

## **CHAPTER 19**

### **VILLAGE WATER CODES**

#### **ARTICLE I: GENERAL**

##### **Sec. 19-0. GENERAL - APPLICABILITY.**

The provisions of this Chapter shall apply to all persons residing in or visiting the Village of Orangeville, present and future, who have any stated, implied or incurred jurisdiction, liability or responsibility regarding the implementation, enforcement, and compliance with any and all of the articles of this Chapter.

##### **Sec. 19-1. GENERAL - PURPOSE.**

A. The purpose of this Chapter is to establish reasonable, comprehensive, and functional water Codes for the Village regarding its Water Department, water usage outside the Village, service pipes and connections, water distribution systems, cross-connection controls, and penalties.

B. It is intended that these Codes shall help protect and preserve the character of the Village with a consideration toward conserving the community's public health, safety, and welfare, while providing the best possible wholesome community environment.

##### **Sec. 19-2. GENERAL - TERMS and DEFINITIONS.**

For the purposes of this Chapter, the following definitions shall apply to the terminologies indicated whenever they are used in this Chapter, unless the context clearly indicates or requires a different meaning:

**AGENCY.** The term "Agency," when used herein, shall mean the Illinois Environmental Protection Agency.

**APPROVED.** The term "Approved," when used herein, shall mean backflow prevention devices or methods approved by the Research Foundation for Cross-Connection Control of the University of Southern California, Association of State Sanitary Engineers, American Water Works Association, American National Standards Institute or certified by the National Sanitation Foundation.

**AUXILIARY WATER SYSTEM.** The term "Auxiliary Water System," when used herein, shall mean any water source or system on or available to the premises other than the public water supply system and include the water supplied by the system. These auxiliary waters may include water from a source such as wells, lakes, or streams, or process fluids; or used water. These waters may be polluted or contaminated or objectionable or constitute a water source or system over which the water purveyor does not have control.

**BACKFLOW.** The term "Backflow," when used herein, shall mean the flow of water or other liquids, mixtures, or substances into the distribution pipes of a potable water system from any source other than the intended source of the potable water supply.

**BACKFLOW PREVENTION DEVICE.** The term "Backflow Prevention Device," when used herein, shall mean any device, method, or type of construction intended to prevent backflow into a potable water system. All devices used for backflow prevention in Illinois must meet the standard of the Illinois Plumbing Code and the Illinois Environmental Protection Agency.

**CONSUMER or CUSTOMER.** The term "Consumer" or "Customer," when used herein, shall mean the owner, official custodian, or person in control of any premises supplied by or in any manner connected to a public water system.

**CONSUMER'S WATER SYSTEM.** The term "Consumer's Water System," when used herein, shall mean any water system located on the customer's premises. A building's plumbing system is considered to be a customer's water system.

**CONTAMINATION.** The term "Contamination," when used herein, shall mean an impairment of the quality of the water by entrance of any substance to a degree which could create a health hazard.

**CROSS-CONNECTION.** The term "Cross-Connection," when used herein, shall mean any physical connection or arrangement between two otherwise separate piping systems, one of which contains potable water and the other a substance of unknown or questionable safety of quality, whereby there may be a flow from one system into the other.

**CROSS-CONNECTION, DIRECT.** The term "Direct Cross-Connection," when used herein, shall mean a cross-connection formed when a water system is physically joined to a source of unknown or unsafe substance.

**CROSS-CONNECTION, INDIRECT.** The term "Indirect Cross-Connection," when used herein, shall mean a cross-connection formed through which an unknown substance can be forced, drawn by a vacuum, or otherwise introduced into a safe potable water system.

**DOUBLE CHECK VALVE ASSEMBLY.** The term "Double Check Valve Assembly," when used herein, shall mean an assembly composed of single, independently acting check valves approved under ASSE Standard 1015. A double check valve assembly must include tight shutoff valves located at each end of the assembly and suitable connections for testing the water-tightness of each check valve.

**FIXED PROPER AIR GAP.** The term "Fixed Proper Air Gap," when used herein, shall mean the unobstructed vertical distance through the free atmosphere between the water discharge point and the flood level rim of the receptacle.

**HEALTH HAZARD.** The term "Heath Hazard," when used herein, shall mean any condition, device or practice in a water system or its operation resulting from a real or potential danger to the health and well-being of consumers. The word "severe" as used to qualify "health hazard" means a hazard to the health of the user that could be expected to result in death or significant reduction in the quality of life.

**INSPECTION.** The term "Inspection," when used herein, shall mean plumbing inspection to examine carefully and critically all materials, fixtures, piping and appurtenances, and appliances with requirements of the Illinois Plumbing Code, 77 Ill. Adm. Code 890.

**NON-POTABLE WATER.** The term "Non-Potable Water," when used herein, shall mean water not safe for drinking, personal, or culinary use as determined by the requirements of 35 Ill. Adm. Code 604.

**PLUMBING.** The term "Plumbing," when used herein, shall mean the actual installation, repair, maintenance, alteration or extension of a plumbing system by any person. Plumbing includes all piping, fixtures, appurtenances and appliances for a supply of water for all purposes, including, without limitation, lawn sprinkler systems from the source of a private water supply on the premises or from the main in the street, alley or at the curb to, within and about any building or buildings where a person or persons live, work or assemble. Plumbing includes all piping from discharge of pumping units to and including pressure tanks in water supply systems. Plumbing includes all piping, fixtures, appurtenances, and appliances for a building drain and a sanitary drainage and related ventilation system of any building or buildings where a person or persons live, work, or assemble from the point of connection of such building drain to the building sewer or private sewage disposal system five feet beyond the foundation walls.

**POLLUTION.** The term "Pollution," when used herein, shall mean the presence of any foreign substance (organic, inorganic, radiological, or biological) in water that tends to degrade its quality so as to constitute a hazard or impair the usefulness of the water.

**POTABLE WATER.** The term "Potable Water," when used herein, shall mean water which meets the requirements of 35 Ill. Adm. Code 604 for drinking, culinary, and domestic purposes.

**POTENTIAL CROSS-CONNECTION.** The term "Potential Cross-Connection," when used herein, shall mean a fixture or appurtenance with threaded hose connection, tapered spout, or other connection which would facilitate extension of the water supply line beyond its legal termination point.

**PROCESS FLUIDS.** The term "Process Fluids," when used herein, shall mean 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, pollution, or system hazard if

introduced into the public or a consumer's potable water system. These include, but are not limited to: **(1)** polluted or contaminated waters; **(2)** process waters; **(3)** used waters originating from the public water supply system which may have deteriorated in sanitary quality; **(4)** cooling waters; **(5)** questionable or contaminated natural waters taken from wells, lakes, streams, or irrigation systems; **(6)** chemicals in solution or suspension; and **(7)** oils, gases, acids, alkalis and other liquid and gaseous fluids used in industrial or other processes, or for firefighting purposes;

**PUBLIC WATER SUPPLY.** The term "Public Water Supply," when used herein, shall mean all mains, pipes and structures through which water is obtained and distributed to the public, including wells and well structures, intakes and cribs, pumping stations, treatment plants, reservoirs, storage tanks and appurtenances, collectively or severally, actually used or intended for use for the purpose of furnishing water for drinking or general domestic use and which serve at least fifteen (15) service connections or which regularly serve at least twenty-five (25) persons at least sixty (60) days per year. A public water supply is either a "community water supply" or a "non-community water supply."

**REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION DEVICE.** The term "Reduced Pressure Principle Backflow Prevention Device," when used herein, shall mean a device containing a minimum of two independently acting check valves together with an automatically operated pressure differential relief valve located between the two check valves and approved under ASSE Standard 1013. During normal flow and at the cessation of normal flow, the pressure between these two checks shall be less than the supply pressure. In case of leakage of either check valves, the differential relief valve, by discharging to the atmosphere, shall operate to maintain the pressure between the check valves at less than the supply pressure. The unit must include tightly closing shutoff valves located at each end of the device, and each device shall be fitted with properly located test cocks.

