



fund ear-marked for that purpose; provided, however, that the principal amount of the depreciation funds may be adjusted by the portion(s) of funds which may have been provided under circumstances other than by charges to operating income or otherwise, these adjustments to be subject to the approval of the commission. The terms depreciation funds and depreciation reserve accounts shall be deemed to include the terms retirement funds and retirement reserve accounts.

(4) The rate of three percent (3%) per annum referred to in section (3) shall be applied in the case of each gas, electric, water, telephone, and heating utility of Missouri; provided, however, that modification of the rate may be made upon the commission's own motion or upon proper showing by a utility that the rate is not reasonably and equitably applicable to it.

(5) Affected utilities shall prepare and include in their annual reports to the commission, and, in the reports that may be required by the commission from time-to-time, schedules showing for the year or period covered by these reports the income from the investment of monies in depreciation funds. The schedules referred to shall be in the form prescribed by this commission and shall include, among other things that may be prescribed, the principal amount of depreciation funds as represented by balances in depreciation reserve accounts, any adjustments of the depreciation funds and accounts with complete details and explanations of them, and the amount of the income from the investment of monies in depreciation funds computed at the rate of three percent (3%) per annum or such other rate as may be prescribed by order of this commission.

(6) The commission shall retain jurisdiction in this matter for the purpose of making any change(s) in the interest rate prescribed in section (2) that may be warranted.

*AUTHORITY: sections 392.280 and 393.260, RSMo 2016.\* This rule originally filed as 4 CSR 240-10.020. Original rule filed Dec. 19, 1975, effective Dec. 29, 1975. Amended: Filed Nov. 7, 2018, effective July 30, 2019. Moved to 20 CSR 4240-10.020, effective Aug. 28, 2019.*

*\*Original authority: 392.280, RSMo 1939, amended 1987, 1993 and 393.260, RSMo 1939, amended 1967.*

## 20 CSR 4240-10.030 Standards of Quality

*PURPOSE: This rule prescribes standards of quality for electric, gas and water utilities operating under the jurisdiction of the Public Service Commission.*

(1) This rule applies to all gas, electric, and water corporations, as these terms are defined in section 386.020, RSMo, engaged in the business of furnishing gas or electricity for light, heat, or power, or supplying water for domestic or commercial uses within Missouri. The word utility, when used in these rules, shall be construed to mean any gas corporation, electric corporation, or water corporation engaged in the designated business. Sections (10), (11), and (12) of this rule additionally apply to all persons, municipalities, or corporations owning, leasing, operating, or controlling facilities used in the transportation by pipeline and distribution to customers within Missouri of manufactured gas and renewable natural gas (RNG) as defined in 20 CSR 4240-40.100.

(2) A record shall be kept, systematically arranged, of the

names and addresses of all consumers furnished with metered service, with the identification number of meter or meters in use for each consumer. Records shall be kept showing the following information for each meter: date of purchase; company's number, if any; name plate data; place of last installation; and date of last test.

(3) Each utility shall keep records of tests of the accuracy of each of its meters, until superseded by a later test but not less than two (2) years. These records shall give sufficient information to identify the meter; the reason for the test; the date of the test and reading of the meter; the name of the person making the test; the accuracy as found and as left, together with enough of the data taken at the time of the test to permit the convenient checking of the methods employed; and the calculations. Systems of meter and test records already in use will meet with the approval of the commission, provided they conform substantially with the rule. Application shall be made to the commission for this approval.

(4) The allowance of certain variations from correctness on meters as specified in this rule does not mean that meters may deliberately be set in error by the amount of the tolerance. This tolerance is specified to allow for the necessary irregularities in meter tests and maintenance conducted on a commercial scale.

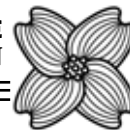
(5) Each service meter shall be suited to the particular installation to which it is assigned and chosen with a view of obtaining the best adaption to local conditions and to the load.

(6) It is suggested that those utilities not required to maintain certain testing equipment specified in the rule arrange to perform the tests by making use of the testing equipment of some nearby utility required to maintain the testing equipment.

