

RULE NO.: R161-23.25**NOTICE OF PROPOSED RULE****POSTING DATE: October 5, 2023**

The Director of the Department of Austin Water proposes to adopt the following rule on or after November 7, 2023.

Comments on the proposed rule are requested from the public. Comments should be submitted to Mr. Eric Langhout, P.E.; Austin Water, 3907 S. Industrial Dr., Suite 236, Austin, Texas 78744, 512-972-0073, or via email at Eric.Langhout@austintexas.gov. To be considered, comments must be received before November 7, 2023. A summary of the written comments received will be included in the notice of rule adoption that must be posted for the rule to become effective.

An affordability impact statement regarding the proposed rule has been obtained and is available for inspection or copying at the address noted in the preceding paragraph.

EFFECTIVE DATE OF PROPOSED RULE

A rule proposed in this notice may not become effective before the effective date established by a separate notice of rule adoption. A notice of rule adoption may not be posted before November 7, 2023 (the first business day following the 32nd day after the date of this notice) or not after December 14, 2023 (the 70th day after the date of this notice).

If a proposed rule is not adopted on or before December 14, 2023, it is automatically withdrawn and cannot be adopted without first posting a new notice of a proposed rule.

TEXT OF PROPOSED RULE

The text of the proposed rule, indicating changes from the current text, is attached to this notice.

BRIEF EXPLANATION OF PROPOSED RULE

R161-23.25: Proposed revisions to Items 510 & 511

Rule 3 – Revisions to Standard Specifications Items 510 & 511

1. ITEM 510 – Pipe – **Item 510.3(27)** – Add language that Permanent Combination Air Valves (CAVs) shall be located at all high points in accordance with Item 511.
2. ITEM 510 – Pipe – **Item 510.3(27)(b)(1)** – Add language that the allowable leakage is for gasketed pipe only & there is no allowable

leakage for seamless, heat fused pipe. Segments of seamless pipe shall be excluded from allowable leakage calculations.

3. ITEM 511 – Water Valves – **Item 511.3.B** – Add language that describes Plug Valves for Wastewater force mains.
4. ITEM 511 – Water Valves – **Item 511.3E** – Add language that Fire Hydrants shall follow AWWA C502.

AUTHORITY FOR ADOPTION OF PROPOSED RULE

The authority and procedure for adoption of a rule to assist in the implementation, administration, or enforcement of a provision of the City Code is provided in Chapter 1-2 of the City Code. The authority to adopt this rule is established in Section 552.001 of the Texas Local Government Code, Section 552.017 of the Texas Local Government Code, City Code 15-9-9 and Chapter 15 of the City Code.

CERTIFICATION BY CITY ATTORNEY

By signing this Notice of Proposed Rule R161-23.25, the City Attorney certifies the City Attorney has reviewed the rule and finds that adoption of the rule is a valid exercise of the Director's administrative authority.

REVIEWED AND APPROVED



Shay Ralls Roalson, P.E., Director
Austin Water

Date: 9/11/2023

Anne L. Morgan

Anne L. Morgan
City Attorney

Date: 9/20/23

ITEM NO. 510 PIPE ~~11-07-22~~ ??-??-23**510.3 Construction Methods**

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(27) Pressure Pipe Hydrostatic Testing

After the pipe has been installed and backfilled and all service laterals, fire hydrants and other appurtenances installed and connected, a pressure test, followed by a leakage test, will be conducted by the City. The City will furnish the pump and gauges for the tests. The Contractor shall be present and shall furnish all necessary assistance for conducting the tests. The specified test pressures will be based on the elevation of the lowest point of the line or section under test. Before applying the specified test pressure, all air shall be expelled from the pipe. ~~If permanent air vents are not located at all high points, the Contractor shall install corporation cocks at such points.~~ **Permanent Combination Air Valves (CAVs) shall be located at all high points in accordance with Item 511.**

All drain hydrant and fire hydrant leads, with the main 6-inch gate valve open, the hydrant valve seats closed and no nozzle caps removed, shall be included in the test.

