

July 1, 1995

BLACK BUTTE RANCH WATER DISTRIBUTION COMPANY

41-00086

RESOLUTION

Pursuant to Chapter 333, Division 61 of the Oregon Administrative Rules, it is the responsibility Black Butte Ranch Water Distribution Company to protect its drinking water by instituting and enforcing a cross connection program. Therefore, the following resolution is hereby adopted:

Contents:

- 1:01 Definitions
- 1:02 Purpose
- 1:03 Cross Connections Regulated
- 1:04 Backflow Prevention Assembly Requirements
- 1:05 Lawn/Landscape Irrigation Systems
- 1:06 Installation Requirements
- 1:07 Access to Premises
- 1:08 Annual Testing and Repairs
- 1:09 Costs of Compliance
- 1:10 Termination of Service
- 1:11 Constitutionality and Saving Clause
- 1:12 Effective Date

1:01 DEFINITIONS

- (1) "Approved backflow prevention assembly" means an assembly to counteract back-pressure or prevent backsiphonage. This assembly must appear on the list of approved assemblies issued by the Oregon Health Division.
- (2) "Auxiliary supply" means any water source or system other than the Black Butte Ranch Water Distribution Company system, that may be available in the building or on the premises.
- (3) "Backflow" means the flow in the direction opposite to the normal flow or the introduction of any foreign liquids, gases, or substances into the water system of the Black Butte Ranch Water Distribution Company.

- (4) "Contamination" means the entry into or presence in a public water supply system of any substance which may be deleterious to health and/or quality of the water.
- (5) "Cross Connection" means any physical arrangement where a public water system is connected, directly or indirectly, with any other non-drinkable water system or auxiliary system, sewer, drain conduit, swimming pool, storage reservoir, plumbing fixture, swamp coolers, or any other device which contains, or may contain, contaminated water, sewage, or other liquid of unknown or unsafe quality which may be capable of imparting contamination to the public water system as a result of backflow. Bypass arrangements, jumper connections, removable sections, swivel or changeover devices, or other temporary or permanent devices through which, or because of which, backflow may occur are considered to be cross connections.
- (6) "Degree of hazard" shall be derived from the evaluation of a health, system, plumbing or polluttional hazard.
- (7) "Double check valve assembly" means an approved assembly consisting of two, independently operating check valves, loaded to the closed position by springs or weights, and installed as a unit with, and between, two resilient seated shut-off valves and having suitable connections for testing.
- (8) "Health hazard" means an actual or potential threat of contamination of a physical or toxic nature to the public potable water system or the consumer's potable water system that would be a danger to health.
- (9) "Plumbing hazard" means an internal or plumbing-type cross-connection in a consumer's potable water system than may be either a polluttional or a contamination-type hazard. This includes, but is not limited to, cross connections to toilets, sinks, lavatories, wash trays, domestic washing machines and lawn sprinkling systems. Plumbing-type cross connections can be located in many types of structures including homes, apartment houses, hotels and commercial or industrial establishments.
- (10) "Polluttional hazard" means an actual or potential threat to the physical properties of the water system or the potability of the public or the consumer's potable water system but which would not constitute a health or system hazard, as defined. The maximum degree of intensity of pollution to which the potable water system could be degraded under this definition would cause a nuisance or be aesthetically objectionable or could cause minor damage to the system or its appurtenances.
- (11) "System hazard" means an actual or potential threat of severe danger to the physical properties of the public or consumer's potable water system or of a pollution or contamination which would have a detrimental effect on the quality of the potable water in the system.

(12) "Pressure vacuum breaker assembly" means an approved assembly consisting of a spring-loaded check valve loaded to the closed position, an independently operating air inlet valve loaded to the open position, and installed as a unit with, and between, two resilient seated shut-off valves and having suitable connections for testing. It is designed to protect against backsiphonage only.

(13) "Potable water supply" means any system of water supply intended or used for human consumption or other domestic use.

(14) "Premises" means any piece of land to which water is provided including all improvements, mobile home(s) and structures located on it.

(15) "Reduced pressure principle assembly" shall mean 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 cocks and tightly closing shut-off valves at the end of the assembly. A check valve is approved if it appears on the list of approved assemblies issued by the Oregon Health Division.

