

100.00 General Policy: Purpose:

- 100.10 To protect the public water supply system from contamination or pollution by isolating within the consumer's water system contaminants or pollutants which could backflow through the service connection into the public water supply system;
- 100.20 To promote the elimination or control of existing cross-connections, actual or potential, between the public or consumer's potable water system and non-potable water systems, plumbing fixtures and sources or systems containing process fluids.
- 100.30 To provide for the maintenance of a continuing program of cross-connection control which will systematically and effectively prevent the contamination or pollution of the public and consumer's potable water system.

101.00 Application:

- 101.10 This Ordinance shall apply to all customers served by the public water supply system of the Borough of Saegertown.

102.00 Policy:

- 102.10 The Borough of Saegertown and the consumer have the joint responsibility for protection of the public water supply system from contamination due to backflow of contaminants through the water service connection.
- 102.20 If in the judgment of the Borough of Saegertown or its authorized representative an approved backflow prevention device is required; The Borough shall give notice to the consumer to install such approved backflow prevention device at each service connection to his premises.
- 102.30 The consumer shall immediately install such approved device or devices at his own expense;
- 102.40 Failure, refusal or inability on the part of the consumer to install such device or devices shall constitute grounds for discontinuing water service to the premises until such device or devices have been installed.

200.00 Definitions:

201.00 Air Gap Separation:

- 201.10 The unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying potable water to a tank, plumbing fixture, or other device and the flood level rim of the receptacle.
- 201.20 The differential distance shall be at least double the diameter (2xD) of the supply pipe measured vertically, above the top of the rim of the vessel.
- 201.30 In no case, shall the air gap be less than one (1) inch.

202.00 Approved:

- 202.10 The backflow prevention device or method has been accepted by the Borough of Saegertown as suitable for the proposed use.

203.00 Atmospheric Vacuum Breaker - (also known as the non-pressure type vacuum breaker)

- 203.10 A device containing a shut-off valve followed by a valve body containing a float- check, a check seat and an air inlet port;
- 203.20 When the shut-off valve is open, the flow of water causes the float to close the air inlet port;
- 203.30 When the shut-off valve is closed, the float falls and forms a check valve against back siphonage and at the same time opens the air inlet port.
- 204.00 Auxiliary Water System:**
- 204.10 Any water source or system on the premises of or available to the customer except connections to other approved community water supply systems.
- 205.00 Backflow:**
- 205.10 Means a flow condition, induced by a differential in pressure, that causes the flow of water or mixtures of water and other liquids, gases or other substances into the distribution pipes of a potable water supply system from a source other than its intended source.
- 206.00 Backflow Preventer:**
- 206.10 A device or other means which will prevent the backflow of water or liquids of questionable quality into the public water supply system.
- 207.00 Back siphonage:**
- 207.10 The backflow of water or mixture of water and other liquids, gases or other substances from a plumbing fixture or other customer source, into the public water supply system main due to a temporary negative or sub-atmospheric pressure within the public water supply system.
- 208.00 Consumer:**
- 208.10 The owner or person in control of any premises supplied by or in any manner connected to the public water supply system.
- 209.00 Consumer's Water System:**
- 209.10 Any water system supplied by or in any manner connected to the public water supply system;
- 209.20 A household plumbing system is considered to be a consumer's water system.
- 210.00 Containment:**
- 210.10 The cross-connection control which isolates the customer's entire facility from the public water supply system so as to provide the protection necessary to prevent contamination of the public water supply in the event of backflow from the customer's facility.
- 211.00 Contamination:**
- 211.10 The degradation of the quality of the drinking water by wastewaters, processed fluids, or any water of quality less than accepted drinking water quality to a degree which would create an actual hazard to the public health through poisoning or through the spread of disease.

