

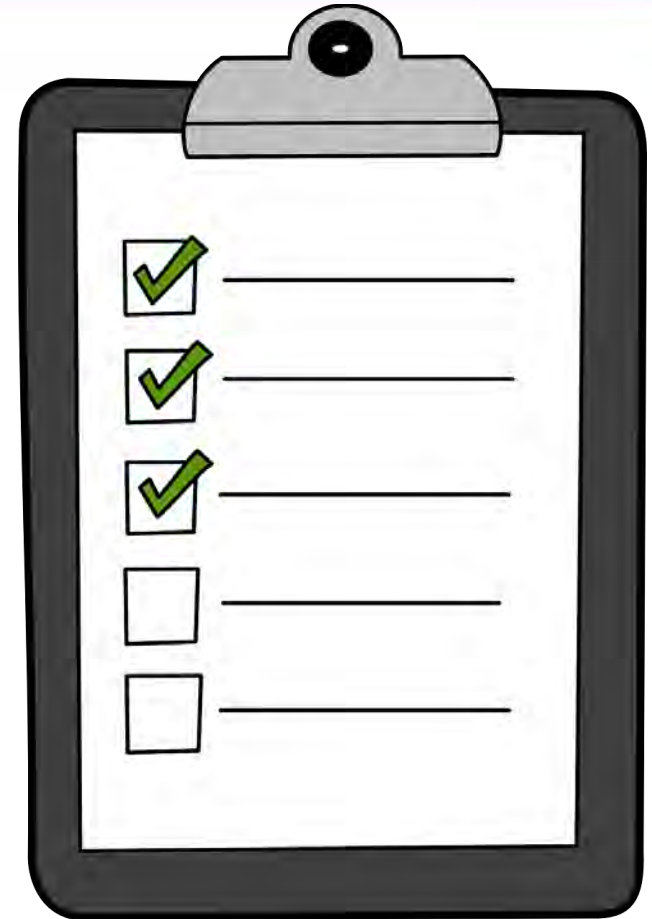
# Orange County Backflow Tester: *Online Refresher Class*



**2022/2023**

# Agenda

- I. Instructions
- II. Backflow Testing Review
  - RP, DC, SVB, PVB
- III. Backflow Testing Proper Position and Handling of Gauge
- IV. Submittal of Test Reports
- V. Certification Testing
- VI. Recertification Testing
- VII. Enforcement
- VIII. FAQs
- IX. Coming Soon
- X. Quiz!



# I. Instructions

1. Please read the chapters presented in this training very carefully.
2. Once you have completed the training, please complete the attached quiz and email the completed quiz to [OCBackFlowTests@OCHCA.com](mailto:OCBackFlowTests@OCHCA.com). You must get at least 70% or above on the quiz. The quiz is open book and presentation, but please complete it yourself.
3. You will receive a training certificate by email once we receive and review your passing quiz.

-Please contact us at [OCBackFlowTests@OCHCA.com](mailto:OCBackFlowTests@OCHCA.com) if you have any questions and type “**2022 Backflow Tester Training**” in the Subject line of the email.

**\*NOTE: Orange County Health Care Agency= OCHCA (the health department)**

## II. Backflow Testing Review

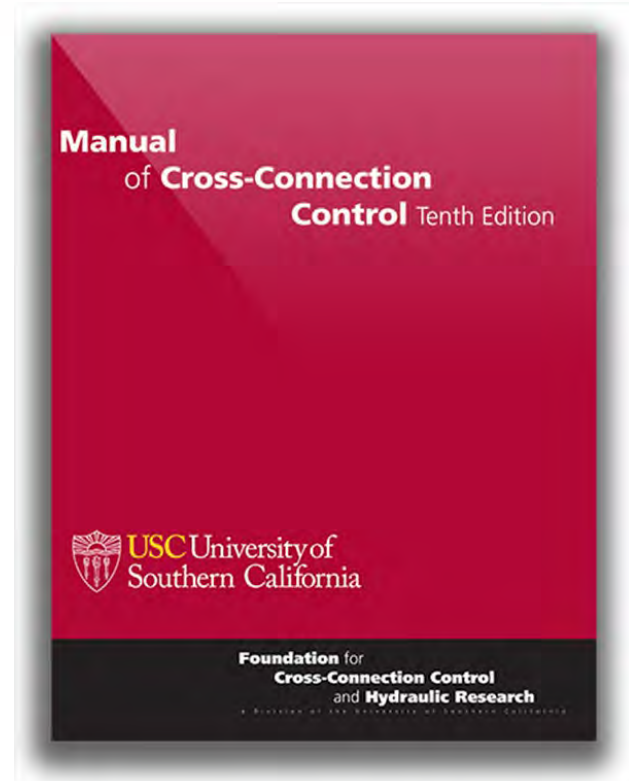




# Backflow Testing Review- Gauges

## Approved Gauges and Proof of Calibration

- **Approved Gauges can be found at:**
  - USC Foundation of Cross-Connection Control and Hydraulic Research  
<https://fccchr.usc.edu/fieldtestkitslist.html>
    - ▶ Refer to the USC Manual of Cross-Connection Control 10<sup>th</sup> Edition Chapter 10.2 for a standard for a field test kit.
  
- **Proof of Calibration**
  - Your test gauge must be within the calibration period (typically 1 year) to be used for testing devices and for certification.



# Backflow Testing Review- Gauges



**Foundation for Cross-Connection Control and Hydraulic Research**  
a Division of the University of Southern California

## List of Approved Field Test Kits

10 December 2019

SUPERSEDES ALL PRIOR LISTS

### About the USC LIST OF APPROVED FIELD TEST KITS

The USC List of Approved Field Test Kits includes differential pressure gage field test kits (field test kits) that have successfully completed the laboratory evaluation of the USC Foundation's Approval Program for field test kits.

With the release of the Manual of Cross-Connection Control, Tenth Edition, the USC Foundation introduced a standard for a field test kit. The standard of evaluation can be found in the Manual, Chapter 10.2. The standard consists of design requirements, material requirements and performance requirements.

Each field test kit is listed by manufacturer's name, make, model, configuration (number of needle valves), edition of the Manual under which the field test kit was approved, approval date, and the latest renewal date.

PLEASE NOTE: LOCAL ADMINISTRATIVE AUTHORITIES DETERMINE WHICH FIELD TEST KITS ARE ACCEPTABLE IN THEIR AREA OF JURISDICTION. PLEASE CHECK WITH THE LOCAL ADMINISTRATIVE AUTHORITY TO SEE IF A FIELD TEST KIT IS ACCEPTABLE.

Manufacturer: Arbiter    Make: Mako    Model: MK5    Configuration: 5

Manual: 10    Approved: 10-Dec-2019    Renewed:


Notes:

### Manufacturers of Field Test Kits

Arbiter Incorporated  
<https://arbiterbackflow.com/>  
615 E. 1st Avenue  
Camas, WA 98607  
(503) 847-4936

<https://fccchr.usc.edu/fieldtestkitslist.html>






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## Foundation for Cross-Connection Control and Hydraulic Research

a Division of the University of Southern California

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### List of Approved Field Test Kits

A field test kit is an essential tool for any backflow prevention assembly tester. The field test kit is the gage equipment used to field test a backflow prevention assembly. The field test kit is a visual indicator, designed to measure the difference between two pressure points. For example, a backflow tester uses a field test kit to measure the difference in pressure across the check valves inside an assembly.

The USC List of Approved Field Test Kits includes differential pressure gage field test kits (field test kits) that have successfully completed the laboratory evaluation of the USC Foundation's Approval Program for field test kits.

With the release of the *Manual of Cross-Connection Control, Tenth Edition*, the USC Foundation introduced a standard for a field test kit. The standard of evaluation can be found in the Manual, Chapter 10.2. The standard consists of design requirements, material requirements and performance requirements.

In order for a field test kit to be USC Approved, it must be comprised of all the original needle valves, connecting hoses and differential pressure gage body. Since the field test kits were evaluated at the Foundation laboratory with needle valves and connecting hoses provided by the manufacturer, it can only be considered USC Approved with the needle valves and connecting hoses provided by the manufacturer for that field test kit. Using other connecting hoses or needle valves that were not included from the manufacturer with the USC Approved field test kit invalidates the USC Approval.

**Download Now**

[PDF \(Complete List\)](#)

**Added Benefit for USC Foundation Members**

Members of the USC Foundation receive an e-mail notification every time the List has been updated

Current members are urged to [sign up](#) for the notifications.

A company, which is a USC Foundation member, may extend this benefit to any of its employees.

If you are interested in becoming a USC Foundation member please click [HERE](#).

# Backflow Testing Review: *RP*



# Backflow Testing Review: *RP*

## *Equipment required:*

- An approved and calibrated Differential Pressure Gauge
- 3 high pressure hoses (1/4" D x 6 ft. long)
- Adapter fittings for each size test cock

# Backflow Testing Review: *RP*

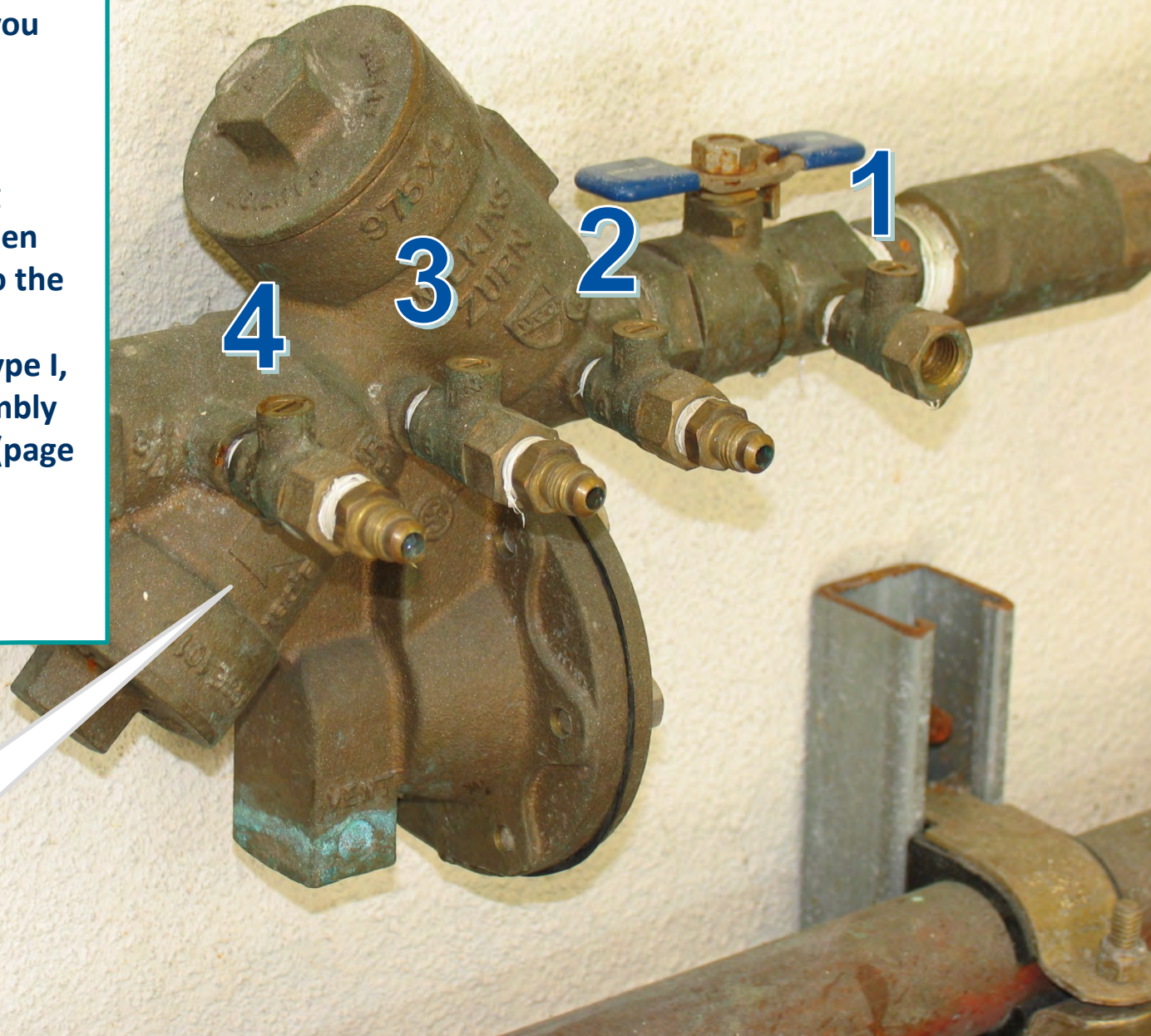
## Preliminary Steps

- **Notify-** Inform your contact at the location that you are there to perform the test on the backflow device and if the water service will be interrupted
- **Identify-** Locate and verify the make, model number, size, and serial number of the device to be tested
- **Inspect-** Ensure that the device has all the required components and that the test can be conducted
- **Observe-** inspect the area around the assembly and if it is safe to proceed with the test.



Upon arrival, what do you observe?

- Direction of flow
- Leaky test cocks
- Relief valve discharging
- Shutoff valves close/open
- Any hoses connected to the device
- When testing a RPDA type I, you test the main assembly first, then the main RP (page 322)
- Etc.



Direction of flow





**Begin by opening and flushing the test cocks to remove any debris.**

**Start with the No. 4 test cock and leave it running.**







**Open No. 3 test cock  
and leave it running.**





**Open No. 2 test cock  
and leave it running.**





**Open No. 1 test cock  
and leave it running.**

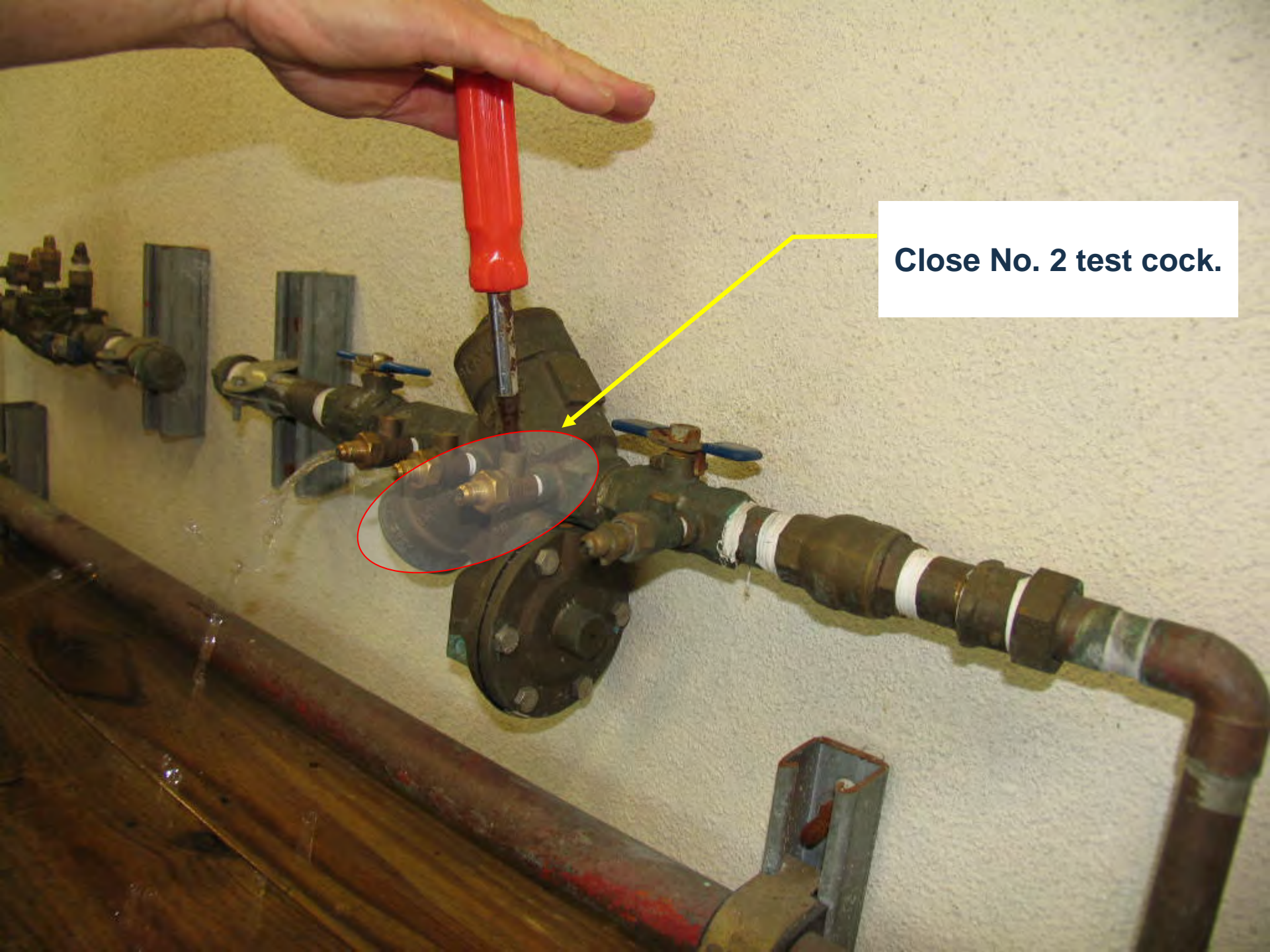
**All test cocks are  
running at this point.**





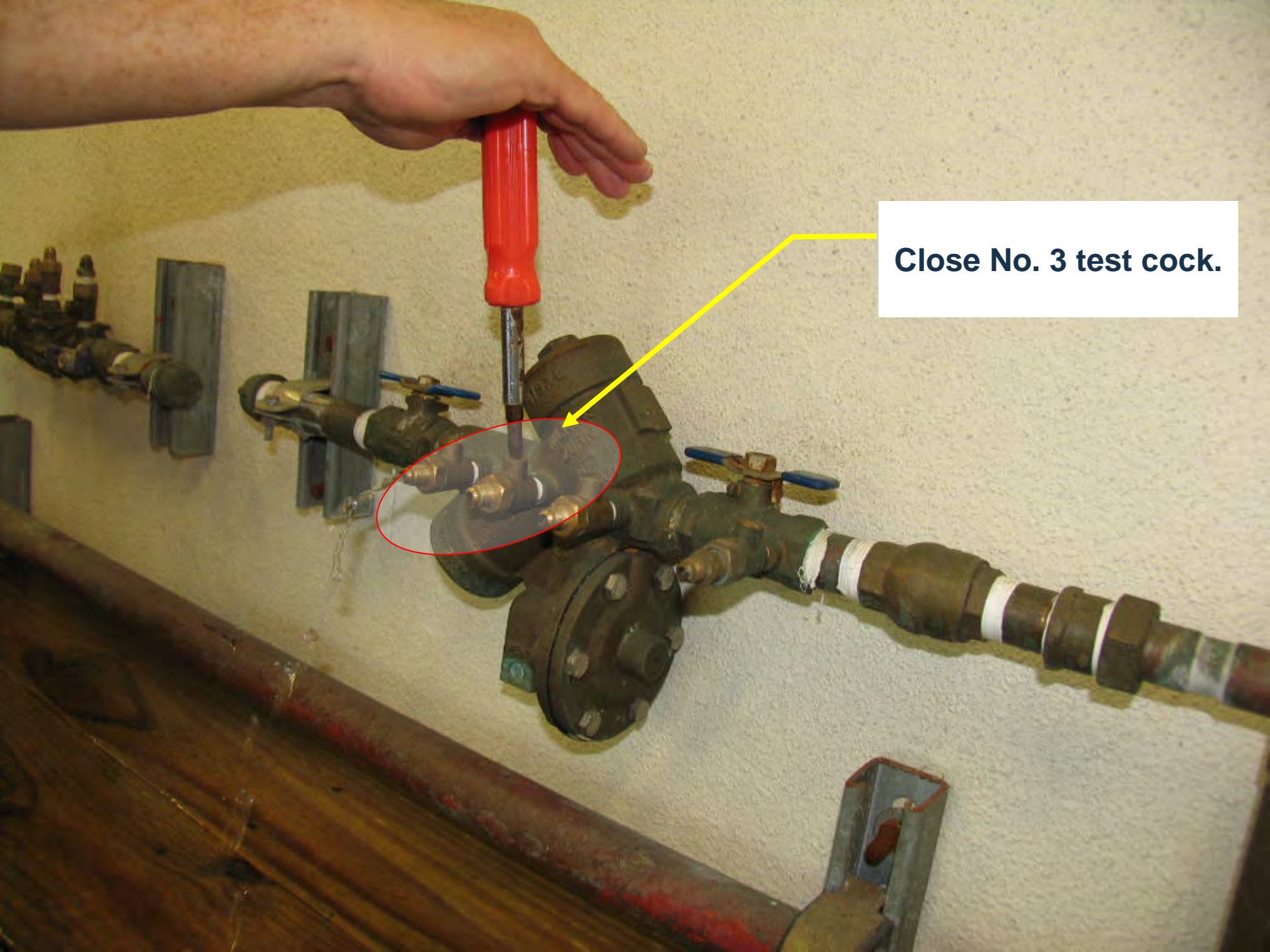
**Now close the test  
cocks in reverse  
order  
Starting with No. 1  
test cock.**





**Close No. 2 test cock.**





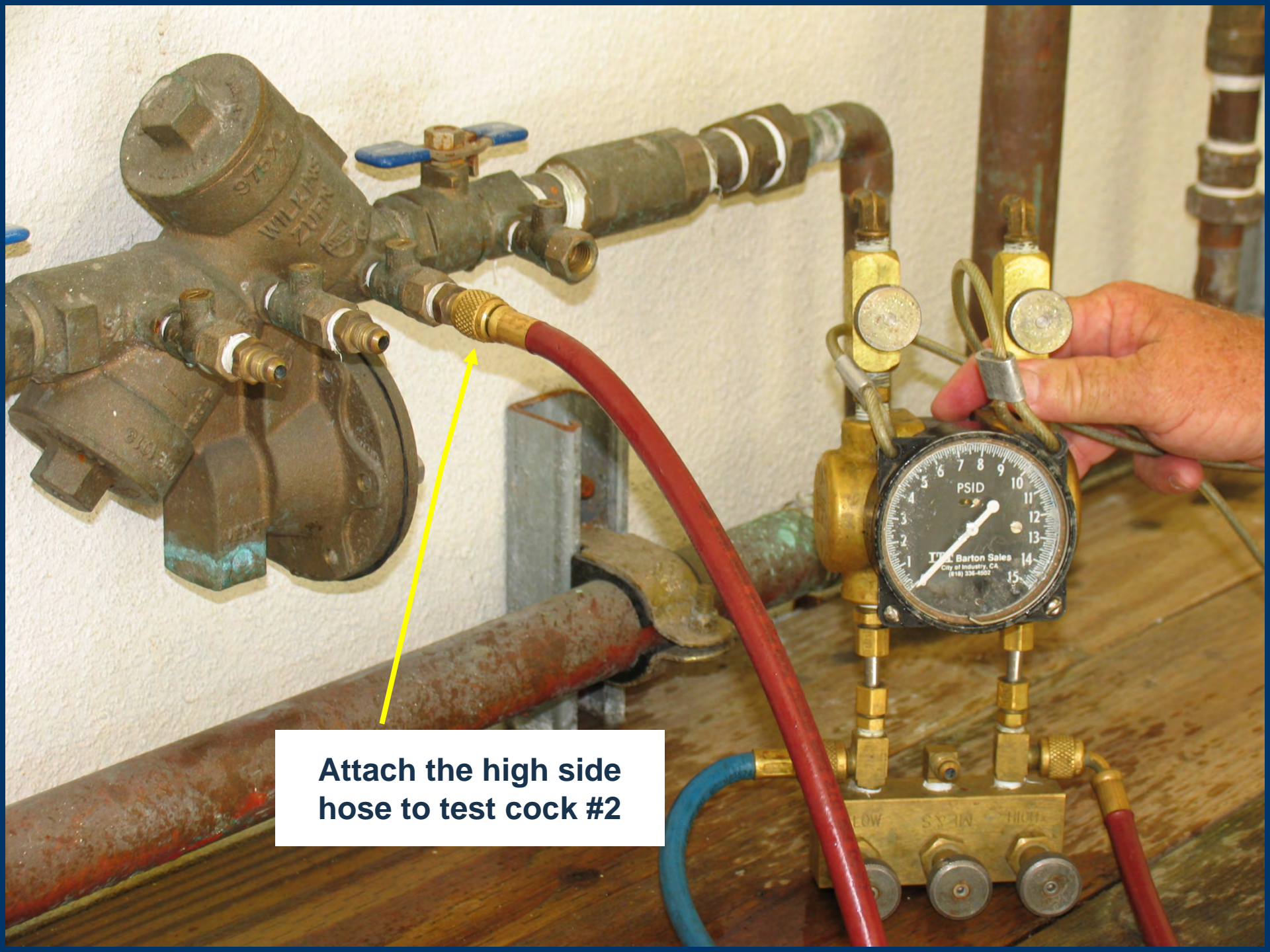
**Close No. 3 test cock.**





**Close No. 4 test cock.**

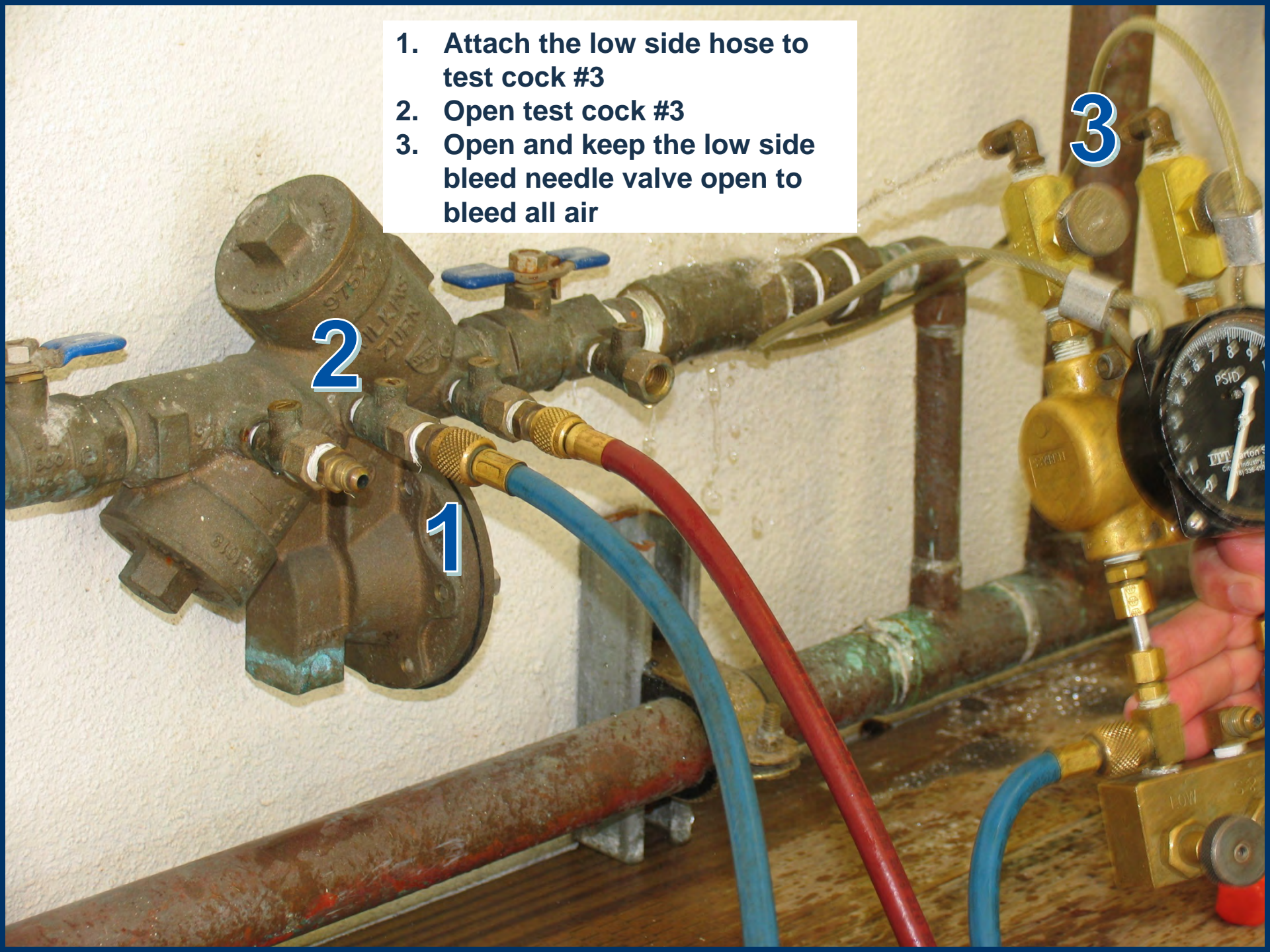




**Attach the high side  
hose to test cock #2**



1. Attach the low side hose to test cock #3
2. Open test cock #3
3. Open and keep the low side bleed needle valve open to bleed all air