(7) Reasonable efforts shall be made to eliminate interruptions of service, and when these interruptions occur, service should be re-established with the shortest possible delay. When service is interrupted for the purpose of working on any portion of the system, the interruption should occur at a time which will cause the least inconvenience to the consumer, and those seriously affected by the interruptions, if possible, should be notified in advance. A record shall be kept of all interruptions of service on the entire system or major divisions, including the times, duration and cause of each interruption. These records shall be filed, made available for inspection by the commission, and preserved for a period of at least one (1) year.

(8) Each utility shall keep a record of the time of starting up and shutting down all important items of equipment. A record shall be kept of the indications of the principal switchboard instruments, station meters, gauges, and the like, readings being taken at sufficiently frequent intervals to show the characteristics of the load. When feasible, graphic recording instruments should be used for this purpose in accordance with the best modern practice. These records or charts, suitably identified and dated, shall be filed available for inspection by the commission and preserved for a period of at least two (2) years.

(9) When gas is to be tested under this rule, a cubic foot of gas shall be taken to be that amount of gas which occupies the volume of one (1) cubic foot when saturated with water vapor and at a temperature of sixty degrees Fahrenheit (60°F) and under a pressure above zero (0) of thirty inches (30") of mercury. For



the purpose of measurement of gas to a consumer at the stated delivery pressure, a cubic foot of gas shall be taken to be the amount of gas which occupies a volume of one (1) cubic foot under the conditions existing in the consumer's meter as and where installed, provided the meter is not subject to abnormal temperature conditions. In cases where gas is supplied to customers through orifice or positive displacement meters at other than stated delivery pressure, a cubic foot of gas shall be defined to be that volume of gas which, at sixty degrees Fahrenheit (60°F) and at absolute pressure of 14.73 pounds per square inch (psi) (thirty inches (30") of mercury), occupies one (1) cubic foot, except that in cases where different bases that are considered by the commission to be fair and reasonable are provided for in gas sales contracts or in rules or practices of a utility, these different bases shall be effective.

(10) Unless otherwise ordered by the commission, all gas, including manufactured gas and RNG delivered to customers in the state other than gas that is delivered on an interstate natural gas pipeline subject to the jurisdiction of the Federal Energy Regulatory Commission (FERC), shall conform to the following specifications:

(A) The gas shall have a gross heating value between nine hundred fifty (950) and one thousand two hundred (1,200) British thermal units (Btu) per dry standard cubic foot. For purposes of this rule, the term "gross heating value" when applied to a cubic foot of gas shall mean the number of Btus produced by the complete combustion of the amount of gas that would occupy a volume of one (1) cubic foot at fourteen and seventy-three hundredths (14.73) pounds per square inch absolute (psia) at a temperature of sixty degrees Fahrenheit (60°F);

(B) The gas shall not contain more than seven (7) pounds of water in vapor phase per million cubic feet;

(C) The gas shall be free from hydrocarbons and water (H<sub>2</sub>O) in liquid state at the temperatures and pressures delivered, and shall not have a hydrocarbon dew point in excess of the lower of forty degrees Fahrenheit (40°F) or the gas delivery temperature;

(D) The gas shall not contain in excess of one percent (1%) by volume of oxygen (O<sub>2</sub>), and every reasonable effort shall be made to keep the gas completely free of oxygen;

(E) The gas shall not contain more than four hundred (400) parts per million (ppm) of hydrogen (H<sub>2</sub>);

(F) The gas shall not contain more than one-half (0.5) grain of hydrogen sulfide (H<sub>2</sub>S) per one hundred (100) cubic feet;

(G) The gas shall not contain more than twenty (20) grains of total sulfur per one hundred (100) cubic feet;

(H) The gas shall not contain more than two percent (2%) by volume of carbon dioxide (CO<sub>2</sub>);

(I) The gas shall not contain more than three percent (3%) by volume of nitrogen (N<sub>2</sub>);

(J) The gas shall be at a temperature between forty degrees Fahrenheit (40°F) and one hundred degrees Fahrenheit (100°F);

(K) The gas shall be substantially free from impurities that may cause excessive fumes when combusted in a properly designed and adjusted burner;

(L) The gas shall not contain, either in the gas or in any liquid within the gas, any microbial organism, active bacteria, or bacterial agent capable of contributing to or causing corrosion or other operational problems. For purposes of this rule, microbial organisms, bacteria, and bacterial agents include sulfate reducing bacteria (SRB) and acid producing bacteria (APB); and

(M) Each gas utility, including municipal systems, receiving or

transporting manufactured gas or RNG on its gas transmission and distribution systems shall further limit the quantity of impurities and physical and chemical properties in the manufactured gas and RNG as necessary so that the gas is delivered within the limits of its system.