- 212.00 Cross-Connection:**
- 212.10 An arrangement allowing either a direct or indirect connection through which backflow, including backsiphonage, can occur between the drinking water in the public water supply system and a system containing a source or potential source of contamination.
- 213.00 Degree of Hazard:**
- 213.10 An evaluation of the potential risk to health and the adverse effect upon the public water supply system.
- 214.00 Double Check Valve Assembly:**
- 214.10 An assembly composed of two single, independently acting, check valves including tightly closing shut-off valves located at each end of the assembly and suitable connections for testing the water tightness of each check valve.
- 215.00 Health Hazard:**
- 215.10 Any condition, device or practice in a water system or its operation that creates, or may create, a danger to the health and well-being of its users.
- 215.20 The word "severe" as used to qualify "health hazard" means a hazard to the health of the user that could reasonably be expected to result in significant morbidity or death.
- 216.00 Interchangeable Connection:**
- 216.10 An arrangement or device that will allow alternate but not simultaneous, use of two sources of water.
- 217.00 Non-potable Water:**
- 217.10 Water not safe for drinking, personal, or culinary use.
- 218.00 Person:**
- 218.10 Any individual, partnership, association, company, corporation, municipality, municipal authority, political subdivision or any agency of federal or state government.
- 218.20 The term includes the officers, employees and agents of any partnership, association, company, corporation, municipality, municipal authority, political subdivision or any agency of federal or state government.
- 219.00 Pollution:**
- 219.10 The presence in water of any foreign substance that tends to degrade its quality so as to constitute a hazard or impair the usefulness or quality of the water to a degree which does not create an actual hazard to the public health but;
- 219.20 Which does adversely and unreasonably affect such water for domestic use.
- 220.00 Potable Water:**
- 220.10 Water which is satisfactory for drinking, culinary, and domestic purposes and meets the requirements of the Department of Environmental Resources.
- 221.00 Process Fluids:**
- 221.10 Any fluid or solution which may be chemically, biologically or otherwise contaminated or polluted in a form or

concentration such as would constitute a health, pollutional, or system hazard if introduced into the public or a consumer's water system.

221.20 This includes, but is not limited to:

221.21 Polluted or contaminated waters;

221.22 Process waters;

221.23 Used waters originating from the public water supply system which may have deteriorated in sanitary quality;

221.24 Cooling waters;

221.25 Contaminated natural waters taken from wells, lakes, streams, or irrigation systems;

221.26 Chemicals in solution or suspension;

221.27 Oils, gases, acids, alkalis, and other liquid and gaseous fluids used in industrial or other processes, or for firefighting purposes;

221.28 Heating system waters from boilers or heat pumps.

222.00 Public Water Supplier :

222.10 A person who owns or operates a public water system.

223.00 Public Water Supply System:

223.10 A system which provides water to the public for human consumption which has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year;

223.20 The term is either a community or non-community water system and includes any collection, treatment, storage and distribution facilities under control of the operator of the system and used in connection with the system;

223.30 The term includes collection or pretreatment storage facilities not under such control which are used in connection with the system;

223.40 The term also includes a system which provides water for bottling or bulk hauling for human consumption;

223.50 For purposes of this Ordinance, the term shall mean the Borough of Saegertown water supply system;

224.00 Reduced Pressure Zone (RPZ) Device:

224.10 A minimum of two independently acting check valves, together with an automatically operated pressure differential relief valve located between the two check valves;

224.20 During normal flow and at the cessation of normal flow, the pressure between these two checks shall be less than the supply pressure;

224.30 In case of leakage on either check valve, the differential relief valve, by discharging to the atmosphere, shall operate to maintain the pressure between the checks at less than the supply pressure;

224.40 The unit must include tightly closing shut-off valves located at each end of the device, and each device shall be fitted with properly located test cocks.

225.00 Service Connection:

225.10 The terminal-end of a service line from the public water supply system.

225.20 If a meter is installed at the end of the service, then the service connection means the downstream end of the meter.

226.00 System Hazard:

226.10 A condition posing an actual or potential threat of damage to the physical properties of the public water supply system or the consumer's potable water system.

300.00 Water System:

300.10 The water system shall be considered as made up of two parts: the public water supply system and the consumer's water system.

300.20 The public water supply system shall consist of the source facilities and the distribution system, and shall include all those facilities of the public water supply system under the control of the Borough of Saegertown up to the point where the consumer's water system begins.

300.30 The source shall include all components of the facilities utilized in the production, treatment, storage, and delivery of water to the public distribution system.

300.40 The public distribution system shall include the network of conduits used for delivery of water from the source to the consumer's water system.

300.50 The consumer's water system shall include all facilities beyond the service connection which are utilized in conveying water from the public distribution system to points of use.

400.00 Cross Connections Prohibited:

400.10 No water service connection shall be installed or maintained to any premises where actual or potential cross-connections to the public water supply system or consumer's water system may exist;

400.11 Unless such actual or potential cross-connections are abated or controlled to the satisfaction of the Borough of Saegertown.

400.20 No connection shall be installed or maintained whereby water from an auxiliary water supply may enter a public or consumer's water system unless such auxiliary water supply and the method of connection and use of such supply shall have been approved.