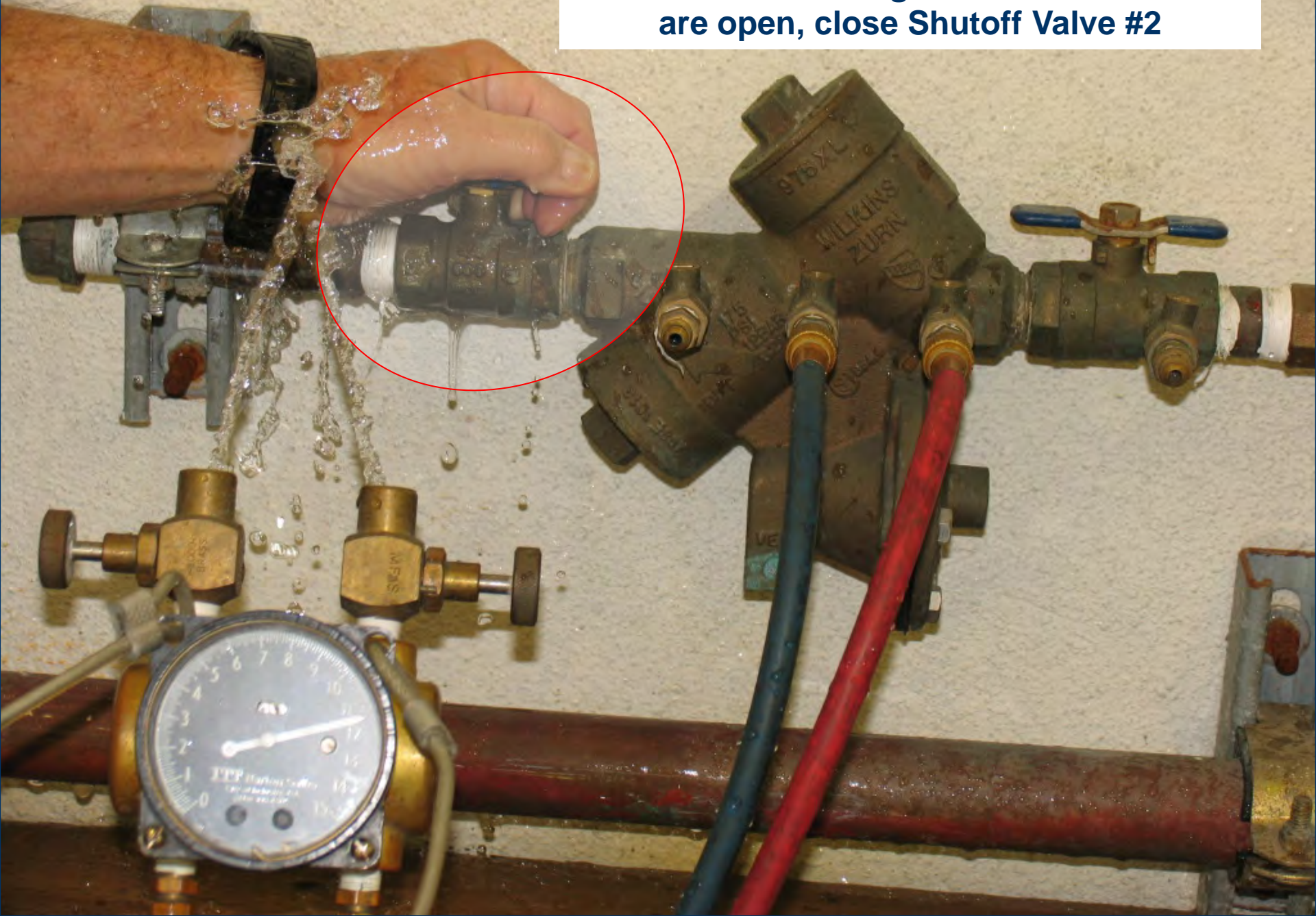


1. Open No. 2 test cock
2. Open and keep the high side bleed needle valve open to eliminate the air.



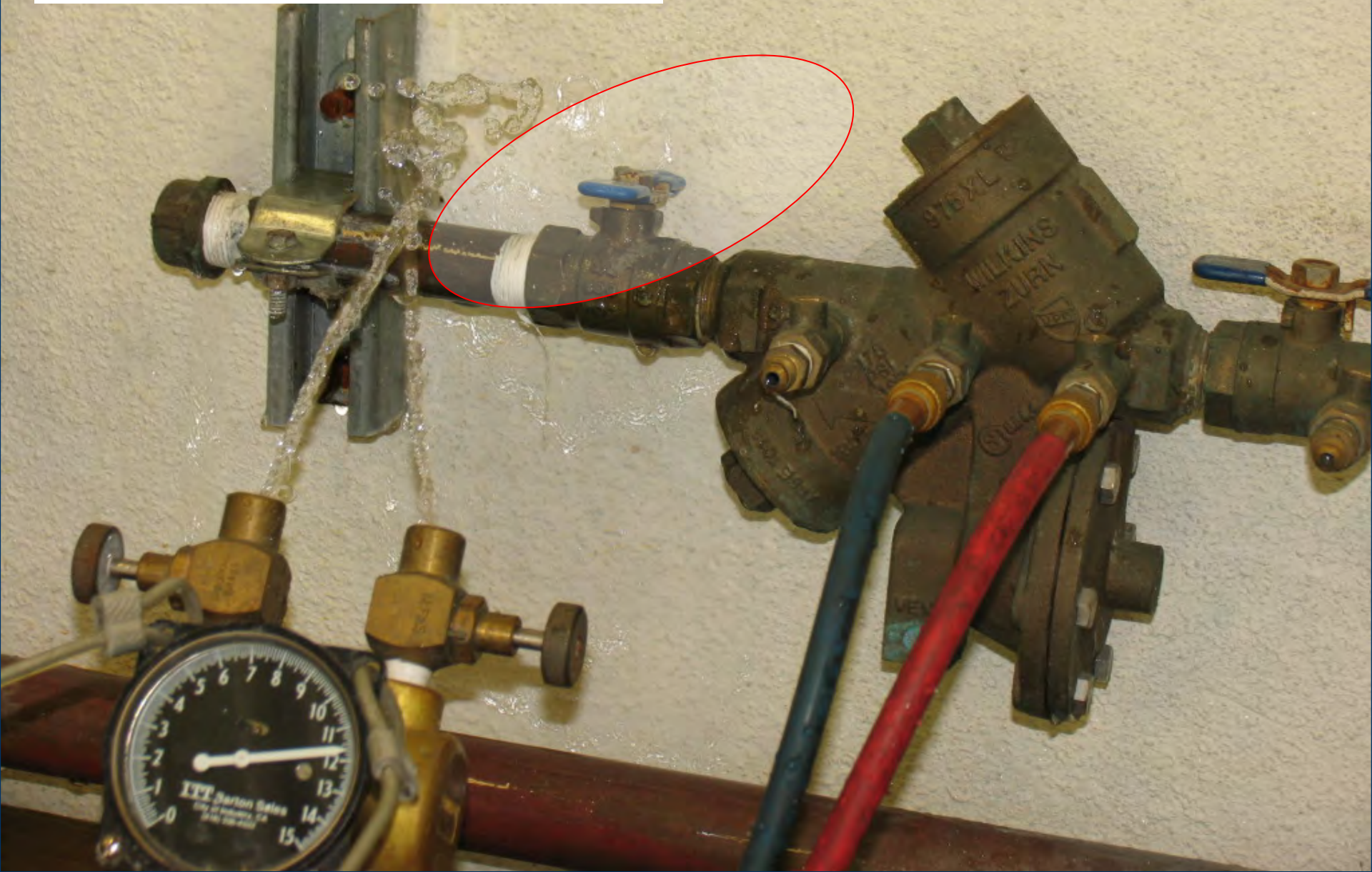


**While the low and high bleed needle valves are open, close Shutoff Valve #2**



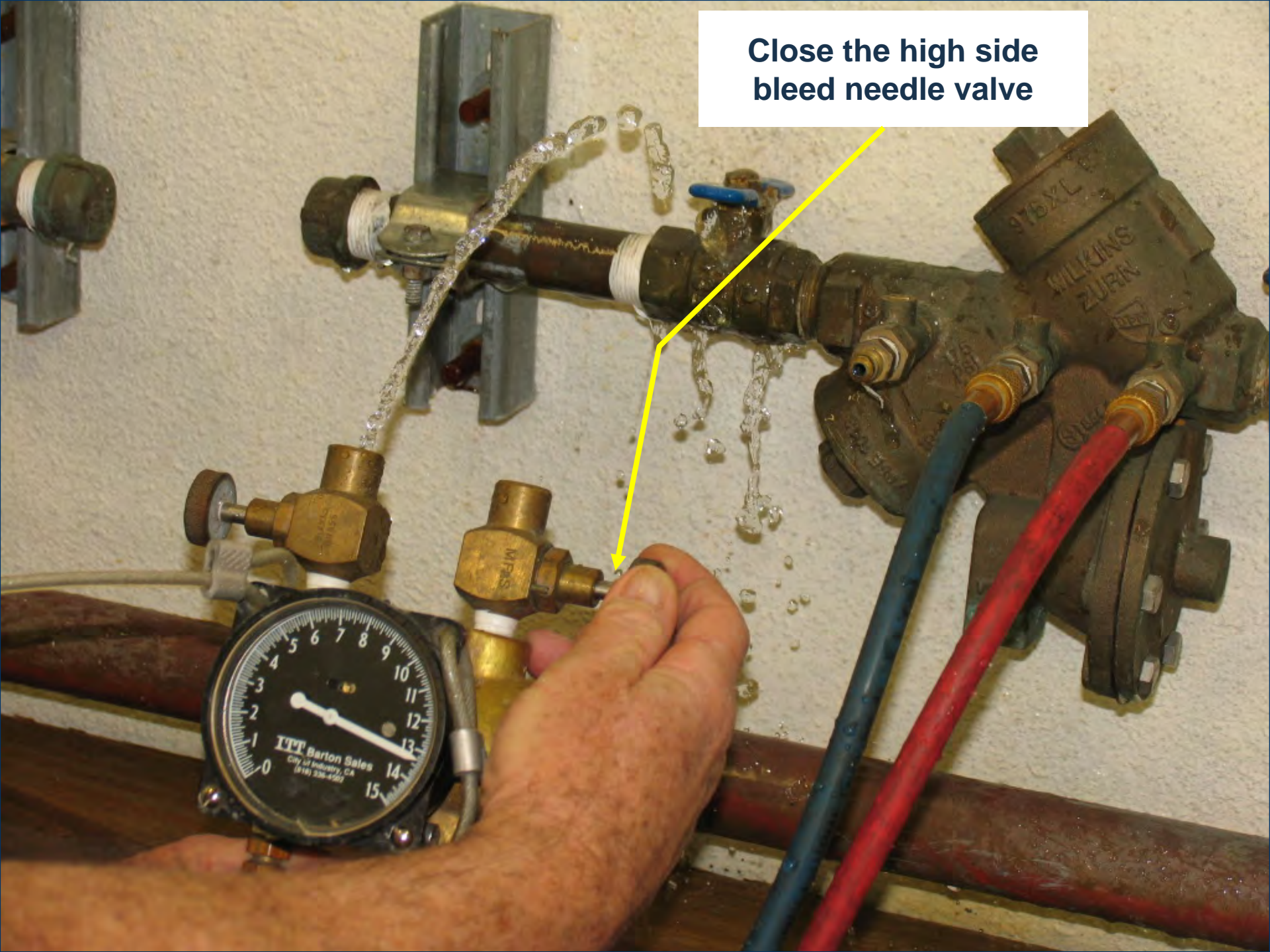


Remember both the high side and low side bleed valves are still flushing with Shutoff Valve #2 off.



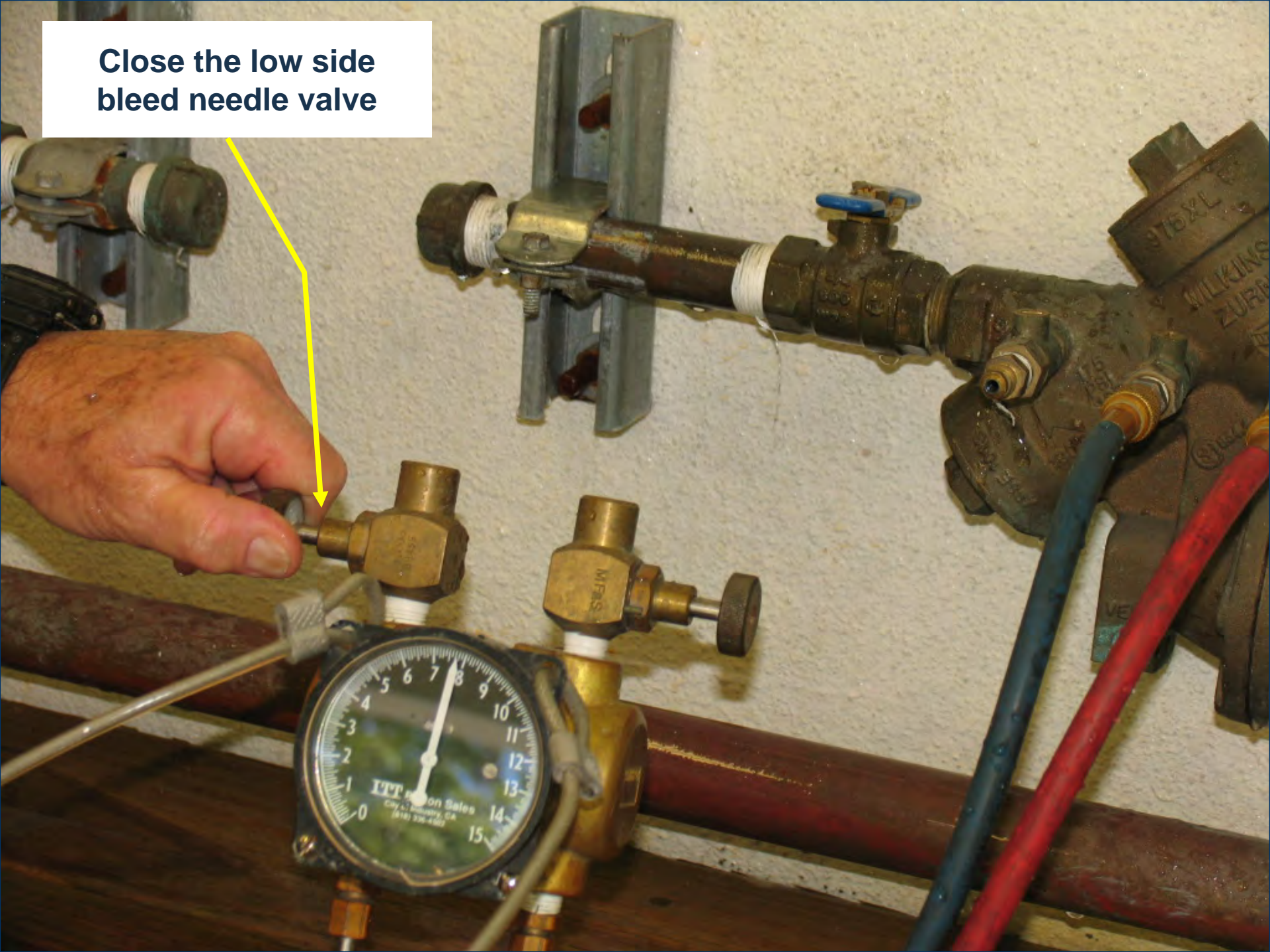


Close the high side bleed needle valve

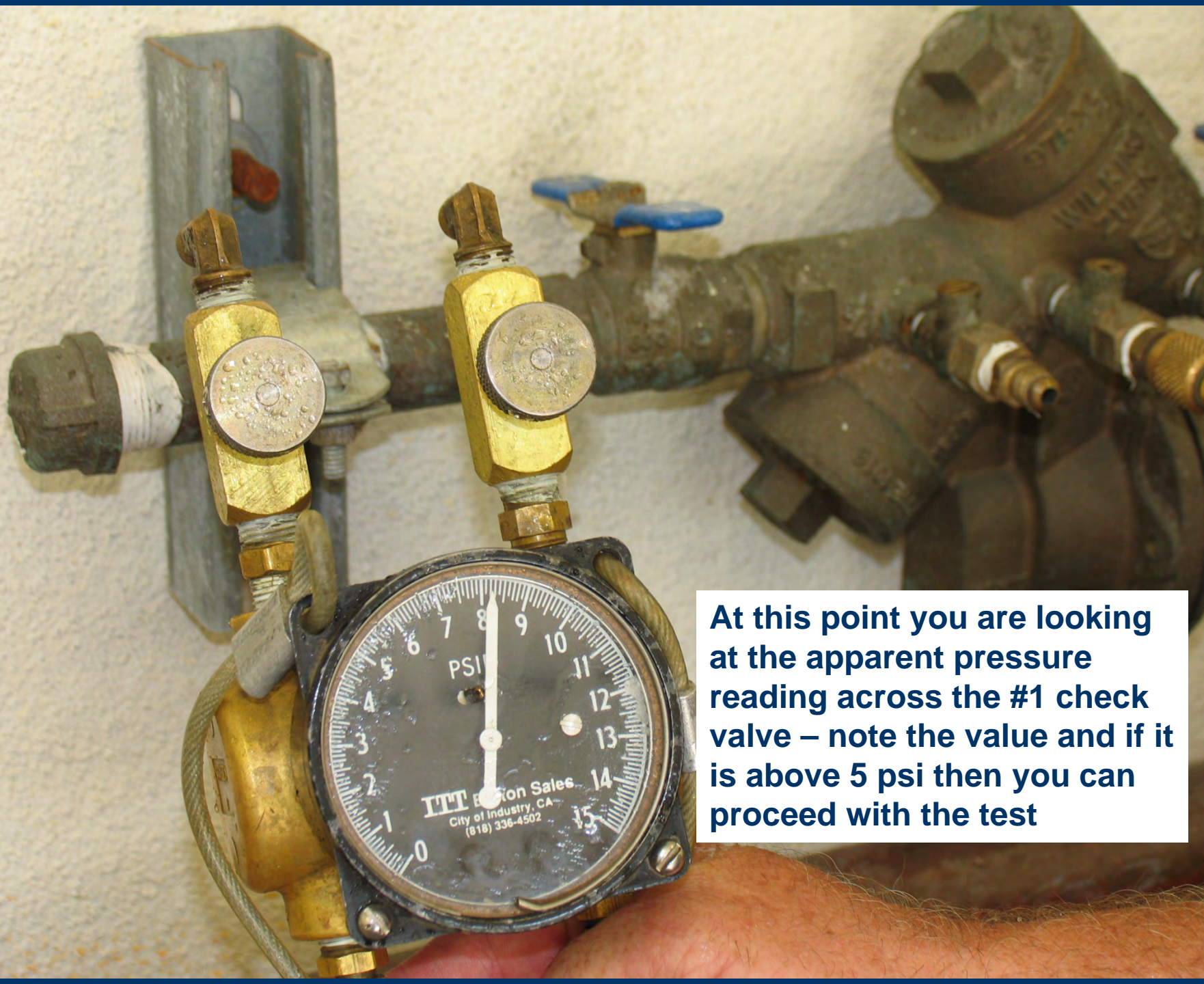




Close the low side bleed needle valve





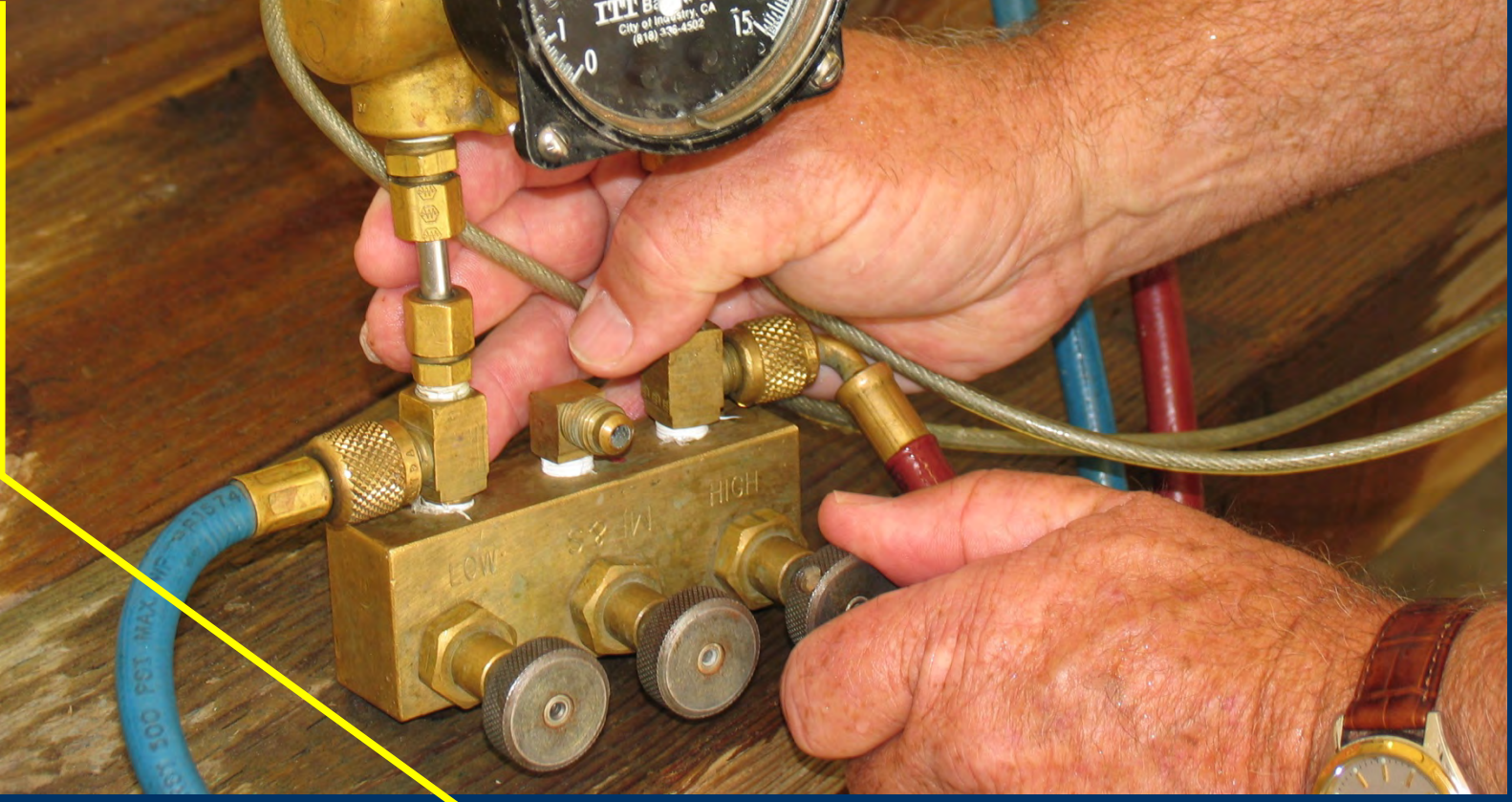


**At this point you are looking at the apparent pressure reading across the #1 check valve – note the value and if it is above 5 psi then you can proceed with the test**

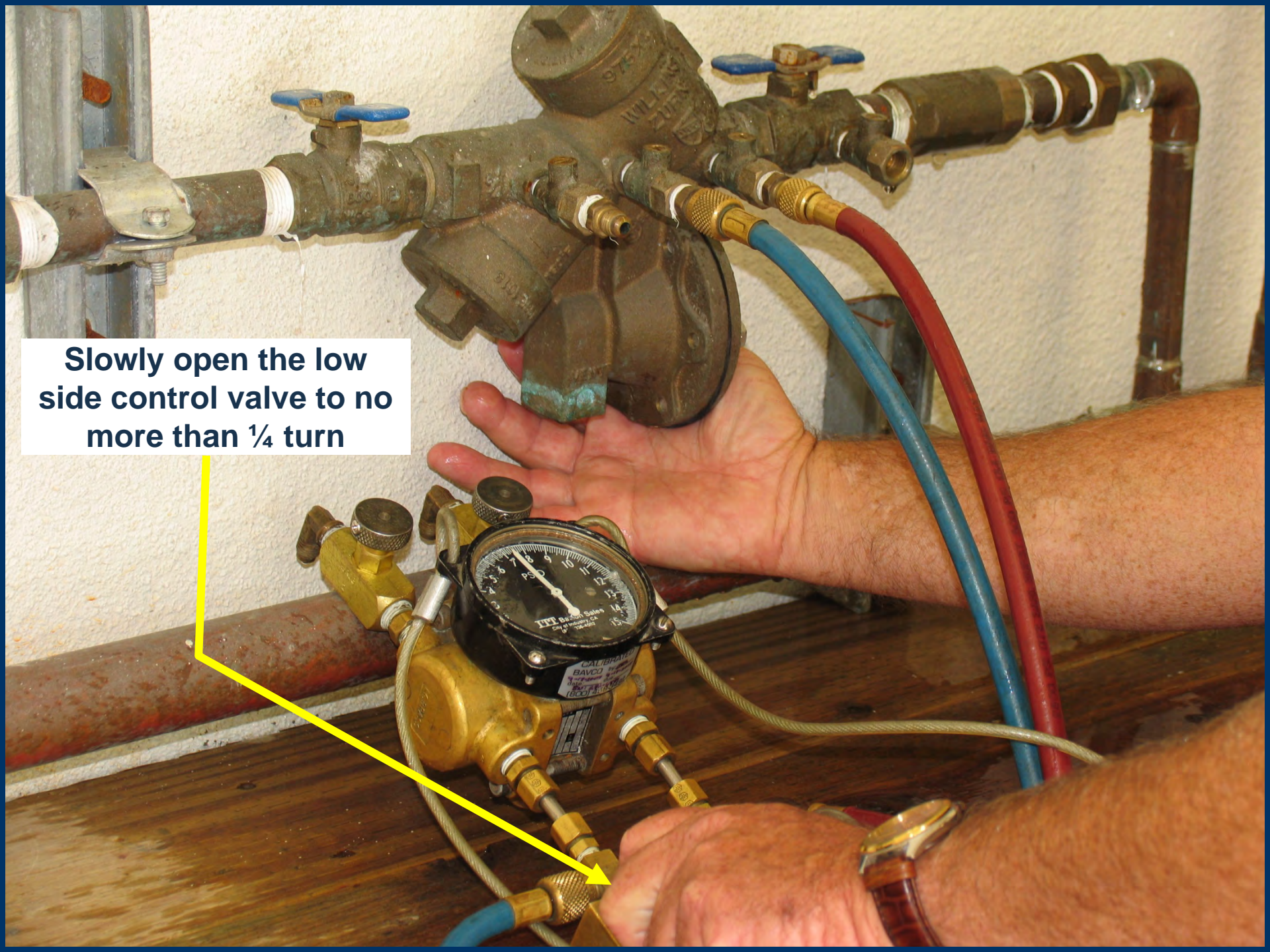


The first test will be the relief valve opening point.

Open the high side control needle valve one full turn and leave it open

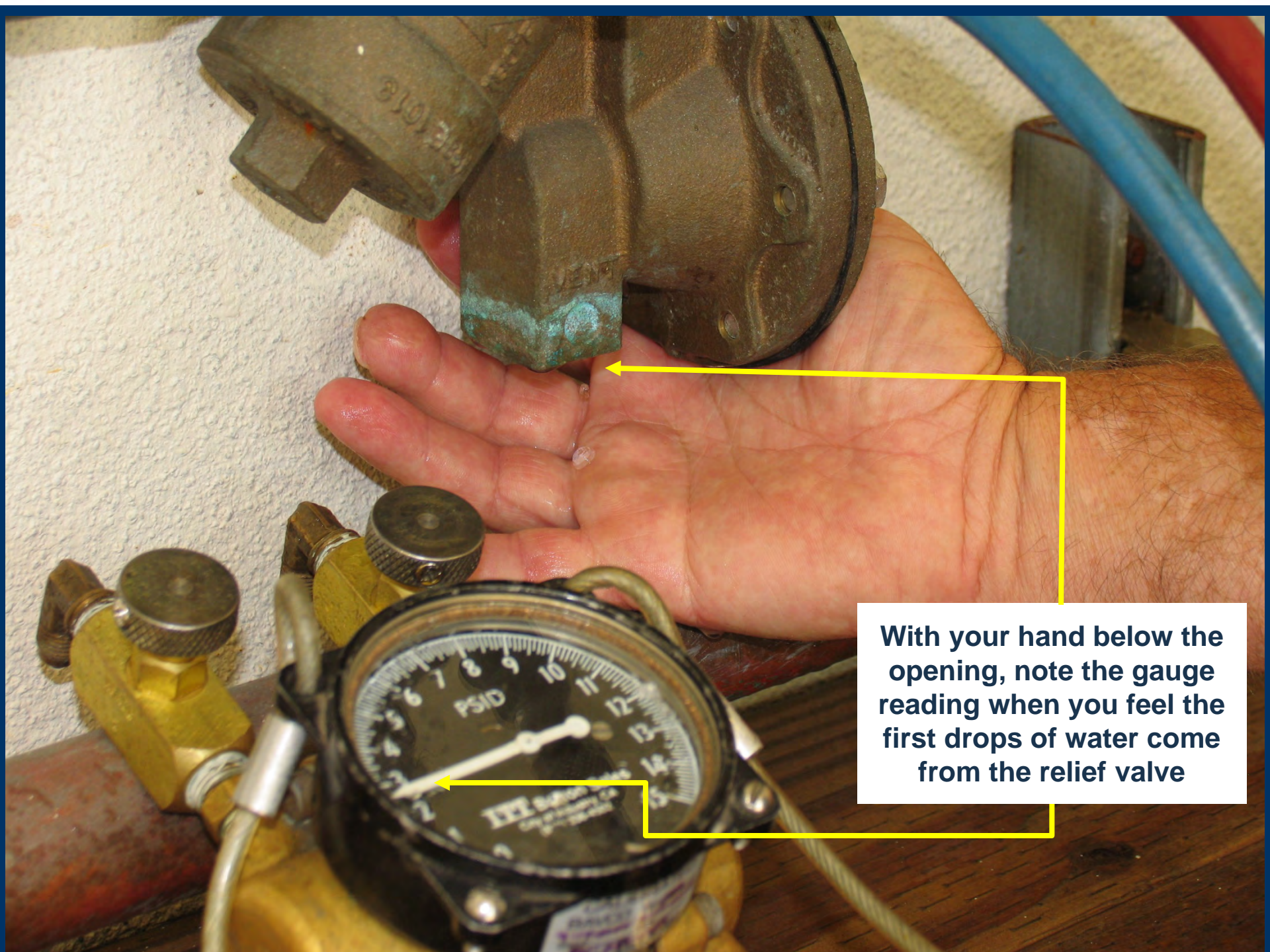




A close-up photograph of a person's hands working on a piece of equipment connected to a water meter. The water meter is mounted on a wall and has a brass valve on its left side. A blue hose and a red hose are connected to the meter. The person is holding a brass valve on a piece of equipment that also has a pressure gauge. The gauge has a black face with white markings and a needle. The person is adjusting the valve with their right hand. A yellow arrow points from the text box to the valve being adjusted. The background is a white wall and a wooden surface.