(11) Each gas utility, including municipal systems, receiving or transporting manufactured gas and RNG on its gas transmission and distribution systems shall provide, install, operate, maintain, and continuously monitor sensors and testing equipment to determine if the quality of manufactured gas and RNG meets the requirements of section (10) of this rule.

(12) Each gas utility, including municipal systems, receiving or transporting manufactured gas or RNG on its gas transmission and distribution systems shall install an isolation device at each location where manufactured gas or RNG is delivered to its natural gas pipeline systems. Each isolation device shall be designed and operated to completely isolate the source of manufactured gas or RNG from the downstream pipeline when the gas does not meet the quality standards in section (10) of this rule, as determined by the monitoring and testing performed in section (11) of this rule.

(13) *Reserved.*

(14) *Reserved.*

(15) *Reserved.*

(16) Except by special authority from the commission for the delivery of a higher service pressure, gas shall be furnished at not less than equivalent to four inches (4") water column nor more than two (2) pounds per square inch gauge (psig) pressure measured at the inlet of the consumer's piping downstream from the meter, provided that with respect to any consumer whose rate of consumption, based upon designed capacity of installed equipment, reaches or exceeds four hundred fifty (450) cubic feet per hour, a utility, without obtaining special permission, may furnish gas to the consumer at a maximum pressure greater than two (2) psig if the utility shall determine that a greater pressure is available and is desirable to effect economy in delivery or efficiency in utilization of gas by the consumer. In those instances where the delivery pressure to the consumer is greater than an equivalent to fourteen inches (14") of water column, a regulator shall be required ahead of all gas consuming equipment. The maximum pressure on any one (1) day at the inlet of the consumer's piping downstream from the meter shall never exceed twice the minimum pressure at that point on that day. At the time a utility establishes gas service to any applicant, a leakage test shall be made at the intended delivery pressure to the consumer to insure that the applicant's fuel line is in a safe condition, provided, however, if the maximum delivery pressure exceeds two (2) psig then the customer's piping system shall be tested at one and one-half (1 1/2) times the maximum delivery pressure. Service shall not be established until the utility determines that this test has been properly made.

(17) Each utility furnishing gas service in cities of two thousand five hundred (2,500) inhabitants or over shall maintain a graphic recording pressure gauge at its plant, downtown office, or at some central point in the distributing system or each subdivision of the system where continuous records shall be made of the service pressure at that point. Utilities operating in



cities of five thousand (5,000) or more inhabitants shall equip themselves with one (1) or more graphic recording pressure gauges in addition to the foregoing and shall make frequent records, each covering intervals of at least twenty-four (24) hours duration of the gas service pressure at various points on the system. All records or charts made by these meters shall be identified, dated, and kept on file available for inspection for a period of at least two (2) years.

(18) No gas service meter shall be allowed in service which has incorrect gear ratio or dial train or is in any way mechanically defective or shows an error in measurement in excess of two percent (2%) when passing gas at the rate of six (6) cubic feet per hour per rated light capacity. When adjustment is necessary, the adjustment should be made to within at least one percent (1%) of correct registration. Tests for accuracy shall be made with a suitable meter prover, at least two (2) consecutive test runs being made which agree within one-half (1/2) of one percent (1%).

(19) Unless otherwise ordered by the commission, each gas service meter installed shall be periodically removed, inspected and tested at least once every one hundred twenty (120) months, or as often as the results obtained may warrant to insure compliance with the provisions of section (18) of this rule.

(20) Each utility furnishing metered gas service shall make a test of the accuracy of any gas service meter free of charge upon request of a consumer, provided that the meter has not been tested within twelve (12) months previous to the request. The consumer shall be notified of the time and place of the test so that s/he may be present to witness the test should s/he so desire. A written report giving the results of the requested test shall be made to the consumer requesting the results, the original record being kept on file at the office of the utility under the provisions of section (2) of this rule.

