

Neahkahnie Water District Ordinance 2004-1

Cross Connection Control Program

Cross-Connections**100. Purpose**

The purpose of this Ordinance is to protect the water supply of the Neahkahnie Water District (District), as intended by the Oregon Drinking Water Quality Act of 1981, enacted to ensure safe drinking water within water systems that serve the public and Oregon Administrative Rules Chapter 333 Division 061 for the Department of Human Services (DHS), Health Services. Specifically, the purpose of this Ordinance is:

- A. To protect the public water supply of the District by compliance with Oregon Administrative Rules, Oregon Revised Statutes and Oregon Codes that require cross connection control for preventing pollution or contaminants from the water user's premise, to backflow into the public water supply system;
- B. To promote the control or elimination of actual or potential cross-connections within the water user's premise to assure the safety of the water system; and
- C. To provide for the administration of a continuing program of cross-connection control which will effectively prevent contamination or pollution of all public water supplied by the District.

110. Responsibility

The District shall be responsible for the protection of the public water distribution system from backflow of contaminants or pollutants into the public water supply. If, in the judgment of the District, an approved backflow prevention assembly, device or method is required, for the safety of the water system, the District shall give notice in writing to the water user to install such an approved backflow prevention assembly, device or method at the service connection(s) to the premise or at the point of the cross connection with the approval of the system operator. The water user shall immediately install the required approved assembly, device or method at his or her own expense; and failure, refusal or inability on the part of the water user to comply shall

constitute a ground for discontinuing water service to the premise.

120. Definitions

The following words used in this section shall have the meanings provided below:

"Air-gap separation" means the physical vertical separation between the free flowing discharge end of a potable water supply pipe and the open or non-pressure receiving vessel. An approved air-gap shall be at least twice the diameter of the supply pipe, measured vertically, above the top of the rim of the vessel; and in no case less than one inch. An air-gap is a method for preventing backflow.

"Approved Backflow Prevention Assembly" means a testable assembly consisting of shutoff valves and test cocks designed to prevent specific conditions of backflow and approved by the State of Oregon Department of Human Services, Health Services.

"Auxiliary water supply" means any other water supply on or available for use to the premise other than the District's public water supply system. Auxiliary water supply may include water from other public water supply or any other source(s) such as a well, spring, river, stream, harbor, etc.

"Backflow" means the flow of water or other substances from any source or sources other than its intended source and is caused by back pressure or back-siphonage.

"Back pressure" means an elevation of pressure downstream of the distribution system that would cause or tend to cause, water to flow opposite of its intended direction.

"Back-siphonage" means a drop in distribution system pressure below atmospheric pressure (partial vacuum), that would cause, or tend to cause water to flow opposite of its intended direction.

"Backflow preventer" means a device (e.g. non-testable atmospheric vacuum breaker), assembly or method (air-gap) to prevent backflow into the potable water system.

"Contamination" means an impairment of the quality of potable water by sewage, industrial fluids, waste

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liquids, compounds or other materials which create a health hazard.

"Cross-connection" means any actual or potential unprotected connection between piping which carries the public potable drinking water and any other connection or source on the customer's premise through which it is possible to introduce any substance other than the intended public potable water that is supplied.

"Premise Isolation" means protection of the public potable water supply by installing backflow prevention assemblies or methods at, or near the point where the public potable water supply enters the premise. This type of protection does not guarantee protection to persons on the premise.

"Cross-connections, Controlled" "Controlled cross-connections" means a connection between a potable water system and a non-potable water system with an approved backflow prevention device, assembly or method, properly installed that will afford protection commensurate with the degree of hazard.

"Customer System" – All plumbing, piping, and appurtenances on the customer's premise.

"Double check valve assembly" means an assembly of two independently acting approved check valves with tightly closing shut-off valves at each side of the check valves, plus properly located test cocks. The entire assembly shall meet the approval of DHS, Health Services and must be accessible for maintenance and testing.

"Hazard, Degree of" "Degree of hazard" derives from an evaluation or inspection of the premise for the purpose of determining the actual or potential risk to public health and the effect the hazard may have upon the public potable water system.

"Hazard, Health" "Health hazard" or contamination means any impairment of the quality of the water which could create a hazard to the health and well-being of the water user through poisoning, the spread of disease or other hazardous substances.