1:02 PURPOSE

The purpose of this resolution to protect the water supply of the Black Butte Ranch Water Distribution Company from contamination or pollution due to any existing or potential cross connections.

1:03 CROSS CONNECTIONS REGULATED

No cross connections shall be created, installed, used or maintained within the territory served by the Black Butte Ranch Water Distribution Company, except in accordance with this resolution.

1:04 BACKFLOW PREVENTION ASSEMBLY REQUIREMENTS

Approved backflow prevention assemblies shall be installed at the expense of the user, either at the service connection or within the premises, as determined by a certified cross connection inspector employed by the Black Butte Ranch Water Distribution Company, whenever:

(1) The nature and 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, could contaminate or pollute the drinking water supply.

- (2) Premises having any one or more cross connections as that term is defined in Section 1:01 Paragraph 5 are identified or are present.
- (3) Internal cross connections that are not correctable, or intricate plumbing arrangements which make it impractical to ascertain whether or not cross connections exist, are present.
- (4) There is a repeated history of cross connections being established or reestablished.
- (5) There is unduly restricted entry so that inspections for cross connections cannot be made with sufficient frequency or with sufficient notice to assure that cross connections do not exist.
- (6) Materials of a toxic or hazardous nature are being used such that, if backflow should occur, a health hazard could result.
- (7) Any mobile apparatus which uses Black Butte Ranch Water Distribution Company water or water from any premises within the Black Butte Ranch Water Distribution Company system.
- (8) All new construction shall submit their plans to the water department for review and determination of the necessity of an assembly.
- (9) Installation of an approved backflow prevention assembly is deemed to be necessary to accomplish the purpose of this resolution in the judgement of a certified cross connection specialist employed by the Black Butte Ranch Water Distribution Company.
- (10) Installation of an approved backflow prevention assembly is deemed to be necessary to maintain requirements of the Uniform Plumbing Codes.
- (11) An appropriate cross connection report form has not been filed with the Black Butte Ranch Water Distribution Company.
- (12) A fire sprinkler system using non-potable piping material is connected to the Black Butte Ranch Water Distribution Company's water system.

1:05 LAWN/LANDSCAPE IRRIGATION SYSTEMS

- (1) Minimum protection on lawn/landscape irrigation system will be an approved double check valve assembly.
- (2) Operational and testable pressure vacuum breaker assemblies installed on lawn/landscape irrigation systems prior to March 1990 will be accepted as adequate protection.

- (3) Any pressure vacuum breaker assembly which fails its annual test will be replaced with an approved double check valve assembly.
- (4) All existing atmospheric vacuum breakers on lawn/landscape irrigation systems will be replaced by a double check valve assembly effective September 15, 1995.

1:06 INSTALLATION REQUIREMENTS

To ensure proper operation and accessibility of all backflow prevention assemblies, the following requirements shall apply to the installation of these assemblies.

- (1) No part of the backflow 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.
- (2) Assemblies must be installed at the point of delivery of the water supply, before any branch in the line, on private property located just inside of the property line. Alternate locations must be approved in writing by the Black Butte Ranch Water Distribution Company prior to installations.
- (3) The assembly must be protected from freezing and other severe weather conditions. It is the responsibility of the assembly owner to provide protection from freezing and other severe weather conditions.
- (4) All backflow prevention assemblies shall be of a type and model approved by the Oregon Health Division and the Black Butte Ranch Water Distribution.
- (5) Only assemblies specifically approved by the Oregon Health Division for vertical installation may be installed vertically.
- (6) The assembly shall be readily accessible with adequate room for maintenance and testing. Assemblies 2 inches and smaller shall have at least 6 inch clearance on all sides of the assembly. All assemblies larger than 2 inches shall have a minimum clearance of 12 inches on the back side, 24 inches on the test cock side, 12 inches below the assembly and 36 inches above the assembly. "Y" pattern double check valve assemblies shall be installed so that the checks are horizontal and the test cocks face upward unless otherwise permitted and approved by the Water Distribution Company.
- (7) If written permission is granted to install the backflow assembly inside of the building, the assembly shall be readily accessible during regular working hours of 8:00 a.m. to 5:00 p.m., Monday through Friday.
- (8) If an assembly, with written permission, is installed inside of the premises and is 4 inches or larger and is installed 4 feet above the floor, it must be equipped with a rigidly and

permanently installed scaffolding acceptable to the Black Butte Ranch Water Distribution Company. This installation must 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.

