

ORDINANCE NO. 4261

AN ORDINANCE ADOPTING THE 2012 EDITION OF THE UNIFORM PUBLIC PLUMBING CODE WITH AMENDMENTS AND DELETIONS

Be it ordained by the Governing Body of the City of Independence, Kansas:

Section 1.

The 2012 Edition of The Uniform Plumbing Code and Appendices A, B, D, E, G, H, I, and J and the installation, repair and maintenance methods specified therein as standards of the International Association of Plumbing, and Mechanical Officials is hereby adopted and is incorporated by reference as if fully set forth herein subject to the following amendments and deletions. Any prior version of this code previously adopted is hereby repealed.

Section 2. Deletions, modifications, supplements or amendments.

a) Section 103.4 of the 2012 Edition of the Uniform Plumbing Code is hereby amended as follows:

Section 103.4 is hereby modified and replaced by the current adopted fee schedule of the City of Independence.

b) Section 203 of the 2012 Edition of the Uniform Plumbing Code is hereby amended as follows:

Section 203.0 Authority Having Jurisdiction. The organization, office, or individual responsible for enforcing the requirements of a code or standard, or approving equipment, materials, installation, or procedures. The Authority Having Jurisdiction shall be the Building Official of the City of Independence.

c) Section 312.6 of the 2012 Edition of the Uniform Plumbing Code is hereby amended as follows:

Section 312.6 In localities having a winter design temperature of 32 degrees Fahrenheit (OQC) or lower as shown in table R301.2 (1) of this code, a water, soil or waste pipe shall not be installed outside of a building, in exterior walls, in attics or crawl spaces, or in any other place subjected to freezing temperature unless adequate provision is made to protect it from freezing by insulation or heat or both. Water service pipe shall be installed not less than 30 inches (762 mm) deep below the finished grade.

d) Section 418.3 of the 2012 Edition of the Uniform Plumbing Code is hereby amended as follows:

Section 418.3 Location of Floor Drains. Floor drains shall be installed in the following areas: *(Add new subsection 4 as follows):*

(4) Rooms equipped with a water heater, commercial restrooms, commercial showers/locker rooms, commercial kitchens, and commercial mechanical rooms.

e) Section 604.1 of the 2012 Edition of the Uniform Plumbing Code is hereby amended as follows to add the following language:

Inaccessible water distribution piping under slabs shall be copper water tube minimum Type I, brass, ductile iron pressure pipe, cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-Al-PEX) pressure pipe, chlorinated polyvinyl chloride (CPVC) or polybutylene (PB) or cross-linked polyethylene (PEX) plastic pipe or tubing – all to be installed with NO FITTINGS under floor unless approved by the Building Official. The minimum pressure rating for plastic pipe or tubing installed under slabs shall be 100 psi at 180 degrees Fahrenheit QF (689 kPa at 82QC).

f) Section 807.4 of the 2012 Edition of the Uniform Plumbing Code is hereby amended as follows:

Section 807.4 Domestic Dishwashing Machine. No domestic dishwashing machine shall be directly connected to a drainage system or food waste disposer without the use of an approved dishwasher airgap fitting on the discharge side of the dishwashing machine, or by looping the discharge line of the dishwasher as high as possible near the flood level of the kitchen sink where the waste disposer is connected.

g) Section 904.1 of the 2012 Edition of the Uniform Plumbing Code is hereby amended as follows to add the following language:

904.1(a) General. Air admittance valves shall only be used where structural limitations prevent a vent from going through the roof, or as approved by the Building Official. Vent systems utilizing air admittance valves shall comply with this section. Individual-type and branch-type air admittance valves shall conform to ASSE 1051. Stack-type air admittance valves shall conform to ASSE 1050.

904.1(b) Installation. The valves shall be installed in accordance with the requirements of this section and the manufacturer's instructions. Air admittance valves shall be installed after the DWV testing required.

904.1(c) Where Permitted. Individual vents, branch vents, circuit vents and stack vents shall be permitted to terminate with a connection to an air admittance valve. Individual and branch type air admittance valves shall vent only fixtures that are on the same floor level and connect to a horizontal branch drain.