(21) Any gas service meter will be tested by the commission upon written application of the consumer or utility as follows:

(A) The utility involved either shall remove the meter or give its consent to the removal of the meter but the consumer shall be given an opportunity to witness the disconnection, packing and shipment of the meter should s/he so desire;

(B) The meter will be returned with a special seal which, if the meter is to be reinstalled on this consumer's premises, shall not be disturbed until after the consumer has been given an opportunity to inspect the meter;

(C) A fee of two dollars (\$2) will be charged by this commission and paid to the Division of Collections of the Department of Revenue of Missouri for each gas service meter tested having a capacity of not exceeding ten (10) lights. For larger meters a proportionally larger fee will be charged, depending upon the size of the meter; and

(D) If the meter is fast beyond the prescribed limit in section (18) of this rule, the utility will be required to pay the test fee and cost of shipping meter; otherwise these expenses shall be borne by the consumer requesting the test.

(22) Each utility having more than one hundred (100) gas meters in service shall maintain one (1) or more suitable gas meter provers of standard design and keep in proper adjustment so as to register the condition of meters tested within one-half (1/2) of one percent (1%). Each meter prover must be accompanied by a certificate of calibration indicating that it has been tested with a standard which has been certified by

the National Bureau of Standards or some testing laboratory of recognized standing. Meter provers must be located in a large, comfortable working space, free from excessive temperature variations, easily accessible and equipped with all necessary facilities and accessories. Meter testing equipment shall at all reasonable hours be accessible for inspection and use by any authorized representative of this commission.

(23) Each electric utility supplying energy from a constant potential system shall adopt standard service voltages for the entire system and each subdivision. Every reasonable effort shall be made by the use of proper equipment and operation to maintain those voltages within a practicable tolerance. The suitability and adequacy of these service voltages may be determined at any time by the commission. For lighting service, the variation in voltage for periods longer than one (1) minute, as measured at the consumer's cut-out, shall not exceed or fall below these units –

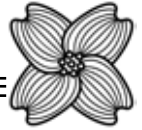
(A) For general all-purpose supply where nominal voltage is one hundred twenty (120) volts, one hundred twenty-seven (127) volts maximum and one hundred ten (110) volts minimum;

(B) For general all purpose supply where nominal voltage is one hundred fifteen (115) volts, one hundred twenty-five (125) volts maximum and one hundred eight (108) volts minimum;

(C) For rural service, one hundred twenty-seven (127) volts maximum and one hundred ten (110) volts minimum; and

(D) For power service, the voltage, at any time, shall not be greater than ten percent (10%) above or below standard service voltage. The ranges of voltages indicated in this subsection shall be considered as being made up of three (3) voltage zones – namely, the favorable zone, tolerable zone and the extreme zone. The favorable zone shall be that range of voltage variation with four percent (4%) above and five percent (5%) below nominal. The tolerable zone shall be that zone between six percent (6%) above and eight percent (8%) below nominal voltage, and the extreme zone shall not exceed the maximum and minimum range of the tolerable zone more than an additional three percent (3%). When the system voltage variations extend to within the extreme zone, the utility shall take those steps as may be required to improve the system voltages, or the subdivisions of, the utility, as the case may be, to within either the favorable or the tolerable zone. The utilities will not be held responsible for variations in service voltage at a customer's premises caused by the operation of that customer's apparatus in violation of the utility's rules or by the action of the elements or causes beyond the utility's control. The requirements listed in this paragraph may be waived for any particular consumer by special written agreement other than the regular service contract or application, provided that the arrangement does not affect the quality or service to other consumers.

(24) To ensure compliance with the requirements specified in section (23) of this rule, each utility furnishing electric service shall supply itself with one (1) or more portable indicating voltmeters, suitable of the service voltages condition. Where two hundred fifty (250) or more consumers are served by any utility, it must provide itself with one (1) or more portable graphic recording voltmeters suitable for the service voltages furnished. A sufficient number of voltage surveys must be made by each utility to indicate that service furnished from various transformers and service mains is at all times in compliance with the previously mentioned requirements. When graphic recording voltmeters are used, each chart or record should cover an interval of at least twenty-four (24) hours duration. These records or charts suitably identified and dated shall be kept on



file available for inspection for a period of at least two (2) years.