**Slowly open the low side control valve to no more than 1/4 turn**

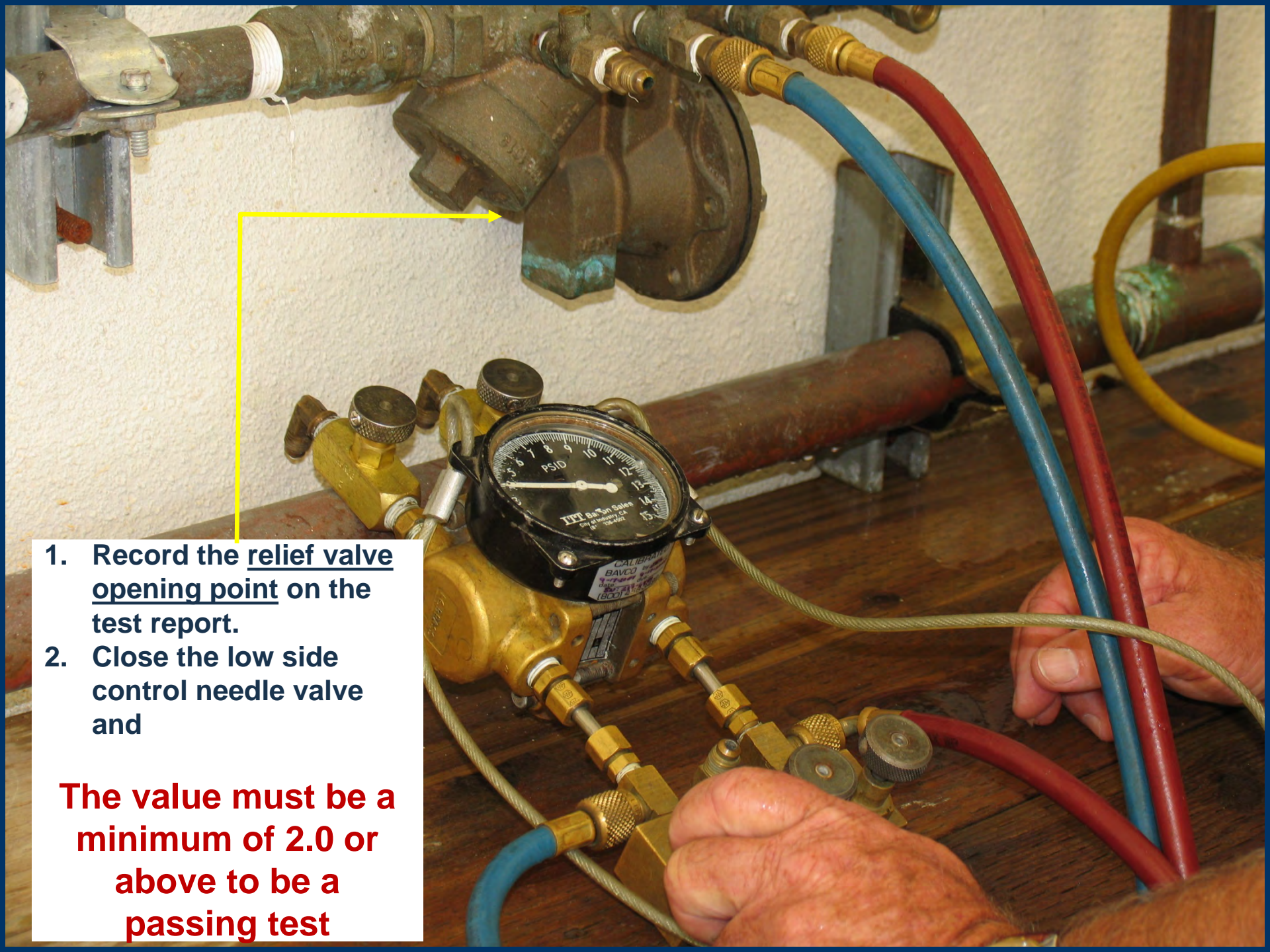




**With your hand below the opening, note the gauge reading when you feel the first drops of water come from the relief valve**







1. Record the relief valve opening point on the test report.
2. Close the low side control needle valve and

**The value must be a minimum of 2.0 or above to be a passing test**





**Now you will test for the tightness of check valve #2**

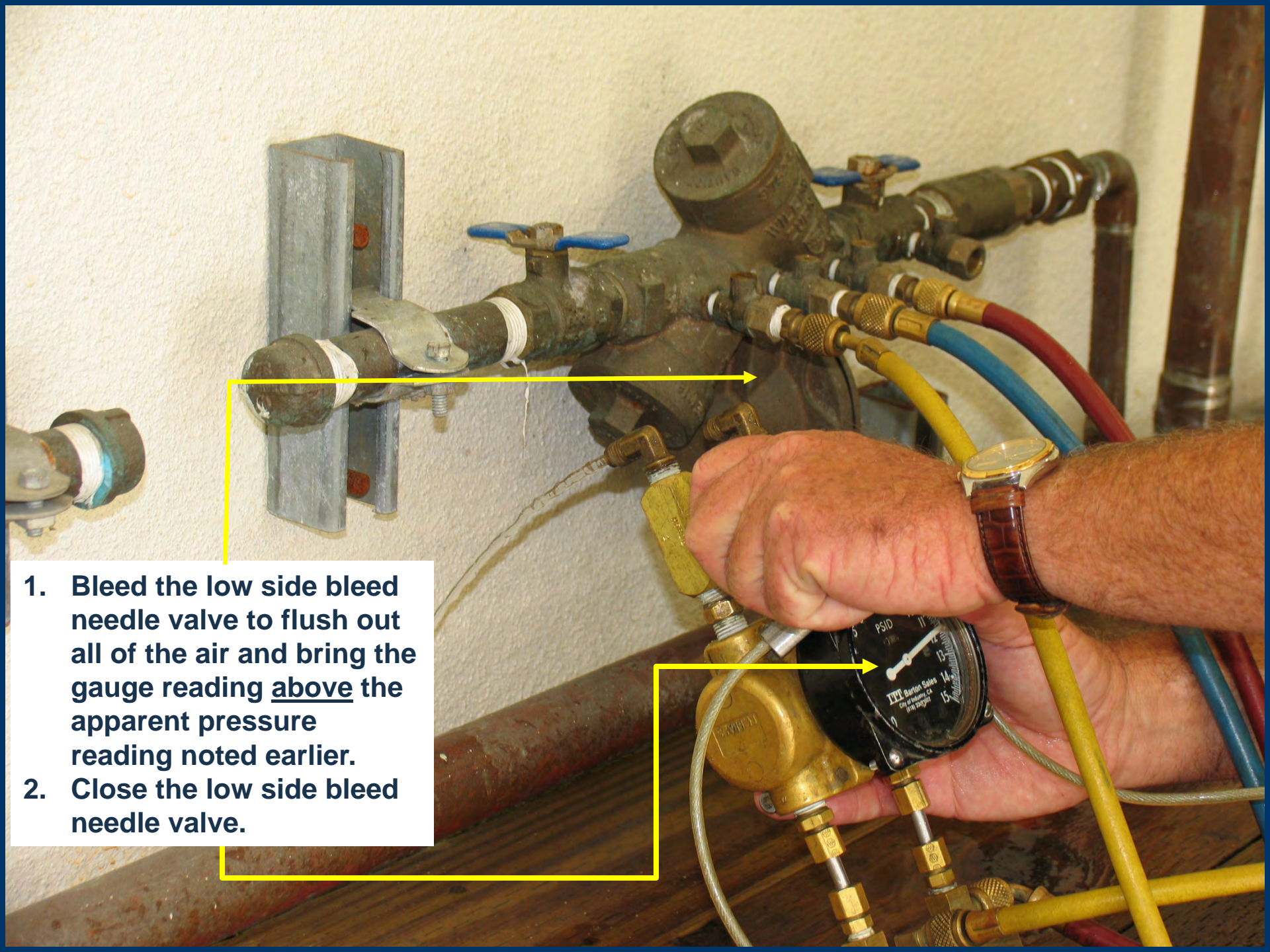
**Open the bypass control needle valve to bleed, then close it.**





**Attach the bypass hose to  
test cock #4 and open test  
cock #4**





1. Bleed the low side bleed needle valve to flush out all of the air and bring the gauge reading above the apparent pressure reading noted earlier.
2. Close the low side bleed needle valve.



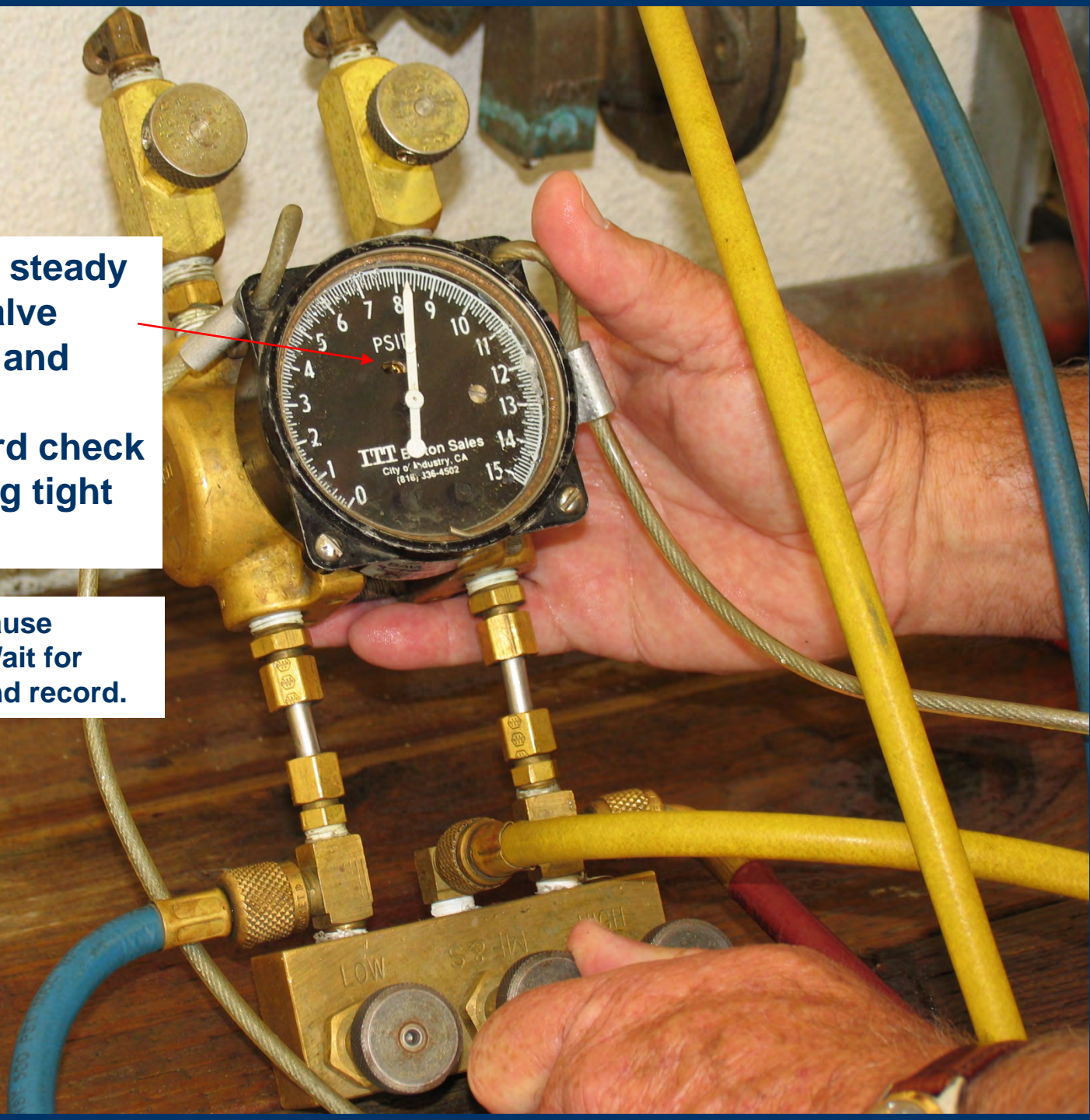
**Open the Bypass control  
needle valve and allow  
the gauge to settle.**





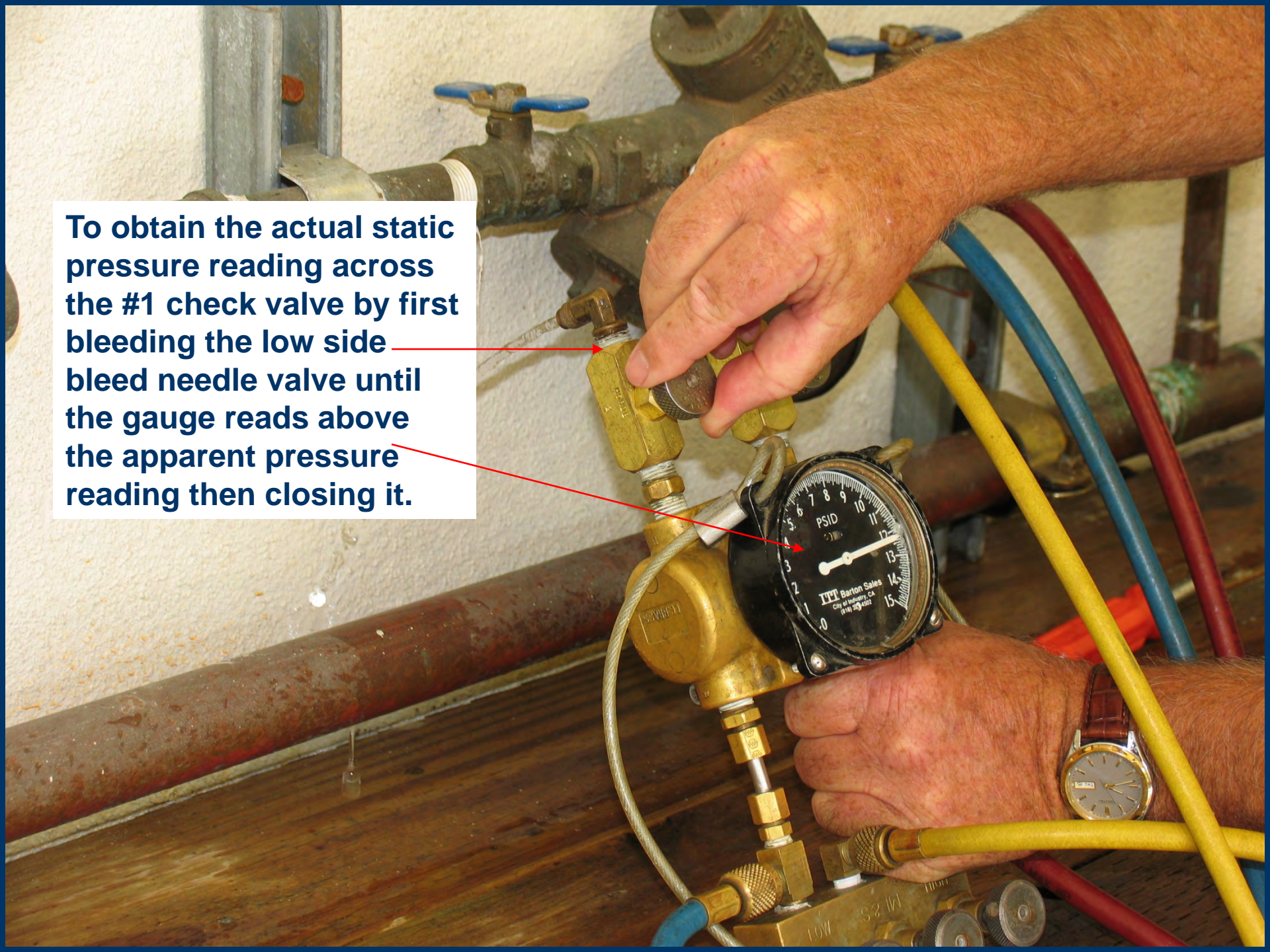
**If the gauge holds steady above the relief valve opening pressure and relief valve is not discharging, record check valve #2 as holding tight on the test report.**

**Water in the line can cause pressure fluctuation. Wait for pressure to stabilize and record.**





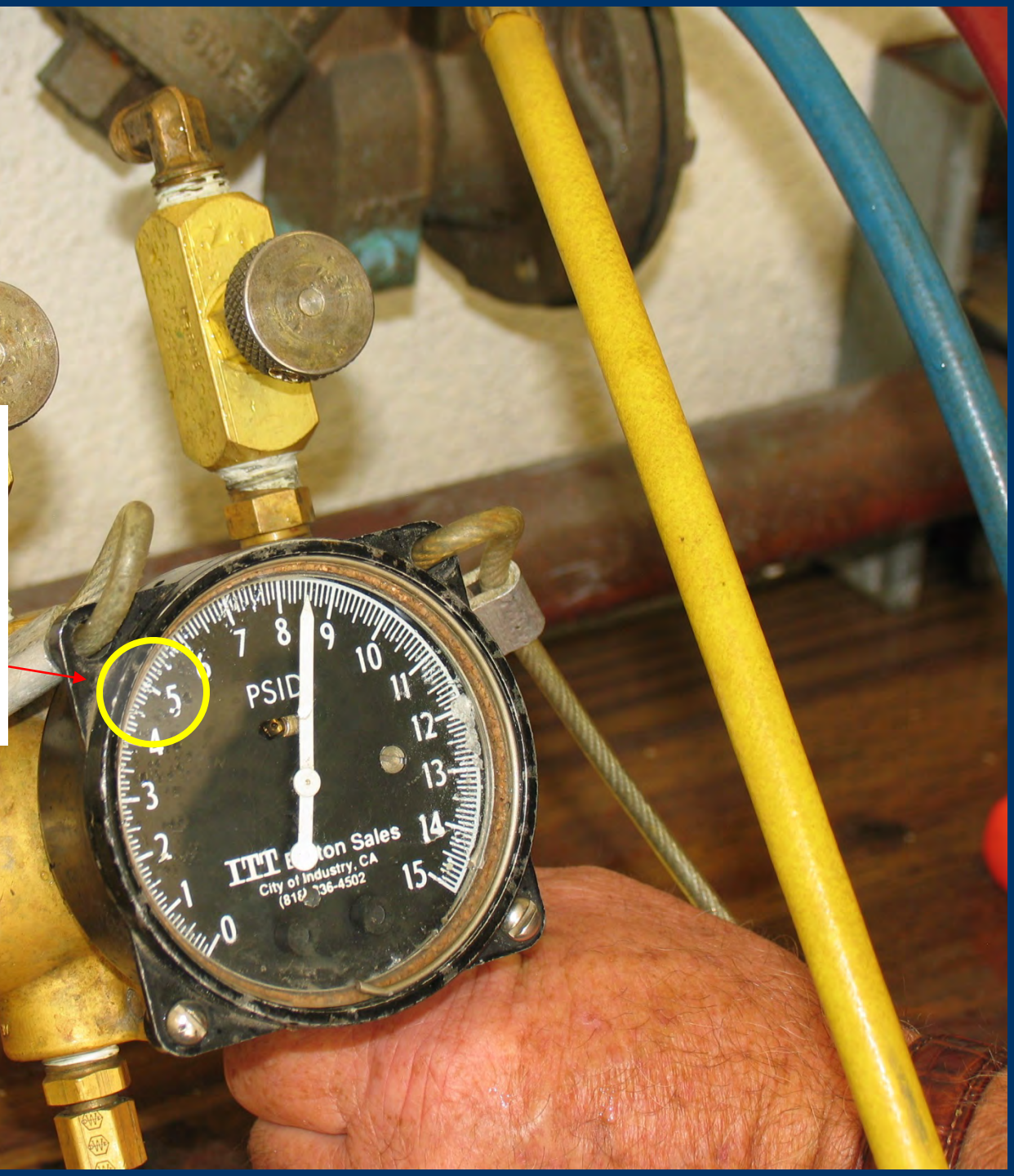
To obtain the actual static pressure reading across the #1 check valve by first bleeding the low side bleed needle valve until the gauge reads above the apparent pressure reading then closing it.





**Allow the gauge to settle  
and record the reading on  
the test report form.**


**The minimum value  
must be 5.0 PSI to  
pass.**



# Backflow Testing Review: RP

## Final Steps:

1. Shut off all test cocks, disconnect all hoses from the device
2. Restore water to the customer (or leave how the shut-off valves were initially found)
3. Fill out the test form correctly and completely
4. Submit the form to the water purveyor AND OCHCA



Please return to appropriate water purveyor  
AND the County of Orange at:  
OC Backflow Testing@ochca.com or  
714-4336481 (fax) or  
1241 E. Dyer Rd. #120  
Santa Ana, CA 92705

**BACKFLOW PREVENTION ASSEMBLY TEST AND MAINTENANCE REPORT**

OWNER: \_\_\_\_\_ ADDRESS: \_\_\_\_\_  
 MANUFACTURE: \_\_\_\_\_ MODEL: \_\_\_\_\_ SIZE: \_\_\_\_\_ TYPE: \_\_\_\_\_  
 SERIAL NUMBER: \_\_\_\_\_ LOCATION: \_\_\_\_\_

REDUCED PRESSURE PRINCIPLE ASSEMBLY				LINE PRESSURE
DOUBLE CHECK VALVE ASSEMBLY				
	CHECK VALVE #1	CHECK VALVE #2	RELIEF VALVE	PVB/SVB
INITIAL TEST:	HELD AT _____ PSID CLOSED TIGHT <input type="checkbox"/> FAILED <input type="checkbox"/> LEAKED <input type="checkbox"/>	HELD AT _____ PSID CLOSED TIGHT <input type="checkbox"/> FAILED <input type="checkbox"/> LEAKED <input type="checkbox"/>	OPENED AT _____ PSID DID NOT OPEN <input type="checkbox"/>	AIR INLET DID NOT OPEN <input type="checkbox"/>  AIR INLET FULLY OPEN YES <input type="checkbox"/> NO <input type="checkbox"/>
REPAIRS:	<input type="checkbox"/> CLEANED _____ _____ <input type="checkbox"/> REPLACED _____ _____	<input type="checkbox"/> CLEANED _____ _____ <input type="checkbox"/> REPLACED _____ _____	<input type="checkbox"/> CLEANED _____ _____ <input type="checkbox"/> REPLACED _____ _____	CHECK VALVE HELD AT _____ PSID CLOSED TIGHT <input type="checkbox"/> FAILED <input type="checkbox"/> LEAKED <input type="checkbox"/>  <input type="checkbox"/> CLEANED  <input type="checkbox"/> REPLACED _____ _____
FINAL TEST:	HELD AT _____ PSID CLOSED TIGHT <input type="checkbox"/>	HELD AT _____ PSID CLOSED TIGHT <input type="checkbox"/>	OPENED AT _____ PSID	AIR INLET OPENED AT FULLY OPEN YES <input type="checkbox"/> CHECK VALVE HELD AT _____ PSID

COMMENTS: \_\_\_\_\_

INITIAL TEST (Signature) \_\_\_\_\_ Print Name \_\_\_\_\_ CERT. TEST NO. \_\_\_\_\_ DATE \_\_\_\_\_

FINAL TEST (Signature) \_\_\_\_\_ Print Name \_\_\_\_\_ CERT. TEST NO. \_\_\_\_\_ DATE \_\_\_\_\_

TESTER'S COMPANY NAME \_\_\_\_\_ TESTER'S PHONE NUMBER \_\_\_\_\_

AUGUST 2013



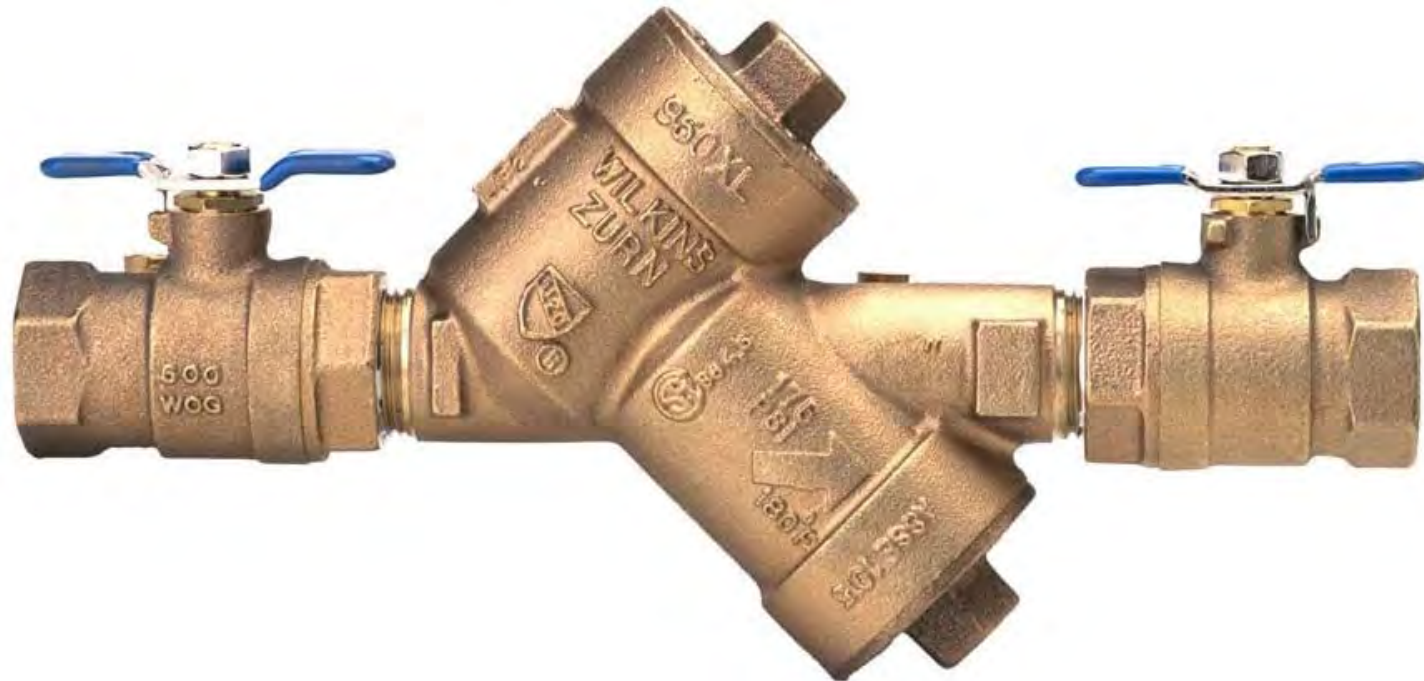
# Backflow Testing Review: RP

A Troubleshooting Note:

- *Remember to be alert for disk compression and try for the 2<sup>nd</sup> chance before you indicate that the #1 check is leaking!*
- *Refer to pages 493-499 of the USC Manual for the troubleshooting refresher.*



# Backflow Testing Review: DC





# Backflow Testing Review: DC

## *Equipment required:*

- An approved and calibrated Differential Pressure Gauge
- 1 high pressure hose (1/4" D x 6 ft. long)
- Adapter fittings for each size test cock
- Sight tube (if needed)
- Bleed-off valve



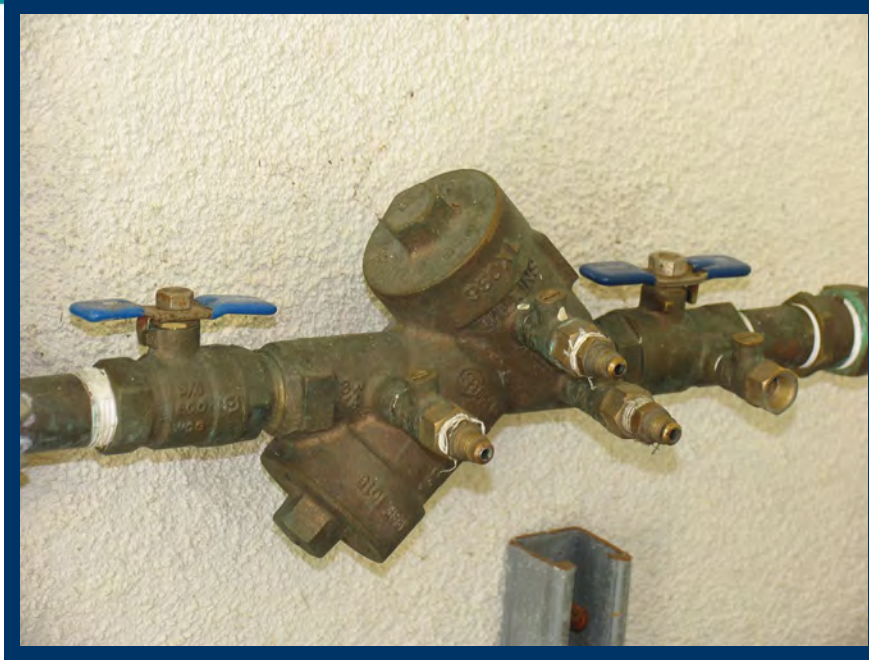
# Backflow Testing Review: *DC*

## Preliminary Steps

- **Notify-** Inform your contact at the location that you are there to perform the test on the backflow device and if the water service will be interrupted
- **Identify-** Locate and verify the make, model number, size, and serial number of the device to be tested
- **Inspect-** Ensure that the device has all the required components and that the test can be conducted
- **Observe-** inspect the area around the assembly and if it is safe to proceed with the test.