500.00 Surveys and Investigations:

500.10 The consumer's premises shall be open at all reasonable times to the Borough of Saegertown, or its authorized representative;

500.11 Premises shall be opened for the purposes of conducting surveys and investigations of water use practices within the consumer's premises to determine whether there are actual or potential cross-connections to the consumer's water system through which contaminants or pollutants could backflow into the public potable water system.

500.20 On request by the Borough of Saegertown the consumer shall furnish information on water use practices within his premises.

500.30 It shall be the responsibility of the water consumer to conduct periodic surveys of water use practices on his premises to determine whether there are actual or potential cross-connections to his water system through which contaminants or pollutants could backflow into the public water supply system.

600.00 Required Protection:

- 600.10 An approved backflow prevention device shall be installed prior to the first branch line leading from each service line to a consumer's water system where, in the judgment of the Borough of Saegertown, an actual or potential hazard to the public water supply system exists.
- 600.20 An approved backflow prevention device shall be installed on each service line to a consumer's water system where the following conditions exist:
- 600.21 Systems having an auxiliary water supply, unless such auxiliary supply is accepted as an additional source by the Borough of Saegertown and approved by the Pennsylvania Department of Environmental Resource.
- 600.22 Systems where any substance is handled in such a fashion as to create an actual or potential hazard to the public water supply system.
- 600.23 This shall include systems having sources or auxiliary systems containing process fluids or waters originating from the public water supply system which are no longer under the sanitary control of the water purveyor.
- 600.24 Systems having internal cross-connections that, in the judgment of the Borough of Saegertown, are not correctable or intricate plumbing arrangements which make it impractical to determine whether or not cross-connections exist.
- 600.25 Systems where, because of security requirements or other prohibitions or restrictions, it is impossible or impractical to make a complete cross-connection survey.
- 600.26 Systems having a repeated history of cross-connections being established or re-established.
- 600.27 Others specified by the Borough of Saegertown.

601.00 Required Installation:

- 601.10 An approved backflow prevention device shall be installed on each service line to a consumer's water system serving, but not necessarily limited to, the following types of facilities unless the Borough of Saegertown determines that no actual or potential hazard to the public water supply system exists;
- 601.11 Hospitals, mortuaries, clinics, nursing home;.
- 601.12 Laboratories;
- 601.13 Piers, docks, waterfront facilities;
- 601.14 Sewage treatment plants, sewage pumping station or storm water pumping station;
- 601.15 Food or beverage processing plants;
- 601.16 Chemical plants;
- 601.17 Metal plating industries;
- 601.18 Petroleum processing or storage plants;
- 601.19 Radioactive material processing plants;
- 601.20 Car wash or truck wash.
- 601.21 Others specified by the water purveyor.

700.00 Type of Protection Required:

- 700.10 The type of protection under Section 600 of this ordinance shall depend on the degree of hazard which exists as follows:
- 700.11 An approved air gap separation shall be installed where the public water supply system may be contaminated with substances that are dangerous to the public health and could cause a severe health hazard.
- 700.12 An approved air gap separation or an approved reduced pressure zone backflow prevention device shall be installed where the public water supply system may be contaminated with a Substance that could cause a system or health hazard.
- 700.13 An approved air gap separation or an approved reduced pressure zone backflow prevention device or an approved double check valve assembly shall be installed where the public water supply system may be polluted with substances that would be objectionable but not dangerous to health.

800.00 Backflow Prevention Devices:

- 800.10 Any backflow prevention device required by this ordinance shall be of a model or construction approved by the Borough of Saegertown and shall comply with the following:
- 800.20 Air gap separation to be approved shall be at least twice the diameter of the supply pipe, measured vertically above the top rim of the vessel, but in no case less than one inch.
- 800.30 A double check valve assembly or a reduced pressure zone backflow prevention device shall be approved by the Borough of Saegertown and shall mean a device that has been manufactured in full conformance with standards established by the American Water Works Association entitled:
- 800.31 AWWA C506 Standards For Reduced Pressure Principle and Double Check Valve Backflow Prevention Devices.
- 800.32 Said AWWA standards are herein adopted by the Borough of Saegertown. Final approval, however, of the "Reduced Pressure Principle Backflow Preventer" and the "Double Check Valve Assembly" shall be evidenced by a "Certificate of Full Approval" issued by an approved testing laboratory certifying full compliance with the said AWWA standards.
- 800.40 An interchangeable connection to be approved shall be either a swing type connector or a four-way valve of the lubricated plug type that operates through a mechanism which unseats the plug, turns it ninety degrees and reseats the plug.
- 800.50 Four-way valves shall not be used as stop valves but must have separate stop valves on each pipe connected to the valve.
- 800.60 The telltale port on the four-way valve shall have no piping connected and the threads or flange on this port shall be destroyed so that a connection cannot be made.
- 801.00 Existing backflow prevention:
- 801.10 Existing backflow prevention devices approved by the Borough of Saegertown at the time of installation and properly maintained shall, except for inspection and maintenance requirements, be excluded from the requirements of Section 800 of this ordinance providing the Borough of Saegertown is assured that they will satisfactorily protect the public potable supply system.
- 801.20 Whenever the existing device is moved from the present location or requires more than minimum maintenance or when the Borough of Saegertown finds that the maintenance of the device constitutes a hazard to health, the device shall be replaced by a backflow prevention device meeting the requirements of this ordinance.

