

(Published in the Topeka Metro News July 29, 2019)

ORDINANCE NO. 20196

AN ORDINANCE introduced by City Manager Brent Trout, concerning backflow prevention and cross connection control, amending City of Topeka Code § 5.63.080, § 14.35.490, § 14.35.510 through § 14.35.550, § 14.35.570 and § 14.35.580 and repealing original sections.

BE IT ORDAINED BY THE GOVERNING BODY OF THE CITY OF TOPEKA, KANSAS:

Section 1. That section 5.63.080, Apprentice, journeyman and master registration and license, of The Code of the City of Topeka, Kansas, is hereby amended to read as follows:

Apprentice, journeyman and master registration and license.

(a) Each initial application for examination for journeyman or master license shall be made on forms provided by the development services division and shall be accompanied by payment of the appropriate application fee. Applications for examination shall be made to the development services director prior to the scheduled examination date. In addition, each applicant for examination shall be responsible for paying the cost of the exam to the testing agency designated in K.S.A. 12-1509, 12-1542 and 12-1526. All applicants for trade examinations shall achieve a score of at least 75 percent for any of the trade examinations. There shall be no alternate education requirement for the trade examinations.

(b) All plumbing, mechanical, electrical and water softener/conditioner, lawn irrigation contractors and certified backflow tester/repair technicians licensed pursuant to this chapter shall display or post the required license in their place of business. All master and journeyman tradepersons shall carry their licenses on their persons and exhibit the license on the demand of the inspector, his assistants or any officer of the city.

(c) Master.

(1) To become a licensed master, an individual shall meet the current requirements found in K.S.A. 12-1509, and any amendments thereto, relating to plumbing contractor; K.S.A. 12-1542, and any amendments thereto, relating to mechanical contractor; and K.S.A. 12-1526, and any amendments thereto, relating to electrical contractor. The requirements to become a licensed master in the water softener/conditioner area within the plumbing trade shall be a minimum of one year of experience as a licensed journeyman within the water softener/conditioner trade and pass the water softener/conditioner master's examination issued by the city of Topeka. To become a licensed master in the lawn irrigation area within the plumbing trade, a person must work as a journeyman for two years within the lawn irrigation area within the plumbing trade and pass the master's examination. The requirement to become a licensed master in the solid fuel burning appliance area in the mechanical trade shall pass the fireplace/hearth certificate exam and the gas hearth appliance certificate exam approved by the development services director. A master license holder shall be responsible to oversee all work activity to assure compliance with applicable codes and must have direct contact with the job site.

(2) A master shall be limited to that work which falls within the master's trade or specialty area within that trade for which he or she is licensed.

(3) Continuing Education.

(i) Individuals possessing a master's license in plumbing, mechanical and electrical trades shall be required to meet the continuing education requirements set forth in K.S.A. 12-1509, and any amendments thereto, relating to plumbing contractor; K.S.A. 12-1542, and any amendments thereto, relating to

54 mechanical contractor; and K.S.A. 12-1526 to renew their respective license(s).

55 The continuing education courses may be provided by the local jurisdiction, a
56 nationally recognized trade organization, a product manufacturer or other
57 sources deemed acceptable to the development services director. Individuals
58 holding multiple masters' licenses shall be required to obtain statutory continuing
59 education hours for each license held; however, course work which applies to
60 more than one category of license may count towards the continuing education
61 requirement for each such license.

62 (ii) An individual with an expired or an inactive master's license shall
63 be required to provide proof of six hours of continuing education credits for each
64 year such license was expired or inactive in order to reactivate the license.
65 However, in the event the master's license was expired or inactive for a two-year
66 period or longer, only 12 hours of continuing education credit will be required for
67 reactivation.

68 (d) Journeyman.

69 (1) To become a licensed journeyman in the plumbing, electrical and
70 mechanical trades, an individual shall meet the current requirements found in K.S.A. 12-
71 1509, and any amendments thereto, relating to plumbing contractor; K.S.A. 12-1542,
72 and any amendments thereto, relating to mechanical contractor; and K.S.A. 12-1526,
73 and any amendments thereto, relating to electrical contractor. To become a licensed
74 journeyman in the lawn irrigation trade, a person must work as an apprentice for one
75 year within the trade. Work experience shall be verified by previous and current
76 employers on forms provided by the development services division.

77 (2) For the purposes of the mechanical trade only, a journeyman license is
78 categorized as follows:

- 79 (i) Comprehensive, all items covered by the code.
80 (ii) Sheet metal journeyman, limited to perform the following types of
81 installation:

82 (A) The placement and installation of the furnace, air
83 conditioning or other air handling equipment. This does not include any
84 connections of the line voltage electricity, fuel gas piping or refrigeration
85 piping.