904.1(d) Location. Individual and branch air admittance valves shall be located not less than 4 inches (102 mm) above the horizontal branch drain or fixture drain being vented. Stack-type air admittance valves shall be located not less than 6 inches (152 mm) above the flood level rim of the highest fixture being vented. The air admittance valve shall be located within the maximum developed length permitted for the vent. The air admittance valve shall be installed not less than 6 inches (152 mm) above insulation materials where installed in attics.

904.1(e) Access and Ventilation. Access shall be provided to all air admittance valves. The valve shall be located within a ventilated space that allows air to enter the valve.

904.1(f) Size. The air admittance valve shall be rated for the size of the vent to which the valve is connected.

904.1(g) Vent Required. Within each plumbing system, not less than one stack vent or a vent stack shall extend outdoors to the open air.

904.1(h) Prohibited Installations. Air admittance valves without an engineered design shall not be used to vent sumps or tanks of any type.

h) Section 101.4 of the 2012 Edition of the Uniform Plumbing Code is hereby amended as follows:

Section 101.4 Referenced Codes. The other codes listed in Sections 101.4.1 through 101.4.7 and referenced elsewhere in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference.

Section 3. Definitions.

In addition to those terms defined in the Uniform Plumbing Code as adopted by Section 18-216, the following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this Section, except where the context clearly indicates a different meaning:

a) "Air gap" means the unobstructed vertical distance at least twice the diameter of the supply line and no less than one inch, through the free atmosphere between the lowest opening from any pipe or faucet supplying water to a tank, plumbing fixture, or other device and the flood level rim of the receptacle.

b) "Approved device" means devices tested and accepted by the Foundation for Cross Connection Control and Hydraulic Research, the University of Southern California, the International Association of Plumbing and Mechanical Officials, or a recognized testing laboratory.

c) "Backflow" means the flow of water or other substances into the distribution system of potable water from any source other than that its intended source.

d) "Backflow preventer" means a device, means, method or type of construction intended to prevent backflow into the potable water supply system.

e) "Backsiphonage" means the backflow of water or other substances into the distribution system of potable water from a plumbing fixture or vessel due to a negative pressure in such distribution system.

f) "Certified tester/repair technicians" means a person who has completed a state Department of Health and Environment approved training course and has passed a written examination such as the American Backflow Prevention Association Device Testers Examination and can display the proper certificate.

g) "Contaminant" means any substance that upon entering the potable water supply would render it a danger to the health or life of the consumer.

h) "Cross connections" means any physical connection or arrangement between two otherwise separate piping systems, one of which contains potable water and the other which contains water or any substance of unknown or questionable quality whereby there may be flow from one system to the other.

i) "Double checkvalve assembly" means a device consisting of two internally loaded soft seated checkvalves with positive shutoff valves on both upstream and downstream ends, and properly located test ports.

j) "Overhaul" means the removal and replacement of all soft parts including, but not limited to, washers and diaphragms as well as the repair or replacement of any defective parts in backflow preventer devices.

k) "Plumbing" means the business, trade or work having to do with the installation, removal, alteration or repair of plumbing systems.

l) "Plumbing systems" means all potable water supply and distribution pipes, all plumbing fixtures and traps, all drainage and vent pipes and all building drains, including their respective joints, connections, devices, receptacles, and appurtenances within the property lines of the premises and shall include potable water piping, a potable water treating or using equipment, fuel gas piping, water heaters and vents for the same.

m) "Pollution" means the presence of any foreign substance (organic, inorganic or biological) in water which tends to degrade its quality but does not constitute a danger to the health or life of the consumers.

n) "Reduced pressure backflow preventer" means an assembly of two independently acting soft seated approved checkvalves, together with an independent differential pressure relief valve located between the checkvalves. The unit shall contain properly located test cocks and resilient sealed shutoff valves at each end of the assembly. To be approved these assemblies must be accessible for inspection and testing and be installed in an aboveground location with no part of the assembly being subject to submersion.

o) "Vacuum" means any absolute pressure less than that exerted by the atmosphere.

p) "Vacuum breaker" means a device that permits entrance of air into the potable water supply distribution line to prevent backsiphonage.

q) "Water, nonpotable," means water that does not conform to the state Department of Health and Environment requirements for public water supply systems.

r) "Water, potable," means water which conforms to the state Department of Health and Environment requirements for public water supply systems.

