

## DIVISION 2: BACKFLOW PREVENTION PROGRAM

### § 17-44 GENERALLY.

The Backflow Prevention Program is designed to protect the potable water supply of the town. This will be accomplished by requiring the use of appropriate backflow protection methods. The possibility of contamination will be minimized by confining within the customer's private water system those contaminants or pollutants, which could, under adverse conditions, backflow through uncontrolled cross-connections into the public water system.

### § 17-45 DEFINITIONS.

For the purpose of this article, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

**AIR GAP SEPARATION.** The unobstructed vertical distance through the atmosphere between the lowest point opening from any pipe or faucet supplying water to a tank, plumbing fixture, or other device and the flood level rim of the receptacle. An approved **AIR GAP SEPARATION** shall be at least double the diameter of the supply pipe. In no case shall the **AIR GAP SEPARATION** be less than one inch.

**APPROVED.** As herein used in reference to a water supply, shall mean a water supply that has been approved by the State Department of Environment, Health, and Natural Resource (Division of Health Service).

**BACKFLOW.** Any flow of water, liquid, gas, or other substance, or any combination thereof, into the distribution piping of a potable water supply from any source or sources.

**BACKFLOW PREVENTION ASSEMBLY.** An approved assembly or method used to prevent backflow from occurring in the potable water supply.

**BACK-PRESSURE BACKFLOW.** Backflow caused by a pump, elevated tank, boiler, or other means that could create greater pressure within the consumer's water system greater than the supply pressure.

**DOUBLE CHECK DETECTOR ASSEMBLY.** A specially designed assembly composed of a line-size approved double check valve assembly with a specific bypass water meter and a meter-sized approved double check valve assembly. The meter shall register in U.S. gallons accurately for only very low rates of flow and shall show a registration for all rates of flow. This assembly shall only be used to protect against a non-health hazard.

**DOUBLE CHECK VALVE ASSEMBLY.** An assembly composed of two independently acting, approved check valves, including tightly closing shut-off valves attached at each end of the assembly and fitted with properly located test cocks.

**POTABLE WATER.** Water from any source, which has been approved for human consumption

by the appropriate agency of the state.

**PRIVATE WATER SYSTEM.** A system of pipes or other associated facilities that is not part of the town's public water system and is used to move or receive water, regardless of the source of water in the system.

**REDUCED PRESSURE PRINCIPLE ASSEMBLY.** An assembly containing within its structure a minimum of two independently acting, approved check valves, together with an automatically operating pressure differential relief valve located between the check valves. The first check valve reduces the supply pressure a predetermined amount so that during normal flow and at cessation of normal flow, the pressure between the checks shall be less than the supply pressure. In case of leakage of either check valve, the pressure differential relief valve, by discharge to the atmosphere, shall operate to maintain the pressure between the checks less than the supply pressure. The assembly must include properly located test cocks and tightly closing shut-off valves at each end of the assembly.

**REDUCED PRESSURE PRINCIPLE-DETECTOR ASSEMBLY.** An assembly composed of an approved reduced pressure principle backflow prevention assembly with a bypass water meter and a meter-sized approved reduced pressure principle assembly. The meter shall register accurately for very low flow rates and shall register in U.S. gallons at all flow rates.

**WATER SUPPLY (APPROVED).** Any public potable water supply, which has been investigated and approved by the appropriate agency of the state. The system must be operating under a valid health permit.

(Ord. 2004-1, passed 2-10-2004)

**§ 17-46 ELIMINATION OF CROSS-CONNECTIONS.**

(a) No private water system may be connected in any manner to the public water system unless the requirements of this section and other applicable laws have been satisfied.

(b) Only an approved assembly can be installed to meet the requirements of this section. The installation of any backflow prevention device/assembly, which is not approved, must be replaced with an approved backflow prevention assembly. Penalty, see § 17-55

**§ 17-47 INSTALLATION, TESTING, AND MAINTENANCE OF BACKFLOW PREVENTION ASSEMBLIES.**

(a) All backflow prevention assemblies shall be installed in accordance with the manufacturer's instructions. Only backflow preventers approved by the town, the American Society of Sanitary Engineers (ASSE), or the American Water Works Association (AWWA), or U.S.C. shall be used, whichever is most restrictive.