900.00 Installation:

- 900.10 Backflow prevention devices required by this ordinance shall be installed at a location and in a manner approved by the Borough of Saegertown and shall be installed by a person properly qualified and at the expense of the water consumer.
- 900.20 Backflow prevention devices installed on the service line to a consumer's water system shall be located on the consumer's side of the water meter, as close to the meter as is reasonably practical, and prior to any other connection.
- 900.30 Pits or vaults shall be of water-tight construction, be so located and constructed as to prevent flooding and shall be maintained free from standing water by means of either a sump pump or a suitable drain.
- 900.31 Such sump pump or drain shall not connect to a sanitary sewer nor permit flooding of the pit or vault by reverse flow from its point of discharge.
- 900.32 An access ladder and adequate natural or artificial lighting shall be provided to permit maintenance inspection and testing of the backflow prevention device.

1000.00 Inspection and Maintenance:

- 1000.10 It shall be the duty of the consumer at any premises on which backflow prevention devices required by this ordinance are installed to have inspections, tests and overhaul made in accordance with the following schedule or more often where inspections indicate a need.
- 1000.11 Air separation shall be inspected at time of installation and at least every twelve months thereafter.
- 1000.12 Double check valve assemblies shall be inspected and tested for tightness at the time of installation and at least every twelve months thereafter.
- 1000.13 The valves shall be dismantled, inspected internally, cleaned and repaired whenever needed and at least every thirty months.
- 1000.20 Reduced pressure zone backflow prevention devices shall be inspected and tested for tightness at the time of installation and at least every twelve months thereafter.
- 1000.21 The valves shall be dismantled, inspected internally, cleaned and repaired whenever needed and at least every five years.
- 1000.22 Interchangeable connections shall be inspected at the time of installation and at least every twelve months thereafter.
- 1000.30 Inspections, tests, and overhaul of backflow prevention devices shall be made at the expense of the water consumer and shall be performed by the Borough of Saegertown or a person certified to inspect, test and overhaul backflow prevention devices.
- 1000.40 Whenever backflow prevention devices required by this ordinance are found to be defective, they shall be repaired, or replaced at the expense of the consumer without delay.
- 1000.50 The water consumer must maintain a complete record of each backflow prevention device from purchase to retirement.
- 1000.51 This shall include a comprehensive listing that includes a record of all tests, inspections and repairs.
- 1000.52 Records of inspections, tests, repairs and overhaul shall be submitted to the Borough of Saegertown upon written request.

1000.60 Backflow prevention devices shall not be bypassed, made inoperative, removed or otherwise made ineffective without specific authorization by the water supplier.

1100.00 Booster Pump:

1100.10 Where a booster pump has been installed on the service line to or within any premises, such pump shall be equipped with a low pressure cut-off device designed to shut-off the booster pump when the pressure in the service line on the suction side of the pump drops to ten pounds per square inch gauge or less for a period of thirty (30) seconds or longer.

1100.20 It shall be the duty of the water consumer to maintain the low pressure cut-off device in proper working order and to certify to the Borough of Saegertown, at least once a year, that the device is operating properly.

1200.00 Violations:

1200.10 The Borough of Saegertown may deny or discontinue, after thirty (30) days written notice to the occupants thereof, the water service to any premises wherein any backflow prevention device required by this ordinance is not installed, tested and maintained in a manner acceptable to the Borough of Saegertown;

1200.11 If it is found that the backflow prevention device has been removed or by-passed, or if an unprotected cross-connection exists on the premises, if a low pressure cut-off device required by this ordinance is not installed and maintained in working order, water service to such premises shall not be restored until the consumer has corrected or eliminated such conditions or defects in conformance with this ordinance and to the satisfaction of the Borough of Saegertown.

1300.00 Effective Date:

1300.10 This ordinance shall take effect immediately.

1400.00 Enacted:

1400.10 ORDAINED and ENACTED November 19th, 1990.