**SERVICE CONNECTION.** The term "Service Connection," when used herein, shall mean the opening, including all fittings and appurtenances, at the water main through which water is supplied to the user.

**SURVEY.** The term "Survey," when used herein, shall mean the collection of information pertaining to a customer's piping system regarding the location of all connections to the public water supply system and must include the location, type and most recent inspection and testing date of all cross-connection control devices and methods located within that customer's piping system. The survey must be in written form, and should not be an actual plumbing inspection.

**SYSTEMS HAZARD.** The term "Systems Hazard," when used herein, shall mean a condition through which an aesthetically objectionable or degrading material not dangerous to health may enter the public water supply system or a consumer's potable water system.

USED WATER. The term "Used Water," when used herein, shall mean any water supplied by a public water supply system to a consumer's water system after it has passed through the service connection and is no longer under the control of the water supply official custodian.

WATER PURVEYOR. The term "Water Purveyor," when used herein, shall mean the owner or official custodian of a public water system.

Sec. 19-3. GENERAL - SEVERABILITY.

The articles, paragraphs, sentences, clauses and phrases of this Chapter are severable, and if any phrase, clause, sentence, paragraph or section of this Chapter shall be declared unconstitutional, invalid, or unenforceable by the valid judgment or decree of a court of competent jurisdiction, such unconstitutionality, invalidity, or unenforceability shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this Chapter.

Sec. 19-4 through Sec. 19-10. RESERVED.

**ARTICLE II. WATER DEPARTMENT (WD)**

Sec. 19-11. WD - CREATED AND COMPOSITION.

There is hereby created a Water Department. The Water Department shall consist of the Water-Sewer Superintendent (WSS) and such other officers and employees as may be assigned to it by the President and Village Board.

Sec. 19-12. WD - GENERAL DUTIES OF WATER SUPERINTENDENT (WSS).

The WSS shall have charge of the water works, the water mains, hydrants, and other fixtures which are a part of the water works system of the Village, and he shall see that the same are kept in proper working order to furnish an adequate and pure supply of water to the Village. In these matters, he shall be subject to the control of the President and the Village Board.

Sec. 19-13. WD - TESTS AND REPORTS.

It shall be the duty of the WSS to conduct tests of the water supply and submit such reports as may be required by the Illinois Department of Public Health or other agencies of the State of Illinois. As soon as possible, after the close of any fiscal year, the WSS shall make a report on the operations of the department to the Village Board. The WSS shall promptly make recommendations to the Village Board of required repairs and improvements in the plans and system.

Sec. 19-14. WD - SUPERVISE WORK OF DEPARTMENT.

It shall be the duty of the WSS to direct the laying of all water pipes in the streets, alleys, and public grounds of the Village and the making of all connections with the water pipes or mains for private consumers or public use.

Sec. 19-15 through 19-20. RESERVED.

### **ARTICLE III. EXISTING VILLAGE SERVICE (ES).**

Sec. 19-21. EVS - TURNING ON WATER.

A. No water from the Village water supply shall be turned on or off for service into any premises other than by the WSS or person authorized by him to perform such service.

B. The services of the Village's Water Department are furnished to the respective premises by the Village only upon the condition that the owner of the premises, the occupant thereof and the user of the service are jointly and severally liable therefor to the Village

Sec. 19-22. EVS - APPLICATION, FEE AND DEPOSIT.

A. Application to have water turned on shall be made to the Village Clerk and shall contain an agreement by the applicant or a signed guarantee for payment of all water obligations to abide by and accept all of the provisions of the Village water supply by the applicant.

B. A deposit of fifty-dollars (\$50.00) shall be made with each such application, this sum to be retained by the Village to insure the payment of all bills until all such bills have been paid and to be refunded when service is discontinued, if all bills have been paid. When service is discontinued, if all bills have been paid. When service to the applicant is discontinued permanently, this deposit, less any amount still due to the Village for water service, shall be refunded without interest.

Sec. 19-23. EVS - RIGHT TO ENTER PREMISES.

The WSS and other designated employees of the Village, shall have the right to enter and have free access at all reasonable hours to all premises to examine meters and ascertain the location of all hydrants, pipes, meters, or other fixtures attached to the Village water works system, and in the event that said person finds the water is wasted on account of negligence or for want of repairs, if such waste is not immediately remedied after due notice is given, the service leading to such premises shall be detached from the water system.

Sec. 19-24. EVS - REPAIRS TO SERVICE PIPE.

A. All needed repair on existing supply pipes from the main for a distance not to exceed fifty-feet (50') shall be assumed by the Village, and the property owner shall assume the excavation and filling of the ditch for all over the stipulated fifty-feet (50'), the Village to furnish the pipe and assume the maintenance and repairs thereafter.

B. All repairs on service pipes from the curb cock to the meter shall be made by and at the expense of the owners of the premises served. If a leak develops between the curb cock and the meter, the Village reserves the right to shut off the water from the main until repairs are made and approved by the WSS.

Sec.19-25. EVS - FAILURE OF METER.

Should any existing water meter become inoperative during any half-year service, the sum said property owner shall pay for water service for said half-year shall be the same as that paid for said water service for the same period of the preceding year.

Sec. 19-26. EVS - REPAIRS TO METERS.

The residents of property upon which meters are installed will be held responsible for any willful or malicious damage to such meters, and such residents will also be held responsible for any damage sustained by freezing or caused by hot water backing through the same, and must bear all cost of repairing the meters when the same become damaged through any of the causes herein designated.

Sec. 19-27. EVS - READING METERS.

The Village Clerk shall read or cause to be read every water meter used in the Village. The Village Board shall set the time for all such readings.

Sec. 19-28. EVS - WATER RATES.

A. Users of water from the Village water supply system shall charged those rates as defined by type of service in Chapter 20.

B. The Village shall have the right to enforce collection of any delinquent water rates by legal action in a court of appropriate jurisdiction.

C. During the construction of any building and before any water is installed as herein provided, the contractor so constructing such building may be permitted to use the Village water supply by making application therefor, and paying a minimum fee of three-dollars (\$3.00), or such sum as may be prescribed by the Village Board.

Sec. 19-29. EVS - BILLING PROCEDURES.

Bills for water used shall be dated and sent out at such times as may be directed by the Village Board.

Sec. 19-30. EVS - DELINQUENT BILLS.

A. Nonpayment of a water bill for a period of thirty (30) days after it was due shall be grounds for the WSS to shut off the water service to said premises. When shut off, the supply shall not be turned on except upon payment of the delinquent bill plus an extra fee of ten-dollars (\$10.00) for turning on the water.

B. Whenever a bill for water service remains unpaid for sixty (60) days after it has been rendered, the Village Clerk shall file with the Recorder of Deeds a statement of lien Claim. This statement shall contain the legal description of the premises served, the amount of the unpaid bill and a notice that the Village claims a lien for said amount to the period covered by the bill.

C. If the consumer of water whose bill is unpaid is not the owner of the premises, and the Village Clerk has notice of this, notice shall be mailed to the owner of the premises if his address is known to the Village Clerk, whenever such bill remains unpaid for a period of sixty (60) days after it has been rendered.

D. The failure of the Village Clerk to record such lien claim or to receive such notice, or the failure of the owner to receive such notice shall not affect the right to foreclose the lien for unpaid water bills as described in Subsection "E."

E. Property subject to a lien for unpaid water charges shall be sold for nonpayment of the same, and the proceeds of such sale shall be applied to pay the charges, after deducting costs, as is the case in the foreclosure of statutory liens. Such foreclosure shall be by a bill in equity in the name of the Village.

F. The attorney retained by and representing the Village is hereby authorized and directed to institute such proceedings in the name of the Village in any court having jurisdiction over such matters, against any property for which the water bill has remained unpaid sixty (60) days after it has been rendered.