"Hazard, Non-Health" or pollution means an impairment of the quality of the water that does not

create a hazard to public health, but does constitute a nuisance, is aesthetically objectionable, or could cause damage to the system or its appurtenances (e.g. rust).

"System Operator" means the person in charge of the water department of the District who is invested with the authority and responsibility for the implementation of an effective cross-connection control program and for the implementation? compliance? of the provisions of this ordinance.

"Reduced pressure principle device" means an assembly of two independently operating approved check valves with a hydraulically operating pressure differential relief valve between the two check valves, tightly closing shut-off valves on either side of the check valves, plus properly located test cocks. The entire assembly shall meet the approval of the DHS, Health Services for backflow prevention assemblies, be accessible for maintenance and testing and be installed in a location where no part of the device shall be submerged.

Water, Non-potable. "Non-potable water" means any water which is not safe for human consumption or which is of questionable quality.

Water, Potable. "Potable water" means any water which has sufficiently low concentrations of microbiological, inorganic chemicals, organic chemical, radiological or physical substances so that individuals drinking such water at normal levels of consumption, will not be exposed to disease organisms or other substances which may produce harmful physiological effects.

"Water service connections" means the piping connection by means of which water is conveyed from the public potable water system to a user's premise. The portion of the service connection which conveys water from the District's water main to the user's property line, or to the service meter, where provided, is under the jurisdiction of the water supplier. There should be no unprotected cross connections from the service line ahead of any meter or backflow prevention assembly located at the service connection to the customer's water system. Service connections shall also include water service

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connections from a fire hydrant and any other temporary or emergency water service connections from the public potable water system.

Water, Used. "Used waters" means any water supplied by a public potable water system to a consumer's water system that has passed through the service connection and is no longer under the sanitary control or responsibility of the water system.

130. Water System

The water system is considered as made up of two parts: the utility system and the customer system.

1. The utility system consists of the source and distribution systems; and includes all facilities of the water system under the control of the water system, up to the point where the customer's system begins on the customer premise.

A. The source includes all components of the facilities utilized in the production, treatment, storage and delivery of water to the distribution system.

B. The distribution system includes the network of pipes and other facilities used for the delivery of water from the source or storage facilities to the customer's system.

2. The customer's system includes those parts of the facilities on their premise and beyond the District's jurisdiction.

140. Policy – Installation & Maintenance

No water service connection to any premises shall be installed or maintained by the District unless the public water supply is protected as required by Oregon State Rules, Statutes, Codes and this Ordinance. Water service to any premise shall be discontinued by the water supplier if a backflow prevention assembly is not installed, tested and maintained, or if it is found that a backflow prevention assembly has been removed, by-passed, or if an unprotected cross-connection exists on the premises. Service shall not be restored until such conditions or defects are eliminated or protected in compliance with this ordinance.

143. Inspection

The customer's water system shall be open for inspection at reasonable times and days to authorized representatives of the District for the purpose of determining the degree of hazard posed on the premise. When any such condition becomes known, or reasonable access is denied, the District shall discontinue service to the premise until the customer has corrected the condition(s) in conformance with State Rules, Statutes, Codes and this Ordinance.

146. Backflow Prevention

If a backflow prevention assembly is required on a premise to protect the public water supply system, as required by State Statute, Rule, Code or this Ordinance, the approved backflow prevention assembly shall be installed on the service line(s) to a customer's water system at or near the premise property line, or at the point of the cross connection, with the advance approval of the system operator; but, in all cases before the first cross connection on the water service line, wherever any the following conditions exist:

A. There is an auxiliary water supply which is, or could be, connected to the potable water piping;

B. Where there is piping for conveying liquids other than potable water, and where that piping is installed and operated in such a manner which could cause a cross connection;

C. At a premise having cross-connections that cannot be eliminated or appropriately protected, intricate plumbing and piping arrangements making it impracticable or impossible to ascertain whether or not dangerous cross-connections exist, or where entry to the premise is not authorized or readily accessible for inspection purposes, the public water system shall be protected against backflow from the premise by installing a backflow prevention to isolate the premise with an assembly commensurate with the hazard identified.