86 (B) The installation of the complete air distribution system.

87 (C) The installation of the products of combustion venting
88 system.

89 (3) Continuing Education.

90 (i) Individuals possessing a journeyman's license in the plumbing,
91 mechanical and electrical trades shall be required to meet the continuing
92 education requirements set forth in K.S.A. 12-1509, and any amendments thereto,
93 relating to plumbing trade license; K.S.A. 12-1542, and any amendments thereto,
94 relating to mechanical trade license; and K.S.A. 12-1526, and any amendments
95 thereto, relating to electrical trade license to renew their respective license(s).

96 The continuing education courses may be provided by the local jurisdiction, a
97 nationally recognized trade organization, a product manufacturer or other
98 sources deemed acceptable to the development services director. Individuals
99 holding multiple journeymen's licenses shall be required to obtain the statutory
100 requirements for continuing education hours for each license held; however,

coursework which applies to more than one category of license may count towards the continuing education requirement for each such license.

(ii) An individual with an expired or an inactive journeyman's license shall be required to provide proof of six hours of continuing education credits for each year such license was expired or inactive in order to reactivate the license. However, in the event the journeyman's license was expired or inactive for a two-year period or longer, only 12 hours of continuing education credit will be required for reactivation.

(4) Certified Backflow Tester/Repair Technicians.

(i) To become a licensed backflow tester/repair technician, the individual must successfully complete an accredited training session recognized by the Kansas Department of Health and Environment and the ~~water superintendent~~ backflow and cross connection enforcement official and achieve a passing score on an examination. The holding of this license shall entitle the individual to test and/or repair backflow prevention devices or assemblies.

(ii) An individual holding a backflow tester/repair technician license shall be required to meet the continuing education and recertification requirements established by the ~~water superintendent~~ backflow and cross connection enforcement official.

(e) Apprentice. An apprentice is an individual who is registered with the development services division as working within the trades of electrical, mechanical, plumbing and lawn irrigation. The working ratio for licensed journeyman or master to registered apprentice shall be one to one, except the mechanical and lawn irrigation

trades, wherein the ratio shall be one licensed journeyman or master to two registered apprentices.

Section 2. That section 14.35.490, Definitions, of The Code of the City of Topeka, Kansas, is hereby amended to read as follows:

Definitions.

In addition to those terms defined in the Uniform Plumbing Code currently adopted by the city of Topeka, for the purposes of this article, the following terms shall have the meanings ascribed to them in this section:

“Approved assembly” means a backflow preventer that contains two shut-off valves and one to four properly located test ports in addition to two internal components, that is tested and accepted by a recognized testing laboratory approved by the Kansas Department of Health and Environment (KDHE) and the ~~water superintendent~~ backflow and cross connection enforcement official

“Approved backflow training provider” means training courses which are approved by the ~~water superintendent~~ backflow and cross connection enforcement official as backflow/cross connection training providers.

“Approved device” means a backflow preventer that does not contain shut-off valves or test ports and is tested and accepted by a recognized testing laboratory approved by the Kansas Department of Health and Environment (KDHE) and the ~~water superintendent~~ backflow and cross connection enforcement official.

“Auxiliary water supply” means any water supply on or available to the premises other than the city’s approved public water supply. These auxiliary waters may include water from another purveyor’s public potable water supply or any natural source, such as a well, spring, river, stream, harbor and so forth, used waters, or industrial fluids.

“AWWA Manual” means the AWWA Manual M14, current edition, published by the American Water Works Association.

“Backflow and Cross Connection Enforcement Official” means the individual or individuals designated by the city manager to enforce the City of Topeka’s backflow prevention and cross connection control program.

“Backflow license” means a document issued by the development services division to a certified backflow tester/repair technician.

“Certified backflow tester/repair technicians” means individuals who have successfully completed an accredited training session recognized by the Kansas Department of Health and Environment (KDHE) and the ~~water superintendent~~ backflow and cross connection enforcement official. The development services division shall license the tester/repair technicians after ascertaining the technician meets specific qualifications.

“CEU” means one continuing education unit which shall be earned for each one hour of actual classroom instruction.

“Containment” means a backflow prevention assembly installed at the service connection to the property.

“Domestic service” means the pipe carrying potable water from the water meter or other source of water supply to a building or other point of use or distribution on the lot. Domestic service shall also mean “building supply” or “water service.”