(25) Except as provided in this rule, each electric service watt-hour meter placed in service shall be tested and adjusted for accuracy before installation or within thirty (30) days after that. New meters manufactured during and since 1937 may be placed in service without testing if the meters are not opened and if the manufacturer's seal is not broken. Whenever a watt-hour meter manufactured during or since 1937 is required to be tested for reasons other than physical or electrical damage, it should not be opened unless faulty registration (as defined in this rule) is indicated. Each watt-hour meter which appears to be in good condition may be tested by loading the meter sufficiently to cause it to register not less than one hundred (100) kilowatt hours (kWh) at varying rates of current flow for a specified period of time. If this procedure is used, the meter must be checked with a standard meter, previously determined to be accurate, by reading and comparing the dial registers of the meter being tested with the standard meter. If the dial register of the meter being tested shows less than ninety-nine (99) kWh or more than one hundred one (101) kWh (for each one hundred (100) kWh of registration at varying rates of current flow), the meter will be considered as one with faulty registration and will be opened, retested and adjusted. Otherwise, it will be available to be placed in service. With respect to the testing of all meters manufactured prior to 1937 and with respect to those meters manufactured during and since 1937 which are required, under this rule, to be opened, retested and adjusted, the following procedure shall be followed (This procedure may be followed in all cases, at the option of the electric corporation.):

(A) Tests and adjustments for accuracy shall be made at from five percent to ten percent (5%–10%) and at from seventy-five percent to one hundred percent (75%–100%) of rated capacity of meter;

(B) Tests for accuracy at each load shall be made with suitable working standards by taking the average of at least two (2) test runs of at least thirty (30) seconds each which agree within one percent (1%), except that where stroboscopic or similarly precise methods of testing are used, only one (1) test run need be made;

(C) Any meter operating on inductive load should be tested under inductive load and should be adjusted to register accurately at the approximate power factor conditions at which the meter will normally be required to operate, or at fifty percent (50%) and one hundred percent (100%) power factors;

(D) When testing, each meter shall be adjusted as accurately as practical for correct registration at the test load specified. Where necessary to adjust the meter fast at light or heavy load, for correct registration at normal load or to correct for inductive load, the fast adjustment should not exceed two percent (2%) above correct registration; and

(E) Commutator-type meters, when feasible, should be allowed to remain in actual service at least five (5) days before being tested.

(26) No electric service watt-hour meter shall be allowed in service which has incorrect constants or dial train, or which creeps at no load at the rate of more than one (1) disk revolution in five (5) minutes or less when maximum service voltage under which meter operates is applied or which is in any way mechanically defective. Nothing contained in this section shall require any electric corporation to open any new meter manufactured during and since 1937.

(27) Any electric service meter tested on complaint or for any other reason after having been in service may be considered as having been recording within allowable limits of accuracy at any possible load if it is found to register within three percent (3%) of correct registration when tested in accordance with the provisions of section (25). After the test, however, the meter shall be adjusted for accuracy in accordance with the provisions of section (25) before being again placed in service. It is suggested that the average accuracy of a meter in service be defined as follows and that the condition of the meter, as thus determined, be used as a basis for adjusting consumer's bills for incorrect registration beyond certain limits where any utility makes the adjustment a part of its commercial practice:

(A) Test an induction meter or a commutator meter at approximately five percent to ten percent (5%–10%) of rated capacity of meter and at seventy-five percent to one hundred percent (75%–100%) rated capacity of meter; and

(B) The average of the tests at light and heavy load, defined as the average accuracy or condition of meter, shall be obtained by multiplying the result of the test at heavy load by four (4) and adding the result of the test at light load and dividing the total by five (5).

