

11.0 BACK-FLOW PREVENTION AND CROSS-CONNECTION CONTROL

11.1 Purpose

- A. To protect the Public drinking water supply of the District from the possibility of contamination or pollution by requiring compliance with The Utah State Rules for Public Drinking Water Systems and the applicable Plumbing Code, that require a cross connection control protection of all public drinking water systems in the State of Utah. Compliance with these minimum safety codes will be considered reasonable diligence for the prevention of contaminants or pollutants which could backflow into the public drinking water system; and,
- B. To promote the reasonable elimination or control of cross connections in the plumbing fixtures and industrial piping system(s) of the consumer, as required by the state and plumbing regulations to assure water system safety; and,
- C. To provide for the administration of a continuing program of backflow prevention which will systematically examine risk and effectively prevent the contamination or pollution of the drinking water system.

11.2 Responsibilities

- A. The District:
 - 1. The District shall be responsible for the protection of the drinking water distribution system from the foreseeable conditions leading to the possible contamination or pollution of the drinking water system due to the backflow of contaminants or pollutants into the drinking water supply.
 - 2. Drinking water system surveys/inspections of the consumer's water distribution system(s) shall be conducted or caused to be conducted by individuals deemed qualified by and representing the District. Survey records shall indicate compliance with the State of Utah Regulations. The District will maintain all such records.
 - 3. The District shall schedule and notify in writing, all consumers of the need for the periodic system survey to insure compliance with existing applicable minimum health and safety standards.
 - 4. Selection of an approved backflow prevention assembly for containment control required at the service entrance shall be determined from the results of the system survey.
- B. Consumer:
 - 1. To comply with this ordinance as a term and condition of water supply and consumer's acceptance of service is admittance of his/her awareness of his/her responsibilities as a water system user.
 - 2. It shall be the responsibility of the consumer to purchase, install, and arrange testing and maintenance of any backflow prevention device/assembly required to comply with this ordinance. Failure to comply with this ordinance shall constitute grounds for discontinuation of service.
- C. Plumbing or Building Official:

1. The plumbing or building official's responsibility to enforce the applicable sections of the plumbing code begins at the point of service (downstream or consumer side of the meter) and continues throughout the length of the consumer's water system.
 2. The plumbing or building official will review all plans to ensure that unprotected cross connections are not an integral part of the consumer's water system. If a cross connection cannot be eliminated, it must be protected by the installation of an air gap or an approved backflow prevention device/assembly, in accordance with the applicable Plumbing Code.
- D. Certified Backflow Technician, Surveyor, or Repair Person:
1. Whether employed by the consumer or the District to survey, test, repair, or maintain backflow prevention assemblies the Certified Backflow Technician, Surveyor, or Repair Person will have the following responsibilities:
 - a. Insuring that acceptable testing equipment and procedures are used for testing, repairing or overhauling backflow prevention assemblies.
 - b. Make reports of such testing and/or repairs to the consumer and the District on form approved for such use by the District within time frames as described by the Division of Drinking Water.
 - c. Include the list of materials or replacement parts being used on the reports.
 - d. Insuring that replacement parts are equal in quality to parts originally supplied by the manufacturer of the assembly being repaired.
 - e. Not changing the design, material or operational characteristics of the assembly during testing, repair or maintenance.
 - f. Performing all test of the mechanical devices/assemblies and shall be responsible for the competence and accuracy of all test and reports.
 - g. Insuring that his/her license is current, the testing equipment being used is acceptable to the State of Utah, and is in proper operating condition.
 - h. Being equipped with, and competent to use, all necessary tools, gauges, and other equipment necessary to properly test, and maintain backflow prevention assemblies.
 - i. Tagging each double check valve, pressure vacuum breaker, reduced pressure backflow assembly and high hazard air gap, showing the serial number, date tested and by whom. The certified technician's license number must also be on the tag.
 2. Responsibility: Repair of backflow assemblies. In the case of a consumer requiring an assembly to be tested, any currently Certified Backflow Technician is authorized to make the test and report the results to the consumer and the District. If any commercially tested assembly is in need of repair the Construction Trade License Act, Title 58, Chapter 55-2-(21), requires a licensed plumber to make actual repairs on any assembly within a building.