Section 4. Purpose of article.

The purpose of this article is to:

a) Protect the potable water supply of the City from pollution or contamination due to backflow or cross connections.

b) Prohibit and eliminate all backflow and cross connections within the potable water supply system.

- c) Provide a continuing backflow and cross connection control program.

Section 5. Enforcement responsibility.

The Building Official shall be responsible for effectively conducting the backflow and cross connection control program for the City. If in the judgement of the Building Official, a backflow prevention device is required, the Building Official or a designated agent will give notice in writing to the customer to install an approved device. The customer shall immediately install the proper device at the cost and expense of the customer. Failure to comply shall be grounds for disconnecting water service to such customer until such time as the device is properly installed.

Section 6. Requirements.

The potable water supply system of the City shall be designed, installed and maintained in such a manner as to prevent contamination from nonpotable sources through backflow, cross connections or any other piping connection to the system.

Section 7. Prohibited connections.

Any connection to the potable water supply system of the following is prohibited unless properly protected by an appropriate backflow prevention device:

- a) Bidets;
- b) Operating, dissecting embalming, and mortuary tables or similar equipment;
- c) Pumps for nonpotable substances which must be primed only through an air gap;
- d) Building drains, sewers, or vent systems;
- e) Commercial buildings or industrial plants which manufacture or otherwise use a contaminant or pollutant; or
- f) A plumbing fixture which could become a contaminant or pollutant.

Section 8. Refrigeration unit condensers and cooling jackets.

Except when the potable water provided for a refrigeration condenser or cooling jacket is entirely outside the piping or tank containing a toxic refrigerant, the inlet connection shall be provided with an approved backflow preventer. Heat exchangers used to heat water for potable use shall be of the double wall type.

Section 9. Approval of devices.

Before any device for the prevention of backflow or backsiphonage is installed, it must be an approved device. Upon installation of a reduced pressure backflow preventer, double checkvalve assembly or pressure vacuum breaker, the installer shall inform the code enforcement division. The code enforcement division will then register the device for future testing, maintenance, and repair as outlined in.

Section 10. Installation.

a) An approved device shall be installed on all fixtures and equipment where backflow or backsiphonage may occur or where an air gap between the potable water outlet and the fixture or equipment flood-level rim cannot be maintained. No devices shall be installed except by plumbers who are licensed and bonded to work in the City. A dual checkvalve is not considered a backflow or backsiphonage preventer.

b) Backflow and backsiphonage devices requiring maintenance and testing shall have 18 inches minimum clearance entirely around the valve. All backflow and backsiphonage devices shall be installed horizontally unless otherwise listed by the manufacturer. Installation in pits or any other location not properly drained shall be prohibited, subject to the review of the Building Official. Valves installed eight feet above the grade or finish floor elevation shall be provided with a permanent platform for testing and maintenance.

c) Where a water connection is not subject to back pressure, a vacuum breaker shall be installed on the discharge side of the equipment. A list of some conditions requiring protective devices of this kind are given in the following table:

**CROSS CONNECTIONS WHERE PROTECTIVE DEVICES ARE REQUIRED
AND CRITICAL LEVEL (C-L) SETTINGS FOR VACUUM BREAKERS**

Fixture or Equipment	Method of Installation
Aspirators and ejectors	C-L at least 6 inches above flood level of receptacle served
Dental units	On models without built-in vacuum breakers C-L at least 6 inches above flood level rim of bowl
Commercial dishwashing machine	C-L at least 6 inches above flood level of machine. Installed on both hot and cold water supply lines
Garbage can cleaning machine	C-L at least 6 inches above flood level of machine. Installed on both hot and cold water supply lines.
Hose outlets	C-L at least 6 inches above highest point on hose line
Commercial laundry machines	C-L at least 6 inches above flood level of machine. Installed on both hot and cold water supply lines
Lawn sprinklers	C-L at least 6 inches above highest sprinkler head or discharge