“Dual check valve” means a device consisting of two internally loaded soft-seated check valves. This device does not contain test ports or two tightly closing resilient-seated shut-off valves. Dual check valves are not approved for installation as backflow prevention devices.

“Free water surface” means a water surface at atmospheric pressure.

“Industrial fluids” means any fluids or solutions that may be chemically, biologically or otherwise contaminated or polluted in a form or concentration that would constitute a health, system, pollution or plumbing hazard if introduced into an approved water supply. This may include, but shall not be limited to, polluted or contaminated waters; all types of processed waters and used waters originating from the public potable water system that may have deteriorated in sanitary quality; chemicals in fluid form; plating acids and alkalis; circulating cooling waters connected to an open cooling tower; or cooling towers that are chemically or biologically treated or stabilized with toxic substances; contaminated natural waters, such as wells, springs, streams, rivers, bays, harbors, seas, irrigation canals or systems, etc.; oils, gases, glycerin, paraffin, caustic and acid solutions; and other liquid and gaseous fluids used in industrial or other purposes, including for firefighting purposes.

“Isolation” means the appropriate method of backflow prevention within the customer’s potable water system at the point of use.

“K.A.R.” means Kansas Administrative Regulations.

“KDHE” means the Kansas Department of Health and Environment.

“Service connection” means the point where the public water supply connects to the customer’s water service, usually at the water meter or property line.

“USC Manual” means the USC Manual of Cross Connection Control, current edition, published by the University of Southern California, Foundation for Cross Connection Control and Hydraulic Research.

“USEPA Manual” means the Cross Connection Manual, current edition, published by the United States Environmental Protection Agency.

~~“Water superintendent” means the superintendent of the city of Topeka water division or~~

his or her designee.

Section 3. That section 14.35.510, Responsibility for enforcement, of The Code of the City of Topeka, Kansas, is hereby amended to read as follows:

Responsibility for enforcement.

(a) The ~~water superintendent~~backflow and cross connection enforcement official shall be responsible for effectively conducting the cross connection control program of the city's potable water supply and the customer's potable water system. The ~~water superintendent~~backflow and cross connection enforcement official may use the current version of the Uniform Plumbing Code, AWWA Manual, USEPA Manual and the USC Manual and all K.A.R. from the KDHE in developing responsible judgment for enforcement of this code. If, in the judgment of the ~~water superintendent~~backflow and cross connection enforcement official, an approved device or assembly is required, the ~~water superintendent~~backflow and cross connection enforcement official shall give notice to the customer to install an approved device or assembly. The customer shall immediately install, test or repair an approved device or assembly at the customer's expense. Failure to comply shall be grounds for discontinuing water service to the service location until the device is properly installed, tested, or repaired.

(b) Determinations made by the ~~water superintendent~~backflow and cross connection enforcement official for the cross connection control and backflow prevention program may be appealed to the plumbing board. The ~~water superintendent~~backflow and cross connection enforcement official shall be notified of all such appeals and the decision of the board.

Section 4. That section 14.35.520, Cross connections – In general, of The Code of the City of Topeka, Kansas, is hereby amended to read as follows:

Cross connections – In general.

The potable water supply system of the city and the customer's potable water system shall be designed, installed and maintained to best prevent contamination or pollution from nonpotable liquids, solids or gases from being introduced into the potable water supply through cross connections or any other piping connections to the system. Any connection to the city's potable water supply, directly or indirectly, shall conform to standards established by the ~~water superintendent~~ backflow and cross connection enforcement official.

Cross connections between potable water systems and other systems or equipment containing water or other substances of unknown or questionable safety are prohibited except when and where a suitable protective device or assembly is installed, tested and maintained to ensure proper operation on a continuing basis. The device or assembly that is installed shall be approved by the ~~water superintendent~~ backflow and cross connection enforcement official.

Potable water connections to boilers shall be made through an air gap or through a RP. Boilers used for cooking and processing food may have a DC installed on the boiler water connection. Chemicals used for treatment in cooking and food-processing boilers shall be U.S. Food and Drug Administration (FDA) approved for human consumption. Existing work that is an actual or potential cross connection must be corrected.

Section 5. That section 14.35.530, Approval of devices or assemblies, of The Code of the City of Topeka, Kansas, is hereby amended to read as follows:

Approval of devices or assemblies.

