thereto.
- 4.3 An approved back flow prevention assembly(s) for protecting the public water system shall be installed at or near the service connection or immediately inside the building being served or at the appropriate location upon the approval of the City's designated representative to premises whenever the following conditions exist:
  - 4.3a There is an auxiliary water supply which is or can be connected to the public water supply. Such auxiliary supply shall be considered connected to the public water supply unless there be a physical break in the piping between such separate water supply and the public water supply.
  - 4.3b There is piping for conveying liquids other than potable water, and where that piping is under pressure and is installed and operated in a manner which could cause a cross-connection.
  - 4.3c There is intricate plumbing and piping arrangements, or where entry to all portions of the premises is not readily accessible to ascertain whether or not dangerous cross-connections exist.

- 4.3d There are fire protection systems connected to the public water system that are interconnected with an unapproved water supply, pipe material not approved for potable water use, where chemical additives and antifreeze compounds that may be toxic are used, or where stagnant waters that have deteriorated could back flow into the public water system.
- 4.3e There are underground sprinkler/irrigation systems that could let water contaminated by weed killers and fertilizers be back siphoned (back flow) into the public water system.
- 4.3f There are sprinkler/irrigation systems that provide for chemical injection.
- 4.3g There is back siphonage potential.
- 4.3h Cross-connections or potential cross connections exist.

#### Section 5. Requirements

- 5.1 All back flow prevention assembly(s) required by the Oregon State Health Division and this Ordinance No. 89-58-5 shall be of a type and model approved by the Health Division and are commensurate with the degree of hazard which exists.
- 5.2 All presently installed assemblies which do not meet the requirements of this section, but were approved assemblies for the purposes described herein at the time of installation and which have been properly maintained, shall, except for the inspection and maintenance requirements under Section 7.1 be excluded from the requirements of these rules so long as they satisfactorily protect the public water system. Whenever the existing assembly is moved from the present location or requires more than minimum maintenance or constitutes a hazard to public health, the unit shall be replaced by a back flow prevention assembly meeting the requirements of this section.

#### Section 6. Installation

- 6.1 No part of the back flow prevention assembly shall be submerged in water or installed in a location subject to flooding. If installed in a vault or basement, adequate drainage shall be provided.
- 6.2 The assembly must be protected from freezing and other severe weather conditions.
- 6.3 All assemblies shall be installed according to the

manufactures installation instructions and the "Accepted Procedure and Practice in Cross-Connection Control Manual" published by the Cross-Connection Control Committee, Pacific Northwest Section, AWWA. Only assemblies specifically approved by the City's designated representative for vertical installation may be installed vertically.

- 6.4 All assemblies shall be readily accessible with adequate room for maintenance and testing. The minimum clearance specified by the manufacturers installation instructions shall be closely followed.
- 6.5 Upon completion of installation, the City shall be notified and all back flow protection assemblies inspected by the City's designated representative. Each back flow prevention assembly shall be kept on file with the City. The file shall consist of date of installation, location, make, model, size and serial number of the assembly and initial test report.
- 6.6 All pipe joints shall be restrained.
- 6.7 The assembly shall be tested upon installation by a State of Oregon Certified Tester and at least annually thereafter.

#### Section 7. Testing

- 7.1 It shall be the responsibility of the customer-user at any premises where back flow prevention assemblies are installed to have certified inspections and operational tests made at least once per year. In those instances where the City's designated representative deems the hazard to be great enough he may require certified inspections at more frequent intervals. These inspections and tests shall be at the sole expense of the water customer-user. The customer-user shall notify the City in advance when tests are to be undertaken so that an official representative of the City may witness the tests if so desired. Any assemblies found defective, requiring repair, overhaul or replacement shall be at the sole expense of the customer-user. The results of such testing shall be forwarded to the Oregon State Health Division and the city within ten (10) days of the date of installation and thirty (30) days of the date of the anniversary date for the annual testing.
- 7.2 If water customer-user fails to have such tests performed as required by Section 7.1 the City may upon written notification within ten (10) days order such required tests be performed by a certified tester and all costs added to the customer-users water bill.

Section 8. Severability

The sections of this ordinance are severable. The invalidity of a section shall not affect the validity of the remaining sections.

Section 9. Penalties

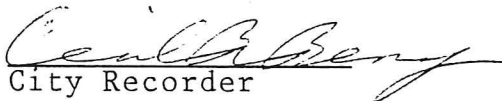
Unless otherwise provided, any violation of any of this ordinance shall be punished by a fine not to exceed five hundred dollars (\$500.00) for any one offense, or by imprisonment in the City or County jail for a period of not more than six (6) months or by both such fine and imprisonment.

Section 10. Effective Date

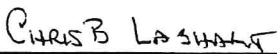
This ordinance shall become effective thirty (30) days after its approval.

Passed by the City Council of the City of John Day, Oregon this  
23rd day of May, 1989.

Attest:

  
City Recorder

Approved by the Mayor of the City of John Day, Oregon this  
23rd day of May, 1989.

  
Chris B. Labhart