	outlet
Steam tables	C-L at least 6 inches above flood level rim
Tanks and vats	C-L at least 6 inches above flood level rim or line
Trough urinals	C-L at least 30 inches above perforated flush pipe
Hose bibs	C-L at least 6 inches above flood level of receptacle served

d) Where a potable water connection is made to a line, fixture, tank, vat, pump, or other equipment with a hazard of backflow or backsiphonage or where the water connection is subject to back pressure and an air gap cannot be installed, the Building Official or a designated agent may require the use of an approved reduced pressure backflow preventer. A partial list of such connections is shown in the following table:

PARTIAL LIST OF CROSS CONNECTIONS SUBJECT TO BACK PRESSURE

Chemical lines	Pumps
Dock water outlets	Steam lines
Individual water supplies	Swimming pools
Industrial process water lines	Pressure tanks
Tanks and vats – bottom inlets	Hose bibs

e) Water connections where an actual or potential backsiphonage hazard exists may, in lieu of devices specified in this Section, be provided with a barometric loop. Barometric loops shall precede the point of connection.

f) The Building Official or a designated agent may authorize installation of approved double checkvalve assemblies with test cocks as protective devices against backflow in connections between the potable water supply system and other fluid systems which, in the judgement of the Building Official, has no contaminants. Approved air gaps, reduced pressure backflow preventer and pressure vacuum breaker may be used on lawn irrigation systems if no method of injecting a chemical is incorporated.

g) Atmospheric vacuum breakers shall be installed with the critical level at least six inches above the flood rim of the fixture they serve and on the discharge side of the last control valve to the fixture. No shutoff valve or faucet shall be installed beyond the atmospheric vacuum breaker.

h) Pressure vacuum breakers shall be installed with the critical level at least 12 inches above the flood rim but, but may have control valves downstream from the vacuum breaker. For closed equipment of vessels such as pressure sterilizers, the top of the vessel shall be considered the flood level rim, and a checkvalve shall be installed on the discharge side of the pressure vacuum breaker.

Section 11. Testing, maintenance and repair.

It shall be the responsibility of the owners to maintain all backflow preventers and vacuum breakers within the building or on the premises in good working order and to make sure no piping or other arrangements have been installed for the purpose of bypassing the backflow devices. Testing and repair of these devices should be made by a certified tester/repair technician. The Building Official is to require the proper installation of all backflow preventers and will set appropriate testing and overhaul schedules for such devices. Testing for such devices shall be the responsibility of the owners and shall be done upon installation and thereafter in intervals not to exceed one year with overhaul intervals not to exceed five years.

Section 12. Automatic fire suppression systems.

All new installations of automatic fire suppression systems of 15 heads or more having a Fire Department connection shall be protected from backflow with an approved double checkvalve assembly. Any fire suppression system into which chemicals of any type including, but not limited to, anticorrosion additive, antifreeze, and like solutions, can be added shall be protected at the service connection with an approved reduced pressure backflow preventer. In lieu of such protection, an antifreeze loop may be individually protected with an approved reduced pressure backflow preventer, in addition to proper service line protection.

Section 13. Hazard to potable water supply.

If it has been determined that the condition of a plumbing system may contaminate or pollute the potable water supply, the Building Official shall notify the owner of the building or premises of the condition. Unless action is taken within 24 hours to correct such condition, the public water supply shall be shut off until the condition no longer exists. The Building Official or a designated agent may immediately terminate water service upon confirmation of contamination or to pollution of the potable water system due to backflow, backsiphonage or cross connection.

Section 14. Violator's liability.

In addition to criminal penalties, any person violating any provisions of this article shall be liable to the City for all expenses, losses, and damages sustained as the result of such violation.

Section 15.

This Ordinance shall take effect upon its publication in the official city newspaper.

Adopted by the Governing Body of the City of Independence, Kansas, on the 14th day of December, 2017.



ATTEST:

Michael A. Borovetz
Michael A. Borovetz, City Clerk

Fred D. Meier
Fred D. Meier, Mayor