Before any devices or assemblies for the prevention of backflow or backsiphonage are installed, they shall have first been certified by a recognized testing

laboratory acceptable to KDHE. These authorities include the American Society of Sanitary Engineers (ASSE), American Water Works Association (AWWA), University of Southern California Foundation for Cross Connection Control and Hydraulic Research, Canadian Standards Association (CSA), International Association of Plumbing and Mechanical Officials (IAPMO) or Factory Mutual (FM), and other testing or certifying authorities that may be accepted by KDHE. Devices or assemblies installed in a building potable water supply distribution system for protection against backflow or cross connection shall be maintained in good working condition by the customer. The ~~water superintendent~~ backflow and cross connection enforcement official shall inspect such devices or assemblies or may require the devices or assemblies to be inspected by a certified backflow inspector and if found to be defective or inoperative shall require the repair or replacement thereof.

Section 6. That section 14.35.540, Types of devices or assemblies – Installation and replacement, of The Code of the City of Topeka, Kansas, is hereby amended to read as follows:

Types of devices or assemblies – Installation and replacement.

(a) The type of approved device or assembly required to be installed on the water service line to protect the water supply under this article shall be determined by the degree of hazard which exists as determined by the ~~water superintendent~~ backflow and cross connection enforcement official.

(1) The following are examples which pose a high degree of hazard requiring an approved air-gap or reduced-pressure principle backflow prevention assembly (RP):

(i) Premises having auxiliary water supply.

(ii) Premises where material dangerous to health is handled in a manner which creates an actual or potential hazard.

(iii) Premises with uncontrolled cross connections.

(iv) Premises where, because of security requirements or other prohibitions, it is impossible to complete an in-plant cross connection inspection.

(2) The examples of uses or activities which may constitute a high degree of hazard to the water supply and shall require an approved device or assembly specified by the ~~water superintendent~~ backflow and cross connection enforcement official determined by the degree of hazard include, but are not limited to, the following:

(i) Beverage bottling plants.

(ii) Buildings: hotels, apartments, public or private buildings, or other structures having actual or potential cross connections. This includes structures of four stories or more and/or structures equipped with booster pumps.

(iii) Car wash facilities.

(iv) Chemical manufacturing, handling or processing plants.

(v) Chemically contaminated water.

(vi) Dairies and cold storage facilities.

(vii) Dentist offices.

(viii) Doctor's offices equipped with laboratories or surgeries.

(ix) Film or photography processing laboratories.

(x) Fire protection systems.

292 (xi) Hospitals, medical centers, morgues, mortuaries, autopsy facilities,
293 clinics, or nursing and convalescent homes.

294 (xii) Ice machines.

295 (xiii) Irrigation systems.

296 (xiv) Laundries.

297 (xv) Metal cleaning, metal plating, processing or fabricating plants.

298 (xvi) Nursing and convalescent homes designed for acute care.

299 (xvii) Oil and gas production, storage or transmission facilities.

300 (xviii) Packing or food processing plants.

301 (xix) Paper and paper products plants.

302 (xx) Power plants.

303 (xxi) Radioactive materials plants or handling facilities.

304 (xxii) Restricted or classified facilities.

305 (xxiii) Rubber manufacturing plants.

306 (xxiv) Sand, gravel or asphalt plants.

307 (xxv) Schools or colleges.

308 (xxvi) Sewage and storm drainage facilities and reclaimed water
309 systems.

310 (xxvii) Solar heating systems.

311 (xxviii) Temporary nonemergency service: fire hydrants, air valves,
312 blow-offs and other outlets.

313 (xxix) Veterinary facilities.

314 (xxx) Waterfront marinas.

(b) Approved devices or assemblies shall be installed at all fixtures and equipment where backflow or backsiphonage may occur and where a minimum air-gap between the potable water outlet and the fixture or equipment flood level rim cannot be maintained. Backflow and backsiphonage devices or assemblies of all types shall be in an accessible location to allow for proper testing ~~and shall be installed in a pit in accordance with specifications established and maintained by the water superintendent.~~

Access and clearance shall be provided for the required testing, maintenance and repair. Access and clearance shall require a minimum of one foot between the lowest portion of the assembly and grade, floor or platform. ~~Water superintendent~~ Backflow and cross connection enforcement official approval is required before backflow devices or assemblies are installed at an elevation of six feet or more above the grade, floor or platform.

Connection to the potable water piping and initial installation of all backflow prevention devices or assemblies shall be made by a Topeka licensed plumber employed by a Topeka licensed plumbing contractor.

(c) Replacement of an existing device or assembly may be made by licensed and certified backflow tester/technicians employed in the trade or craft for which the backflow device or assembly was installed (i.e., lawn irrigation, fire suppression, ice machine installation, etc.).