(28) Unless otherwise ordered by the commission, each electric service watt-hour meter shall be periodically tested in accordance with the following schedule or as often as the results obtained may warrant, and adjusted in accordance with section (25):

(A) Induction-type meters manufactured prior to 1927 –

1. Induction-type meters having rated current capacity not exceeding fifty (50) amperes, at least once every sixty (60) months; and

2. Induction-type meters having rated current capacity exceeding fifty (50) amperes, at least once every twenty-four (24) months;

(B) Induction-type meters manufactured during the period 1927–1936 –

1. Induction-type meters having rated current capacity not exceeding fifty (50) amperes, at least once every ninety-six (96) months;

2. Induction-type meters having rated current capacity exceeding fifty (50) amperes, at least once every thirty (30) months;

3. Commutator-type meters with rated current capacities not exceeding fifty (50) amperes and voltage ratings not exceeding two hundred fifty (250) volts, at least once every twenty-four (24) months; and

4. All other meters at least once every twelve (12) months;

(C) Induction-type meters manufactured during and since 1937, at least once every two hundred forty (240) months; and

(D) In commutator meters having heavy moving elements and sapphire jewels, the number of revolutions of the moving element between tests should not ordinarily exceed one (1) million.

(29) Each utility furnishing metered electric service shall make a test of the accuracy of any electric service meter free of charge upon request of a consumer, provided that the meter has not been tested within twelve (12) months previous to the request. The consumer shall be notified of the time and place of the test so that s/he may be present to witness the test should s/he so desire. A written report giving the result of the test shall be made to the consumer requesting the test, the original record being kept on file at the office of the utility under the provisions of section (2) of this rule.



(30) Any electric service meter will be tested by the commission upon written application of the consumer or utility. The utility involved shall either remove the meter or give its consent to the removal of the meter, but the consumer shall be given an opportunity to witness the disconnection, packing and shipment of the meter should s/he so desire. The meter will be removed with a special seal which, if the meter is to be reinstalled on this consumer's premises, shall not be disturbed until after the consumer has been given an opportunity to inspect the meter. A fee of two dollars (\$2) will be charged by this commission and paid to the Division of Collections of the Missouri Department of Revenue for each single-phase or direct-current watt-hour meter having a current capacity not exceeding twenty-five (25) amperes and without instrument transformers. For other meters a proportionally larger fee will be charged, depending upon the type and size of the meter. If the meter is fast beyond the prescribed limit in section (27) of this rule, the utility will be required to pay the test fee and cost of shipping the meter; otherwise these expenses shall be borne by the consumer requesting the test.

(31) Each utility furnishing metered electric service shall maintain suitable working standards of a rugged type for the testing of electric service meters. These working standards must be calibrated frequently to ensure their accuracy. Approved secondary standards shall be owned and maintained by each utility having more than two hundred fifty (250) meters in service for the calibration of the working standards. All secondary standards and the working standards of those utilities not required to maintain secondary standards must be submitted at sufficiently frequent intervals to ensure unquestionable accuracy to the Bureau of Standards at Washington, D.C. or to some testing laboratory of recognized standing for calibration where the utility does not maintain a testing laboratory having primary standards. Each standard shall be accompanied by its certificate of calibration dated and signed by the proper authority. These certificates when superseded shall be kept on file at the office of the utility, available for inspection. Meter testing equipment shall at all reasonable hours be accessible for inspection and use by any authorized representative of the commission.

(32) All water furnished by utilities for human consumption and general household purposes shall conform to standards adopted by the Missouri Department of Health. The source of supply shall be of adequate quantity to ensure a supply without interruption at all times. Treatment and filtration by approved methods is strongly recommended where doubt exists as to the quality of the water furnished at any time. Satisfactory treatment and filtration of water drawn from surface supplies is required. Disinfection treatment by hypochlorites of lime, chlorine gas or other approved disinfecting agents, is generally necessary for all public water supplies. Storage reservoirs for finished water, where possible, shall be covered to protect the supply from sunlight and contamination. Where covered reservoirs are not provided due to local circumstances, chlorination facilities shall be provided at the reservoir in addition to the facilities provided at the plant.