# Double Check Backflow Prevention Assembly

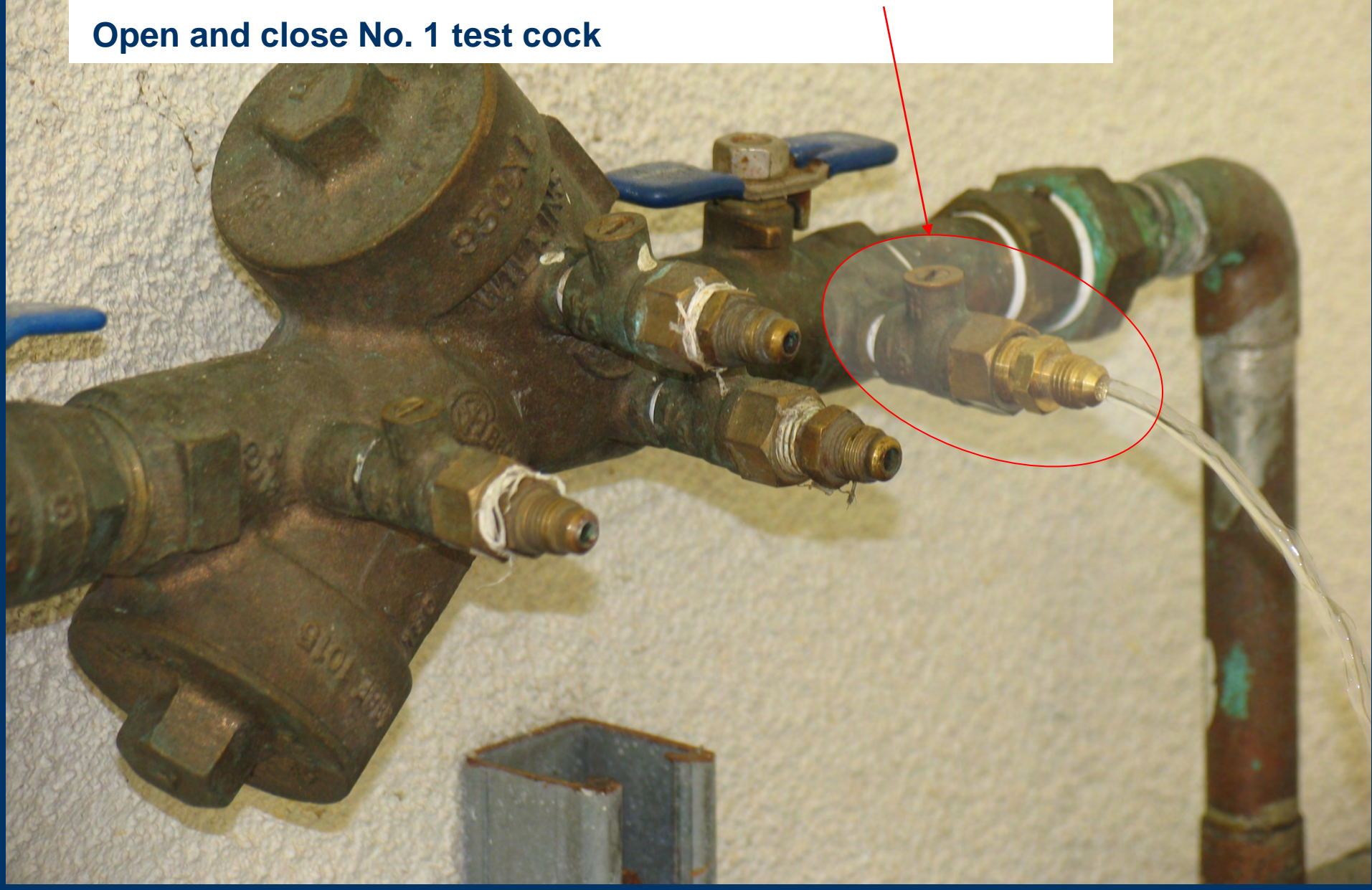


**Upon arrival, what do you observe?**

- **Direction of flow**
- **Leaky test cocks**
- **Shutoff valves close/open**
- **Any hoses connected to the device**
- **When testing a Double Check Detector Assembly type I, you test the bypass first then the main body (page 320).**
- **Etc.**

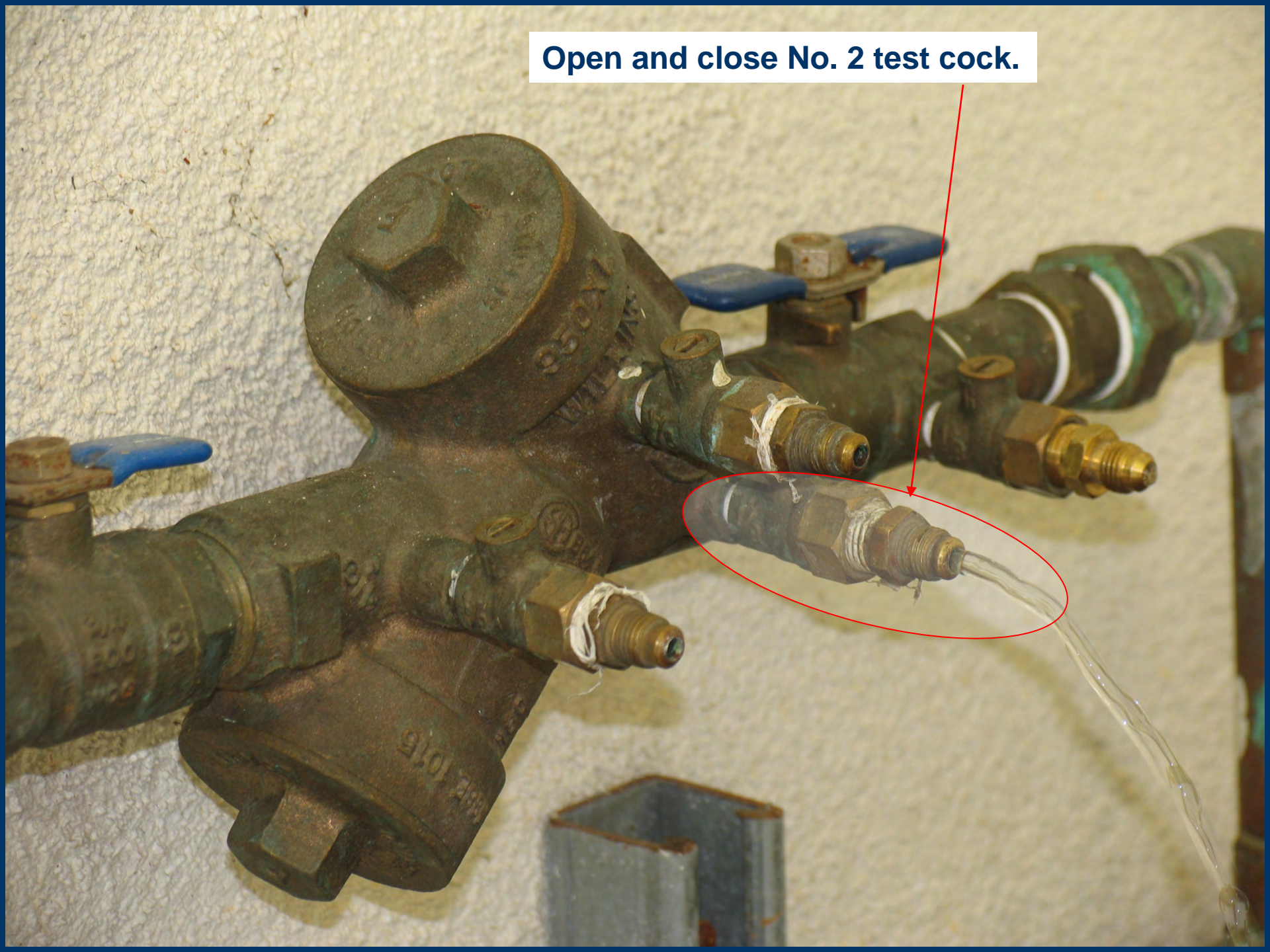
**Determine direction of flow and begin the test by flushing the test cocks:**

**Open and close No. 1 test cock**



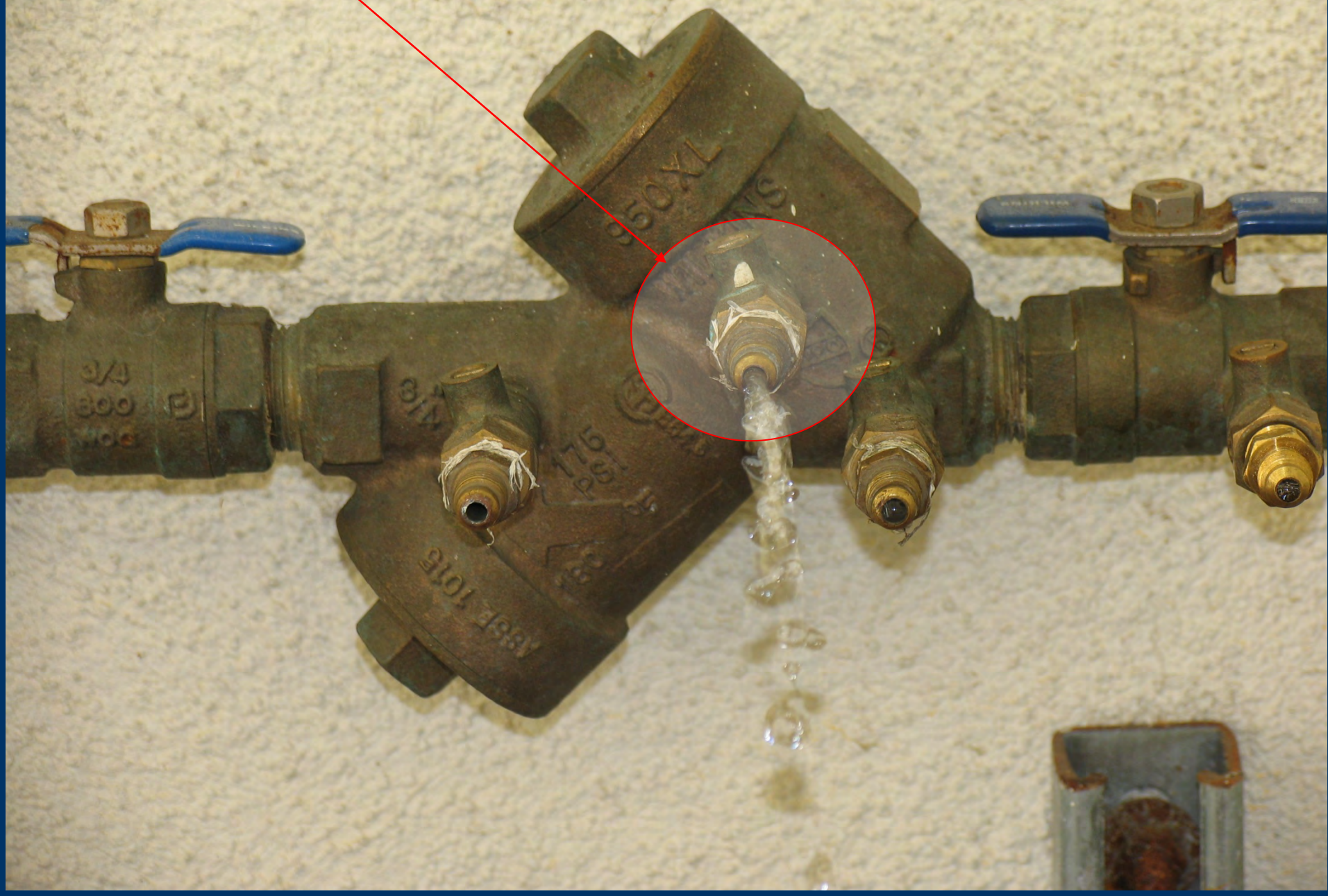


Open and close No. 2 test cock.



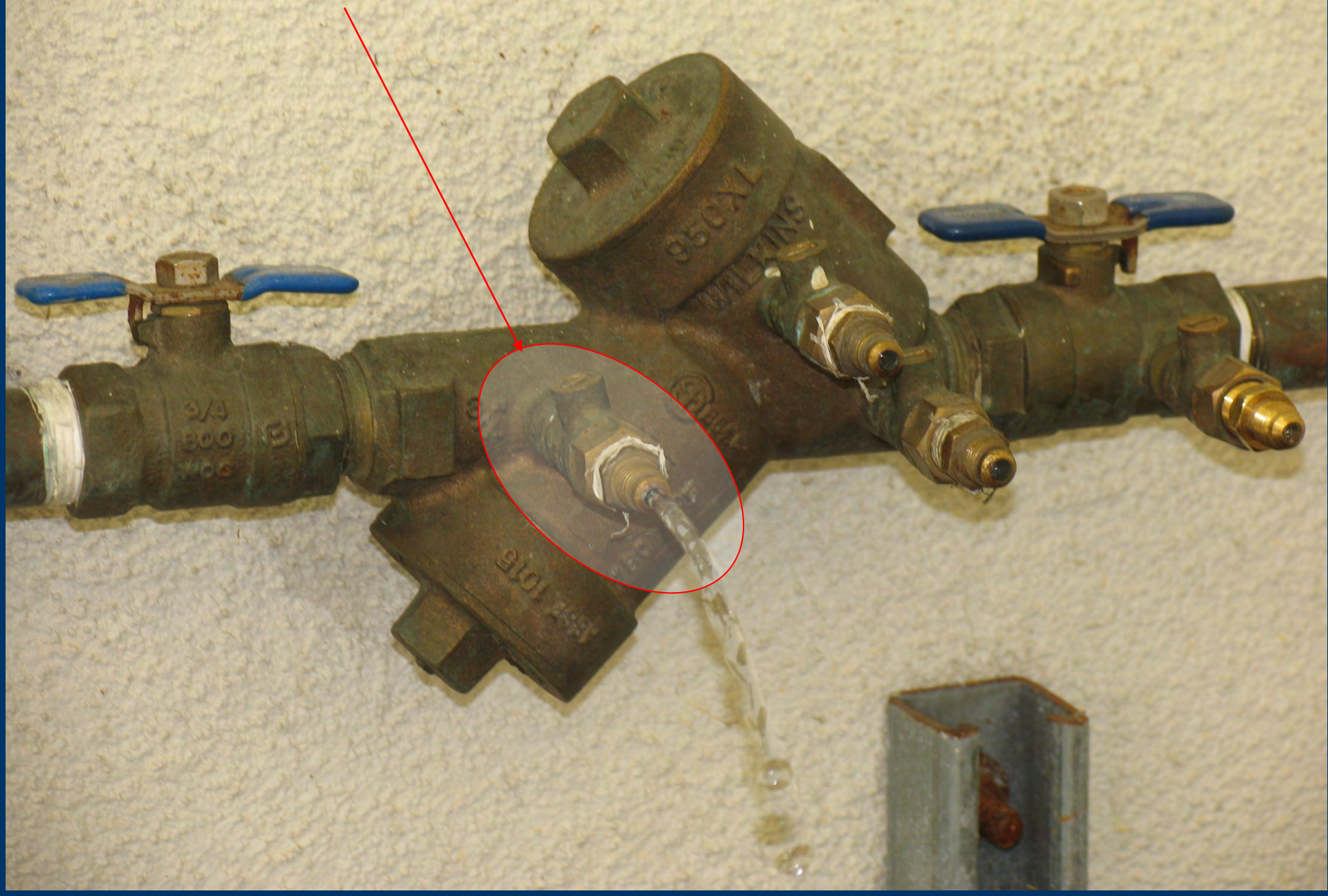


Open and close No. 3 test cock.



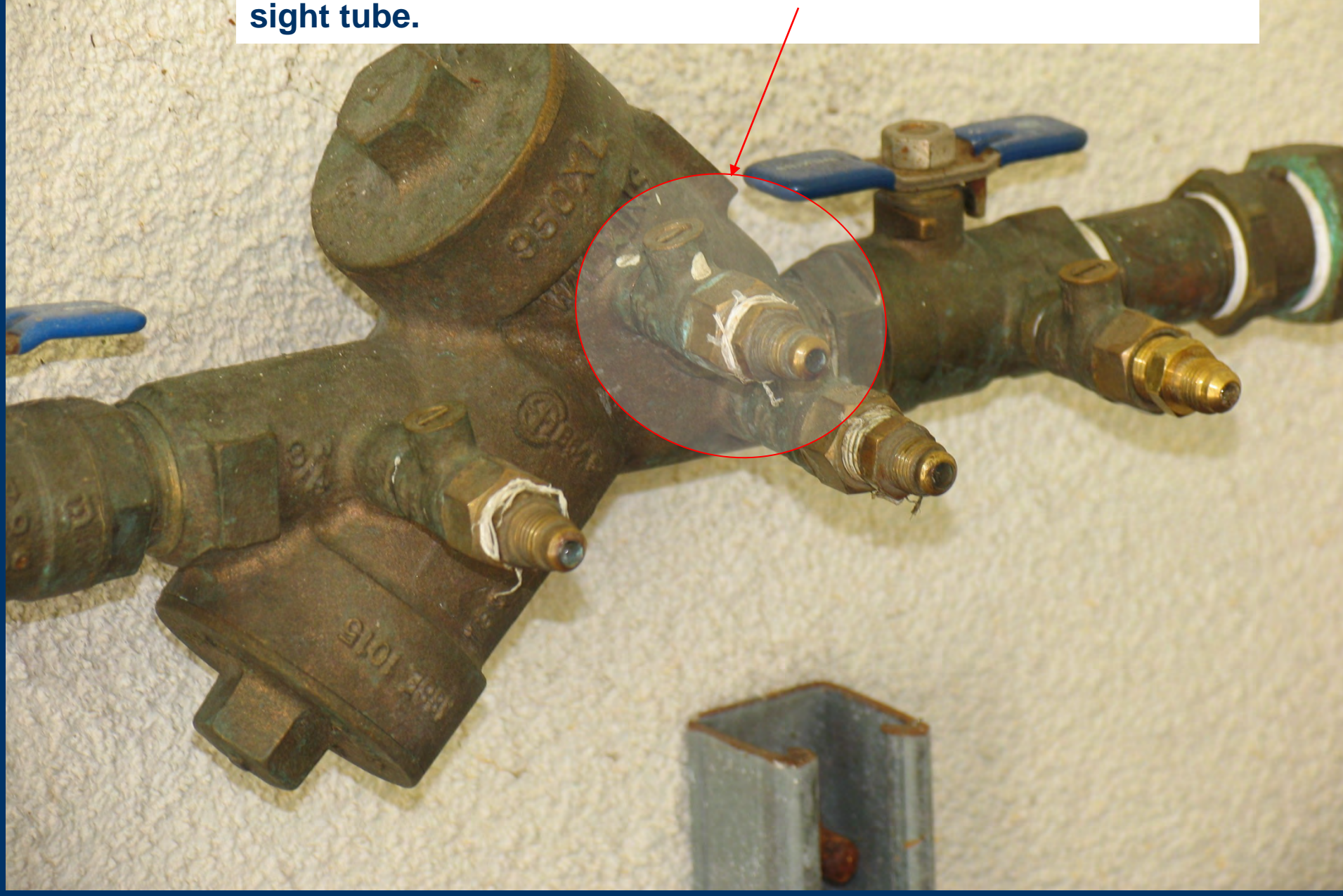


**Finish flushing by opening and closing No. 4 test cock.**





**Locate No. 3 test cock and determine if a sight tube is needed. If the test cock is below the check valve body, use a sight tube.**





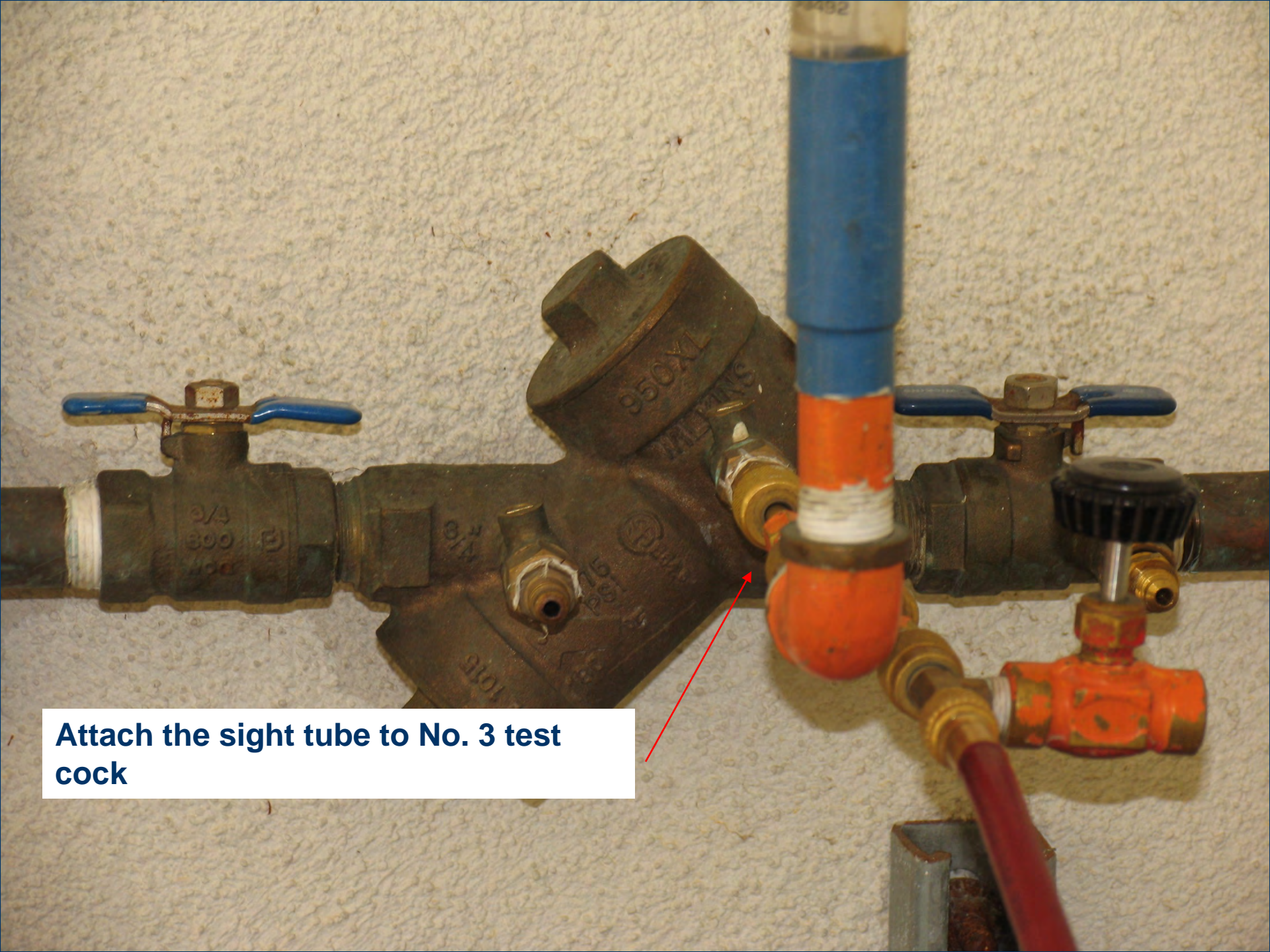
**To test the #1 check valve:**

**Attach the compensation bleed T arrangement  
to test cock No.2 then attach the high side hose**



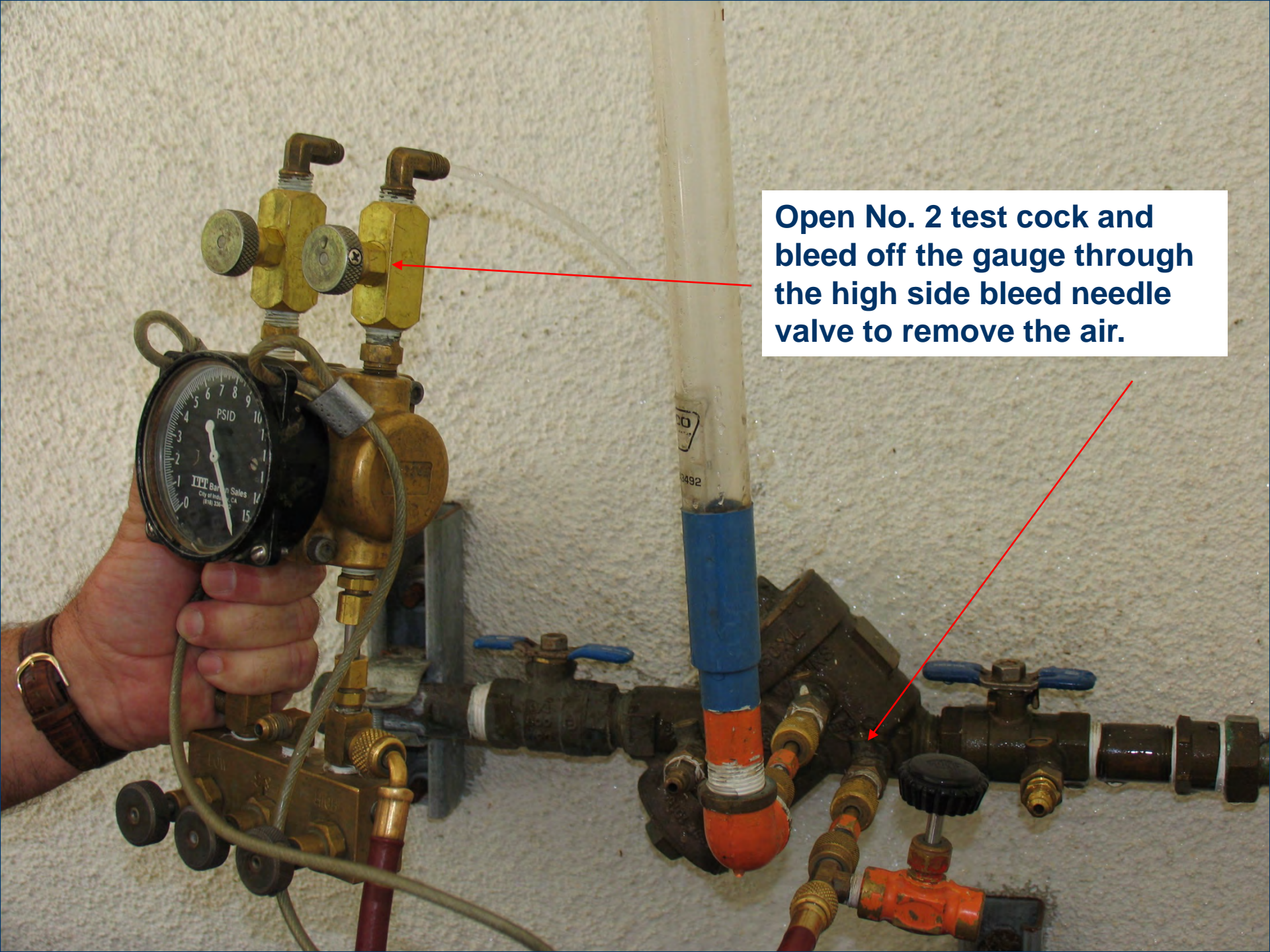
**Remember to attach / use only the high side  
hose when testing the DC. Do not have the  
other hoses attached to the test kit.**