Certified backflow/tester technicians shall maintain, repair and test devices or assemblies.

(d) Cross connection control fees for backflow preventers and lawn irrigation systems connected to the potable water supply system of the city outside the city limits shall be established by the ~~water superintendent~~ backflow and cross connection

339 enforcement official, as approved by the ~~public works director~~ city manager, and
340 maintained in a schedule of fees and charges. The ~~water superintendent~~ backflow and
341 cross connection enforcement official shall determine such fees for residential and
342 commercial installations and replacements, based on the cost of service provided and
343 an additional charge equal to the percentage difference between inside city and outside
344 city water rates.

345 (e) It shall be unlawful for any person to knowingly make connection to the
346 potable water supply system of the city for the categories of premises in this section
347 without an approved assembly or approved device.

348 (1) Penalty. Any person violating this section may be punished by:

349 (i) Fine of not more than \$499.00; and/or

350 (ii) Imprisonment in jail for not more than 179 days.

351 Section 7. That section 14.35.550, Maintenance requirements, of The Code of
352 the City of Topeka, Kansas, is hereby amended to read as follows:

353 **Maintenance requirements.**

354 Devices or assemblies installed, on or in a building's potable water system, for
355 protection against backflow or backsiphonage shall be maintained in good working
356 condition by the owner of the devices or assemblies. All devices or assemblies shall be
357 maintained so they will be accessible for regular inspection and testing.

358 The ~~water superintendent~~ backflow and cross connection enforcement official may
359 inspect devices or assemblies and if found to be defective or inoperative shall require
360 the repair or replacement thereof.

361 Section 8. That section 14.35.570, Installation permit, of The Code of the City
362 of Topeka, Kansas, is hereby amended to read as follows:

Installation permit and fees.

(a) A permit is required when a new or replaced backflow prevention device or assembly is installed. Before the placement of a backflow prevention device or assembly, the licensed plumber on new installation, and/or the certified backflow technician on replacements, shall obtain permits and inform the development services division that the device or assembly is being installed. After installation or replacement, a certified tester/repair technician will then test the device or assembly and register it with the ~~water superintendent~~backflow and cross connection enforcement official for scheduled testing.

(b) The backflow and cross connection official shall have the authority to establish fees for permitting and annual registration and testing. Such fees shall be subject to the approval of the City Manager.

Section 9. That section 14.35.580, Notification, of The Code of the City of Topeka, Kansas, is hereby amended to read as follows:

Notification.

(a) The ~~water superintendent~~backflow and cross connection enforcement official shall notify the owner, or authorized agent of the owner, of a building or premises in which there is found a violation of the provisions herein, of such violation and when the violation must be corrected. If the owner fails to correct the violation within the specified time, the ~~water superintendent~~backflow and cross connection enforcement official may request the director of utilities to cease delivery of water to the fixture, device or assembly, building or premises until the violation has been satisfactorily corrected. The ~~water superintendent~~backflow and cross connection enforcement official

shall notify owners or authorized agent of the owner, of scheduled testing for each backflow device or assembly.

(b) Failure to test a backflow device or assembly because of nonnotification by the ~~water superintendent~~ backflow and cross connection enforcement official will result in loss of service until the device or assembly is properly tested.

(c) A backflow device or assembly shall be rebuilt as needed.

(d) In the cases where the degree of hazard is considered high by the ~~water superintendent~~ backflow and cross connection enforcement official, the device or assembly shall be tested on a more frequent basis as determined by the ~~water superintendent~~ backflow and cross connection enforcement official.

(e) The ~~water superintendent~~ backflow and cross connection enforcement official shall have the right to test a device or assembly to ensure that it complies with the provisions herein.

Section 10. That original § 5.63.080, § 14.35.490, § 14.35.510 through § 14.35.550, § 14.35.570 and § 14.35.580 of The Code of the City of Topeka, Kansas, are hereby specifically repealed.

Section 11. This ordinance shall take effect and be in force from and after its passage, approval and publication in the official City newspaper.

Section 12. This ordinance shall supersede all ordinances, resolutions or rules, or portions thereof, which are in conflict with the provisions of this ordinance.

Section 13. Should any section, clause or phrase of this ordinance be declared invalid by a court of competent jurisdiction, the same shall not affect the validity of this ordinance as a whole, or any part thereof, other than the part so declared to be invalid.

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PASSED AND APPROVED by the Governing Body on July 23, 2019.

CITY OF TOPEKA, KANSAS

ATTEST:

Michelle De La Isla, Mayor

Brenda Younger, City Clerk