(9) Reduced pressure principle assemblies may be installed in a vault only if relief valve discharge can be drained to daylight through a "boresight" type drain. The drain shall be of adequate capacity to carry the full rated flow of the assembly and shall be screened on both ends.

(10) An approved air gap shall be located at the relief valve orifice. This air gap shall be at least twice the inside diameter of the incoming supply line as measured vertically above the top rim of the drain and in no case less than 1 inch.

(11) Where a backflow assembly is deemed necessary, the model of assembly and installation plans shall be submitted to the Black Butte Ranch Water Distribution Company for approval prior to installation.

(12) Upon completion of installation, the Black Butte Ranch Water Distribution Company shall be notified and all assemblies must be inspected and tested. All backflow prevention assemblies must be registered with the Black Butte Ranch Water Distribution Company. Registration shall consist of date of installation, make model, serial number of the backflow assembly, and initial test report.

(13) An air gap is not an approved means of premise isolation cross connection protection in Black Butte Ranch Water Distribution Company.

(14) It is the responsibility of the property owner to eliminate the possibility of thermal expansion if a closed system has been created by the installation of a backflow assembly.

(15) Any water pressure drop caused by the installation of a backflow assembly is not the responsibility of the Black Butte Ranch Water Distribution Company.

Any variances from these installation requirements shall be requested in writing by the owner and approved by the Black Butte Ranch Water Distribution Company.

1:07 ACCESS TO PREMISES

Authorized employees of the Black Butte Ranch Water Distribution Company, with proper identification, shall have access during reasonable hours to all parts of a premise and within the building to which water is supplied. However, if any water user refuses access to a premise or to the interior of a structure at reasonable times and on reasonable notice for inspection by a cross connection specialist appointed by the Black Butte Ranch Water

Distribution Company, a reduced pressure principle assembly will be required to be installed at the service connection to that premise.

1:08 ANNUAL TESTING AND REPAIRS

All backflow assemblies installed within the territory served by the Black Butte Ranch Water Distribution Company shall be tested immediately upon installation and at least annually thereafter by a state-certified tester. All such assemblies found not functioning properly shall be promptly repaired or replaced by the water user. If any such assembly is not promptly repaired or replaced, the Black Butte Ranch Water Distribution Company may deny or discontinue water to the premise. All testing and repairs are the financial responsibility of the water user.

1:09 COSTS OF COMPLIANCE

All costs associated with purchase, installation, inspections, testing, replacement, maintenance, parts, and repairs of the backflow assembly are the financial responsibility of the water user.

1:10 TERMINATION OF SERVICE

Failure on the part of any customer to discontinue the use of all cross connections and to physically separate cross connections is sufficient cause for the immediate discontinuance of public water service to the premises (OAR Chapter 333-061-070, Section 1).

1:11 CONSTITUTIONALITY AND SAVING CLAUSE

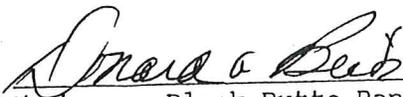
That if any provision, section, sentence, clause or phrase of this resolution or the application of same to any person or set of circumstances are for any reason held to be unconstitutional, void, invalid or for any reason unenforceable, the validity of the remaining portions of this resolution or its application to other persons or circumstances shall not be affected thereby, it being the intent of the Black Butte Ranch Water Distribution Company Board of Directors in adopting and the Chairman of the Board in approving this resolution that no portion hereof or provision or regulation contained herein shall become inoperative or fail by reason of any unconstitutionality or invalidity of any other portion, provision, or regulation.

1:12 EFFECTIVE DATE

Accepted by the Black Butte Ranch Water Distribution Company Board of Directors this