Sec. 19-31 through 19-35. RESERVED



## **ARTICLE IV. NEW VILLAGE SERVICE.**

### **Sec. 19-36. NVS - WATER SERVICE PERMITS.**

A. Parties desiring to use water from the Village water supply must make application for a new service upon printed blanks for this purpose which may be received at the office of the Village Clerk and must be subscribed to and agreed to be bound by the provisions of this division covering the use of water. If no valid objection exists, the WSS shall then issue to such licensed plumber as may be selected by the applicant a permit authorizing him to do the work. A special permit must be issued for each branch connection when more than one connection is made by one service pipe.

B. The service pipe from the main to the curb, the corporation cock, the curb cock and the curb box and the meter shall be furnished and installed by the Village under the direction of the WSS for the sum established in this Code, but under no circumstances shall said service be carried more than fifty-feet (50'), and never beyond the property line.

### **Sec. 19-37. NVS - COMPLIANCE WITH CODES.**

No water shall be turned on for service on premises in which the plumbing does not comply with the Codes herein and the State plumbing statutes; provided that water may be turned on for construction purposes in unfinished buildings, subject to the provisions of this Chapter.

### **Sec.19-38. NVS - EXCAVATIONS.**

Excavations and filling of the ditching for installing service from the property line or the sidewalk line parallel to the main shall be furnished and the cost thereof borne by the applicant for the water service. Such work shall be under the supervision of the WSS

### **Sec. 19-39. NVS - INSTALLATION OF SERVICE PIPES.**

All service pipes from the curb to the premises to be served shall be installed by and at the cost of the owner of the property to be served or the applicant for the service. Such installation shall be under the supervision of the WSS.

### **Sec. 19-40. NVS - SERVICE PIPE SPECIFICATIONS.**

A. All water service pipes from the main to the meter shall be not less than three-fourths-inch (3/4") in size. Said service piping may be either metallic or plastic. Plastic piping shall be rated for two-hundred (200) foot-pound pressure testing. All fittings and connections shall be uniform and comply with the specifications established by the Village Board.

B. All service pipes shall be buried at least five-feet (5') deep below grade. All pipes from the street to the meter shall be inspected and have the approval of the WSS before the pipe is covered.

C. All water service pipes from the main to the property line or sidewalk line shall be furnished and installed by the Village, and maintenance and repairs after installation shall be assumed by the Village.

Sec. 19-41. NVS - SHUT-OFF BOXES.

Shut-off or service boxes shall be placed on every service pipe and shall be located between the curb line and the sidewalk line where this is practical. Such boxes shall be so located that they are easily accessible and shall be protected from frost.

Sec. 19-42. NVS - METERS REQUIRED.

All premises using water from the Village water supply must be equipped with an adequate gallonage water meter, furnished by the Village, provided that such water service may be supplied by the Village at a flat rate of charge until such meter may be installed. Before any premises are occupied, a water meter shall be installed therein as herein required or application made for such water service at the flat rate of charge until such meter can be installed, or no water shall be furnished to such premises. Meters shall be installed in a location that will be easily accessible.

Sec. 19-43 through Sec. 19-48. RESERVED

**ARTICLE V. ALL SERVICE CODES.**

Sec. 19-49. ASC - ACCOUNTS PAYABLE.

The Clerk shall register all applications for all types of water supply and keep a full and accurate account with each water user. All monies due for water use shall be payable to the office of the Clerk, who shall pay over to the Treasurer all monies received by the Clerk and an accounting as to when said monies are received for water use as required by Code.

Sec. 19-50. ASC - AUTHORITY TO TERMINATE SERVICE.

The provisions of this Chapter as the same now exist or may be hereafter altered or modified shall be considered a part of the contract with every person that is supplied with water through the water system of this, and every such person by taking water shall be bound thereby; and whenever the provisions of this Chapter or those of any other Code which may be hereafter enacted are violated, the water service shall be terminated from the building or place of such violation, and the person or persons guilty of such violation shall be subject to the penalty as provided for in Section 19-199.

Sec. 19-51. ASC - CLAIMS NOT ALLOWED.

No claims shall be allowed against the Village due to an interruption of the water supply caused by the breaking of pipe, or machinery, or by stoppage for repairs, or on account of fire or other emergency; and no claim shall be allowed for any damages caused by the breaking of any pipe or equipment. The Village reserves the right to shut off the water temporarily without notice to make repairs, and also the Village reserves the right to make regulations and rates for the use of water. The Village will not be responsible for accidents resulting from insecure boilers or from variation or from collapse of any water fixture from any cause whatsoever.

Sec. 19-52. ASC - INTERFERING WITH FIRE HYDRANTS AND VALVES.

No person, except an employee of the Water Department of the Village shall open, close, take water from or in any way interfere with any fire hydrants or valves belonging to Village without first having received a permit issued by the Village.

Sec. 19-53. ASC - OBTAINING WATER.

Hydrants, faucets or any other device which the consumer may adopt for obtaining water from the service pipes, except on business property, must be inside the property line.

Sec. 19-54 through Sec. 19-60. RESERVED

**ARTICLE VI: USERS OUTSIDE LIMITS (UOL)**

Sec. 19-61. UOL - RESIDENTIAL WATER SERVICE.

A. Property owners who own property outside of a residential subdivision requesting water service from the Village shall comply with the following guidelines: **(1)** in exchange for the Village of Orangeville agreeing to extend its municipal water system to the property line of an owner residing outside of the Village of Orangeville, but in a residential subdivision, the owner of said property shall be required to execute and file with the Village Clerk an Annexation Agreement agreeing to the annexation of said property to be serviced by the water system upon said property becoming contiguous to the Village of Orangeville; **(2)** at the time of the extension of the water supply to the property owner's property line, the property owner will pay the current hook-up fee of one-thousand-dollars (\$1,000.00), or the amount being then currently charged by the Village of Orangeville; **(3)** at the time of the extension of the municipal water supply to the property owner's property line, the property owner shall be responsible for any additional expenses incurred by the Village as a result of bringing the water supply to the property line, unless specifically waived by the President and Village Board; and **(4)** the property owner will be charged a rate of one-hundred- percent (100%) above the established water rates for the Village residents and businesses.

B. Property owners who own property within an existing residential subdivision requesting water service from the Village shall comply with the following guidelines: (A) **(1)** the Village of Orangeville will not provide water to individual homes within existing subdivisions unless and until a petition has been signed by a minimum of fifty-one-percent (51%) of the actual property owners requesting the extension of the municipal water supply to the subdivision; **(2)** the extension of the water lines referred to paragraph (B)**(1)** above will not be extended until one-hundred-percent (100%) of the property owners located within each subdivision requesting the extension of water service agree and execute a contract to connect to the water lines upon their availability; **(2)** the property owner will be charged a rate of one-hundred-percent (100%) above the established water rates for the residents and businesses and, further, shall pay hook-up fee currently being charged by the Village of Orangeville; and **(3)** any subdivision requesting the extension of the Village of Orangeville's water supply to service said subdivision, must present to the authorities contemporaneously with the request for the water line extensions a signed annexation agreement by one-hundred-percent (100%) of the property owners or by the requisite number of electors located on said property individually upon becoming contiguous to the different property at the Village's option.

Sec. 19-62. UOL - PRIVATE WATER SYSTEMS.

Upon request by a private water utility company for an extension or connection to the Village of Orangeville's water system, through an existing subdivision, the following shall occur: **(1)** the Village and the private water utility company shall negotiate the terms for the extension and/or connection; **(2)** the private utility company shall, contemporaneously with its request for the extension or connection of/or to the water supply, submit to the Village an annexation petition signed by one-hundred-percent (100%) of the current owners and the requisite number of electors residing thereon of all homes located and serviced by the private water utility company in the requisite subdivision; **(3)** the utility shall be charged at the established outside user rate based upon total water consumption; **(4)** the private water utility company shall be billed directly by the Village for total water consumption and it shall be the responsibility of the private water utility company to collect the appropriate fees from the various individual users; and **(5)** the private water utility company shall retain ownership of the existing water lines within the subdivision unless agreed to the contrary.