(b) All backflow prevention assemblies required by this section must be installed and maintained on the customer's premises as part of the customer's water system.

(c) Ownership, testing, and maintenance of the backflow prevention assembly will be the

responsibility of the customer. Each assembly required in this article must be functioning properly at all times.

(d) A certified tester at the customer's expense shall conduct testing of backflow prevention assemblies. Testers shall provide a current certificate from an approved school before allowed to test assemblies. Tests shall be conducted upon installation and annually thereafter with a record of all testing and repairs retained by the customer. A copy of the certified record for each test or repair must be sent to the town by the customer within 30 days after the completion of each test or repair. The records must be maintained on forms provided by the testing agent.

(e) Each backflow prevention assembly required under this section must be accessible to the town.

(f) When it is not possible to interrupt water service, the customer shall provide for the parallel installation of an approved backflow prevention assembly. A bypass around a backflow preventer when the assembly is in need of testing, repair, or replacement is not accepted.

(g) Double check valve assemblies must be installed in drainable pits whenever below ground installation is necessary.

(h) Reduced pressure principle assemblies must be installed in a horizontal position and in a location in which no portion of the assembly can become submerged in any substance under any circumstances (pit and/or below grade installations are prohibited).

(i) Any time that repairs to backflow assemblies are deemed necessary, whether through annual testing or routine inspection by the owner or by the town, these repairs must be completed within a time specified in accordance with the degree of hazard. Health has 14 days for repairs and non-health has 21 days. Failure to comply can result in termination of a customer's water service.

(j) Upon determination that a backflow prevention assembly is required to be installed on a customer's private water system, the customer will be notified in writing of the approved backflow prevention assembly, which is required. On existing systems, the customer will have the following time periods within which to install the specified backflow prevention assembly:

(1) Health: 60 days; and

(2) Non-health: 90 days.

(k) All new construction plans and specifications shall be made available to the town for approval and to determine the degree of hazard.

(l) The customer shall notify the town when the nature of the use of property changes so as to change the hazard classification of the property if necessary. See Penalty 17-55

**§ 17-48 HEALTH HAZARD FACILITIES AND METHODS OF CORRECTION.**

(a) All health hazard facilities must have an approved reduced pressure principle assembly as a minimum containment assembly.

(b) Health hazards facilities include, but are not limited to, any private water system used or designed for use with a booster pump or which may become pressurized for any reason to the extent that back pressure may occur; any private water system which contains water which has been or is being recirculated; a building with five or more stories above ground level; brewery; car wash facilities; bottling plant; chemical plant; dentist's office; dry cleaning plant; fertilizer plant; film laboratory; fire sprinkler or standpipe system with chemical additives; hospital, clinic, medical building; irrigation system with chemical additives; laboratory; commercial laundry (except self-service laundry); concrete/asphalt plants; metal processing plant; morgue or mortuary; nursing home; pharmaceutical plant; power plant; swimming pool; sewage treatment plant; tire manufacturer; veterinary hospital or clinic; restaurants; battery manufacturers; exterminators and lawn care companies; dairies; canneries; dye works; and the like.

(c) If a cross-connection inspector does not have sufficient access to every portion of a private water system to permit the complete evaluation of the degree of hazard associated with the private water system, an approved reduced pressure principle assembly must be installed.

(Ord. 2004-1, passed 2-10-2004) Penalty, see § 17-55

**§ 17-49 NON-HEALTH HAZARD FACILITIES AND CORRECTION.**

Non-health hazard facilities include, but are not limited to, fire sprinkler systems without booster pump facilities or chemical additives; connections to tanks, lines, and vessels that handle nontoxic substances; lawn sprinkler systems without chemical injection or booster pumps; and all industrial and most commercial facilities not identified as high hazard facilities. All moderate hazard facilities must have a double-check valve assembly as a minimum containment assembly.

Penalty, see §17-55

**§ 17-50 LAWN IRRIGATION SYSTEMS.**

All existing lawn irrigation systems must have a double check valve assembly as a minimum containment assembly. Penalty, see §17-55

**§ 17-51 FIRE SPRINKLER SYSTEMS.**

(a) All unmetered fire sprinkler systems without booster facilities or chemical additives must have a double check detector check valve assembly as a minimum containment device.