**Attach the sight tube to No. 3 test cock**

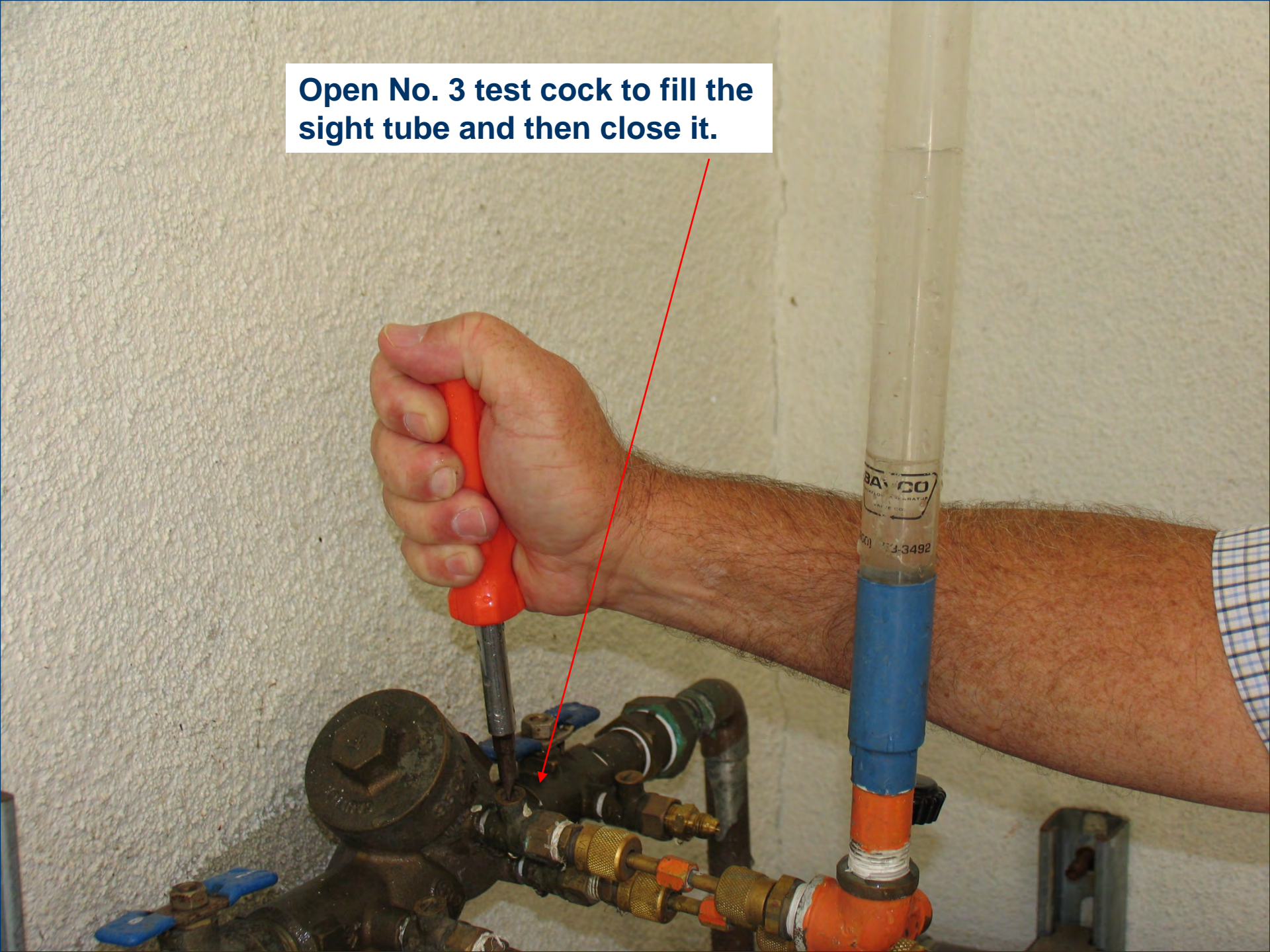




**Open No. 2 test cock and bleed off the gauge through the high side bleed needle valve to remove the air.**

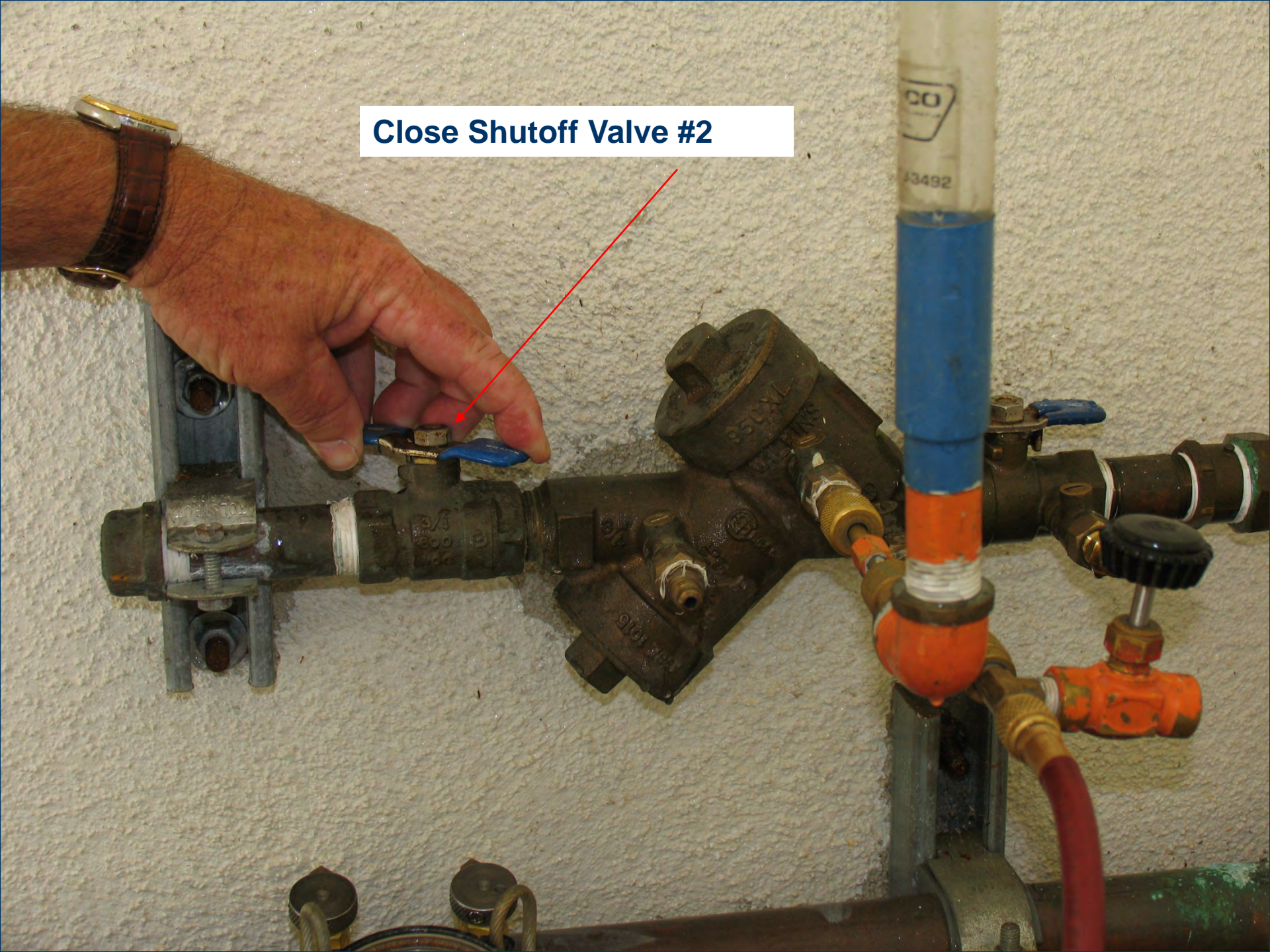


**Open No. 3 test cock to fill the sight tube and then close it.**



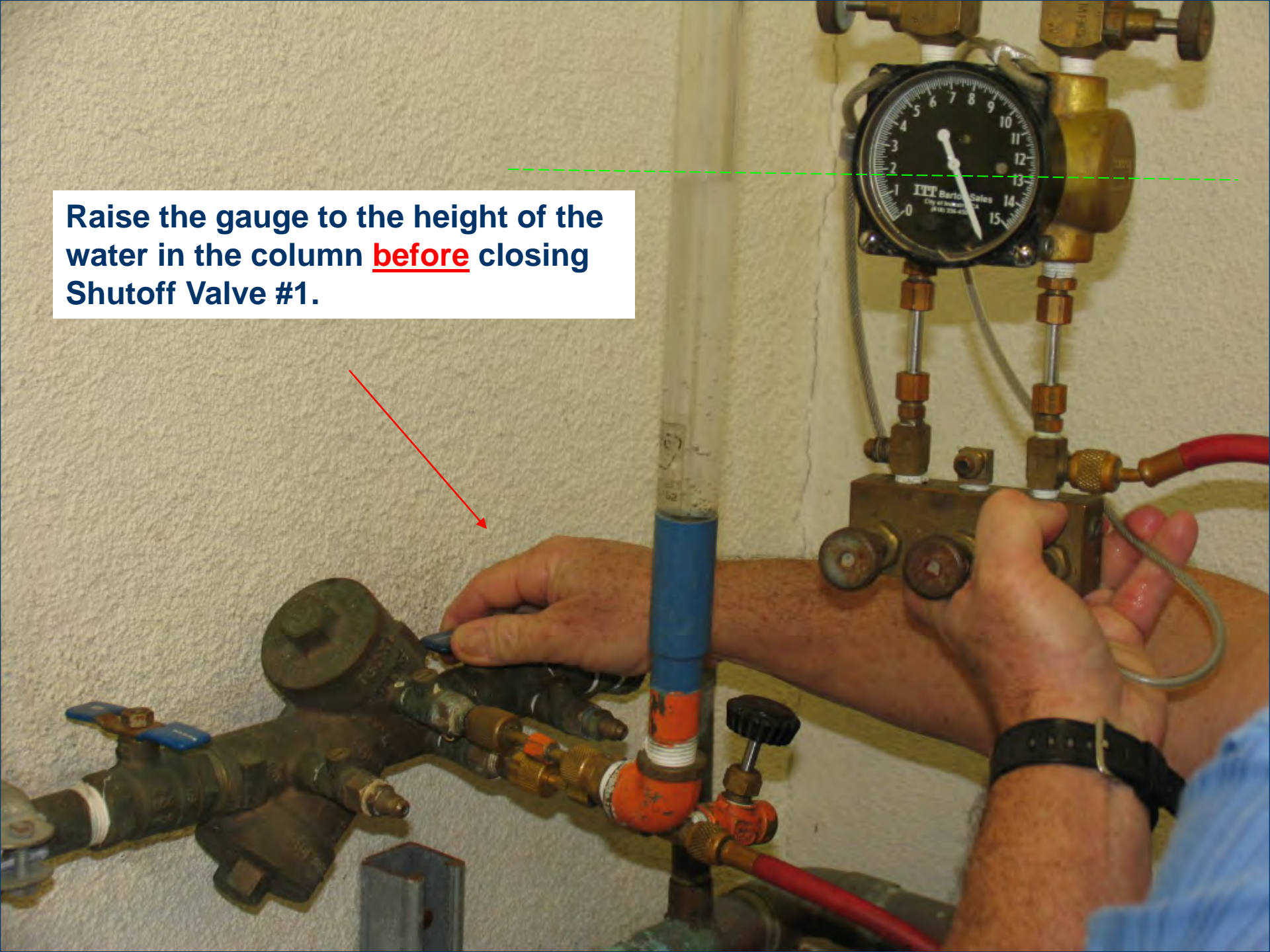


**Close Shutoff Valve #2**



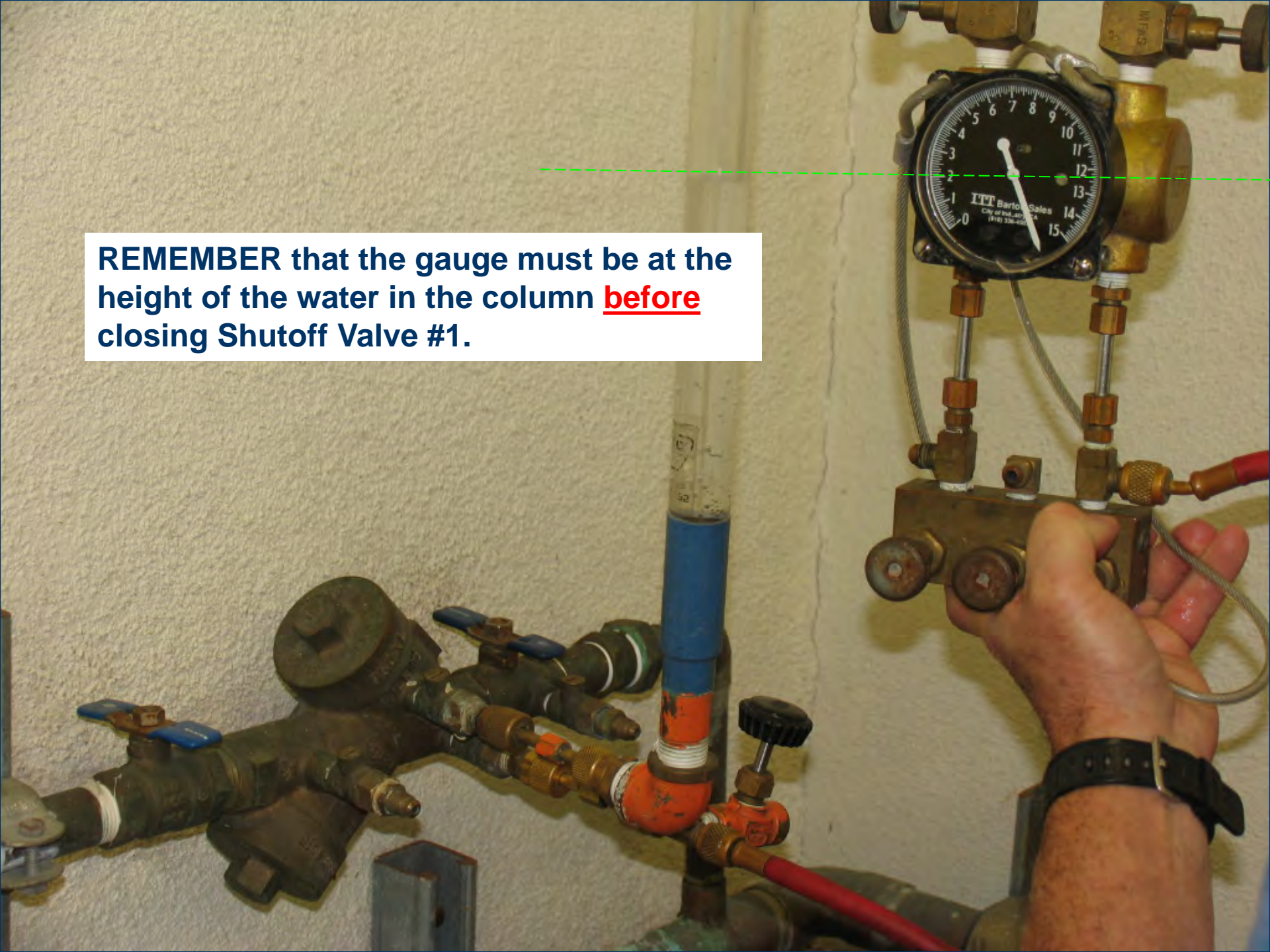


Raise the gauge to the height of the water in the column before closing Shutoff Valve #1.





**REMEMBER** that the gauge must be at the height of the water in the column **before** closing Shutoff Valve #1.





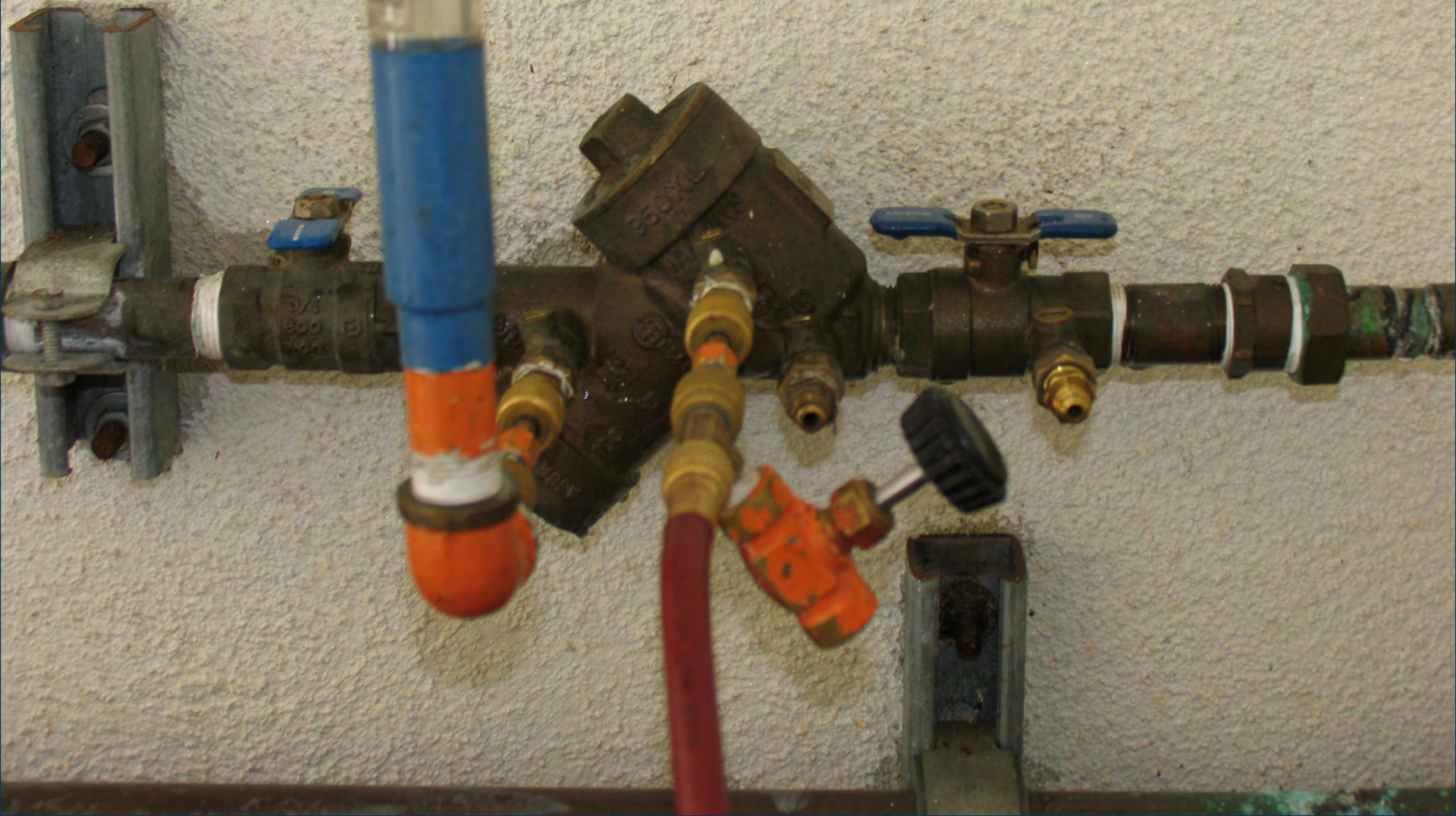
**Making sure your gauge is at the highest point of water, open No. 3 test cock, record the gauge reading after it settles.**

**The check valve must hold at 1.0 PSI or greater to pass.**





**Close No. 2 and No. 3 test cocks, open Shutoff Valve #1 and move your test setup over so that the sight tube is on No. 4 test cock and the high side hose and compensation bleed T are on No. 3 test cock.**



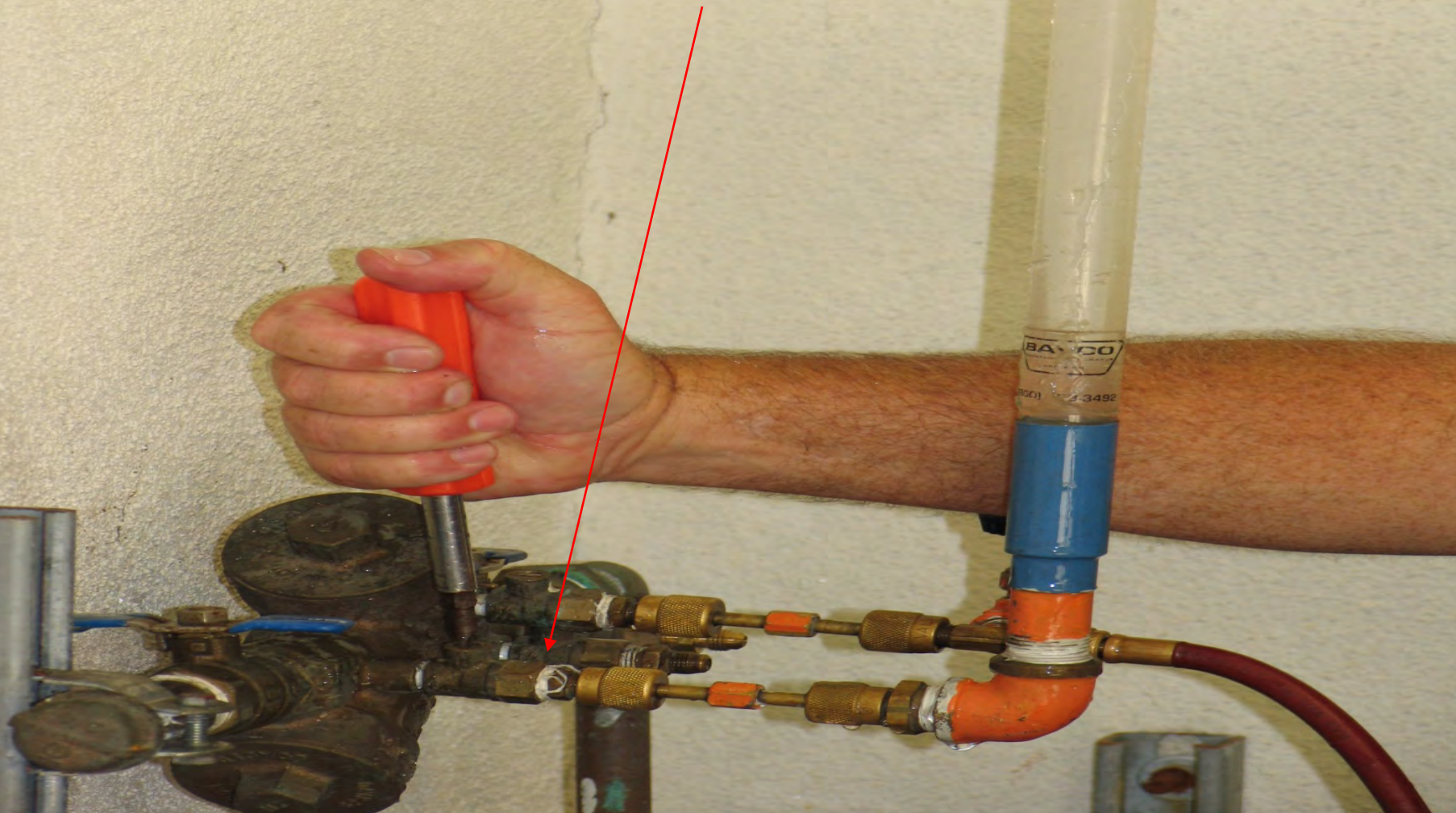


**Open the No. 3 test cock and bleed water through the high side bleed needle valve.**



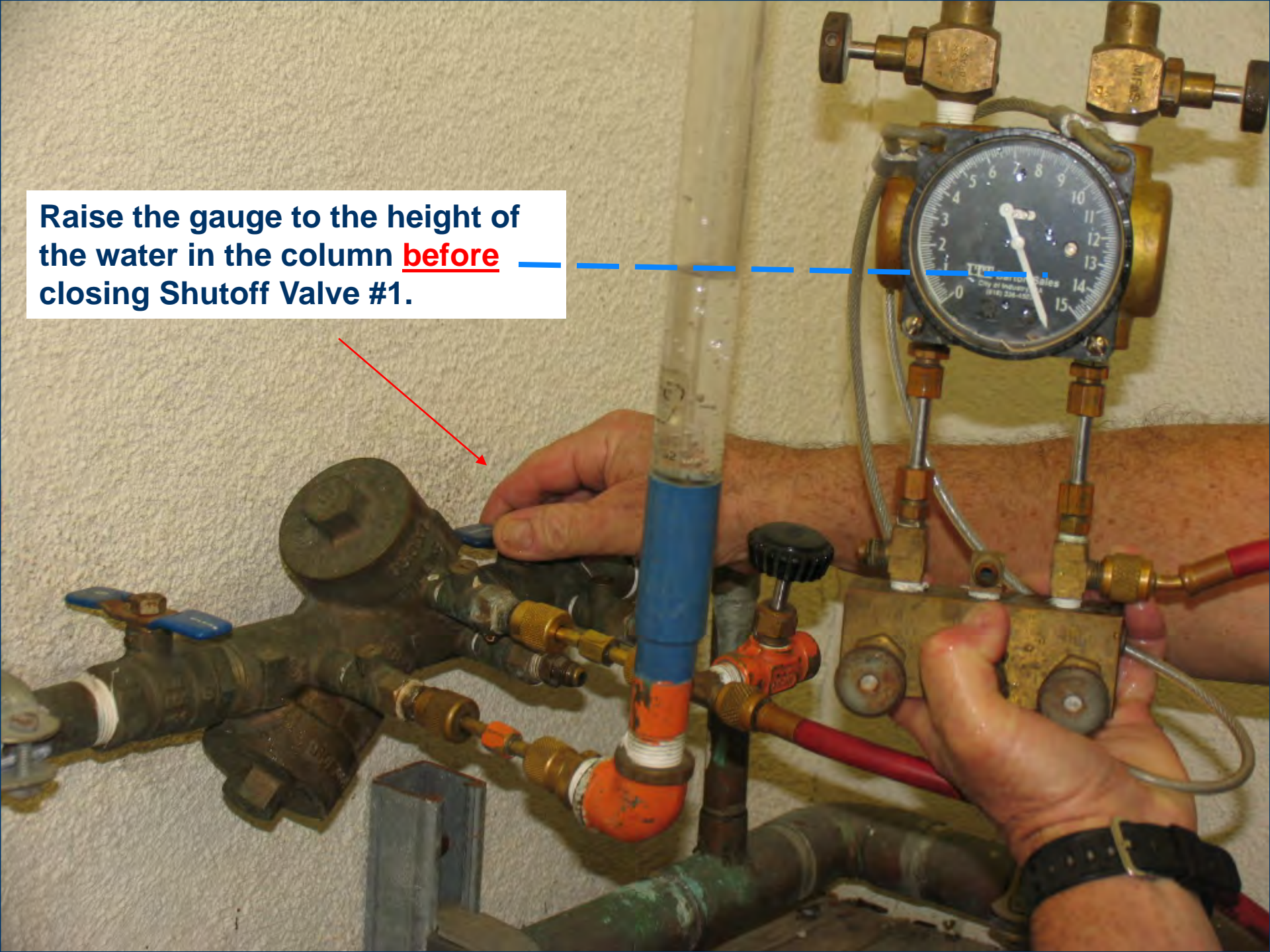


**Open No. 4 test cock to fill the sight tube and then close it.**



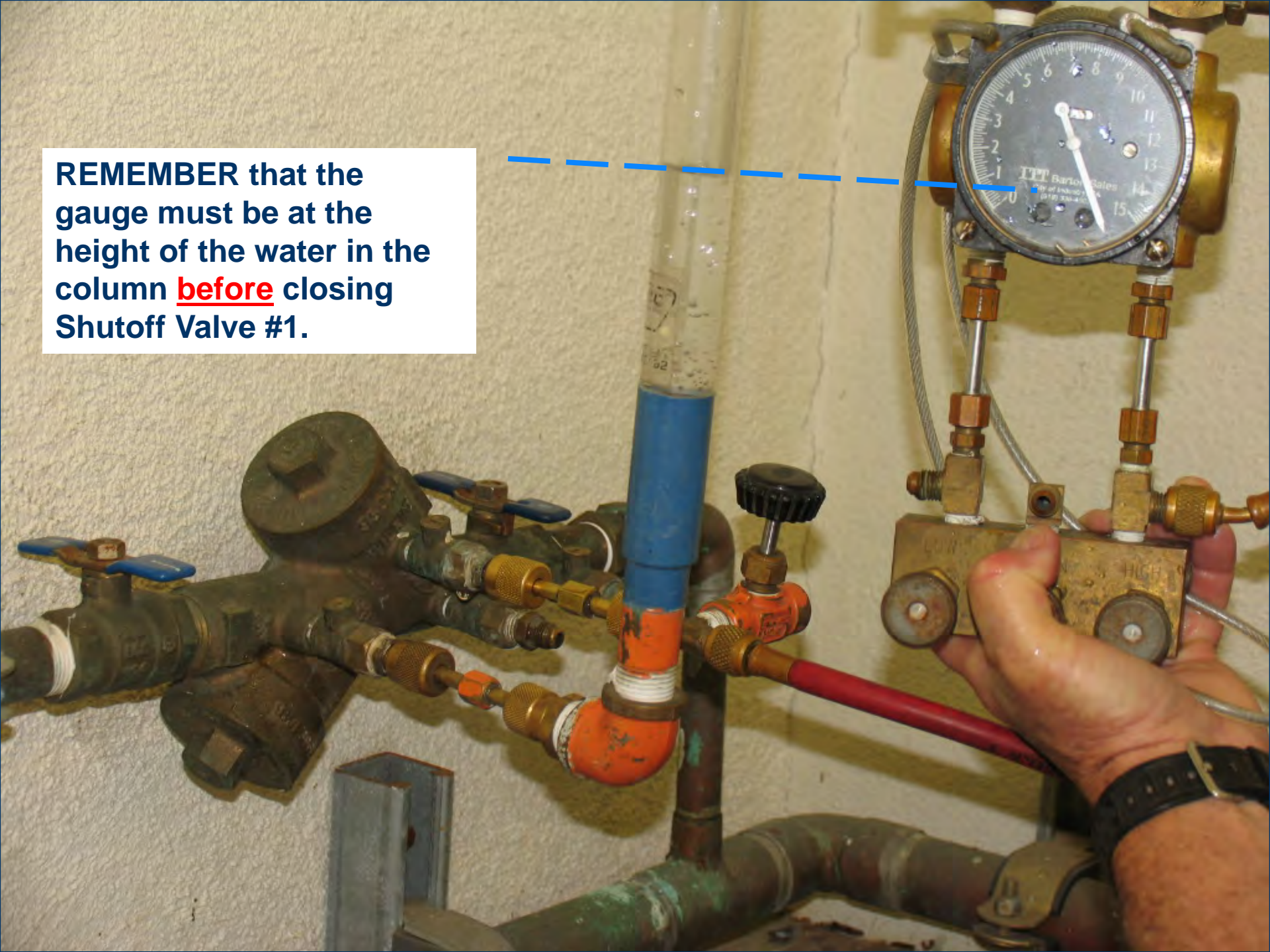


Raise the gauge to the height of the water in the column **before** closing Shutoff Valve #1.





**REMEMBER** that the gauge must be at the height of the water in the column **before** closing Shutoff Valve #1.





**Making sure your gauge is at the highest point of water, open No. 4 test cock and record the gauge reading after it stabilizes. The check valve must hold at 1.0 PSI or greater to pass.**






# Backflow Testing Review: DC

## Final Steps:

1. Turn off all test cocks and disconnect all hoses from the device
2. Restore water to the customer (or leave how the shut-off valves were initially found)
3. Fill out the test form correctly and completely
4. Submit the form to the water purveyor AND OCHCA



Please return to appropriate water purveyor  
AND the County of Orange at:  
OC Backflow Testing@ochca.com or  
714-4336481 (fax) or  
1241 E. Dyer Rd. #120  
Santa Ana, CA 92705

**BACKFLOW PREVENTION ASSEMBLY TEST AND MAINTENANCE REPORT**

OWNER: \_\_\_\_\_ ADDRESS: \_\_\_\_\_  
 MANUFACTURE: \_\_\_\_\_ MODEL: \_\_\_\_\_ SIZE: \_\_\_\_\_ TYPE: \_\_\_\_\_  
 SERIAL NUMBER: \_\_\_\_\_ LOCATION: \_\_\_\_\_

REDUCED PRESSURE PRINCIPLE ASSEMBLY				LINE PRESSURE	
DOUBLE CHECK VALVE ASSEMBLY					
	CHECK VALVE #1	CHECK VALVE #2	RELIEF VALVE		
INITIAL TEST	HELD AT _____ PSID CLOSED TIGHT <input type="checkbox"/> FAILED <input type="checkbox"/> LEAKED <input type="checkbox"/>	HELD AT _____ PSID CLOSED TIGHT <input type="checkbox"/> FAILED <input type="checkbox"/> LEAKED <input type="checkbox"/>	OPENED AT _____ PSID DID NOT OPEN <input type="checkbox"/>	AIR INLET OPENED AT _____ PSID DID NOT OPEN <input type="checkbox"/>  AIR INLET FULLY OPEN YES <input type="checkbox"/> NO <input type="checkbox"/>	
REPAIRS	<input type="checkbox"/> CLEANED _____ _____ <input type="checkbox"/> REPLACED _____	<input type="checkbox"/> CLEANED _____ _____ <input type="checkbox"/> REPLACED _____	<input type="checkbox"/> CLEANED _____ _____ <input type="checkbox"/> REPLACED _____	<input type="checkbox"/> CHECK VALVE HELD AT _____ PSID CLOSED TIGHT <input type="checkbox"/> FAILED <input type="checkbox"/> LEAKED <input type="checkbox"/>  <input type="checkbox"/> CLEANED _____ <input type="checkbox"/> REPLACED _____	
FINAL TEST	HELD AT _____ PSID CLOSED TIGHT <input type="checkbox"/>	HELD AT _____ PSID CLOSED TIGHT <input type="checkbox"/>	OPENED AT _____ PSID	AIR INLET OPENED AT FULLY OPEN _____ PSID YES <input type="checkbox"/>  CHECK VALVE HELD AT _____ PSID	

COMMENTS: \_\_\_\_\_

INITIAL TEST (Signature) \_\_\_\_\_ Print Name \_\_\_\_\_ CERT. TEST NO. \_\_\_\_\_ DATE \_\_\_\_\_

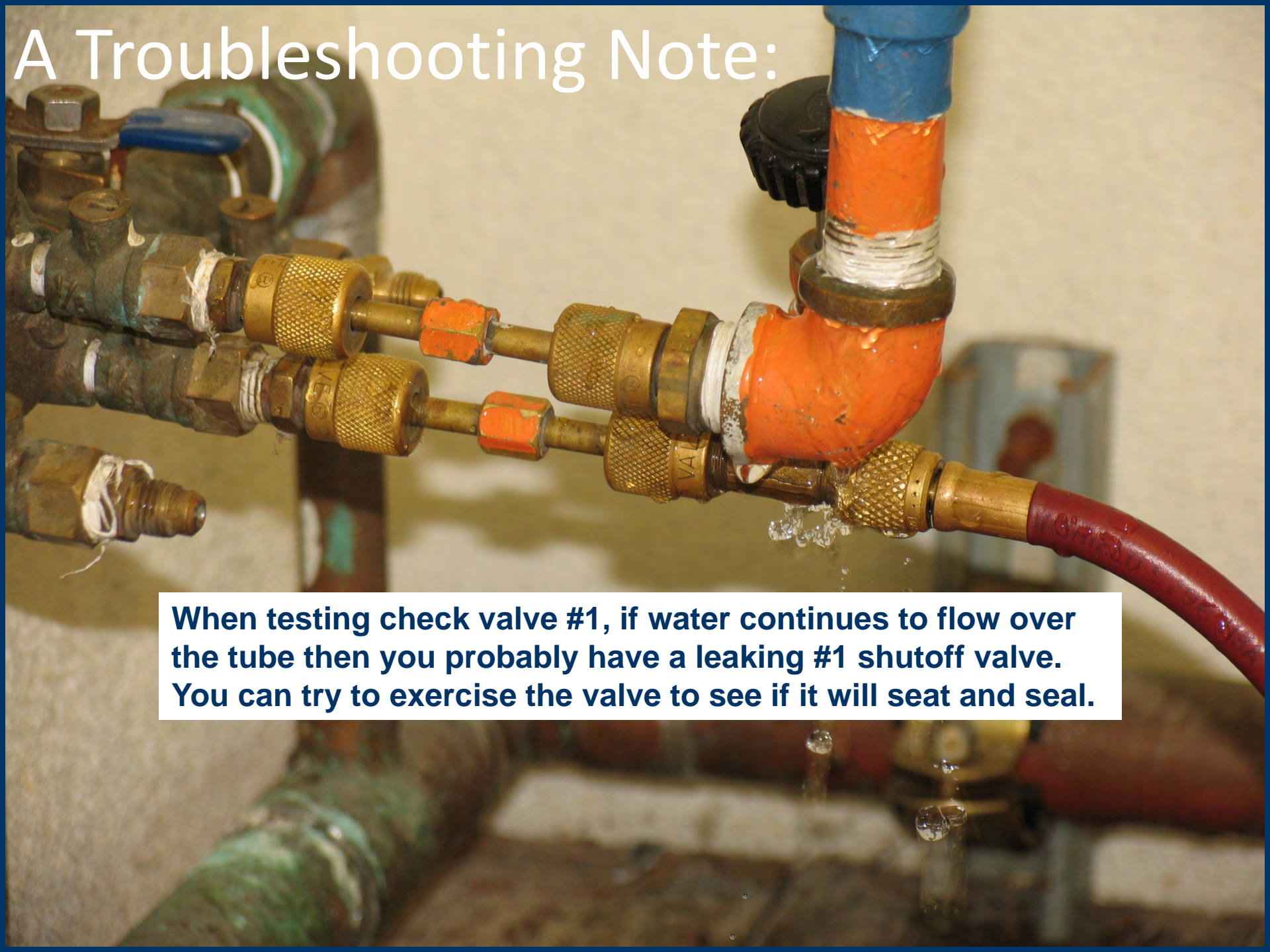
FINAL TEST (Signature) \_\_\_\_\_ Print Name \_\_\_\_\_ CERT. TEST NO. \_\_\_\_\_ DATE \_\_\_\_\_