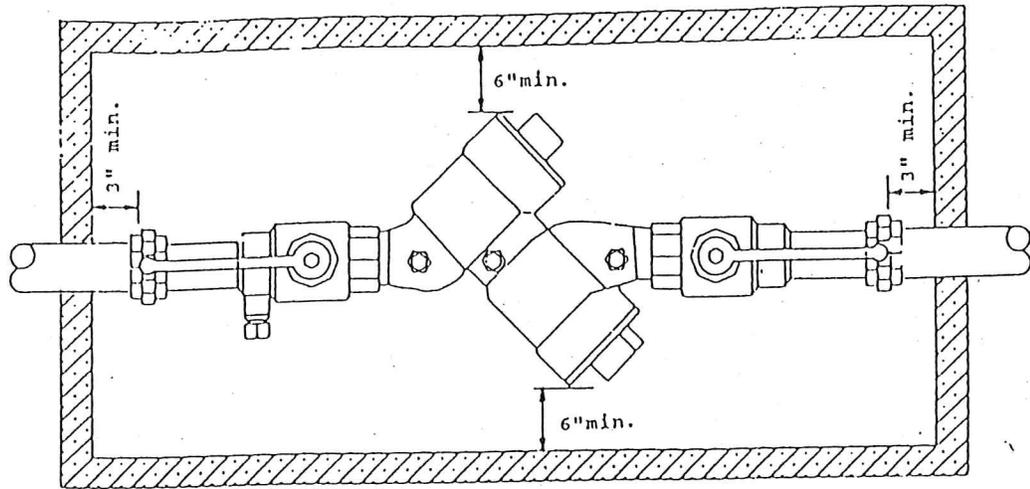
22 day of July, 1995.

This resolution shall be effective as of July 1, 1995.

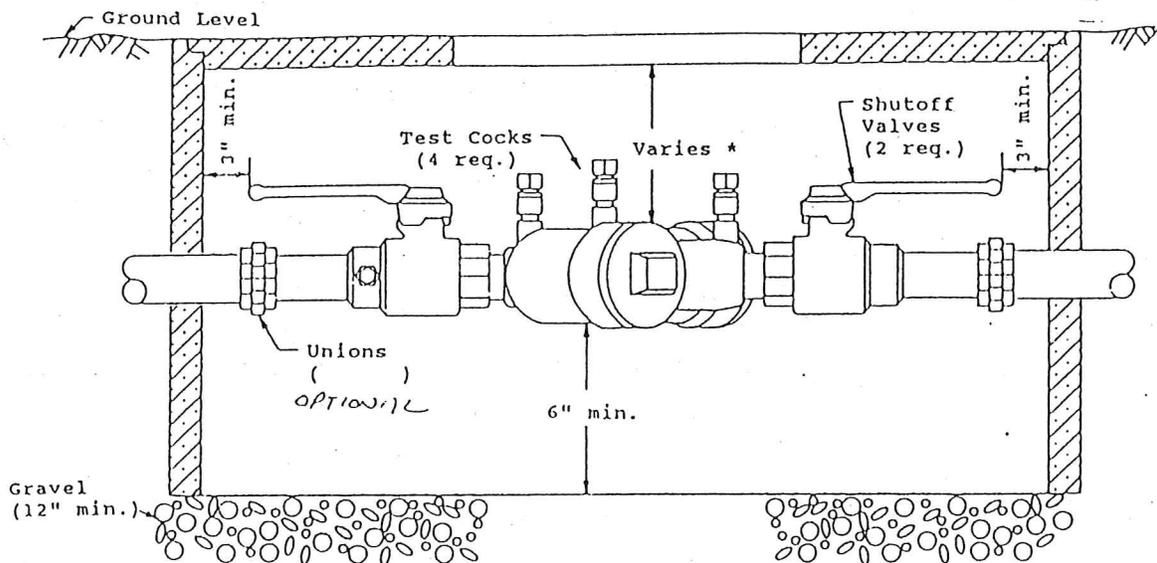


Chairman, Black Butte Ranch Assoc. Water Dist. Co.
Board of Directors

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TOP VIEW



SIDE VIEW

DOUBLE CHECK VALVE SMALL ASSEMBLY

NOTES:

- 1) ADEQUATE SPACE MUST BE ALLOWED FOR TESTING AND MAINTENANCE.
- 2) AREA AROUND ASSEMBLY MUST DRAIN WELL.
- 3) TEST COCKS MUST BE EQUIPPED WITH BRASS PIPE PLUGS.
- 4) 'Y' PATTERN ASSEMBLIES MUST BE INSTALLED SO THAT THE TEST COCKS ARE POINTED UP (SEE DRAWING ABOVE).
- 5) THOROUGHLY FLUSH THE LINES PRIOR TO INSTALLATION OF THE ASSEMBLY.