11.3 Definitions Unique to this Section

The following words, terms and phrases, when used in this section, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

- A. Approved Backflow Assembly: An assembly accepted by the Utah State Department of Environmental Quality, Division of Drinking Water, as meeting an applicable specification or as suitable for the proposed use.
- B. Auxiliary Water Supply: Any water supply on or available to the premises other than the District's public water supply will be considered as an auxiliary water supply. These auxiliary waters may include water from another purveyor's public potable water supply or any natural source(s) such as a well, spring, river, stream, etc., or "used waters" or "industrial fluids". These waters may be contaminated or polluted or they may be objectionable and constitute an unacceptable water source over which the District does not have authority for sanitary control.
- C. Backflow: The reversal of the normal flow of water caused by either back-pressure or back-siphonage.
- D. Back-Pressure: The flow of water or other liquids, mixtures, or substances from a region of high pressure to a region of lower pressure into the water distribution pipes of a potable water supply system from any source(s) other than the intended source.
- E. Back-Siphonage: The flow of water or other liquids, mixtures, or substances under vacuum conditions into the distribution pipes of a potable water supply system from any source(s) other than the intended source, caused by the reduction of pressure in the potable water system.
- F. Backflow Prevention Assembly: An assembly or means designed to prevent backflow. Specifications for backflow prevention assemblies are contained within the Uniform Plumbing Code, Chapter 10, section 1003 and in the Cross Connection Control Program for Utah maintained by the Division of Drinking Water.
- G. Contamination: Means a degradation of the quality of the potable water supply by sewage, industrial fluids or waste liquids, compounds or other materials that may create a health hazard.
- H. Cross Connection: Any physical connection or arrangement of piping or fixtures which may allow non-potable water or industrial fluids or other material of questionable quality to come into contact with potable water inside a water distribution system. This would include temporary conditions, such as swing connections, removable sections, four way plug valves, spools, dummy sections of pipe, swivel or change-over devices or sliding multi-port tubes or other plumbing arrangements.
- I. Cross Connection - Controlled: A connection between a potable water system and a non-potable water system with an approved backflow prevention assembly properly installed and maintained so that it will continuously afford the protection commensurate with the degree of hazard.
- J. Cross Connection - Containment: The installation of an approved backflow assembly at the water service connection to any customer's premises where it is physically and economically infeasible to find, permanently eliminate, or control all actual or potential cross connections within the customer's water distribution system; or, it shall mean the installation of an approved backflow prevention assembly on the service line leading to and supplying a portion of a customer's water system where there are actual or potential

cross connections which cannot be effectively eliminated or controlled at the point of the cross connection (isolation).

- K. District: The District's Chief Engineer is invested with the authority and responsibility for the implementation of an effective cross connection control program and for the enforcement of the provisions of this ordinance.

11.4 Requirements

A. Policy:

1. No water service connection to any premises shall be installed or maintained by the District unless the water supply is protected as required by State laws, regulations, or codes, including these regulations. Service of water to a consumer found to be in violation of these Rules and Regulations shall be discontinued by the District after due process of written notification of violation and an appropriate time suspension for voluntary compliance, if:
 - a. A backflow prevention assembly required by this ordinance for the control of backflow and cross connections is not installed, tested, and maintained, or
 - b. If it is found that a backflow prevention assembly has been removed or by-passed, or
 - c. If an unprotected cross connection exist on the premises, or
 - d. If the periodic system survey has not been conducted.Service will not be restored until such conditions or defects are corrected.
2. The customer's system(s) shall be open for inspection at all reasonable times to authorized representatives of the District to determine whether cross connections or other structural or sanitary hazards, including violation of this ordinance exist and to audit the results of the required survey (R309-102-5 of the Utah Administrative Code).
3. Whenever the public District deems a service connection's water usage contributes a sufficient hazard to the water supply, an approved backflow prevention assembly shall be installed on the service line of the identified consumer's water system, at or near the property line or immediately inside the building being served; but, in all cases, before the first branch line leading off the service line.
4. The type of protective assembly required under subsection 3. above, shall depend upon the degree of hazard which exist at the point of cross connection (whether direct or indirect), applicable to local and state requirements or resulting from the required survey.
5. All presently installed backflow prevention 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 subsection 6. below, be excluded from the requirements of these rules so long as the District is assured that they will satisfactorily protect the public water system. Whenever the existing is moved from the present location or, requires more than

minimum maintenance or, when the District finds that the operation or of this assembly constitutes a hazard to health, the unit shall be replaced by an approved backflow prevention assembly meeting all local and state requirements.

6. It shall be the responsibility of the consumer at any premises where backflow prevention assemblies are installed to have certified surveys/inspections, and operational test made at least once per year at the consumer's expense. In those instances where the District deems the hazard to be great, he may required certified surveys/inspections and test at a more frequent interval. It shall be the duty of the District to see that these test are made according to the standards set forth by the State Department of Environmental Quality, Division of Drinking Water.
7. All backflow prevention assemblies shall be tested within ten (10) working days of initial installation.
8. No backflow prevention assemblies shall be installed so as to create a safety hazard. Example: Installed over an electrical panel, steam pipes, boilers, or above ceiling level.

B. Violations of this Policy:

If violations of this ordinance exist or if there has not been any corrective action taken by the consumer within ten (10) days of the written notification of the deficiencies noted within the survey or test results, then the District shall deny or immediately discontinue service to the premises by providing a physical break in the service line until the customer has corrected the condition(s) in conformance with all State and local regulations and statutes relating to plumbing, safe drinking water suppliers, and this ordinance.