TESTER'S COMPANY NAME \_\_\_\_\_ TESTER'S PHONE NUMBER \_\_\_\_\_

AUGUST 2013



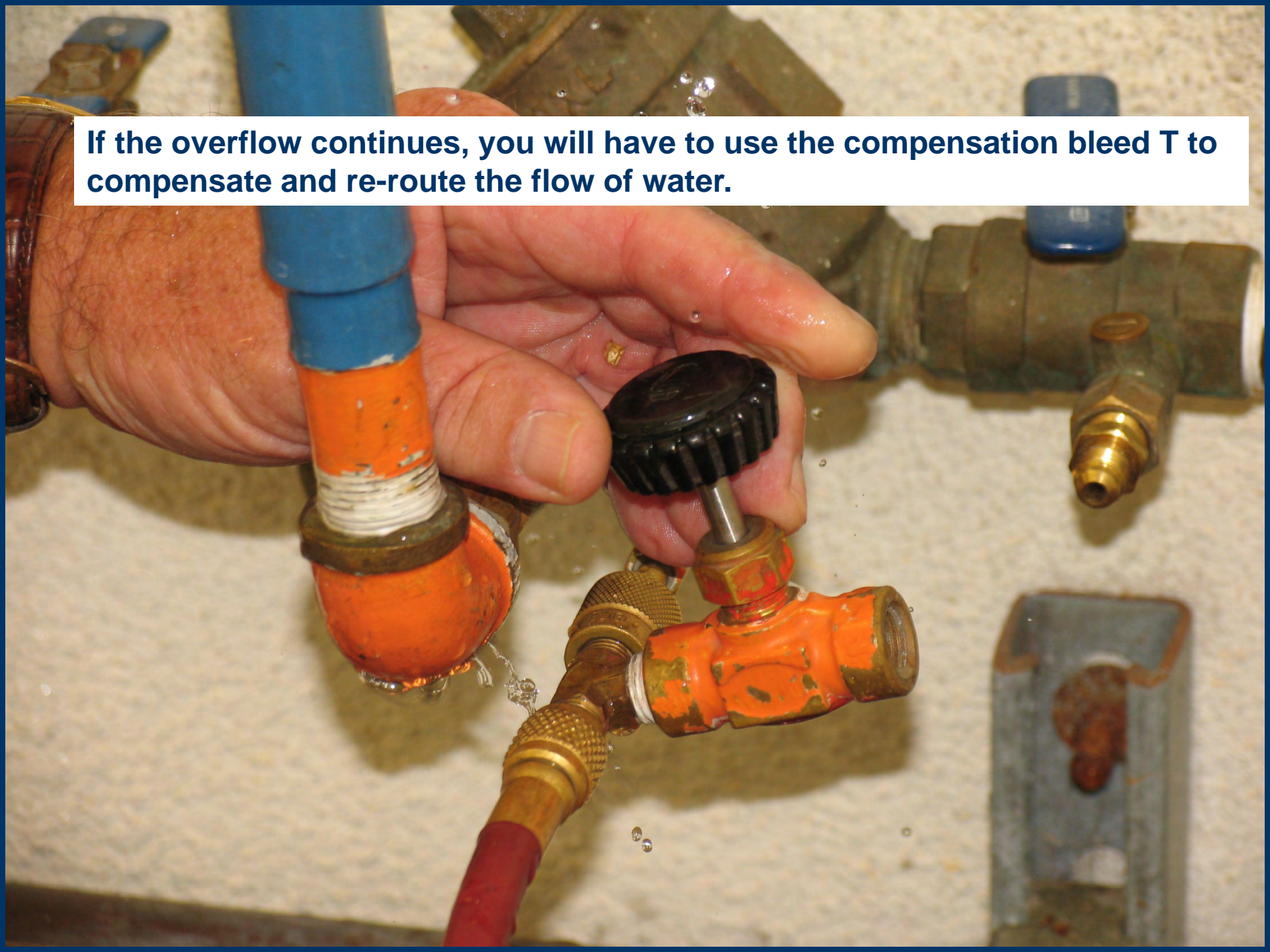
# A Troubleshooting Note:



**When testing check valve #1, if water continues to flow over the tube then you probably have a leaking #1 shutoff valve. You can try to exercise the valve to see if it will seat and seal.**



**If the overflow continues, you will have to use the compensation bleed T to compensate and re-route the flow of water.**





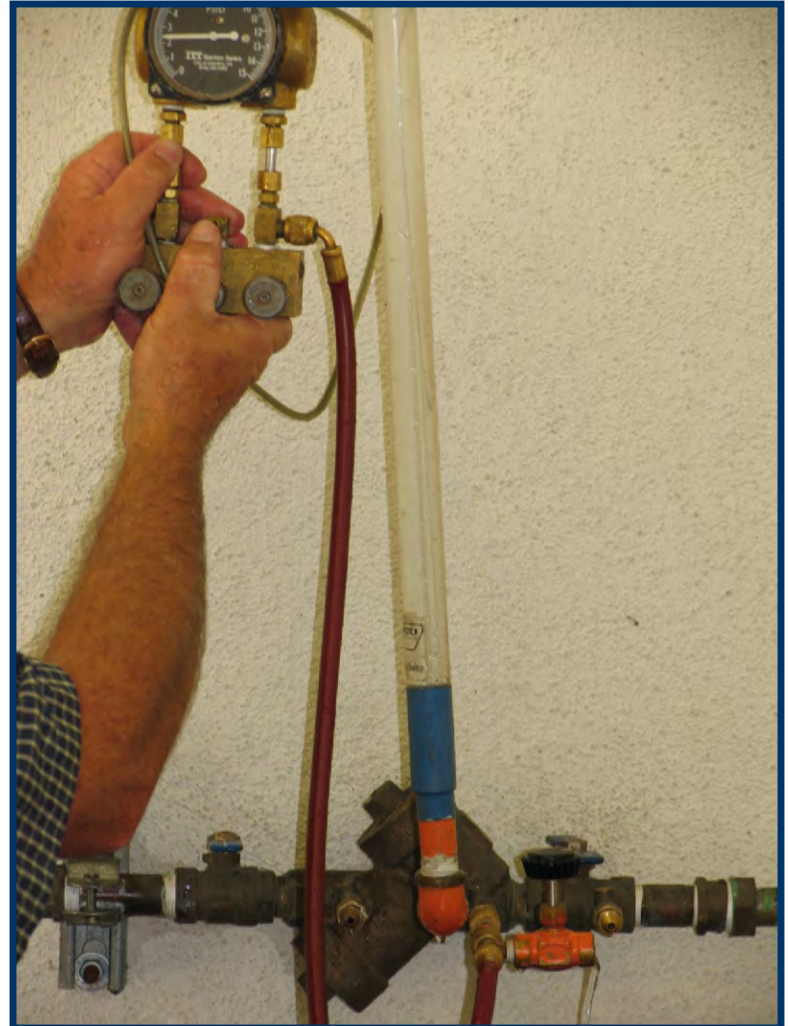
**The key is to gently adjust the compensation bleed valve so that you get just a slight drip out of the test cock.**





**Once the leak has been properly compensated for, the check valve reading can be recorded as shown on the gauge.**

*Refer to pages 498 of the USC Manual for the troubleshooting refresher.*





# Backflow Testing Review: *SVB*





# Backflow Testing Review: SVB

## *Equipment required:*

- An approved and calibrated Differential Pressure Gauge
- 1 high pressure hose (1/4" D x 6 ft. long)
- Adapter fittings for each size test cock
- Bleed-off valve



# Backflow Testing Review: *SVB*

## Preliminary Steps

- **Notify-** Inform the client that you will be testing the assembly
- **Identify-** Verify that you are testing the correct assembly
- **Inspect-** check to make sure that nothing is missing or damaged
- **Observe-** Verify that the area around the assembly is safe to proceed.



## Spill-resistant PVB with the canopy installed.

Upon arrival, what do you observe?

- Missing canopy
- Direction of flow
- Leaky test cocks
- Air Inlet overflowing
- Shutoff valves close/open
- Any hoses connected to the device
- Etc.



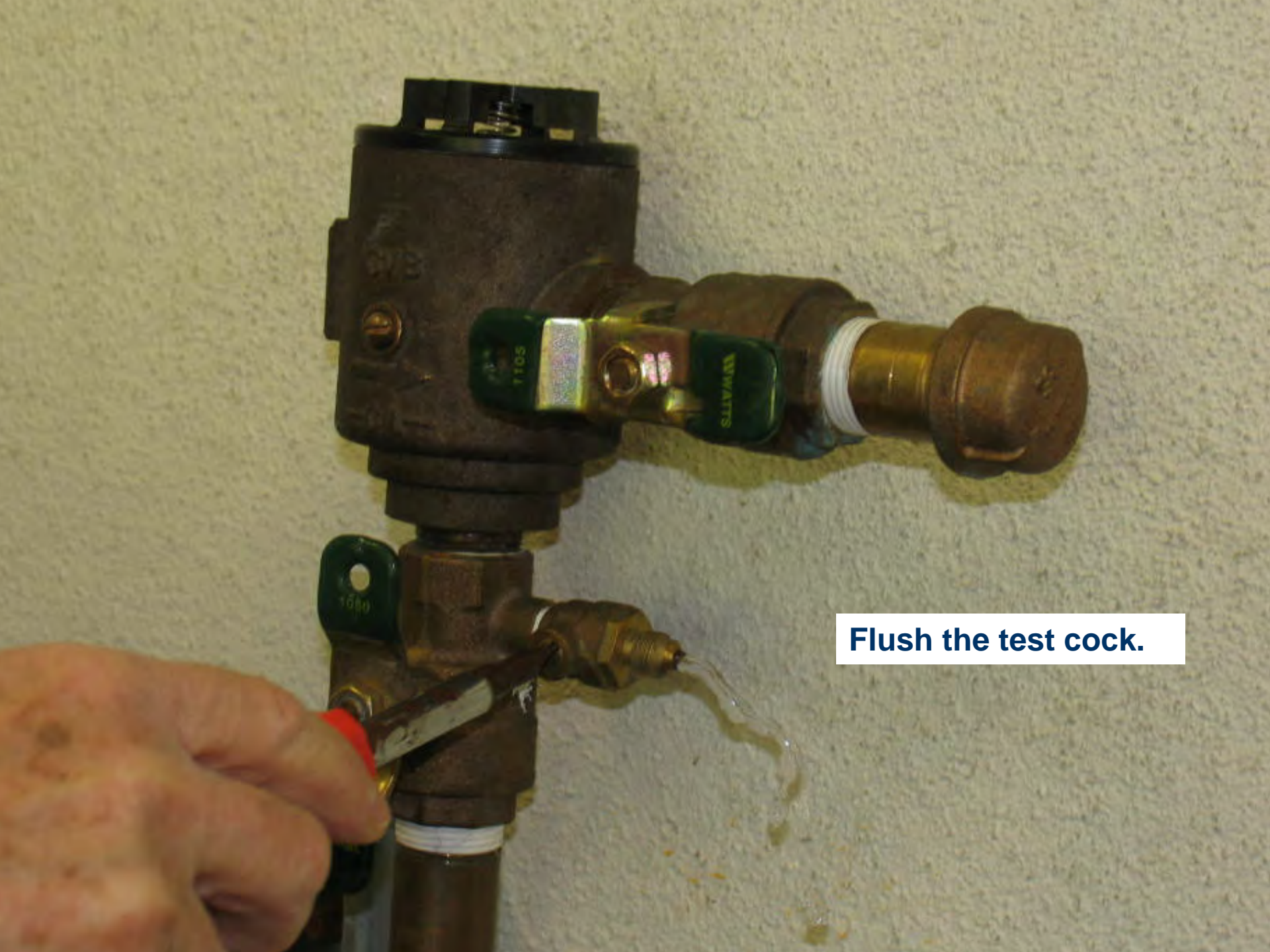


**Remove the canopy from the top of the device.**

**If the canopy is not present, write down your observation in the comment section of your test report.**







**Flush the test cock.**

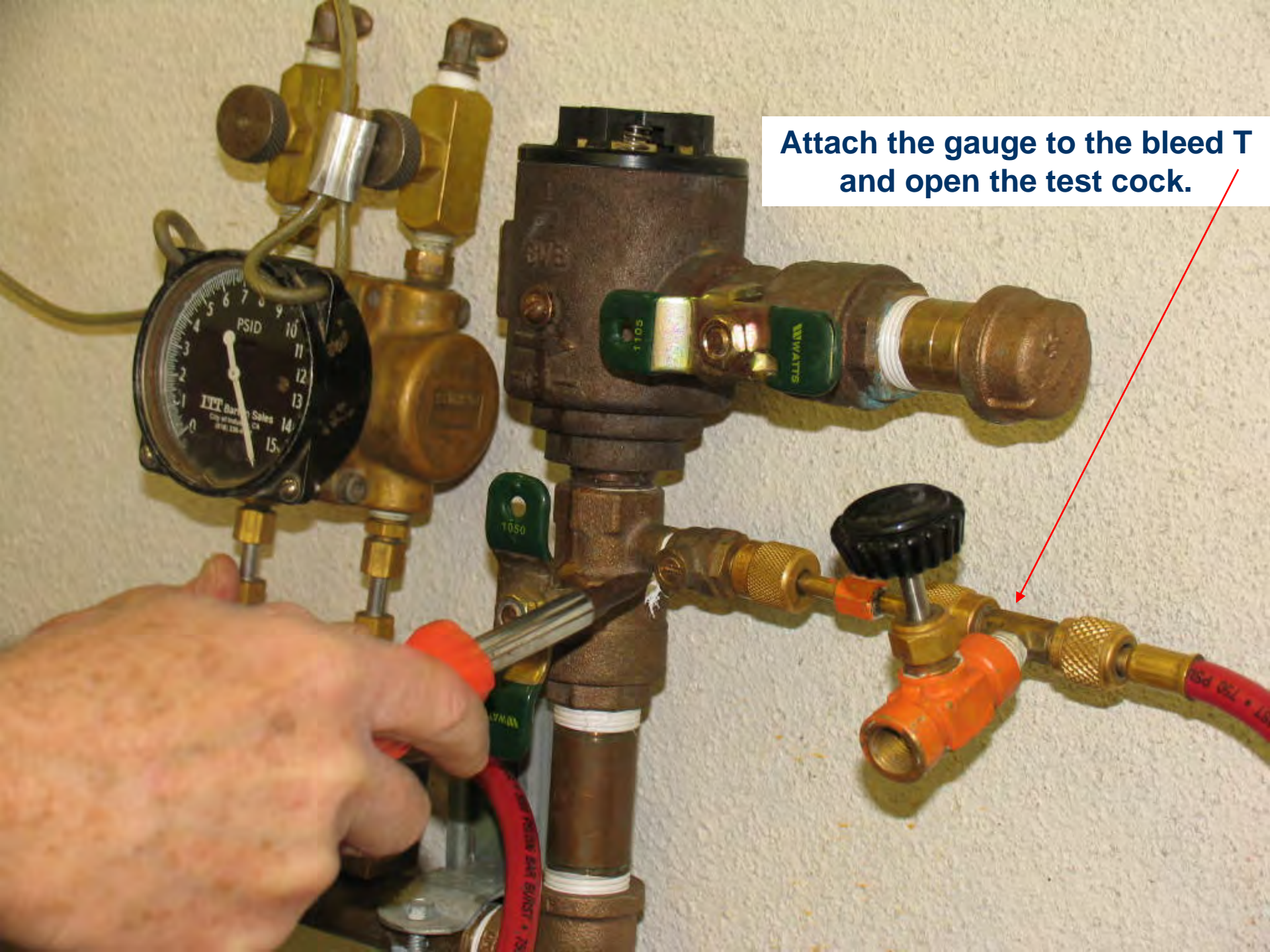


**Flush the vent by opening the vent screw.**



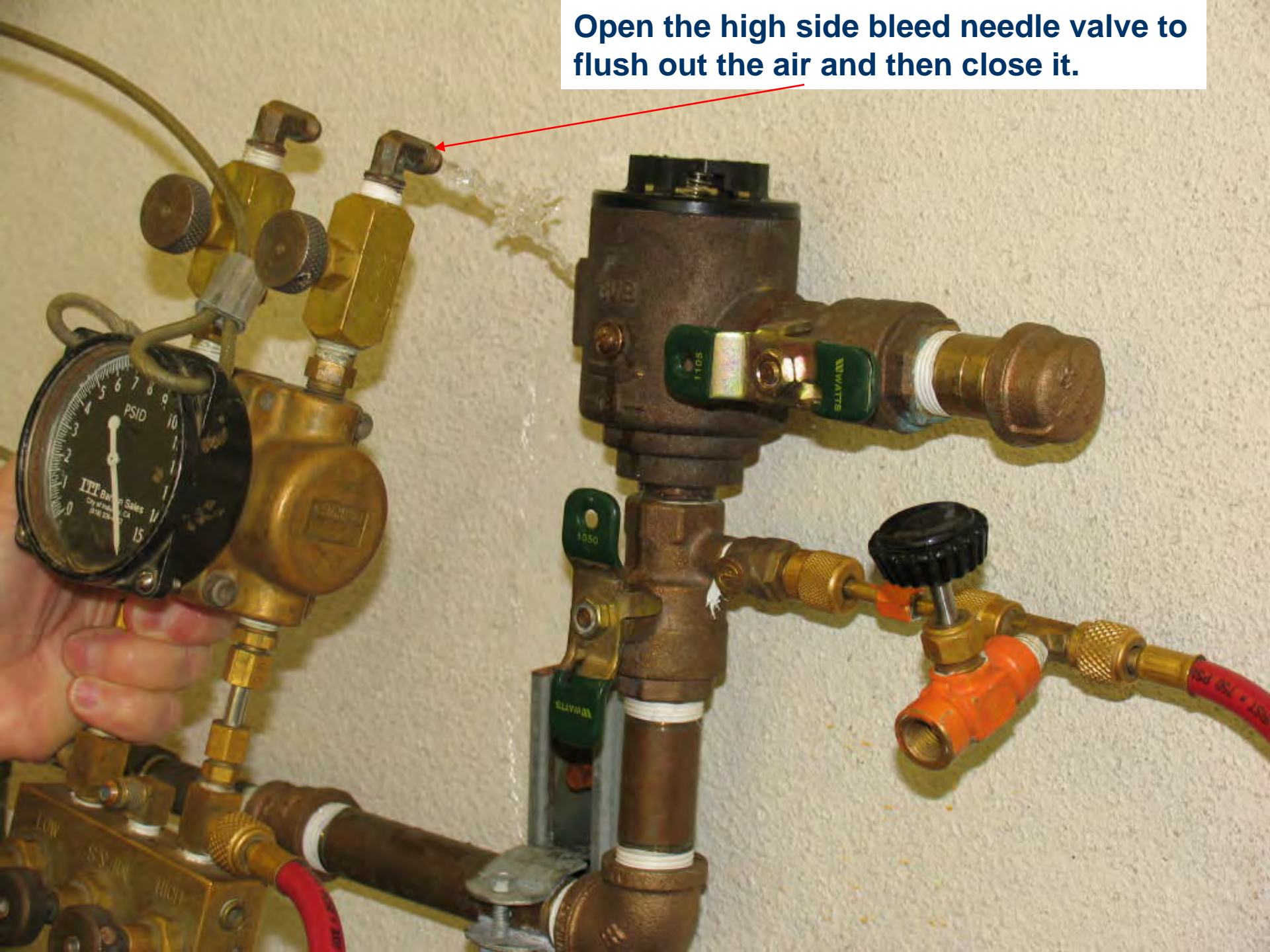


**Attach the gauge to the bleed T and open the test cock.**



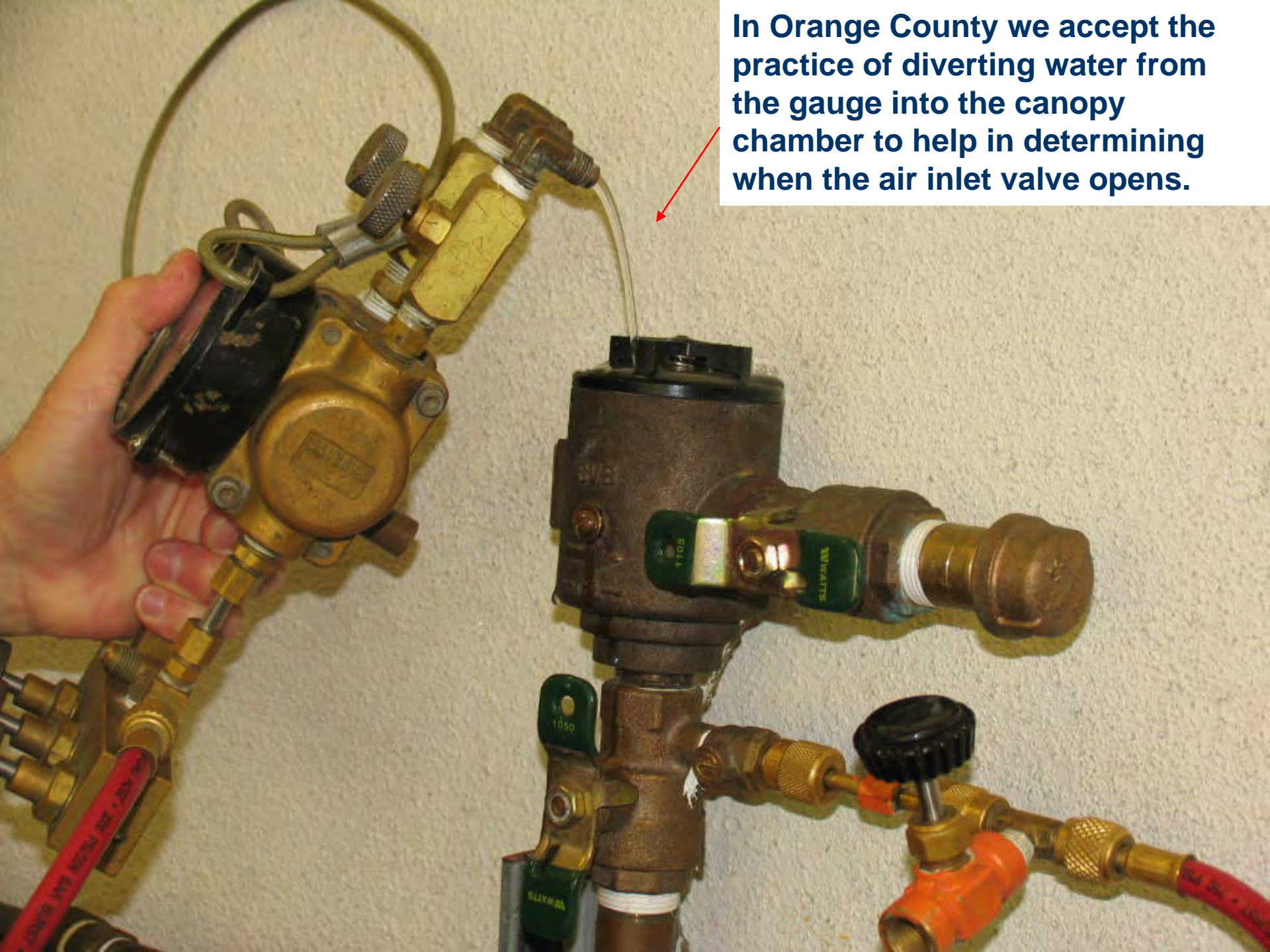


Open the high side bleed needle valve to flush out the air and then close it.



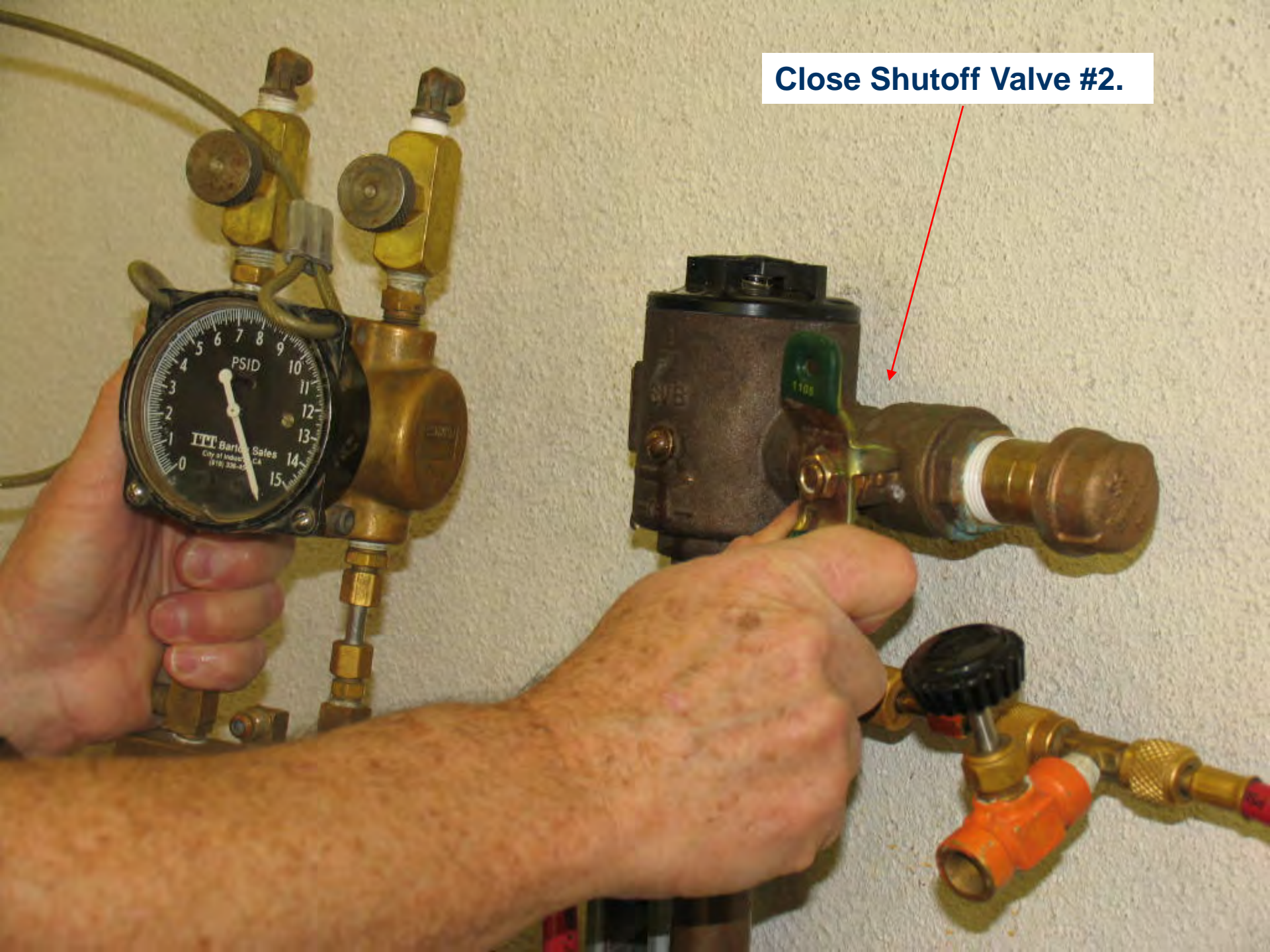


In Orange County we accept the practice of diverting water from the gauge into the canopy chamber to help in determining when the air inlet valve opens.



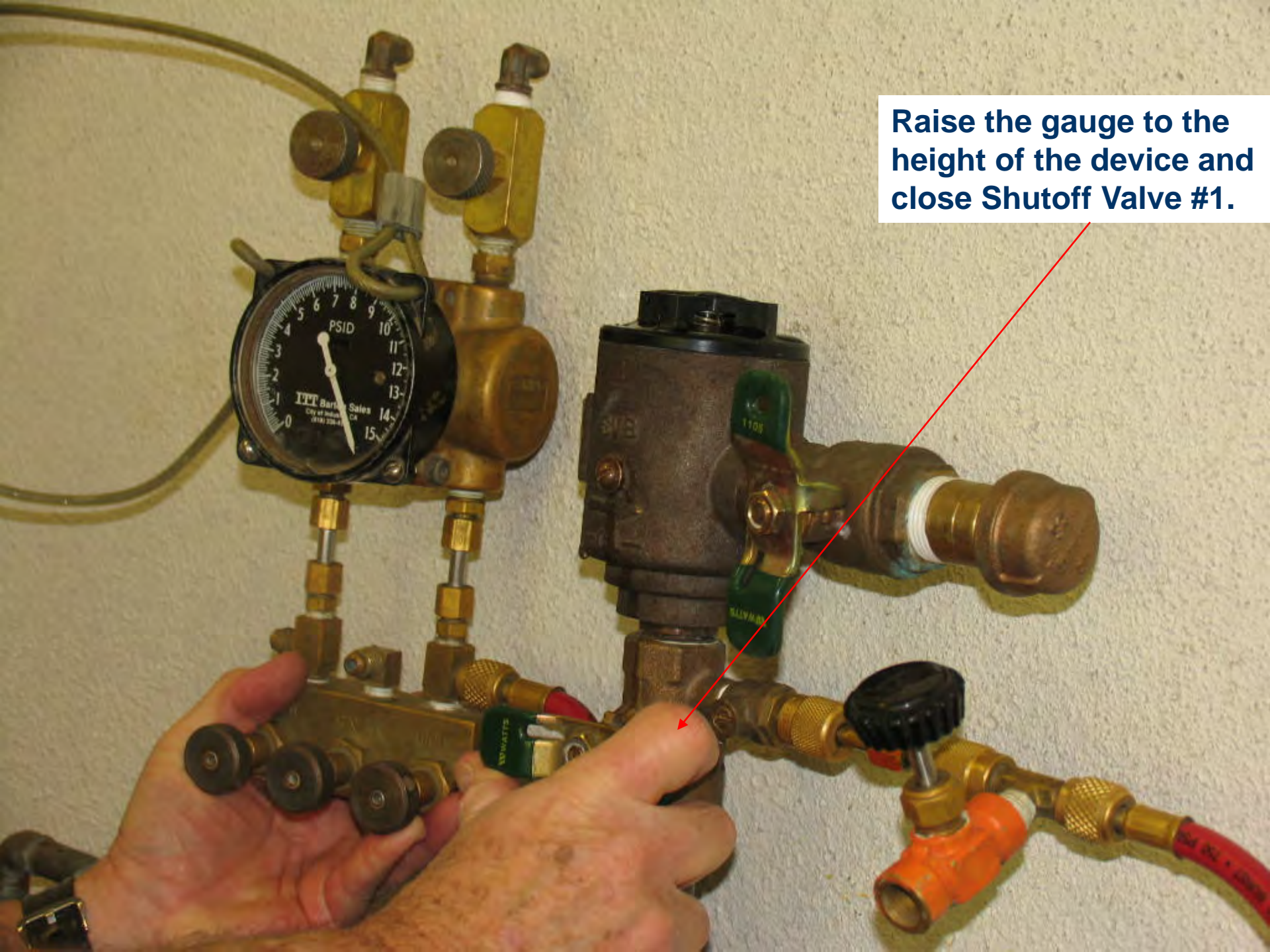


**Close Shutoff Valve #2.**





**Raise the gauge to the height of the device and close Shutoff Valve #1.**





**Open the vent screw to drop the outlet pressure to atmospheric pressure.**



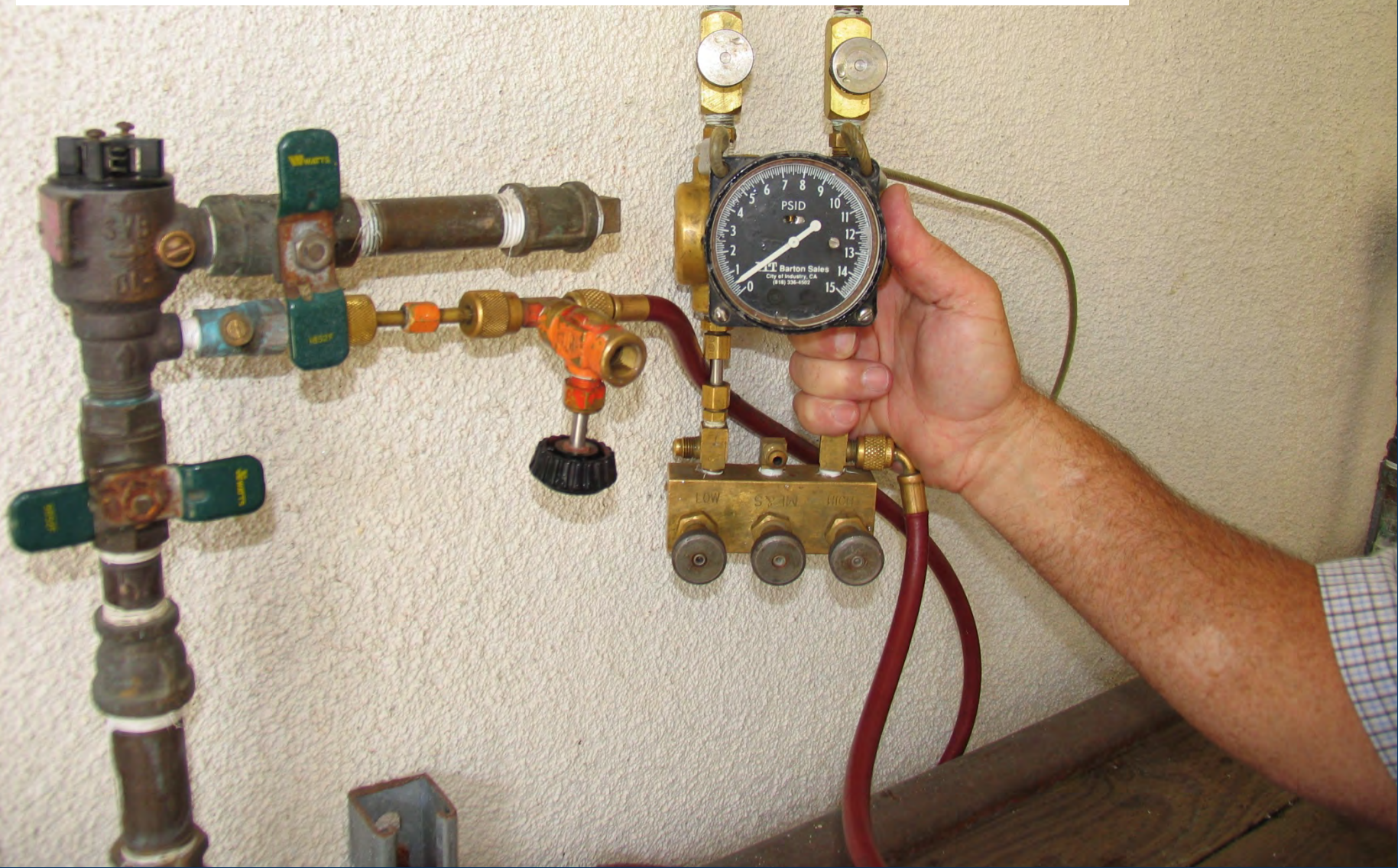


With the vent screw removed (DO NOT LOSE) and the gauge at the height of the device, record the static pressure across the check valve. **The reading must be a minimum of 1.0 PSI.**