(33) Bacteriological analyses shall be periodically made of water furnished for public uses as prescribed by the Missouri Department of Health. The commission reserves the right to require under its supervision an extended bacteriological as well as physical and chemical examination when deemed advisable for any particular water furnished. The results of

all tests made must be recorded and kept on file available for public inspection for a period of at least two (2) years. These records must indicate when, where, and by whom each test was made. Methods of water analysis prescribed by the Missouri Department of Health shall be followed as regards chemical, physical and bacteriological examination and collection of samples and any departure from these methods must be specifically stated.

(34) Dead ends in the distributing mains should be avoided as far as possible. Where the dead ends exist, they should be flushed when necessary to ensure satisfactory quality of water to consumers. To allow flushing, dead ends should be equipped with hydrants, flush valves, or other means of allowing water to be removed from these dead ends.

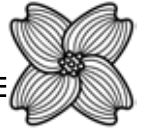
(35) Every effort must be made to maintain water pressure which will at no time fall below an adequate minimum pressure suitable for domestic service. In addition to furnishing domestic and commercial service, each utility furnishing fire-hydrant service must be able, within a reasonable period of time after notice, to supply fire-hydrant service to local fire fighting equipment and facilities. No utility, however, shall be required to install larger mains or fire-hydrants or otherwise supply fire service, unless proper contractual arrangements shall have been made with the utility by the municipality, agency, or individual desiring the service.

(36) Each utility furnishing water service in cities of two thousand five hundred (2,500) or five thousand (5,000) inhabitants shall maintain graphic recording pressure gauges at its plant and at its downtown office or at some central point in the distributing system, where continuous records shall be made of the pressure in the mains at these points. Utilities operating in cities of five thousand (5,000) or more inhabitants shall equip themselves with one (1) or more graphic recording pressure gauges in addition to the previously mentioned and shall make frequent records, each covering intervals of at least twenty-four (24) hours duration, of the water pressure at various points on the system. All records or charts made by these meters shall be identified, dated, and kept on file available for inspection for a period of at least two (2) years.

(37) No water service meter shall be allowed in service which has an incorrect gear ratio or dial train or is mechanically defective or shows an error in measurement in excess of five percent (5%) when registering water at stream flow equivalent to approximately one-tenth (1/10) and full normal rating under the average service pressure. When adjustment is necessary, the adjustment shall be made as accurately as practical for average rate of flow under actual conditions of installation. Tests for accuracy shall be made with a suitable testing device in accordance with the best modern water meter practice and at rates of flow which will properly reflect the accuracy of meters over each meter's range of minimum to maximum flow.

(38) Unless otherwise ordered by the commission, each water service meter installed shall be periodically removed, inspected and tested in accordance with the following schedule, or as often as the results obtained may warrant to insure compliance with the provisions of section (37) of this rule:

- (A) Five-eighths inch (5/8") meter – ten (10) years or two hundred thousand (200,000) cubic feet, whichever occurs first;
- (B) Three-fourths inch (3/4") meter – eight (8) years or three hundred thousand (300,000) cubic feet, whichever occurs first;



- (C) One inch (1") meter – six (6) years or four hundred thousand (400,000) cubic feet, whichever occurs first; and  
(D) All meters above one inch (1") – every four (4) years.

(39) Each utility furnishing metered water service shall make a test of the accuracy of any water service meter free of charge upon request of a consumer, provided that the meter has not been tested within twelve (12) months previous to the request. The consumer shall be notified of the time and place of the test so that s/he may be present to witness the test should s/he so desire. A written report giving the result of the requested test shall be made to the consumer requesting the test, the original record being kept on file at the office of the utility under the provisions of section (2) of this rule.

(40) Any water service meter will be tested by the commission upon written application of the consumer or utility. The utility involved shall either remove the meter or give its consent to the removal of the meter, but the consumer shall be given an opportunity to witness the disconnection, packing and shipment of the meter should s/he so desire. The meter will be returned with a special seal which, if the meter is to be reinstalled on this consumer's premises, shall not be disturbed until after the consumer has been given an opportunity to inspect the meter. A fee of two dollars (\$2) will be charged by this commission and paid to the Division of Collections of the Missouri Department of Revenue for each water service meter tested ranging in size up to one inch (1"). For larger meters a proportionally larger fee will be charged, depending upon the size of the meter. If the meter is fast beyond the prescribed limit in section (37) of this rule, the utility will be required to pay the test fee and cost of shipping meter; otherwise these expenses shall be borne by the consumer requesting the test.