Sec. 19-63 through Sec. 19-68. RESERVED.

**ARTICLE VII: SERVICE PIPES AND CONNECTIONS**

Sec. 19-69. SPC - INSTALLATION OF WATER SERVICE.

Installation of service pipes shall be made under the supervision of the WSS or his authorized representatives.

Sec. 19-70. SPC - EXPENSE OF INSTALLATIONS.

All service pipes from the curb stop to the premises to be served shall be installed by and at the expense of the owner of the property to be served or the applicant for the service.

Sec. 19-71. SPC - DEPTH OF SERVICE PIPES.

All service pipes shall be laid at least five-feet (5') below the surface of the ground.

Sec. 19-72. SPC - TAPPING MAINS.

The Village shall tap the water mains, inserting a stop-cock, which shall be known as a "corporation cock," connect the service pipe and lay the same in a straight line to the property line, and there set a stop-cock with round waterway, which shall be known as a "curb stop."

Sec. 19-73. SPC - MAINTENANCE AND REPAIRS.

After inspection by the WSS or some person authorized by him to do so, the Water Department will keep the section of water service between the corporation cock and the curb stop in good repair, this part of the service being on Village property and being installed and inspected according to this Chapter. All other water service lines installed from the curb stop to the building shall be installed at the expense of the property owner.

Sec. 19-74. SPC - LOCATION and SERVICE.

Along streets where water mains are laid, service pipes shall not be allowed to run across lots, that is, from one lot to another, but must be taken from the main in front of the premises or some point in the street adjacent to the same except by special permit from the WSS. Not more than one (1) house shall be supplied from one tap, except by special permission from the Village Board.

Sec. 19-75. SPC - BILLING.

When service pipes are intended to serve two (2) or more distinct premises or tenements, and where only one (1) curb stop is used, the person or persons owning the property must pay the water rent of all of the parties.

Sec. 19-76. SPC - PERMISSION REQUIRED.

Special application must be made and permission obtained from the WSS for making any extension to the plumbing of any house, residence or place beyond that for which permission may have already been granted, including yard sprinklers, which must be installed in compliance with the Illinois Plumbing Code.

Sec. 19-77. SPC - USERS RESPONSIBILITY.

Persons using water must keep their service pipes and all fixtures connected therewith in good repair and protected from frost at their own expense, and must prevent all unnecessary waste, in default of which the WSS may authorize the shut-off of the water to the premises.

Sec. 19-78. SPC - TYPE OF SERVICE PIPES.

All service pipes extending from the "corporation cock" through the "curb-stop" to the water meter may be either metallic or plastic, with an inside diameter conforming to standard iron pipe dimensions but not smaller than one-inch (1") inside diameter, and shall in each case, if underground, be connected with flared joints or compression couplings.

Sec. 19-79. SPC - EXCAVATIONS.

Excavations for installing service pipe or repairing the same shall be made in compliance with the regulations relating to the making of excavations in streets, provided that it shall be unlawful to place any service in the same excavation with or directly over any drain or sewer pipe. No person or persons shall connect or cause to be connected any water service pipe to the water main belonging to the Village, nor to any lateral pipe line nor to any curb-stop unless the said service pipe be laid in a separate ditch excavated for that purpose, which said ditch shall be at least ten-feet (10') in distance on a horizontal line and eighteen-inches (18") on a vertical line or plane from any sewage or drain tile. In places where this is impossible, special permission must be obtained from the President and the Village Board.

Sec. 19-80 SPC - INSPECTION.

All plumbing shall be done in a manner required by the WSS, or building inspector and subject to their inspection and approval, and the patters and appurtenances shall in like manner be subject to their approval, and no work underground shall be covered up until examined by one of these parties or their designated agent.

Sec. 19-81. SPC - REPORT AND DUTIES OF PLUMBER.

It shall be the duty of all plumbers performing work in the Village to ask for inspection and approval from the WSS, or building inspector on all underground work before it is covered. Before the water shall be turned on, a water meter must be obtained from the Water Department, giving a description and location of the curb-stop and meter setting with the name and address of the occupants and the owner of such premises. It shall be the duty of all plumbers to obtain a special permit before making any changes in any connections that have been made with water mains except where meters are already in use.

Sec. 19-82 through Sec. 19-87. RESERVED.

### **ARTICLE VIII: WATER DISTRIBUTING SYSTEM SPECIFICATIONS (WDS)**

Sec. 19-88. WDS - GENERAL.

Water mains, service connections and appurtenances shall be constructed in accordance with the Standard Specifications for Water and Sewer Main Construction in Illinois and with the American Water Works Association Standard C600 and subject to the provisions of this Book of Codes.

Sec. 19-89. WDS - MAIN LOCATION AND TRENCH DEPTH.

When determining the location for the digging of a trench for the installation of water mains, the following guidelines shall be followed: **(1)** Water mains shall, in general, be located between the curb and sidewalk. Water mains parallel to the curbs shall be located at least three-feet (3') from the back of curb; and **(2)** trenches shall be excavated to a depth sufficient to provide a minimum of five and one-half-feet (5 1/2') of cover as measured from the top of the pipe to the finished grade.

Sec. 19-90. WDS - JOINTS.

All ferrous pipe joints shall be of the slip-on mechanical joint type as provided in the material specifications cited above as the AWWA Standard C600. All mechanical type joints shall be provided with ductile iron retainer glands.

Sec. 19-91. WDS - DEAD ENDS.

All dead ends on new mains shall be closed with case iron plugs or caps. Where a dead end is not equipped with a fire hydrant, the last pipe shall be fitted with a bleeder plug and valve. The valve shall be a two-inch (2") corporation stop. The bleeder valve shall be located in a bleeder vault which shall be a temporary structure three-feet (3') in diameter with no foundation ring, but otherwise constructed in the manner of a valve vault. In order to reduce cost and allow future main extension to be made without interruption of water service, mains should, where possible, end one (1) pipe length beyond a control valve. The stub end must be capped, but the bleeder valve may be located in the control valve vault, provided no service connections are made to the stub.

Sec. 19-92. WDS - SETTING HYDRANT.

A. Hydrants shall be located as shown on the plans or as otherwise directed as to provide complete accessibility and minimize the possibility of damage from vehicles or injury to pedestrians. One (1) hydrant shall be set at each street intersection. Intermediate hydrants shall be set so that hydrants are no more than three-hundred-feet (300') apart in

commercial/industrial developments or five-hundred-feet (500') apart in residential developments.

B. All hydrants shall stand plumb and shall have their nozzles parallel with or at right angles to the curb, with the pumper nozzle facing the curb. No portion of the pumper or hose cap shall be less than twenty-four-inches (24") from the gutter face of the curb. Hydrants shall be set to the finished grade, with all nozzles at least eighteen-inches (18") above the finished grade.

C. Each hydrant shall be connected to the main by a six-inch (6") diameter branch line controlled by an independent six-inch (6") gate valve placed within eighteen-inches (18") of the front of the hydrant. Each hydrant shall be placed upon a two-foot (2') square concrete base set upon undisturbed soil. The hydrant shall be braced until the vault is built and a backfill made.

D. Each hydrant shall be provided with a hydrant vault constructed in the manner previously specified for valve vaults except that it shall be larger in diameter at the bottom to accommodate the hydrant branch valve and the base of the hydrant. The neck of the vault shall be drawn to the front of the hydrant where a manhole rim and cover shall be installed.

Sec. 19-93. WDS - SERVICE CONNECTIONS.

A. All service connection sizes shall be approved by the prior to their installation. Service branch pipes two-inches (2") in diameter and smaller may be either metallic or plastic. Service branch pipes larger than two-inches (2") shall be ductile iron.

B. Each service shall be provided with a valve at the point of connection with the main. For plastic services the valve at the main shall be a corporation stop; for iron services, a distribution gate valve. Corporation stops shall be buried. Gate valves shall be provided with a valve vault.