(b) All unmetered fire sprinkler systems with a booster facility or chemical additives must have a reduced pressure principle detector assembly as a minimum containment device.

**§ 17-52 RIGHT OF ENTRY.**

(a) An authorized agent of the town shall have the right to enter any building, structure, or premises during normal working hours to perform any duty imposed upon him or her by this section.

Duties may include sampling and testing water, or inspections and observations of all piping systems connected to the public water supply. Prior notice will be given unless an imminent hazard has been reported. Refusal to allow entry for these purposes may result in termination of the water service.

(b) At the request of the Town Manager, the customer shall furnish any pertinent information regarding the piping system and chemical storage on the property where cross-connections are deemed possible.

**§ 17-53 RESPONSIBILITY OF CUSTOMER.**

(a) The customer shall be responsible for the elimination of or protection against all cross-connections on his or her premises.

(b) The customer shall maintain any backflow prevention assembly within his or her premises in good operating condition. The customer shall correct any malfunction of the backflow preventer, which is revealed by periodic testing.

(c) The customer shall be responsible for the payment of all fees for annual testing, retesting in the case that the assembly fails to operate correctly, and repairs.

(d) A customer must immediately notify the Town Manager if the customer has reason to believe that backflow has occurred from the customer's private water system.

**§ 17-54 UNAPPROVED SOURCE OF SUPPLY.**

(a) No person shall connect or cause to be connected any supply of water not approved by the state to the public water supply system.

(b) Where a connection to a town water line is made, and the property owner continues to have a well or other source of water, it shall be unlawful for the plumbing servicing any building upon the property to be so connected that any water outlet within the building may be served with water from any source other than the town connection, and it shall also be unlawful to have plumbing cross-connected or so installed that water from the town water system or the private water system may in any way become intermingled. Penalty, see § 17-55

**§17-55 VIOLATIONS.**

(a) A written notice of violation shall be given by the Town Manager to any person who is determined to be in violation of any provision of this section.

(b) The notice shall set forth the violation and the time period within which the violation must be corrected. The violation must be corrected within a reasonable time, as specified in the notice, not to exceed 30 days from receipt of the notice. If the Town Manager determines that the violation is occurring on a customer's private water system and that the violation has created or contributed to the existence of an imminent hazard, the customer may be required to correct the violation immediately.

(c) Water service may be terminated to a customer if the customer fails to correct a violation or to pay any civil penalty or expense assessed under this section. Termination of water service will be without prejudice to the town's ability to assert any other remedy available to the town against the customer or any other person responsible for the violation.

(d) The violation of any provision of this section shall subject the violator to assessment of a civil penalty, as determined by the Town Manager. Each subsequent day that a violation listed in this section continues shall constitute a separate and distinct offense according to the following schedule:

(1) Unprotected cross-connection involving a private water system which is a health hazard, per day: \$1,000;

(2) Falsifying records which are required to be submitted by this section; tester may be removed from the approved certified tester list; \$500;

(3) Failing to test backflow prevention assemblies as required: \$100;

(4) Failing to maintain backflow prevention assemblies as required: \$100; and

(5) Any other violation of the provision of this section: \$100.

(e) The Town Manager may increase any civil penalty assessed under this section by \$100 or 50% of the maximum civil penalty associated with the violation, whichever is greater, for a second violation of the same provision within a two-year period. Water service may be terminated after a third violation of the same provision within a two-year period.

(f) Any person violating any provision of this section shall pay to the town all expenses incurred by the town in repairing any damage to the public water system caused in whole or in part by the violation and any expense incurred by the town in investigating the violation. All the expenses are deemed to be a part of the civil penalty assessed with the violation.

(g) Any person who has received an assessment of civil penalty or other determination by the Town Manager under this article may appeal from the assessment or other determination to the Board of Aldermen by giving notice of appeal in writing to the Town Manager and to the Town Clerk within ten days following issuance of the assessment or other determination from which appeal is made. In the absence of an appeal, the assessment or other determination of the Town Manager shall be final. The Board of Aldermen shall hear and render a decision in an appeal within a reasonable time. The Board of Aldermen may affirm, modify and affirm, or revoke the Town Manager's assessment or other determination under this article. The decision of the Board of Aldermen under this article may be appealed to the County Superior Court, as provided by law.