(a) Pressure Test

The entire project or each valved section shall be tested, at a constant pressure of 200 psi for a sufficient period (approximately 10 minutes) to discover defective materials or substandard work. The Contractor assumes all risks associated with testing against valves. Repairs shall be made by the Contractor to correct any defective materials or substandard work. The Contractor shall pre-test new lines before requesting pressure tests by City Forces. The Contractor shall have new lines pressurized to a minimum of 100 psi, on the date of testing, prior to arrival of City Forces.

(b) Leakage Test

A leakage test will follow the pressure test and will be conducted on the entire project or each valved section. The Contractor assumes all risks associated with testing against valves. The leakage test shall be conducted at 150 psi for at least 2 hours. The test pressure shall not vary by more than ± 5 psi for the duration of the test.

(1) Allowable Leakage (For gasketed pipe only)

Leakage shall be defined as the quantity of water that must be supplied into any test section of pipe to maintain the specified leakage test pressure after the air in the pipeline has been expelled and the pipe has been filled with water.

No pipe installation will be accepted if leakage exceeds the amount given by the following formula:

$$\text{Allowable leakage (gal/hr)} = [L \times D] \div 10,875$$

Where: L = length of pipe tested, in feet

D = nominal pipe diameter, in inches, as marked on the pipe

There is no allowable leakage for seamless, heat fused pipe. Segments of seamless pipe shall be excluded from allowable leakage calculations.

(2) Location and Correction of Leakage

ITEM NO. 511 WATER VALVES 11/7/22 updated

511.3 Materials

A. Iron-Body Gate Valves

Reduced-wall, resilient-seated gate valves for potable or reclaimed service, including tapping valves, shall conform to AWWA C515 and SPL WW-700.

1. Stem Seals: All valves shall have approved O-ring type stem seals. At least two O-rings shall be in contact with the valve stem where it penetrates the valve body.
2. Operation: All valves shall have non-rising stems with a 2-inch square operating nut, or with a spoke type handwheel when so ordered, turning clockwise to close.
3. Gearing: Gate valves in 24-inch and larger sizes shall be geared and, when necessary for proper bury depth and cover, shall be the horizontal bevel-geared type enclosed in a lubricated gear case.
4. Bypass: Unless otherwise indicated on the Drawings, 30-inch and larger metal-seated gate valves shall be equipped with a bypass of the non-rising stem type which meets the same AWWA standard required for the main valve.
5. Valve Ends: Valve ends shall be push-on, flanged or mechanical joint, as indicated or approved.
6. Gear Case: All geared valves shall have enclosed gear cases of the extended type, attached to the valve bonnet in a manner that makes it possible to replace the stem seal without disassembly and without disturbing the gears, bearing or gear lubricant. Gear cases shall be designed and fabricated with an opening to atmosphere so that leakage past the stem seal does not enter the gear case.
7. Valve Body: Double disc gate valves in 30-inch and larger sizes installed in the horizontal position shall have bronze rollers, tracks, scrapers, etc. For reclaimed water valves, the body shall be manufactured in purple, factory painted purple, or field painted purple.

B. ~~Reserved~~ **Plug Valves for Wastewater**

Resilient-Seated Eccentric Plug Valves shall conform to AWWA C517 and SPL WW-703.

C. Ball Valves

Ball valves shall be brass, bronze, stainless steel or PVC as indicated on the Drawings or Details or as approved by the Engineer or designated representative.

D. Combination Air Valves

Combination Air Valves (CAVs) shall conform to AWWA C512 and SPL WW-462 for wastewater service, WW-462A for potable service, and WW-462B for reclaimed service.

E. Fire Hydrants

Fire Hydrants shall conform to AWWA C502 and SPL WW-3. All fire hydrants shall be Dry Barrel, Traffic Model (break-away), Post Type having Compression Type Main Valves with 5 ¼ inch opening, closing with line pressure. ~~Approved models are listed on SPL WW-3.~~

1. Applicable Specifications

AWWA C502 current: "AWWA Standard for Dry-Barrel Fire Hydrants."