C. The table below lists the largest service sizes that may be directly tapped into the main for each size of main:

MAIN SIZE	LARGEST DIRECT TAP
4 inch	3/4 inch
6 inch	1 inch
8 inch	1-1/2 inch
10 inch	2 inch



12 inch

2 inch

16 inch

2 inch

Service connections larger than those listed above shall be made using service clamps. Each plastic service shall be provided with a curb stop valve and box located between the curb and property line (usually one-half-foot (1/2') off the property line). The curb stop valve shall not be located beneath any sidewalk or driveway.

Sec. 19-94. WDS - HYDROSTATIC TESTING.

A. Hydrostatic testing shall be done in accordance with AWWA C600. All newly laid pipe, or valved sections thereof, shall be subgauge (100 PSIG). The duration of each pressure test shall be not less than one (1) hour.

B. Each valved section of pipe shall be slowly filled with water and the specified test pressure, based on the elevation of the highest point of the line or section under test and corrected to the elevation of the test gauge, shall be applied. Before applying the specified test pressure, all air shall be expelled from the pipe. The contractor shall install corporation stops at all points located at a higher elevation than the immediately adjacent sections of main so that the air can be expelled as the line is filled with water. After the air has been expelled, the corporation stops shall be closed and the test pressure applied.

C. All exposed pipes, fittings, valves, hydrants, and joints shall be carefully examined. All joints showing visible leaks shall be repaired by the contractor. Any cracked or defective pipes, fittings, valves, or hydrants discovered in consequence of the pressure test shall be removed and replaced by the contractor. The test shall be repeated until satisfactory to the Village.

D. A leakage test shall be conducted after the pressure test has been satisfactorily completed. The duration of each leakage test shall be two (2) hours, and during the test the main shall be subjected to the pressure previously specified for the pressure test. Leakage shall be defined as the quantity of water that must be supplied into the newly laid pipe, or any valve section thereof, to maintain the specified pressure. No pipe installation will be accepted if the leakage is greater than the determined by the formula:

$$\frac{L = N D P}{3700}$$

in which L is the allowable leakage in gallons per hour; N is the number of joints in the length of the pipeline tested; D is the minimal diameter of the pipe in inches; and P is the average test pressure pipe in pounds per square inch gauge.

Sec. 19-95. WDS - BACKFILL, BELOW AND TO GRADE.

A. All trenches shall be backfilled, from the bottom of the trench to the centerline of the pipe, with granular backfill or approved native material. The backfill material shall be deposited in the trench for its full width on each side of the pipe simultaneously, distributed evenly by hand, and compacted by tamping.

B. All trenches shall be backfilled, from the centerline of the pipe to a depth of one (1) foot above the top of the pipe, with granular backfill or approved native material compacted by tamping. The contractor shall use special care in placing this portion of the backfill so as to avoid injuring or moving the pipes.

C. When the type of backfill material is not indicated in the plans or elsewhere specified, the trench shall be backfilled from one (1) foot above the pipe to the finished grade, with native material or other materials approved by the Village in twelve-inch (12") layers compacted by tamping.

Sec. 19-96. WDS - BACKFILL UNDER PAVEMENT.

Where the excavation is made through or within three-feet (3') of permanent pavements, curbs, driveways, or sidewalks, or where such structures are undercut by the excavation, or where such structures may reasonably be expected to be constructed over or within three-feet (3') of the excavation within one (1) year after backfilling, the entire backfill to the subgrade of the structures shall be made with granular material compacted by tamping to ninety-five-percent (95%) of ASTM D 698 density. When granular backfill is required under pavements, curbs, driveways, or sidewalks planned to be constructed within one (1) year after backfilling, the areas requiring such granular backfill shall be indicated in the plans.

Sec. 19-97. WDS - DISINFECTION.

A. After the backfill has been completed, the contractor shall disinfect the pipeline in accordance with the provisions of American Water Works Association Standard C601-68 and the provisions therein specified.

B. Prior to disinfection, the pipeline or valved section thereof, shall be flushed at a minimum flow velocity of two and one-half-feet (2-1/2') per second. Following full development of flow, flushing shall continue until the discharge runs clear or until the Village shall direct flushing operations to cease. In no event shall the duration of flushing be less than ten (10) minutes. Water used in flushing the pipeline shall be introduced into the pipeline at a point of connection with the existing distribution system designated by the Village.

C. After flushing, the Continuous Feed Method described in AWWA C601-68 shall be used to disinfect the pipeline or valved section thereof. Water used in disinfecting the pipeline

shall be introduced into the pipeline through the pressure test connection made under the provisions of Section 19-76.

D. Bacteriological samples shall be collected from the pipeline on two (2) successive days following disinfection and final flushing. All samples shall be collected by the Village and transported to the Stephenson County Health Department for analysis. If either sample shows the presence of coliform organisms, the Contractor shall repeat the disinfection procedure.

E. If a valved section of the pipeline is disinfected separately, each such section shall be considered a separate pipeline for disinfection, and flushing until disinfection of the upstream section has been satisfactorily completed as determined by bacteriological analysis.

Sec. 19-98. WDS - IRON PIPE.

A. All pipe shall be: centrifugally cast ductile iron and shall fully comply with the provisions of AWWA Standard C151-76 (ANSI Standard A21.11-1976).

B. All pipe shall be cement mortar lined, and such lining shall fully comply with the provisions of AWWA Standard C104-74 (ANSI A21.1974). The lining shall be of standard thickness with bituminous seal coat.

C. Joints shall be of the mechanical or push-on types. All joints shall fully comply with the provisions of AWWA Standard C111-72 (ANSI A21.1972).

D. The thickness of each class and size of pipe shall fully comply with the provisions of AWWA Standard C150-76 (ANSI Standard A21-50-1976).

E. All pipe shall be supplied with provisions to ensure electrical continuity between pipe sections. Such continuity provision shall be adequate to carry one-thousand (1,000) amps without damage to the pipe or gasket.

Sec. 19-99. WDS - IRON FITTINGS.

A. All fittings shall be ductile iron and shall fully comply with the provisions of AWWA Standard C110-71 (ANSI Standard A21.10-1971).

B. All fittings shall be cement mortar lined, and such lining shall fully comply with the provisions of AWWA Standard C104-74 (ANSI Standard A21.4-1974).

C. All fittings shall be of the mechanical joint type with ductile iron retainer glands, in full compliance with the provisions of AWWA Standard C111-72 (ANSI Standard A21.11-1974).

Sec. 19-100. WDS - VALVES AND VALVE VAULTS.

A. All valves up to and including twelve-inches (12") in size shall be gate valves. Gate valves shall be two (2) faced, non-rising stem, double disc gate valves with parallel seats, opening left and shall fully comply with the provisions of AWWA Standard C500-71. Gate valves shall be furnished with O-ring stem seals and shall have mechanical joint ends.

B. Valves larger than twelve-inches (12") in size shall be butterfly valves. Butterfly valves shall be rubber-seated tight closing type with underground operator, class 150B in full compliance with AWWA Standard C504-74. Butterfly valve operators shall be equipped with a two-inch (2") AWWA operating nut, opening left. Butterfly valves shall have mechanical joint ends.

C. A complete shop drawing shall be provided for every type of valve supplied, showing the name, part number, and material of construction for every part of the valve.

D. Valve vaults shall be of precast concrete or of concrete brick or block, laid up in alternate courses of headers and stretchers, placed upon a precast foundation ring six-inches (6") thick with an inside diameter of four-feet (4') at the bottom. The top of the foundation shall be at the same elevation as the horizontal plane passing through the axis of the pipe. The brick or block shall be set in mortar, with the vertical joints broken to provide drainage. The cone of the vault shall not be more than thirty-six-inches (36") in height and at grade shall accept the manhole rim and cover specified below. The excavation around the vault shall be backfilled with granular material to provide drainage.

