

**RULE NO.: R161-23.25****NOTICE OF RULE ADOPTION****ADOPTION DATE: November 6, 2023**

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

The Director of the Department of Austin Water has adopted the following rule. Notice of the proposed rule was posted on October 5, 2023. Public comment on the proposed rule was solicited in the October 5, 2023, notice. This notice is issued under Chapter 1-2 of the City Code. The adoption of a rule may be appealed to the City Manager in accordance with Section 1-2-10 of the City Code as explained below.

A copy of the complete text of the adopted rule is attached to this notice.

**EFFECTIVE DATE OF ADOPTED RULE**

A rule adopted by this notice is effective on November 6, 2023.

**TEXT OF ADOPTED RULE**

The adopted rule contains no changes from the proposed rule as shown below.

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.

## **SUMMARY OF COMMENTS**

Austin Water did not receive comments regarding the rule adopted in this notice.

## **AUTHORITY FOR ADOPTION OF 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.

## **APPEAL OF ADOPTED RULE TO CITY MANAGER**

A person may appeal the adoption of a rule to the City Manager. **AN APPEAL MUST BE FILED WITH THE CITY CLERK NOT LATER THAN THE 30TH DAY AFTER THE DATE THIS NOTICE OF RULE ADOPTION IS POSTED. THE POSTING DATE IS NOTED ON THE FIRST PAGE OF THIS NOTICE.** If the 30th day is a Saturday, Sunday, or official city holiday, an appeal may be filed on the next day which is not a Saturday, Sunday, or official city holiday.

An adopted rule may be appealed by filing a written statement with the City Clerk. A person who appeals a rule must (1) provide the person's name, mailing address, and telephone number; (2) identify the rule being appealed; and (3) include a statement of specific reasons why the rule should be modified or withdrawn.

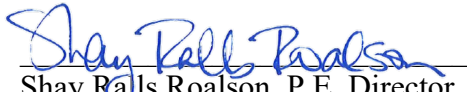
Notice that an appeal was filed and will be posted by the city clerk. A copy of the appeal will be provided to the City Council. An adopted rule will not be enforced pending the City Manager's decision. The City Manager may affirm, modify, or withdraw an adopted rule. If the City Manager does not act on an appeal on or before the 60th day after the date the notice of rule adoption is posted, the rule is withdrawn. Notice of the City Manager's decision on an appeal will be posted by the city clerk and provided to the City Council.

On or before the 16th day after the city clerk posts notice of the City Manager's decision, the City Manager may reconsider the decision on an appeal. Not later than the 31st day after giving written notice of an intent to reconsider, the City manager shall make a decision.

## **CERTIFICATION BY CITY ATTORNEY**

By signing this Notice of Rule Adoption R161-23.25, the City Attorney certifies that 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: 10/25/2023

Anne L. Morgan  
Anne L. Morgan  
City Attorney

Date: 10/31/2023

**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  $\pm 5$  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."

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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.

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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.