(41) Each utility furnishing metered water service in cities of three thousand (3,000) or more inhabitants shall maintain one (1) or more suitable water meter testers and keep the water meter tester in proper adjustment so as to register accurately the condition of the meters tested at all times. Meter testers must be located in a suitable working space, easily accessible and equipped with all necessary facilities and accessories. Meter testing equipment shall at all reasonable hours be accessible for inspection by any authorized representative of the commission or by any authorized representative of any department of weights and measures of Missouri or any political subdivision in which the utility operates.

(42) Preliminary engineering reports followed by detailed plans and specifications for new constructions, additions to or changes or alterations to any existing public water supply or water purification plant shall be submitted to the Department of Health for examination and written approval secured from the Department of Health before contracts are let or construction begun. Water utilities must comply with all regulations of the Department of Health or other regulatory bodies having jurisdiction pertaining to installation, extension, and operation of public water supplies.

(43) Utilities shall determine the characteristics of service to be made available to each consumer, based upon the location of the premises, size and operating characteristics of the consumer's equipment and shall furnish information, upon request, as to the standard class of service to be furnished which, in the case of either new or enlarged electric connections, shall specify the nominal voltage and number of phases and the number

of wires over which service will be delivered. Utilities, when requested, shall provide reasonable assistance to consumers in the selection of equipment best adapted to the service to be furnished and inform consumers as to conditions under which efficient use of service may be realized.

*AUTHORITY: sections 386.310 and 393.140, RSMo 2016, and section 386.895, RSMo Supp. 2024.\* This rule originally filed as 4 CSR 240-10.030. Original rule filed March 5, 1953, effective March 15, 1953. Amended: Filed Sept. 22, 1959, effective Oct. 1, 1959. Amended: Filed May 2, 1968, effective May 16, 1968. Moved to 20 CSR 4240-10.030, effective Aug. 28, 2019. Amended: Filed May 15, 2024, effective Dec. 30, 2024.*

*\*Original authority: 386.310 RSMo 1939, amended 1979, 1989, 1996; 386.895, RSMo 2021; and 393.140, RSMo 1939, amended 1949, 1967.*

#### **20 CSR 4240-10.040 Service and Billing Practices for Commercial and Industrial Customers of Electric, Gas, Water, and Steam Heat Utilities**

*PURPOSE: This rule establishes service and billing and payment standards to be observed by electric, gas, water, and steam heat utilities, and their commercial and industrial customers in resolving questions regarding these matters so that reasonable and uniform standards exist for service and billing and payment practices for all electric, gas, water, and steam heat utilities.*

(1) Whenever a utility is unable to gain access to a customer's premises for the purpose of reading and testing meters or servicing or maintaining the utility's equipment or for other appropriate purposes, following calls made at the customer's premises during the usual course of business, the customer, on request from the utility, in which a particular time is specified, shall give access to his/her premises to representatives of the utility for those purposes at the time specified, which time shall be within the hours of 8:00 a.m. and 5:00 p.m. Monday through Friday, otherwise the utility may estimate for billing purposes the meter reading subject to correction when the utility may read the meter.

(2) Except for the provisions of this rule, all bills rendered to customers for metered service furnished will show the reading of the meter at the beginning and end of the period for which the bill is rendered and shall give the dates of readings, the number of units of service supplied and the basis of charge or reference. Where, by reason of the use of postal or other card form of billing or for other good reasons, this information cannot reasonably be placed on the bills, any utility may present for filing with the commission, in conjunction with its rules, a proposed form of billing. The commission may authorize, deny, or require modification of any such proposed form of billing.

(3) No utility shall discontinue the service of any customer for violation of any rule of that utility except on written notice of intention to discontinue service. This notice shall state the reason for which service will be discontinued, specify a date after which the discontinuance may be effected and shall be mailed to or served upon the customer not less than forty-eight (48) hours prior to that date. This may be waived where a bypass is discovered on a customer's service meter, or in the event of discovery of dangerous leakage or short circuit on a customer's premises, or in the case of a customer utilizing the service in a manner as to make it dangerous for occupants of the premises,