E. A hydrant vault shall be constructed in the manner previously specified for valve vaults except that it shall be larger in diameter at the bottom to accommodate the hydrant branch valve and the base of the hydrant. The neck of the vault shall be drawn to the front of the hydrant where a manhole rim and cover shall be installed.

Sec. 19-101. WDS - MANHOLE RIMS AND COVERS.

A. Heavy rims and covers shall be Neenah No. R-1670 with type C non-rocking cover, total weight three-hundred-fifty pounds (350lbs). Heavy rims and covers shall be used in roadways.

B. Light rims and covers shall be Neenah No. R-1711-B with type C lid, total weight of one-hundred-seventy-five pounds (175lbs). Light rims and covers shall be used in parkways.

C. Covers shall be supplied with a checkered pattern top lettered "Water."

Sec. 19-102. WDS - FIRE HYDRANTS.

All fire hydrants purchased by or installed in the Village of Orangeville shall comply with all

provisions of the American Water Works Association (AWWA) Standard C502-73 (Dry Barrel Fire Hydrants). They shall be Mueller Centurion Hydrants or their equivalent as determined by the following provisions: **(1)** three (3) way type with two (2) two-and-a-half- inch (2-1/2") hose connections with National Standard Hose Coupling Thread and one (1) four-inch (4") Pumper Nozzle with National Standard Hose Coupling Thread. Centerline of all nozzles shall not be less than eighteen-inches (18") above ground line mark on lower barrel; **(2)** bury (trench) depth shall be six-feet (6') unless otherwise required by the plans or specifications; **(3)** inlet connections shall be six-inch (6") standard mechanical-joint conforming to AWWA Standard C111 and furnished with all joint materials; **(4)** directions of opening shall be to the right (clockwise); **(5)** operating nut and nozzle cap wrench nuts shall be seven-eights-inch (7/8") square with a minimum height of one-inch (1"); **(6)** the main valve shall be a water compression type closing with the water pressure; **(7)** minimum I.D. of main valve seat ring shall be five-inch (5") and friction losses through the hydrant shall not exceed 2.5 psi at a flow rate of one-hundred (100) GPM, through the pumper connection when flow tested in accordance with paragraph 3.8, AWWA C502073 as certified by a certified friction loss curve from the manufacturer, applicable of the specific model to be furnished; **(8)** bronze-to-bronze threading of main valve seat ring to show assembly to assure easy removal of stem and valve assembly with a short, light-weight wrench; **(9)** fully automatic double drain valve system with two (2) or more bronze-lined outlets in the shoe that are fed by two (2) inlet holes in the bronze seat ring that are capable of draining the hydrant at a rate of five (5) GPM when the hydrant is properly installed; **(10)** integrally cast barrel and show flanges below the groundline with no threads or grooves cut into the barrel wall as a means of flange retention. Flanges, barrel and shoe castings below the groundline shall be constructed of gray iron or ductile iron, but in no combinations thereof so as to assure uniform strength of these components; **(11)** traffic "breakway" design that permits full three-hundred-sixty (360) degrees facing of nozzles by infinite degree. The safety flange shall not utilize breakable bolts but fail at a groove cast inside the bolt circle upon vehicular impact. The safety stem coupling shall be designed so as to fail only in tension, but not to fail from excessive torque applied to the operation nut in either direction. The coupling shall be located below the flange to prevent a vehicle wheel from depressing the stem and opening the valve; **(12)** main valve assembly and operation stem shall be removable through the top of the upper barrel without the need of removing the upper barrel or nozzle section; **(13)** dry top design in which the threads and bearing surfaces of the operating mechanism are sealed from the waterway by two (2) O-ring stem seals, and from the atmosphere by O-rings and a weather shield; **(14)** operating mechanism shall incorporate an oil chamber and automatic lubrication system that circulates a low viscosity oil to all operating threads and bearing surfaces each time the hydrant is operated, effectively to minus thirty (30) degrees F. There shall be an externally accessible oil filler plug to permit checking or adding oil if required, but so positioned as to prevent over-filling; **(15)** painting and coating shall be in accordance with AWWA C502-73 with a yellow finish coat or any other color approved by the Village above the ground line; **(16)** contractors and/or suppliers shall furnish two (2) copies of detailed shop drawings from the manufacturer of the specific hydrant model to be furnished if requested by the engineer. The drawings shall list applicable ASTW numbers of all components; and **(17)** the use of

hydrants other than specified herein, or any deviation from these specifications will require the approval of the engineer not later than twenty-four (24) hours prior to bid date.

Sec. 19-103. WDS - TAPPING VALVES.

Tapping gate valves shall be a AWWA mechanical joint, inside screw, non-rising stem, parallel seat bronze trimmed with O-ring constructions, opening left, like Mueller H0667, in working pressures of 200 PSIG, for cold water service.

Sec. 19-104. WDS - TAPPING SLEEVES AND TUBING.

A. Tapping sleeves shall be AWWA mechanical joint like Mueller H-616, in 200 PSIG working pressure, for cold water service.

B. Tubing shall be metallic or plastic supplied in conformance with ASTM specifications suitable for underground service.

Sec. 19-105. WDS - CORPORATION STOPS.

Corporation stops for three-fourth-inch (3/4"), one-inch (1"), and two-inch (2") connections shall be Mueller H-15000 or approved equal.

Sec. 19-106. WDS - SERVICE CLAMPS.

Service clamps shall be double strap, corporation stop thread, malleable iron body galvanized for cast iron, for 500 PSIG working pressure with neoprene gasket cemented in place.

Sec. 19-107. WDS - CURB STOPS AND CURB BOX.

A. Curb stops for three-fourth-inch (3/4") through two-inch (2") connections shall be Mueller H-15204 or equal and must have round full openings. The T-head of all stops must be capable of making a fully three-hundred-sixty (360) degree turn.

B. Cut-off boxes shall have adjustable steel pipe stems and screwed caps, shall be designed for a six-foot (6') trench depth, and shall include thirty-six-inch (36") cut-off box rods. Boxes for three-fourth-inch (3/4") and one-inch (1") stops shall be Mueller H-10314 or equal. Boxes for two-inch (2") stops shall be Mueller H-10386 or equal.

Sec. 19-108. WDS - GRANULAR BACKFILL.

A. When granular backfill is indicated in the plans or elsewhere specified, such granular backfill shall consist of sand or gravel.

B. All sand used for backfill shall be natural run sand, uniformly graded from fine to coarse, not lumpy or frozen, and free from slag, cinder, ashes, rubbish, or other material that is objectionable or deleterious. Sand shall contain no more than ten-percent (10%) by weight of loam and clay, and all material must be capable of passing through a three-fourth-inch (3/4") sieve.

C. Gravel used for backfill shall consist of natural bank run gravel of good durability, reasonably uniformly graded from fine to course with no stones larger than two-inch (2") in size. It shall be free from slag, cinders, ashes, refuse, or other deleterious or objectionable materials. Gravel shall not contain more than ten-percent (10%) by weight of loam and clay and shall not be frozen.

Sec. 19-109 through Sec. 19-114. RESERVED.

### **ARTICLE IX: CROSS-CONNECTION CONTROL (CCC)**

Sec. 19-115. CCC - CROSS-CONNECTION CONTROL.

A. That all plumbing installed within the Village of Orangeville, Illinois, shall be installed in accordance with the Illinois Plumbing Code, 77 Ill. Adm. Code 890. That, if in accordance with the Illinois Plumbing Code or in the judgment of the WSS, an approved backflow prevention device is necessary for the safety of the public water supply system, the WSS will give notice to the water customer to install such an approved device immediately. The water customer shall, at his own expense, install such an approved device at a location and in a manner in accordance with the Illinois Plumbing Code, Illinois Environmental Protection Agency and all applicable local regulations, and shall have inspections and tests made of such approved devices upon installations and as required by the Illinois Plumbing Code, Illinois Environmental Protection Agency and local regulations.