150 Degree of Hazard

The type of backflow prevention assembly, device or method required under Section 146 of this Ordinance

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should be commensurate with the degree of hazard identified such as:

A. Where there is an auxiliary water supply and it is interconnected to the public water supply, the public water system shall be protected by an approved air-gap separation or an approved reduced pressure principle backflow prevention assembly. Where there is an auxiliary water system that is not connected to the public water system, and where there is no health hazard, the public water system may be protected by an approved double check valve assembly, if approved by the system operator.

B. In the case of any premise where there is an actual or potential cross connection subject to back pressure conditions that could create a non-health or pollution hazard to the public water system, the public water system shall be protected by an approved double check valve assembly.

C. In the case of any premise where there is any material or substance dangerous to health which is handled in such a way as to create an actual or potential health hazard to the public water system, the public water system shall be protected by an approved air-gap separation or an approved reduced pressure principle backflow prevention assembly. Examples where these conditions exist includes sewage pumping or lift stations, medical facilities, irrigation or fire sprinkler systems that use chemical additives.

D. Where there is a premise with an irrigation system connected to the water supply and no chemicals or other substances are added, the public water system shall be protected by an approved Atmospheric Vacuum Breaker, Pressure Vacuum Breaker, Spill Resistant Vacuum Breaker or a Double Check Valve Assembly, in compliance with State Statutes, Rules, Codes and this Ordinance.

E. Hose bibs should be protected by atmospheric vacuum breakers to prevent back-siphonage of health or non-health hazards.

160. Backflow prevention assembly -- Approval

All testable Backflow Prevention Assemblies required under this ordinance shall be approved by the DHS, Health Services.

163. Backflow prevention Assembly Testing

It is the responsibility and at the expense of the water user at any premise where testable backflow prevention assemblies are installed to have operational tests made at least once per year by DHS, Health Services-certified Backflow Assembly Testers. The District will provide to the public a list of certified Backflow Assembly Testers. The Water District may require tests of backflow prevention assemblies at more frequent intervals on assemblies that repeatedly fail or are protecting health hazard connections, as determined by the system operator. The water user shall assume responsibility for testing, maintenance and repair costs of the approved backflow prevention assembly. Whenever an assembly fails a test, the assembly shall be repaired or replaced within ten (10) days. The Backflow Assembly Tester shall record test results and submit these reports to the District within ten (10) days of the test. Any repairs, relocations, or replacements of backflow prevention assemblies shall be reported to the District within ten (10) days. Assemblies shall be tested at the time of installation, and following any repair or relocation.

166. Backflow Prevention Assembly Exceptions

All presently-installed backflow prevention assemblies which are not currently approved will be allowed to remain in service provided they are commensurate with the degree of hazard they are protecting, they are not moved or the piping systems are not significantly remodeled, they are properly maintained, tested at least annually and perform satisfactorily.

170. Compliance -- Remedies

The District will notify the water user in writing within ten (10) days of the inspection if a backflow prevention assembly is required, allowing up to

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ninety (90) days, at the discretion of the system operator, for installation of the required type of assembly. If a health hazard is determined to exist by the system operator, the correction may be required to be completed immediately.

The District will provide evaluations and inspections at no charge to the water user.

On new installations, the District will review the plans or perform an on-site inspection to determine the appropriate type of assembly required, if any. This function may also be provided by the local administrative authority, such as permit and inspections performed by Building Codes Division.

For existing water users, the District will evaluate or perform on-site inspections to determine any cross connection hazards to the public water supply and require protection commensurate with any hazard found.

If a water user fails to comply with the District's requirements for a backflow prevention assembly, device or method to be installed, or for testing or maintenance of the assembly, as required, or for failure to remove or eliminate the existing or potential unprotected cross connection, the District may authorize the public water supply to be shut off to the premise.

The District's notice to the premise owner informing him or her of the violation of provision(s) of this ordinance must contain the name of the owner of the property and/or water user and the address of the property, as currently maintained in the District's records, the date of the notice and the date corrections must be completed.

180. Administrative Hearing

The premise owner and/or water user has the right to an administrative hearing before the District Board of Commissioners to determine compliance with this Ordinance. The premise owner and/or water user may request to schedule, in writing, a hearing any time prior to the water service disconnection date. This will allow the service to remain on until the hearing is held, a decision is made and the determination is

provided in a written format and mailed to the premise owner and/or water user.