NFPA 1963: "National (American) Standard Fire Hose Coupling Screw Thread" and City of Austin 4-inch Fire Hose Connection Standard.

ANSI A-21.11 current: "American National Standard for Rubber Gasket Joints for Cast Iron and Ductile Iron Pressure Pipe and Fittings."

2. Functional Requirements

Design Working Pressure shall be 200 psi and a test pressure of 400 psi.

Inlet shall be side connection hub end for mechanical joint (ANSI A-21.11-current). Shoe shall be rigidly designed to prevent breakage.

Lower Barrel shall be rigid to assure above ground break at traffic feature. Bury length of hydrant shall be 4 feet minimum, 5 feet maximum (hydrant lead pipe may be elbowed up from main using restrained joints; flanged joints in lead pipes are not allowed). Flange type connections between hydrant shoe, barrel sections and bonnet shall have minimum of six corrosion resistant bolts.

Hydrant Main Valve shall be 5 ¼ inch I.D. Valve stem design shall meet requirements of AWWA C502, with Operating Nut turning clockwise to close. Operating Nut shall be pentagonal, 1½ inch point to flat at base, and 1-7/16 inches at top and 1-inch minimum height. Seat ring shall be bronze (bronze to bronze threading) and shall be removable with lightweight stem wrench. Valve mechanisms shall be flushed with each operation of valve; there shall be a minimum of two drain ports.

Traffic Feature shall have replaceable breakaway ferrous metal stem coupling held to stem by readily removable type 302 or 304 stainless steel fastenings. Breakaway flange or frangible lugs shall be designed to assure aboveground break. Breakaway or frangible bolts will not be acceptable.

Outlet Nozzles shall be located approximately 18 inches above ground. Each hydrant shall have two 2½ inch nozzles 180 degrees apart with National (American) Standard Fire Hose Coupling Screw Thread NFPA 1963 and one 4-inch pumper nozzle with City of Austin (COA) standard thread-six threads per inch "Higbee" cut, 4.859-inch O.D., 4.6425-inch root diameter. Nozzles shall be threaded or cam-locked, O-ring sealed, and shall have type 302 or 304 stainless steel locking devices. Nozzle caps (without chains) and cap gaskets shall be furnished on the hydrant. The cap nut shall have the same configuration as the operating nut.

Hydrants shall be Dry-Top Construction, factory lubricated oil or grease with the lubricant plug readily accessible. The system shall be described for City approval.

A blue Type II-B-B reflectorized pavement marker, conforming to Standard Specification Item No. 863S, shall be placed 2 to 3 feet offset from the centerline of paved streets, on the side of and in line with, all newly installed fire hydrants.

Hydrant shall have double O-ring seals in a bronze stem sheath housing to assure separation of lubricant from water and shall have a weather cap or seal, or both, as approved by the Owner, to provide complete weather protection.

3. Material Requirements

All below ground bolts shall be corrosion resistant. The hydrant valve shall be Neoprene, 90 durometer minimum. The seat ring, drain ring, operating nut and nozzles shall be bronze, AWWA C502 current, containing not over 16 percent zinc. Break-away stem coupling shall be of ferrous material; its retaining pins, bolts, nuts, etc. of type 302 or 304 stainless steel.

Coatings shall be durable and applied to clean surfaces. Exterior surfaces above ground shall receive a coating of the type and color specified in the applicable version of AW SPL WW-3. The coating shall be applied according to coating manufacturer's specifications. Other exposed ferrous metal shall receive asphalt-based varnish, or approved equal, applied according to the coating manufacturer's specifications.

F. Pressure/Flow Control Valves

All control valves to regulate pressure, flow, etc., in City lines shall be models listed in the AW SPL WW-319 and shall conform to AWWA C530.

G. Drain Valves

Drain valve materials and installation shall conform to COA Standard 511-AW-03.

H. Valve Stem Extensions:

Valve stem extensions shall consist of a single piece of the required length with a socket on one end and a nut on the other.

Source: Rules No. R161-22.04 , 2-14-2022.