B. That no person, firm or corporation shall establish or permit to be established or maintain or permit to be maintained any connection whereby a private, auxiliary or emergency water supply other than the regular public water supply of the Village of Orangeville, Illinois, may enter the supply or distribution system of said municipality, unless such private, auxiliary or emergency water supply and the method of connection and use of such supply shall have been approved by the WSS and the Illinois Environmental Protection Agency.

C. That it shall be the duty of the WSS to cause surveys and investigations to be made of commercial, industrial and other properties served by the public water supply to determine where the actual or potential hazards to the public water supply may exist. Such surveys and investigations shall be made a matter of public record and shall be repeated at least every two (2) years, or as often as the WSS shall deem necessary. Records of such surveys shall be maintained and available for review for a period of at least five (5) years.

D. That the approved cross-connection control device inspector shall have the right to enter at any reasonable time any property served by a connection to the public water supply or distributions system of the Village of Orangeville's water supply for the purpose of verifying the presence or absence of cross-connections, and that the WSS or his authorized agent shall have the right to enter at any reasonable time any property served by a connection to the public water supply or distribution system of the Village of Orangeville's water supply for the purpose of verifying information submitted by the customer regarding the required cross-connection control inspection. On demand, the owner, lessees or occupants of any property so served shall furnish to the WSS any information which he may request regarding the piping system or systems or water use on such property. The refusal of such information when demanded, shall, within the discretion of the WSS, be deemed evidence of the presence of improper connections as provided in this Code.

E. That the WSS is hereby authorized and directed to discontinue, after reasonable notice to the occupant thereof, the water service to any property wherein any connection is in violation of the provisions of this Code is known to exist, and to take such other precautionary measures as he may deem necessary to eliminate any danger of contamination to the public water supply distributions mains. Water service to such property shall not be restored until such conditions have been eliminated or corrected in compliance with the provisions of this Code, and until a re-connection fee of one-hundred- dollars (\$100.00) is paid to the Village of Orangeville. Immediate disconnection with verbal notice can be effected when the WSS is assured that imminent danger of harmful contamination of the public water supply. Neither the WSS or his agents or assigns shall be liable to any customer for any injury, damages or lost revenues which may result from termination of said customer's water supply in accordance with the terms of this Code, whether or not said termination was with or without notice.

F. That the consumer responsible for back-siphoned or back pressured material or contamination through backflow, if contamination of the potable water supply system occurs through an illegal cross-connection or an improperly installed, maintained or repaired device, or a device which has been bypassed, must bear the cost of clean-up of the potable water supply system.

#### Sec. 19-116. CCC - GENERAL POLICY.

A. The purpose of these rules and regulations is: **(1)** to protect the public water supply system from contamination or pollution by isolating within the customer's water system contaminants or pollutants which could backflow through the service connection into the public water supply system; **(2)** to promote the elimination or control of existing cross-connection, actual or potential, between the public or consumer's potable water system and non-potable water systems, plumbing fixtures and sources or systems containing substances of unknown or questionable safety; and **(3)** to provide for the maintenance of



a continuing program of cross-connection control which will prevent the contamination or pollution of the public and consumer's potable water systems.

B. These rules and regulations shall apply to all premises served by public potable water supply system of the Village of Orangeville.

C. The owner or official custodian shall be responsible for protection of the public water supply system from contamination due to backflow or back-siphonage of contaminants through the customer's water service connection. If, in the judgment of the WSS or his authorized representative, an approved backflow prevention device is necessary for the safety of the public water supply system, the WSS shall give notice to the consumer to install such approved backflow prevention device at each service connection to the premises. The consumer shall immediately install such approved device or devices at his own expense: failure, refusal or inability on the part of the consumer to install such device or devices immediately shall constitute grounds for discontinuing water service to the premises until such device or devices have been installed. The consumer shall retain records of installation, maintenance, testing and repair as required in Section 3D(4) below for a period of at least five (5) years. The WSS may require the consumer to submit a cross-connection inspection report to the Village of Orangeville to assist in determining whether or not service line protection will be required. All cross-connection inspections shall be conducted by the WSS who shall be certified by the Illinois Environmental Protection Agency.

#### Sec. 19-117. CCC - WATER SYSTEM.

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

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

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

D. The public water supply distribution system shall include the network of conduits used to deliver water from the source to the consumer's water system.

E. The consumer's water system shall include all parts of the facilities beyond the service connection used to convey water from the public water supply distribution system to points of use.

Sec. 19-118. CCC - CROSS-CONNECTION PROHIBITED.

A. Connections between potable water systems and other systems or equipment containing water or other substances of unknown or questionable quality are prohibited except when and where approved cross-connection control devices or methods are installed, tested and maintained to insure proper operation on a continuing basis.

B. No physical connection shall be permitted between the potable portion of a supply and any other water supply not of equal or better bacteriological and chemical quality as determined by inspection and analysis by the Agency.

C. There shall be no arrangement or connection by which an unsafe substance may enter a supply.

Sec. 19-119. CCC - SURVEY AND INVESTIGATIONS.

A. The consumer's premises shall be open at all reasonable times to the approved cross-connection control device inspector for the inspection of the presence or absence of cross-connections within the consumer's premises, and testing, repair and maintenance of cross-connection control device within the consumer's premises.

B. On request by the WSS, or his authorized representative, the consumer shall furnish information regarding the piping system or systems or water use within the customer's premises. The consumer's premises shall be open at all reasonable times to the WSS for the verification of information submitted by the inspection consumer to the public water supply custodian regarding cross-connection inspection results.

C. It shall be the responsibility of the water consumer to arrange 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 his or the public potable water system. All cross-connection control or other plumbing inspections must be conducted in accordance with all applicable statutes and/or regulations.

D. It is the responsibility of the water consumer to prevent backflow into the public water system by ensuring that: **(1)** all cross-connections are removed; or approved cross-connection control devices are installed for control of backflow and back-siphonage; **(2)** cross-connection control devices shall be installed in accordance with the manufacturer's instructions; **(3)** cross-connection control devices shall be inspected at the time of installation and at least annually by a person approved by the of Orangeville as a cross-connection control device inspector (CCDI). The inspection of mechanical devices shall include physical testing in accordance with the manufacturer's instructions; **(4)** each device shall be tested at the time of installation and at least annually or more frequently if recommended by the manufacturer; **(5)** records submitted to the community public water

supply shall be available for inspection by Agency personnel; **(6)** each device shall have a tag attached listing the date of most recent test, name of CCDI, and type and date of repairs; and **(7)** a maintenance log shall be maintained and include: **a.** date of each test; **b.** name and approval number of person performing the test; **c.** test results; **d.** repairs or servicing required; **e.** repairs and date completed; and **f.** service performed and dated completed.

Sec. 19-120. CCC - WHERE PROTECTION IS REQUIRED.

A. An approved backflow device shall be installed on all connections to the public water supply as described in the Plumbing Code, and the Agency's regulations. In addition, an approved backflow prevention device shall be installed on each service line to a consumer's water system servicing premises, where in the judgment of the WSS, actual or potential hazards to the public water supply system exist.

B. An approved backflow prevention device shall be installed on each service line to a consumer's water system serving premises where the following conditions exist: **(1)** premises having an auxiliary water supply, unless such auxiliary supply is accepted as an additional source by the WSS and the source is approved by the Illinois Environmental Protection Agency; **(2)** premises on which any substance is handled which can create an actual or potential hazards to the public water supply system. This shall include premises having sources or systems containing process fluids or waters originating from the public water supply system which are no longer under the sanitary control of the WSS; **(3)** premises having internal cross-connections that, in the judgment of the WSS, are not correctable or intricate plumbing arrangements which make it impractical to determine whether or not cross-connections exist; **(4)** premises where, because of security requirements or other prohibitions or restrictions, it is impossible or impractical to make a complete cross-connection survey; and **(5)** premises having a repeated history of cross-connection being established or re-established.