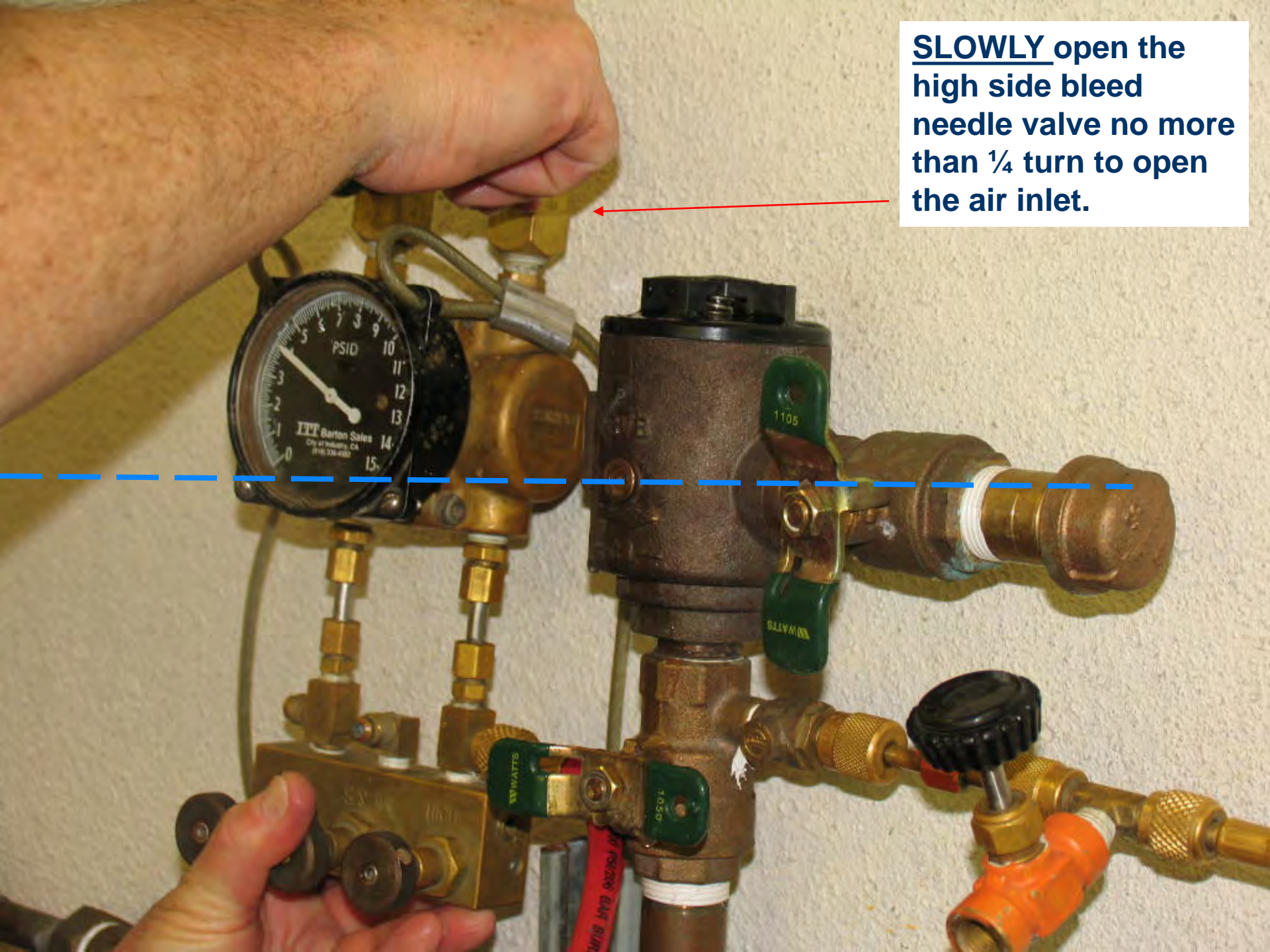


**Remember, if you have a leaking #1 shutoff valve, you can always use the compensation bleed T to complete the test.**



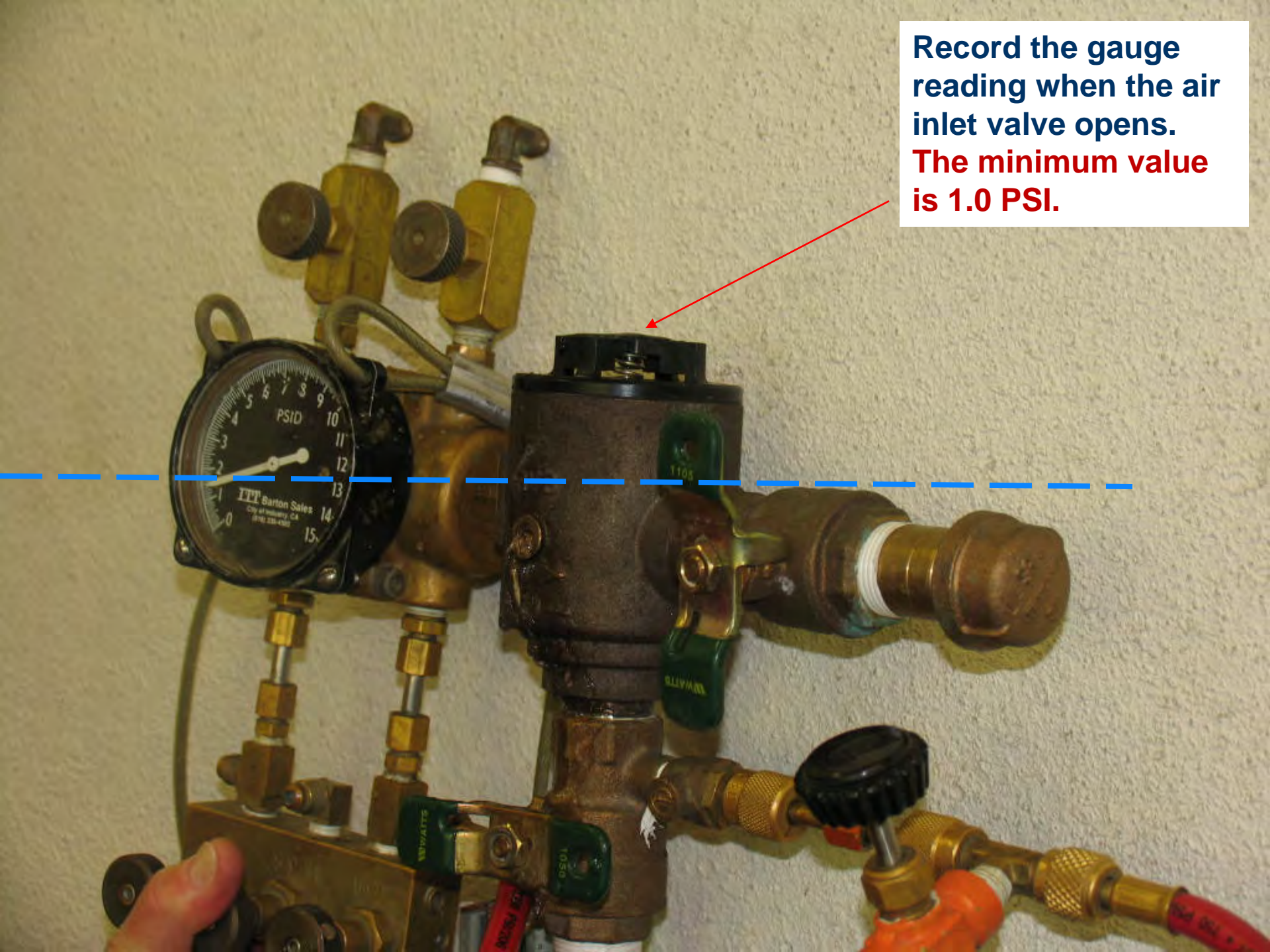


**SLOWLY** open the high side bleed needle valve no more than  $\frac{1}{4}$  turn to open the air inlet.





Record the gauge reading when the air inlet valve opens.  
**The minimum value is 1.0 PSI.**





**Remove the high side  
hose from the test cock to  
drain water from the  
body.....**





....and look down into the chamber and verify the air inlet valve has opened fully or not.





**Close the vent screw and test  
cock, remove the test gear,  
open Shut Off Valve #1 then  
slowly #2, and replace the  
canopy.**






# Backflow Testing Review: SVB

## Final Steps:

1. Restore water to the customer (or leave how the shut-off valves were initially found)
2. Fill out the test form correctly and completely
3. Submit the form to the water purveyor AND OCHCA



Please return to appropriate water purveyor  
AND the County of Orange at:  
OC Backflow Testing/OCHCA  
714-4336481 (fax) or  
1241 E. Dyer Rd. #120  
Santa Ana, CA 92705

**BACKFLOW PREVENTION ASSEMBLY TEST AND MAINTENANCE REPORT**

OWNER: \_\_\_\_\_ ADDRESS: \_\_\_\_\_  
 MANUFACTURE: \_\_\_\_\_ MODEL: \_\_\_\_\_ SIZE: \_\_\_\_\_ TYPE: \_\_\_\_\_  
 SERIAL NUMBER: \_\_\_\_\_ LOCATION: \_\_\_\_\_

	REDUCED PRESSURE PRINCIPLE ASSEMBLY			LINE PRESSURE
	DOUBLE CHECK VALVE ASSEMBLY			
	CHECK VALVE #1	CHECK VALVE #2	RELIEF VALVE	PVB/SVB
INITIAL TEST	HELD AT _____ PSID	HELD AT _____ PSID	OPENED AT _____ PSID	AIR INLET _____ PSID
	CLOSED TIGHT <input type="checkbox"/>	CLOSED TIGHT <input type="checkbox"/>	DID NOT OPEN <input type="checkbox"/>	DID NOT OPEN <input type="checkbox"/>
	FAILED <input type="checkbox"/>	FAILED <input type="checkbox"/>		AIR INLET FULLY OPEN
	LEAKED <input type="checkbox"/>	LEAKED <input type="checkbox"/>		YES <input type="checkbox"/>
REPAIRS	<input type="checkbox"/> CLEANED	<input type="checkbox"/> CLEANED	<input type="checkbox"/> CLEANED	NO <input type="checkbox"/>
	_____	_____	_____	CHECK VALVE
	_____	_____	_____	HELD AT _____ PSID
	_____	_____	_____	CLOSED TIGHT <input type="checkbox"/>
	_____	_____	_____	FAILED <input type="checkbox"/>
	_____	_____	_____	LEAKED <input type="checkbox"/>
	<input type="checkbox"/> REPLACED	<input type="checkbox"/> REPLACED	<input type="checkbox"/> REPLACED	<input type="checkbox"/> CLEANED
	_____	_____	_____	<input type="checkbox"/> REPLACED
FINAL TEST	HELD AT _____ PSID	HELD AT _____ PSID	OPENED AT _____ PSID	AIR INLET _____ PSID
	CLOSED TIGHT <input type="checkbox"/>	CLOSED TIGHT <input type="checkbox"/>		OPENED AT FULLY OPEN <input type="checkbox"/>
				YES <input type="checkbox"/>
				CHECK VALVE
				HELD AT _____ PSID

COMMENTS \_\_\_\_\_

INITIAL TEST (Signature) \_\_\_\_\_ Print Name \_\_\_\_\_ CERT. TEST NO. \_\_\_\_\_ DATE \_\_\_\_\_

FINAL TEST (Signature) \_\_\_\_\_ Print Name \_\_\_\_\_ CERT. TEST NO. \_\_\_\_\_ DATE \_\_\_\_\_

TESTER'S COMPANY NAME \_\_\_\_\_ TESTER'S PHONE NUMBER \_\_\_\_\_

AUGUST 2013



# Backflow Testing Review: *PVB*





# Backflow Testing Review: *PVB*

## *Equipment required:*

- An approved and calibrated Differential Pressure Gauge
- 1 high pressure hose (1/4" D x 6 ft. long)
- Adapter fittings for each size test cock
- Bleed-off valve



# Backflow Testing Review: *PVB*

## Preliminary Steps

- **Notify-** Inform the client that you will be testing the assembly
- **Identify-** Verify that you are testing the correct assembly
- **Inspect-** check to make sure that nothing is missing or damaged
- **Observe-** Verify that the area around the assembly is safe to proceed.

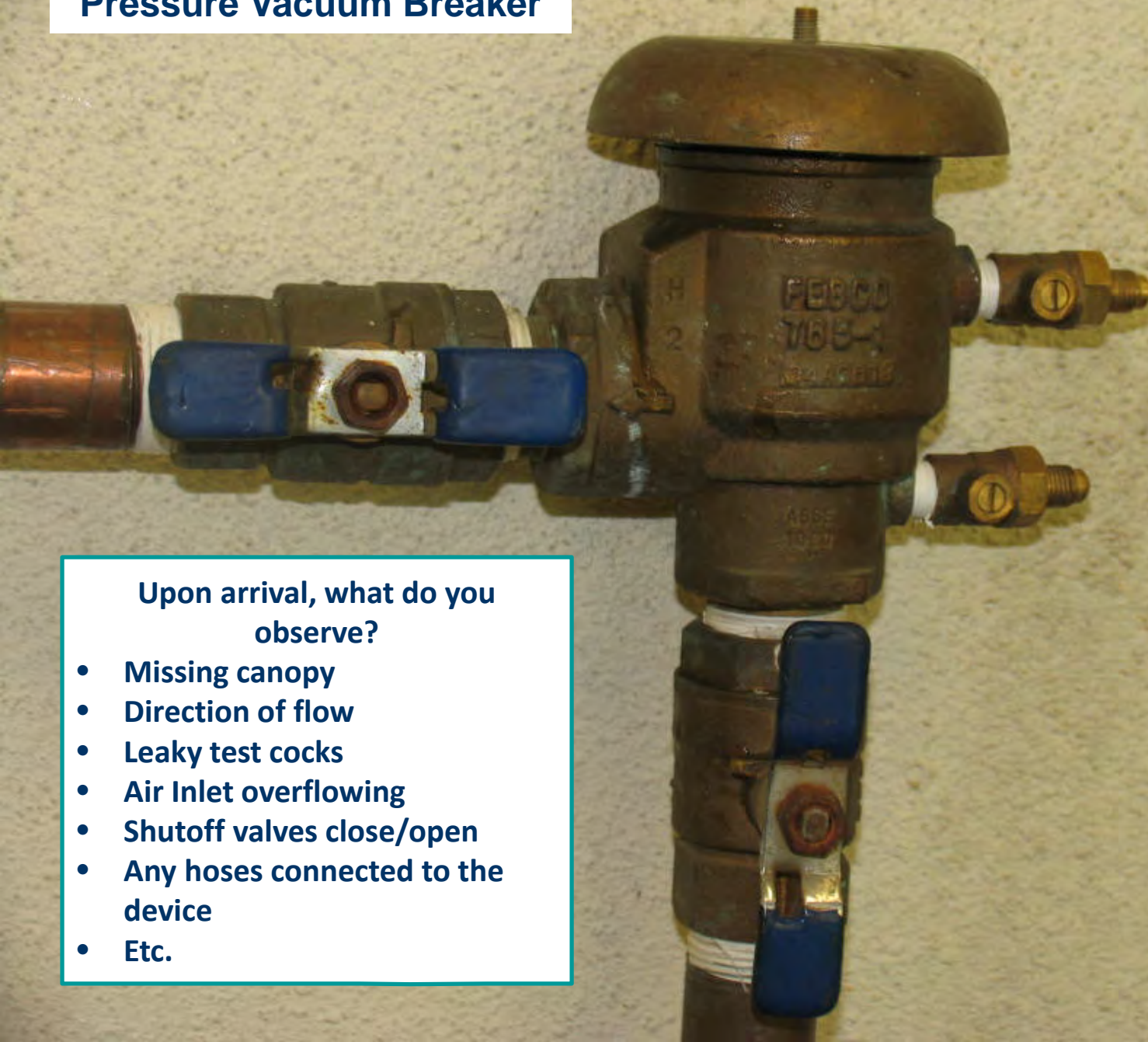


**REMEMBER THAT GAUGE  
HEIGHT AND LOOSE HOSES  
WILL AFFECT YOUR  
READINGS!!**





## Pressure Vacuum Breaker



Upon arrival, what do you observe?

- Missing canopy
- Direction of flow
- Leaky test cocks
- Air Inlet overflowing
- Shutoff valves close/open
- Any hoses connected to the device
- Etc.



A close-up photograph of a person's hand removing the clear plastic canopy from a showerhead. The showerhead is mounted on a wall and has two brass handles on the right side. The hand is positioned on the left, pulling the canopy away from the top of the showerhead. The background is a light-colored, textured wall.

**Remove the canopy.**



**Flush and close  
the No. 1 test cock  
to remove any  
debris.**

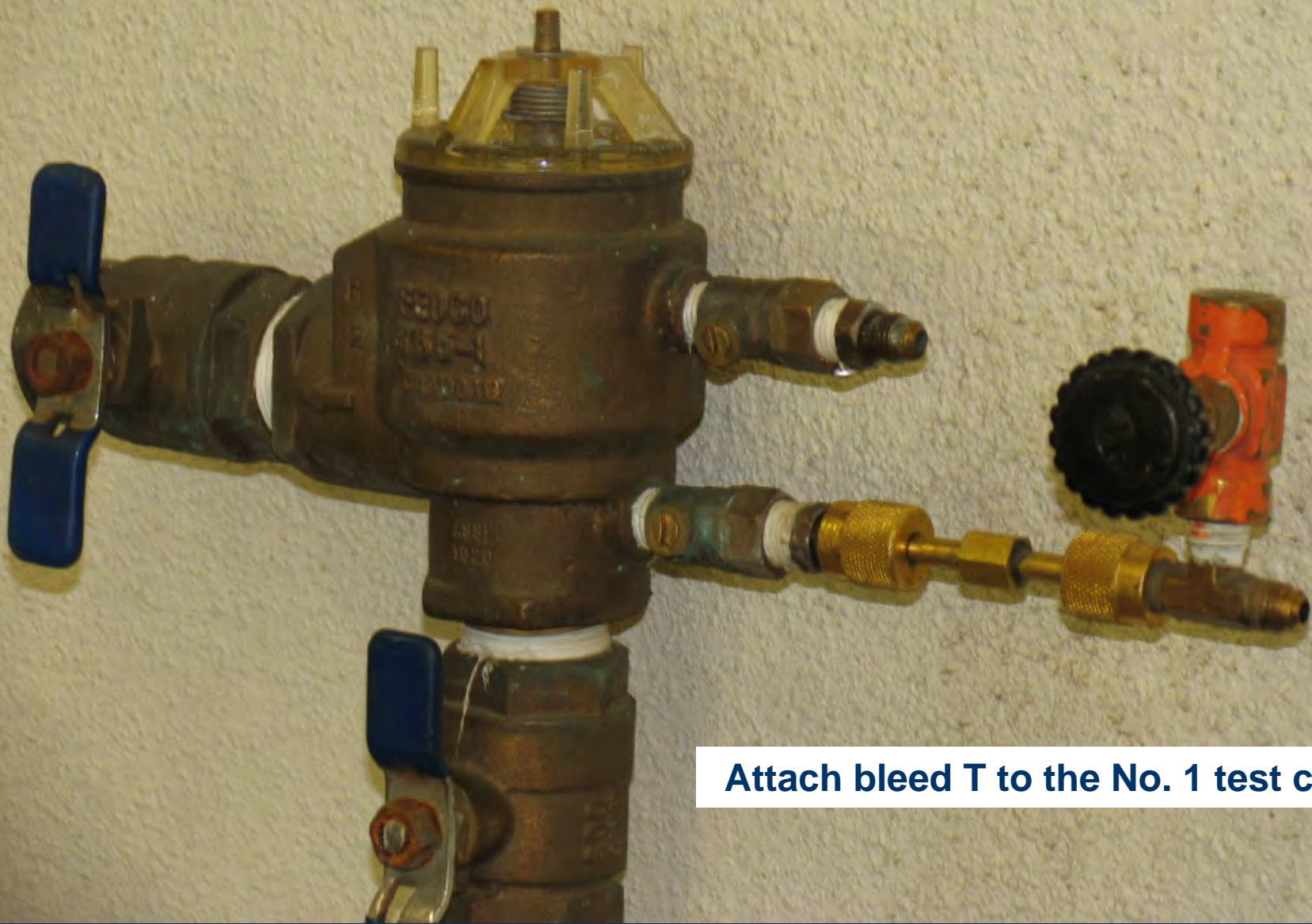




**Flush and close  
the No. 2 test cock  
to remove any  
debris.**



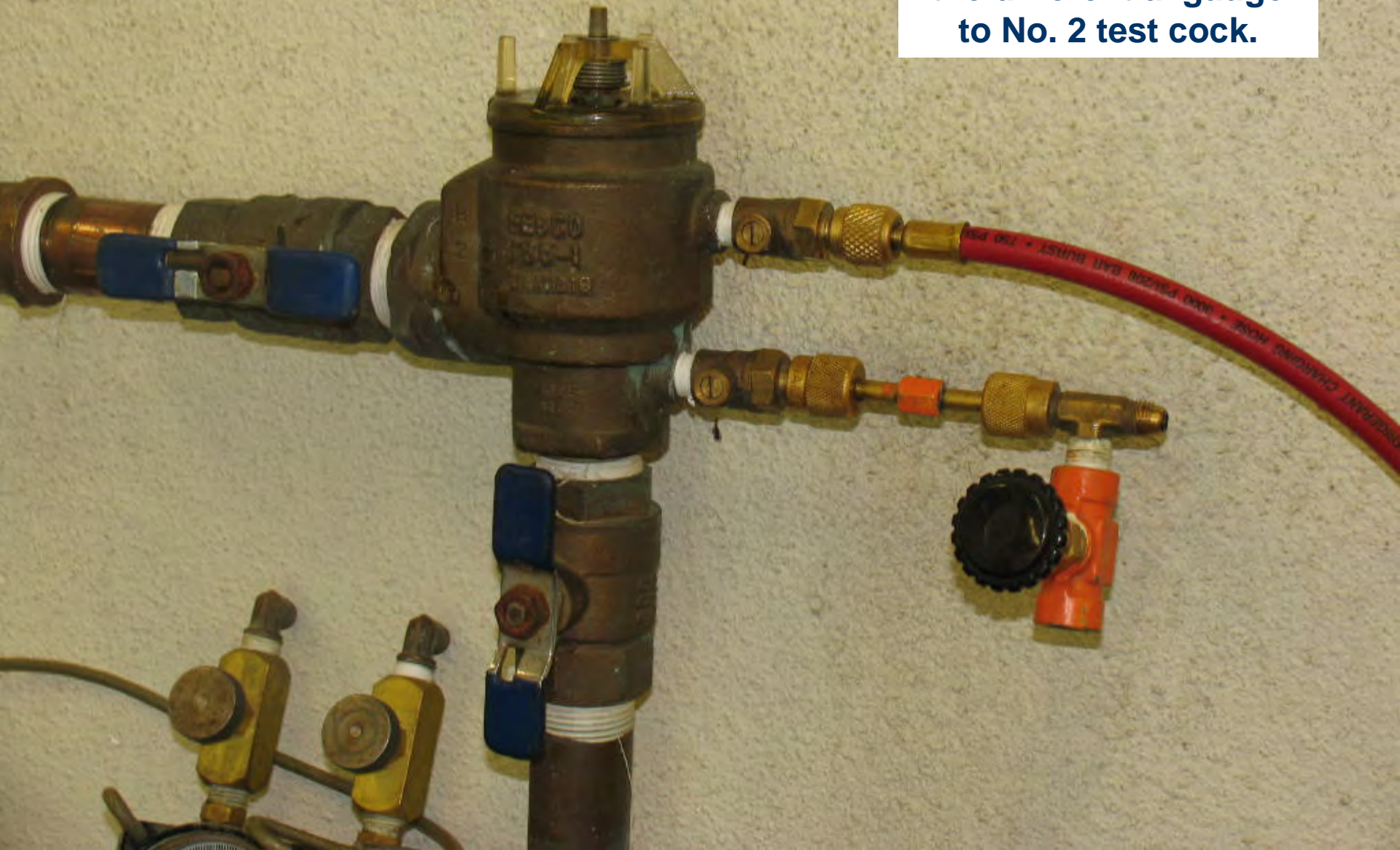




**Attach bleed T to the No. 1 test cock.**



**Attach the high side of the differential gauge to No. 2 test cock.**



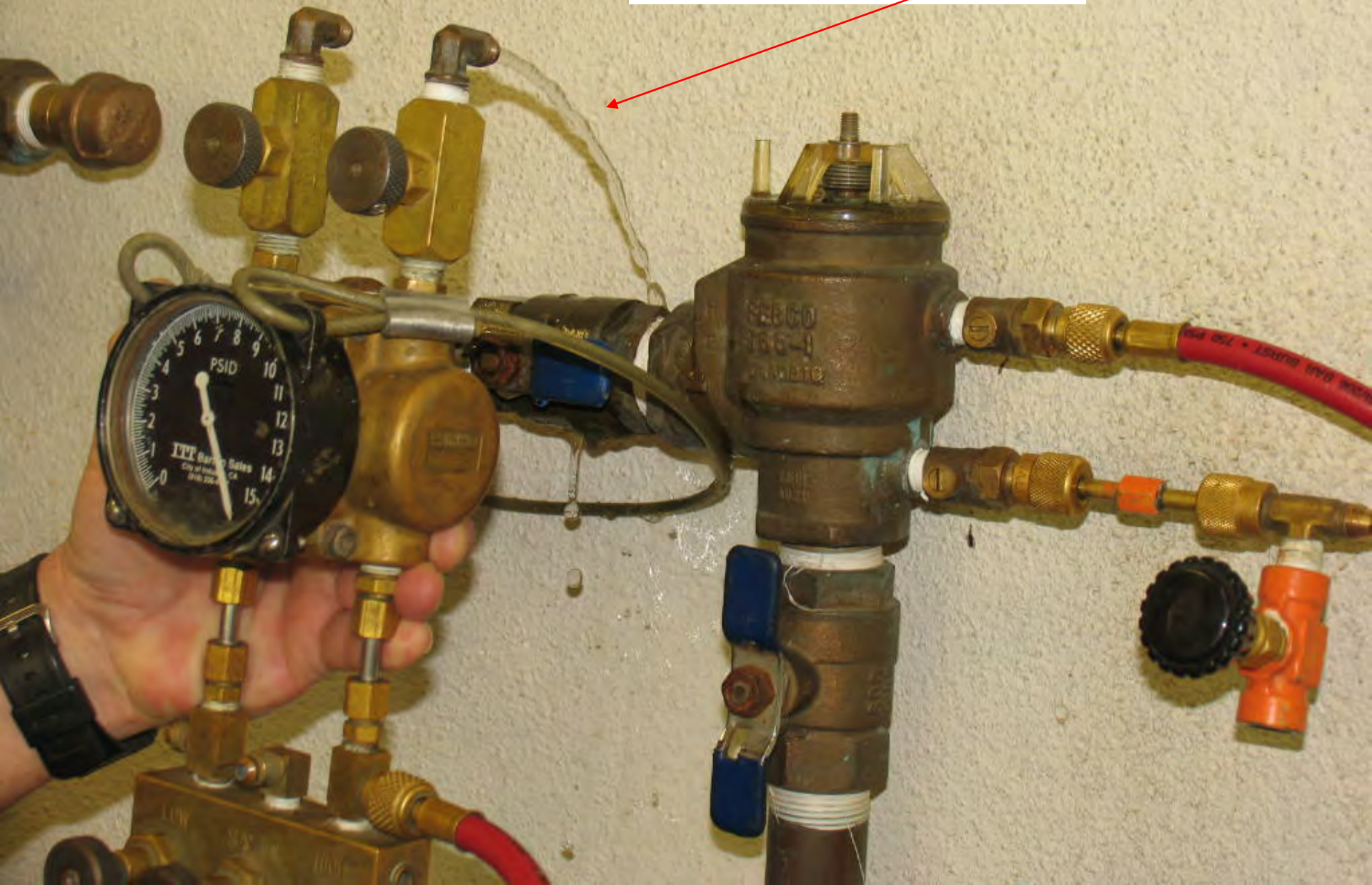


Open the No. 2 test cock.