C. An approved backflow device shall be installed on all connections to the public water supply as described in the Plumbing and the State Agency's regulations. In addition, 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 WSS determines that no actual or potential hazard to the public water supply system exists: **(1)** hospitals, mortuaries, clinics, nursing homes; **(2)** laboratories; **(3)** piers, docks, waterfront facilities; **(4)** sewage treatment plants, sewage pumping stations or storm water pumping stations; **(5)** food or beverage processing plants; **(6)** chemical plants; **(7)** metal plating industries; **(8)** petroleum processing or storage plants; **(9)** radioactive material processing plants or nuclear reactors; **(10)** car washes; **(11)** pesticide, or herbicide or extermination plants and trucks; and **(12)** farm service and fertilizer plants and trucks.

Sec. 19-121. CCC - TYPE OF PROTECTION REQUIRED.

A. The type of protection required under these regulations shall depend on the degree of hazard which exists as follows: **(1)** an approved fixed proper air gap separation shall be installed where the public water supply system may be contaminated with substance that could cause a severe health hazard; **(2)** an approved fixed proper air gap separation or an approved reduced pressure principle backflow prevention assembly shall be installed where the public water supply system may be contaminated with a substance that could cause a system or health hazard; **(3)** an approved fixed proper air gap separation or an approved reduced pressure principle backflow prevention assembly or a double check valve assembly shall be installed where the public water supply system may be polluted with substances that could cause a pollution hazard not dangerous to health.

B. The type of protection required under Sections 6.4 and 6.5 of these regulations shall be an approved fixed proper air gap separation or an approved reduced pressure principle backflow prevention device.

C. Where a public water supply or an auxiliary water supply is used for a fire protection system, reduced pressure principle backflow preventers shall be installed on fire safety systems connected to the public water supply when: **(1)** the fire safety system contains antifreeze, fire retardant or other chemicals; **(2)** water is pumped into the system from another source; or **(3)** water flows by gravity from a non-potable source; or water can be pumped into the fire safety system from any other source; **(4)** there is a connection whereby another source can be introduced into the fire safety system

D. All other fire safety systems connected to the potable water supply shall be protected by a double check valve assembly on metered service lined and a double detector check valve assembly on unmetered service lines.

Sec.19-122. CCC - BACKFLOW PREVENTION DEVICES.

A. All backflow prevention devices or methods required by these rules and regulations shall be approved by the Research Foundation for Cross-Connection Control of the University of Southern California, American Water Works Association, American Society of Sanitary Engineering, or American National Standards Institute or certified by the National Sanitation Foundation to be in compliance with applicable industry specification.

B. Installation of approved devices shall be made in accordance with the manufacturer's instructions. Maintenance as recommended by the manufacturer of the device shall be performed. Manufacturer's maintenance manual shall be available on-site.

Sec. 19-123. CCC - INSPECTION AND MAINTENANCE

A. It shall be the duty of the consumer at any premises on which backflow prevention

devices required by these regulations are installed to have inspection, tests, maintenance and repair made in accordance with the following schedule or more often where inspections indicate a need or are specified in manufacturer's instructions. **(1)** fixed proper air gap separations shall be inspected to document that a proper vertical distance is maintained between the discharge point of the service line and the flood level rim of the receptacle at the time of installation and at least annually thereafter. Corrections to improper or by-passed air gaps shall be made within 24 hours. **(2)** double check valve assemblies shall be inspected and tested at time of installation and at least annually thereafter, and required service performed within five (5) days; and **(3)** reduced pressure principle backflow prevention assemblies shall be tested at the time of installation and at least annually or more frequently if recommended by the manufacturer, and required service performed within five (5) days.

B. Testing shall be performed by a person who has been approved by the Agency as competent to service the device. Proof of approval shall be in writing.

C. Each device shall have a tag attached listing the date of most recent test or visual inspection, name of tester, and type of repairs.

D. A maintenance log shall be maintained and include: **(1)** date of each test or visual inspection; **(2)** name and approval number of persons performing the test or visual inspection; **(3)** test results; **(4)** repairs or servicing required; **(5)** repairs and date completed; and, **(6)** servicing performed and date completed.

E. Whenever backflow prevention devices required by these regulations are found to be defective, they shall be repaired or replaced at the expense of the consumer without delay as required by Section 9A.

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

#### Sec. 19-124. CCC - USE OF AUXILIARY WATER SYSTEMS.

Auxiliary Water Systems shall be used only when: **(1)** emergency conditions temporarily disable the Public Water Supply System and the Public Water Supply System is unable to supply water to the user having an Auxiliary Water System; and **(2)** the Village of Orangeville, acting through a duly authorized agent, gives written permission authorizing the use of the Auxiliary Water System. The Village of Orangeville shall clearly state the time period when use of the Auxiliary Water System will be allowed.

#### Sec. 19-125. CCC - BOOSTER PUMPS.

A. 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 twenty (20) psi or less.

B. It shall be the duty of the water consumer to maintain the low pressure cut-off device in the proper working order and to certify to the WSS, at least once a year, that the device is operable.

Sec. 19-126. through Sec. 19-131. RESERVED.

#### **ARTICLE X: PROHIBITED ACTS (PA).**

Sec. 19-132. PA - WATER RESALE.

No water shall be resold or redistributed by the recipient thereof from the Village water supply to any premises other than that for which application has been made and the meter installed, except in case of emergency, on a written permit from the WSS.

Sec. 19-133. PA - TAMPERING.

It shall be unlawful for any person, not authorized by the Village, to tamper with, alter or injure any part of the Village water system or any meter.

Sec. 19-134 through Sec. 19-198. RESERVED.

#### **ARTICLE XI: PENALTIES**

Sec. 19-199. PENALTIES.

A. The WSS shall deny or discontinue after reasonable notice to the occupants thereof, the water service to any premises therein any backflow prevention device required by these regulations is not installed, tested, maintained and repaired in a manner acceptable to the WSS, or if it is found that the backflow prevention device has been removed or bypassed, or if an unprotected cross-connection exists on the premises, or if a low pressure cut-off required by these regulations is not installed and maintained in working order.

B. Water service to such premises shall not be restored until the consumer has corrected or eliminated such conditions or defects in and on conformance with these regulations and to the satisfaction of the WSS, and the required reconnection fee is paid.

C. Neither the Village of Orangeville, the WSS, or its agents or assigns shall be liable to any customers or of Orangeville for any injury, damages or lost revenues which may result from termination of said customer's water supply in accordance with the terms of this Code, whether or not said termination of the water supply was with or without notice.

D. The consumer is responsible for back-siphoned material or contamination through backflow, if contamination of the potable water supply system occurs through an illegal cross-connection or an improperly installed, maintained or repaired device, or a device which has been bypassed, must bear the cost of clean-up of the potable water supply system.

E. Any person found to be violating any provision of this Code shall be served with written notice stating the notice of the regulation and providing a reasonable time limit for the period of time stated in such notice, permanently cease all violation.

F. In addition to the penalties set forth above, any person who shall damage any portion or component of the Village's water works by violating any provision of this Chapter, or otherwise, shall be civilly liable to the Village for such damages and the full cost of repairs.

G. All penalties addressed by this article are applicable only upon conviction of the referenced violation in the appropriate legal forum. Upon conviction, the Village shall also be entitled to reasonable fees and costs for its part in the adjudication.

H. Whenever in this Chapter or in any Section of this Chapter an act is prohibited or is made or declared to be unlawful or a misdemeanor or a violation of this Chapter, or whenever in such statute the doing of any act is required or the failure to do any act is declared to be unlawful or a misdemeanor or a violation therefor, the violation of any such provision of this Chapter or any statute herein shall be punishable by a fine of not less than ten-dollars (\$10.00), nor more than seven-hundred, fifty-dollars (\$750.00). Each day any violation of any provision of the Chapter or any statute of the Chapter continues, consecutive or not, shall constitute a separate offense. Regardless of the number of total days of violation, any fine shall not exceed three-thousand-dollars (\$3,000.00).