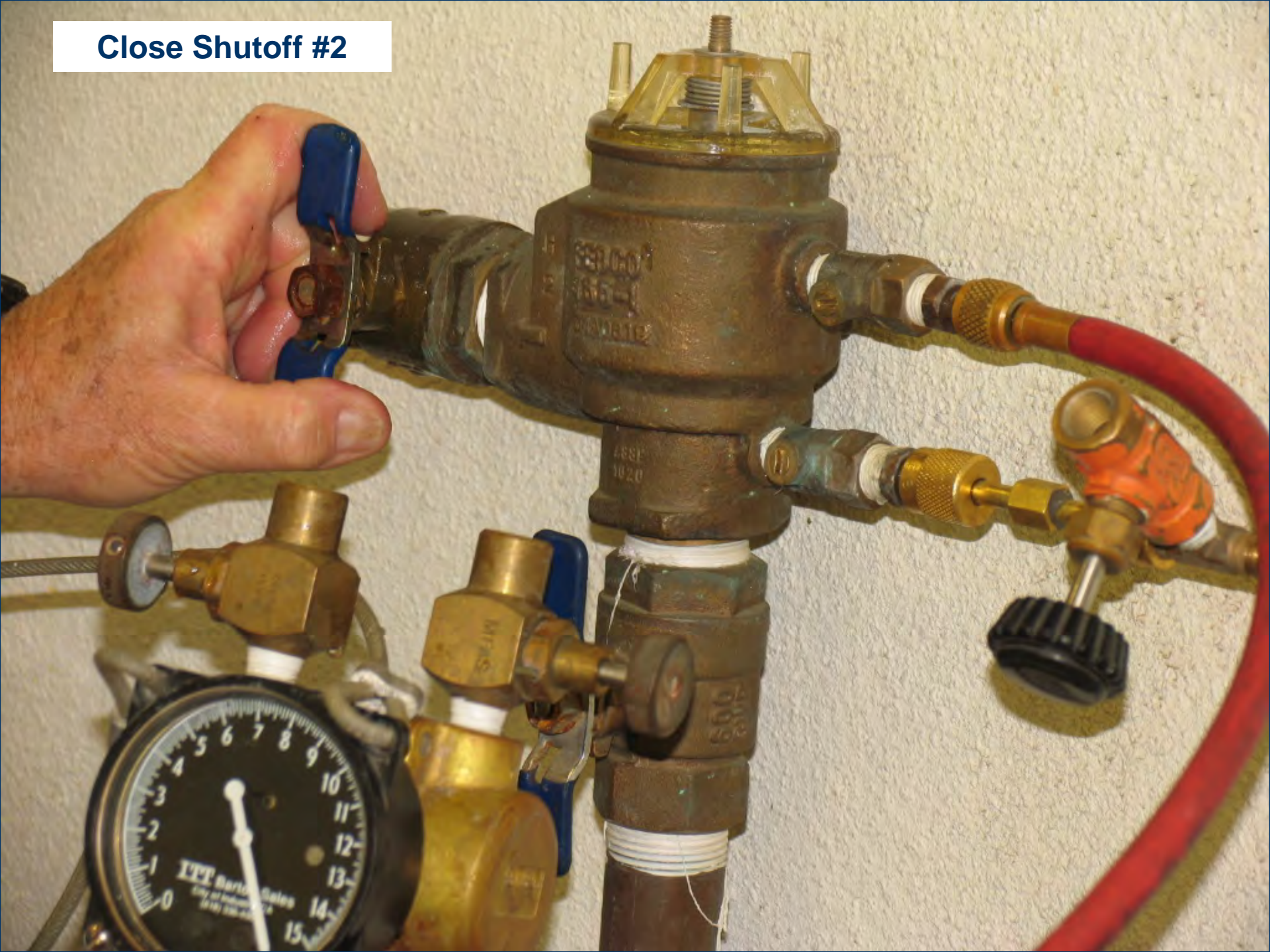


Open the high side bleed to remove air and then close the high side bleed .



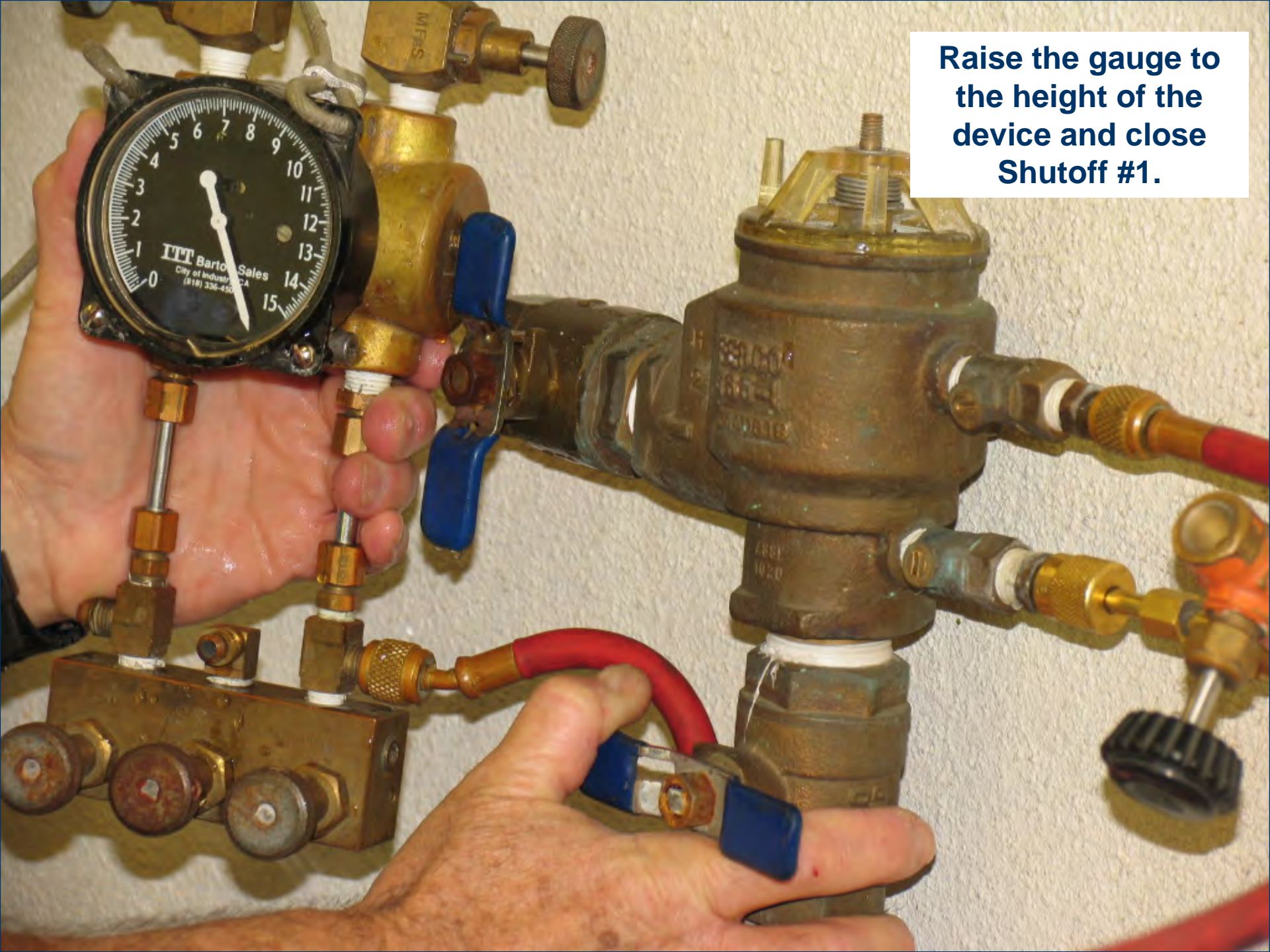


## Close Shutoff #2





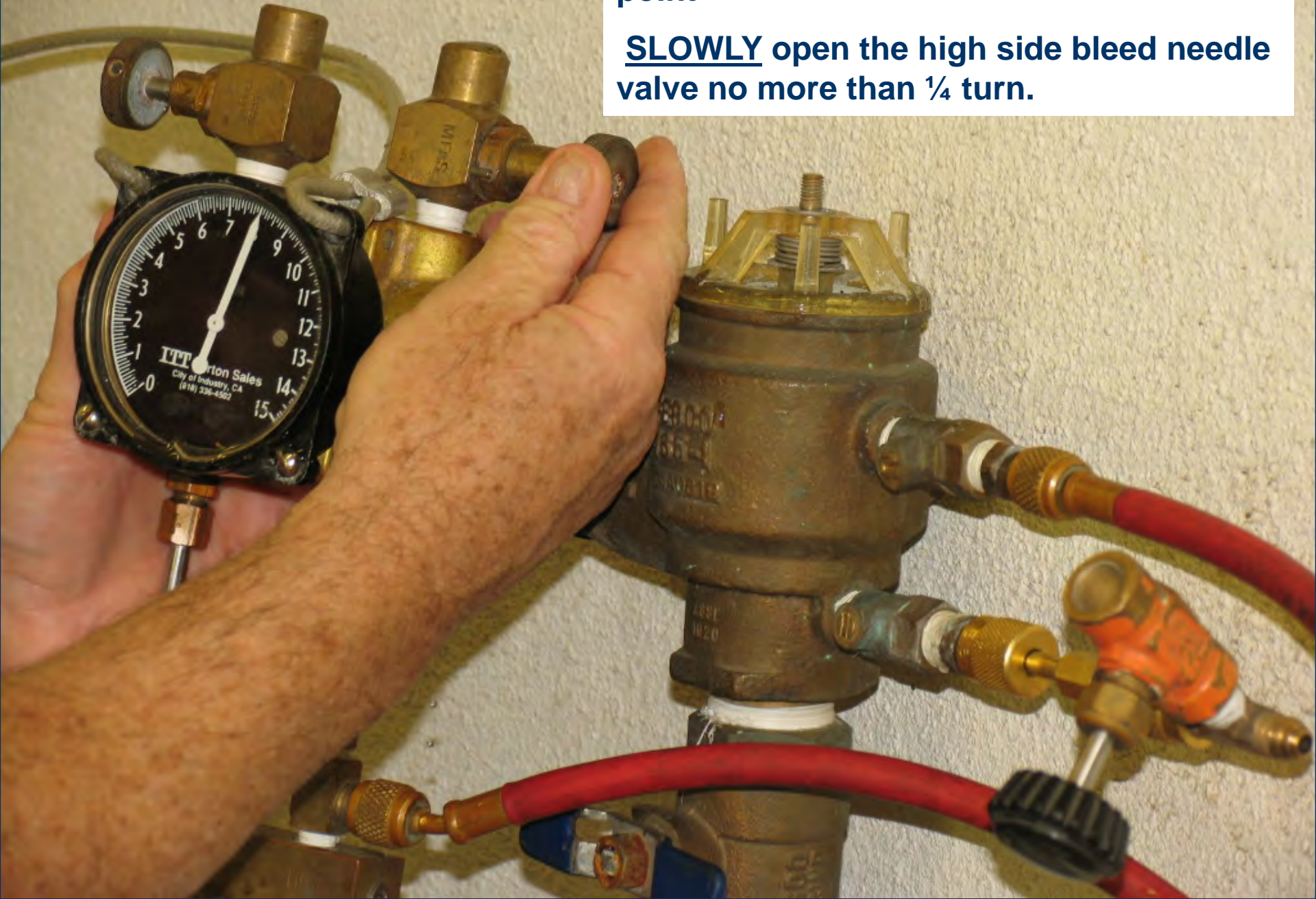
**Raise the gauge to the height of the device and close Shutoff #1.**





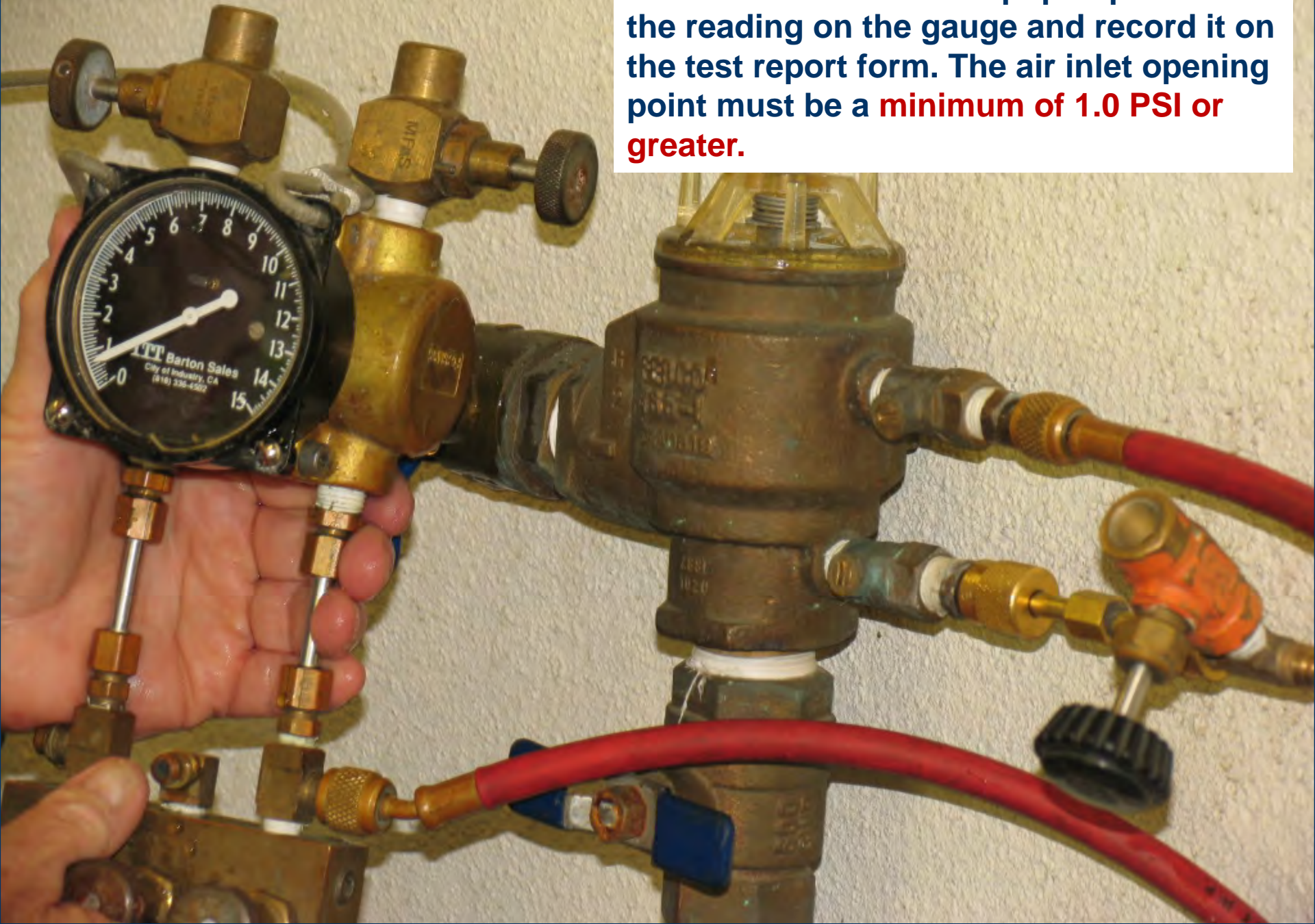
First you will test the air inlet opening point

**SLOWLY** open the high side bleed needle valve no more than  $\frac{1}{4}$  turn.





When the air inlet valve pops opens note the reading on the gauge and record it on the test report form. The air inlet opening point must be a **minimum of 1.0 PSI or greater.**





**Remove the high side hose from No. 2 test cock.**







**Allow water to drain from the device body until there is a break in flow....**



...and then observe the air inlet valve to ensure it fully opened.







**Close the No. 2 test cock  
and turn on Shutoff Valve  
#1 to pressurize the  
device.**





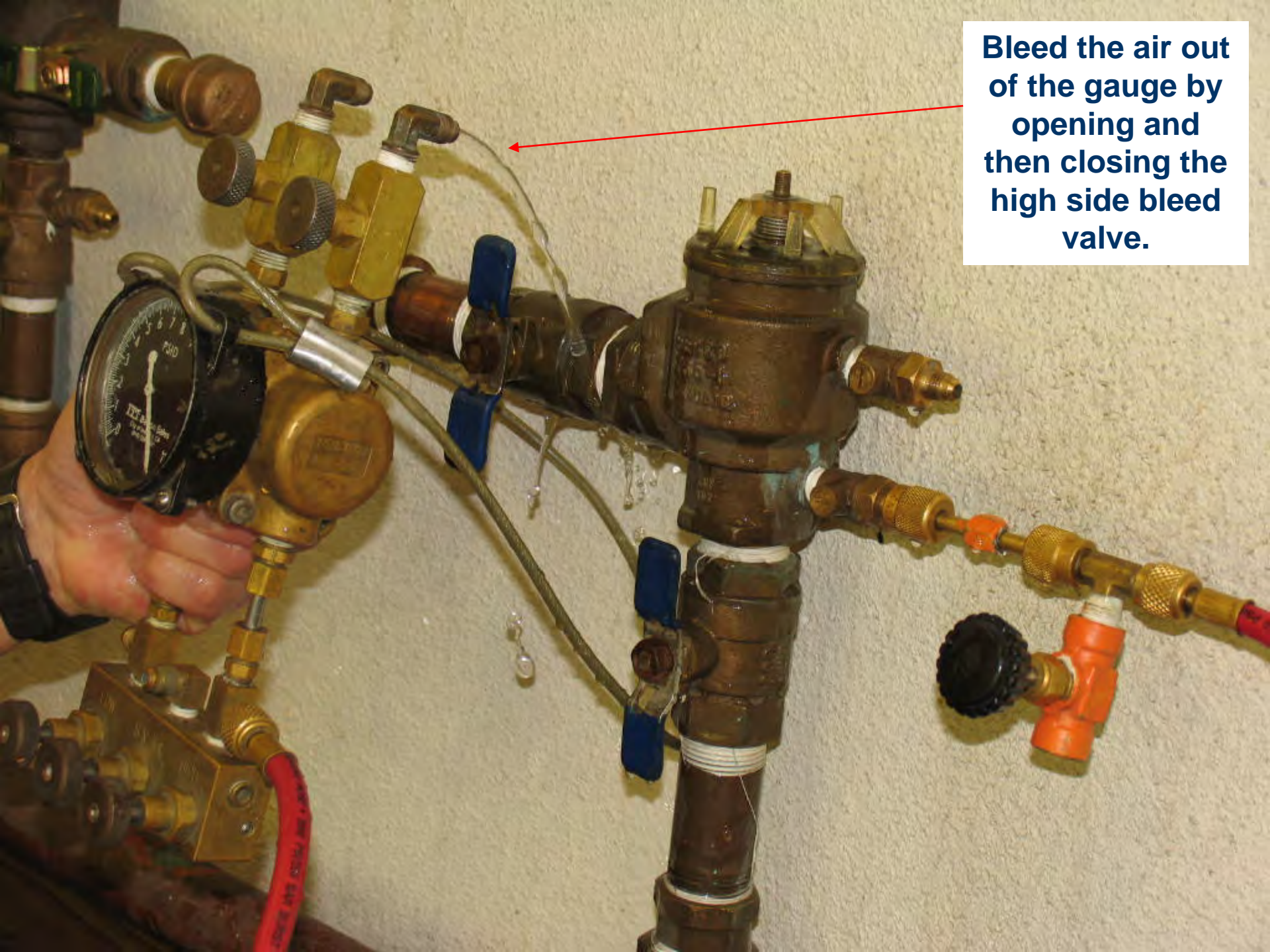


**Connect the gauge to the bleed off arraignment on No. 1 test cock then open the No. 1 test cock to pressurize the gauge.**



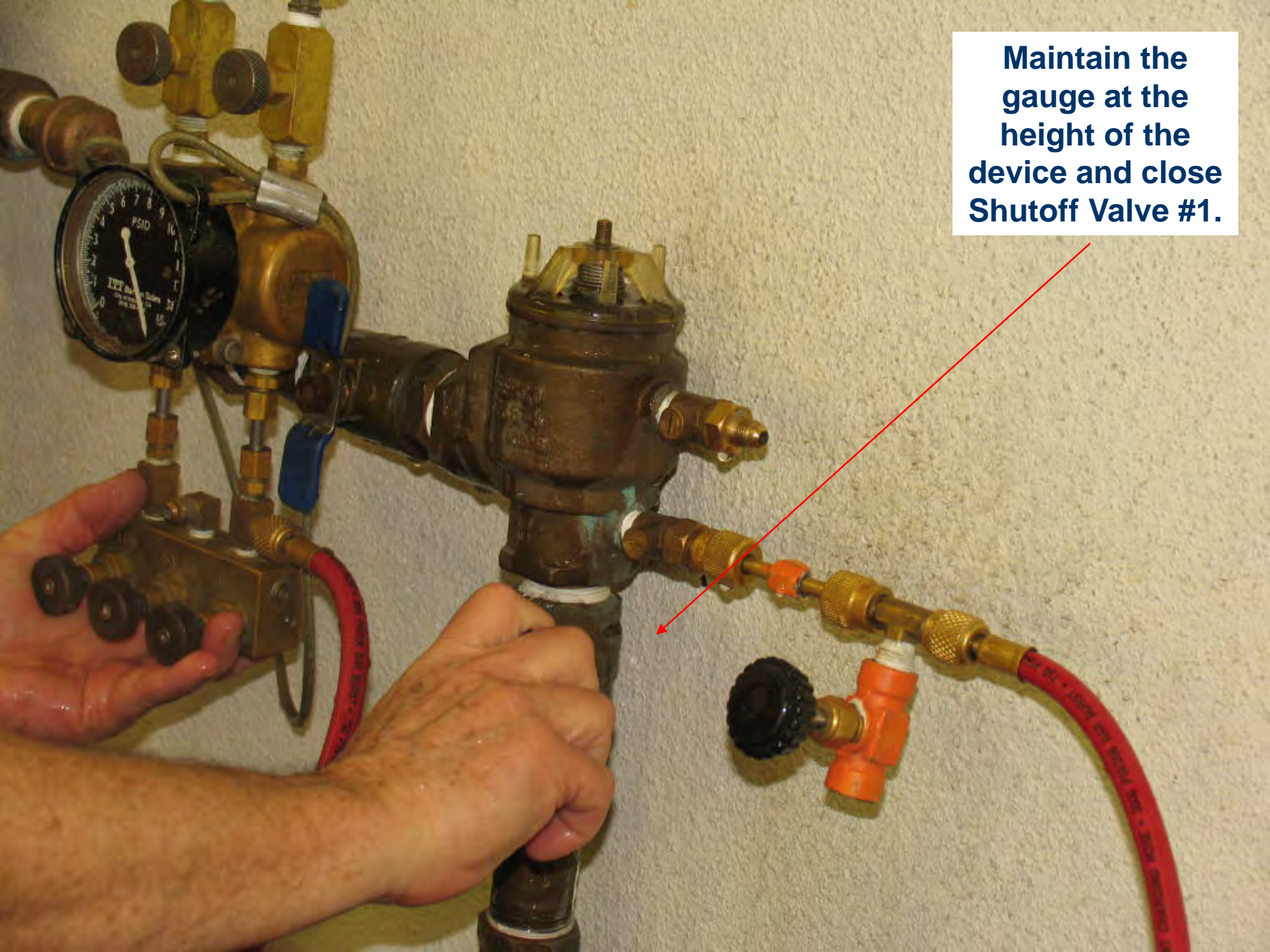


**Bleed the air out of the gauge by opening and then closing the high side bleed valve.**





**Maintain the gauge at the height of the device and close Shutoff Valve #1.**





**Open the No. 2 test  
cock and allow water  
to drain from the body  
of the device.**





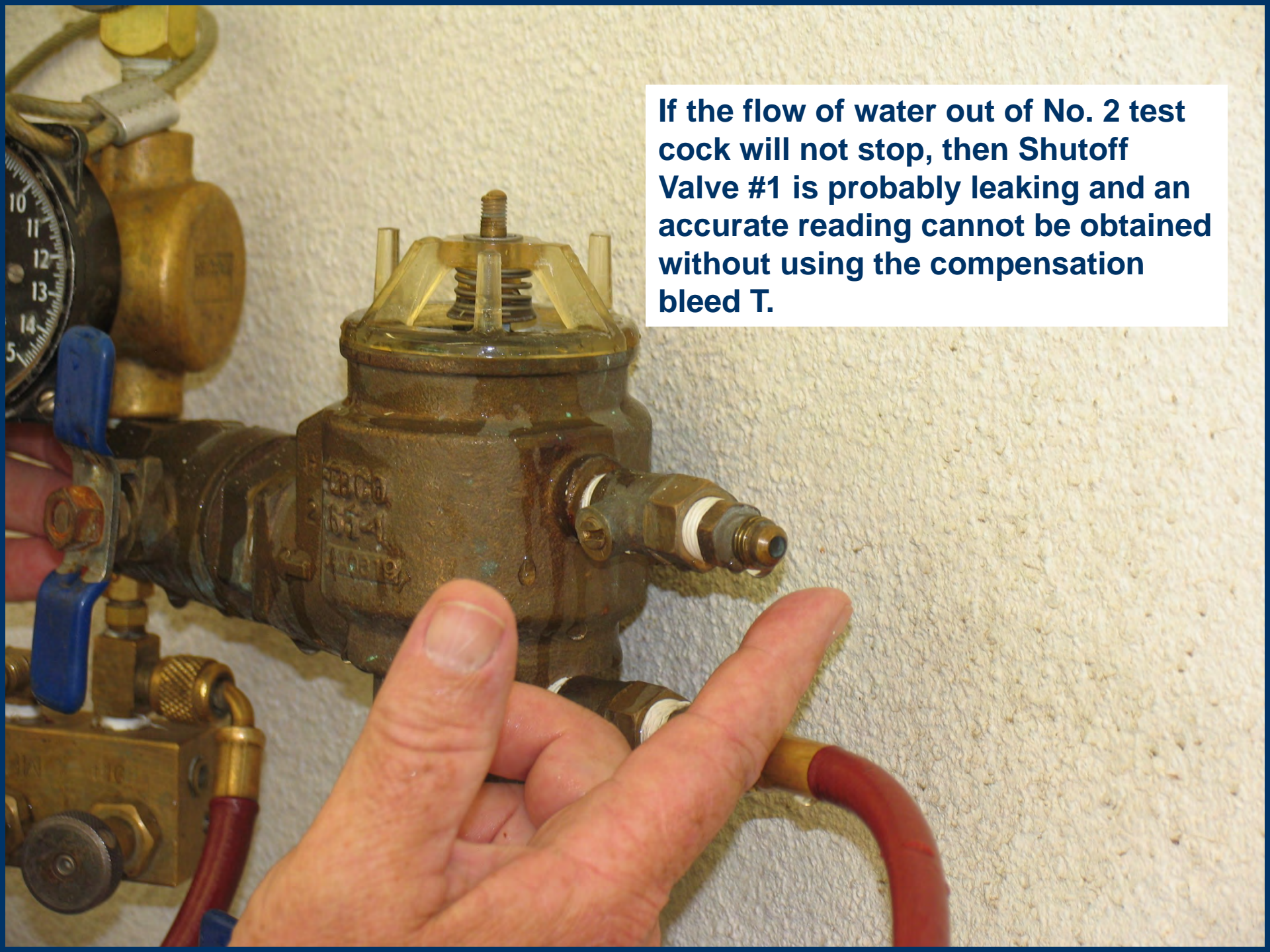


When there is no flow or no more than a drip from the No. 2 test cock, note the reading on the gauge and record this as the holding pressure for the check valve.

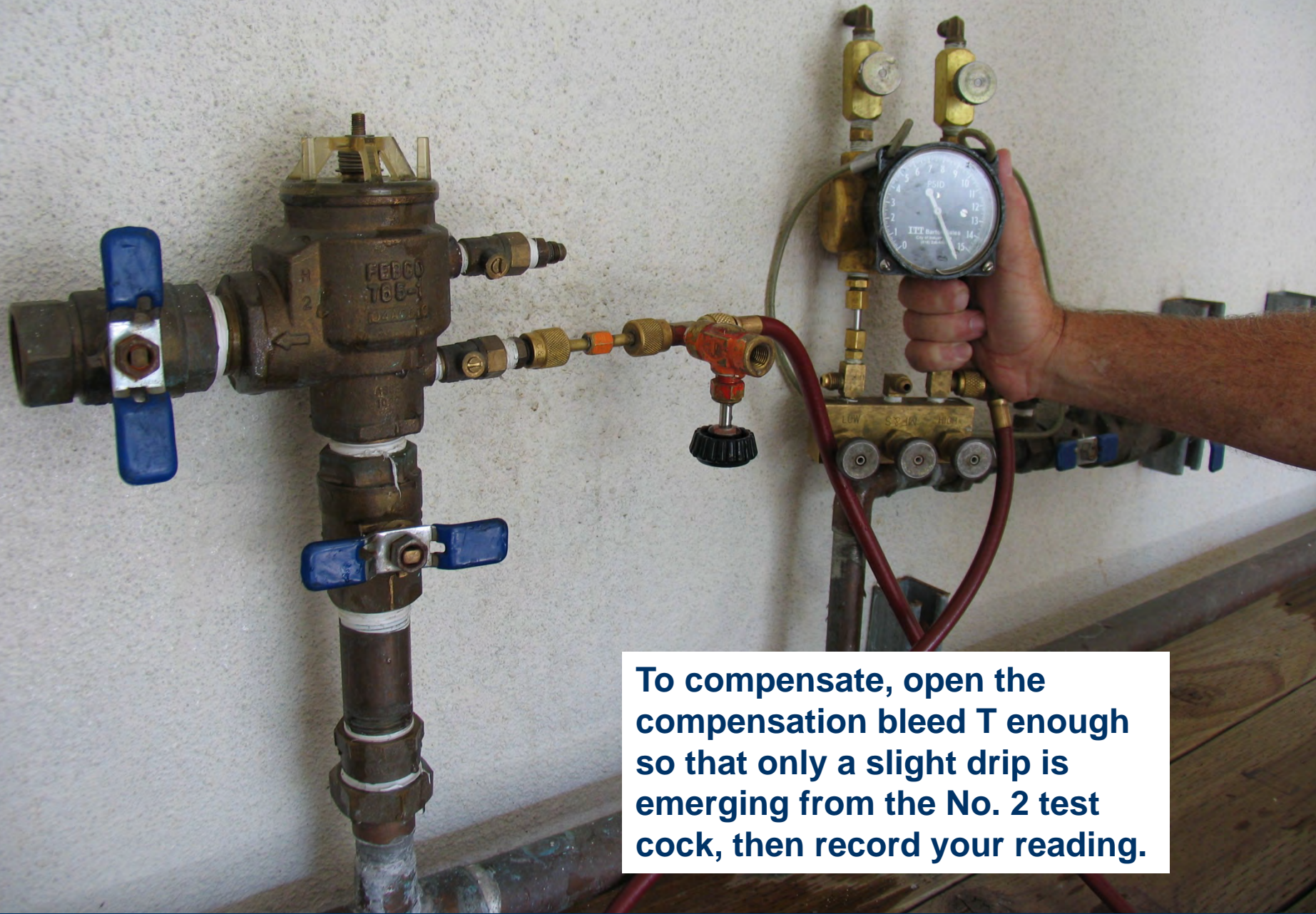
**must hold at least 1.0 PSI or greater.**



**If the flow of water out of No. 2 test cock will not stop, then Shutoff Valve #1 is probably leaking and an accurate reading cannot be obtained without using the compensation bleed T.**







**To compensate, open the compensation bleed T enough so that only a slight drip is emerging from the No. 2 test cock, then record your reading.**





**Close the No. 2 test cock  
followed by the No. 1 test  
cock.**







**Open the No. 1 shutoff valve  
and then the No. 2 shutoff  
valve.**





Replace the canopy.






# Backflow Testing Review: PVB

## Final Steps:

1. Disconnect all the hoses from the device
2. Restore water to the customer (or leave how the shut-off valves were initially found)
3. Fill out the test form correctly and completely
4. Submit the form to the water purveyor AND OCHCA.



Please return to appropriate water purveyor  
AND The County of Orange at:  
OC Backflow Testing@ochca.com or  
714-4336481 (fax) or  
1241 E. Dyer Rd. #120  
Santa Ana, CA 92705

**BACKFLOW PREVENTION ASSEMBLY TEST AND MAINTENANCE REPORT**

OWNER: \_\_\_\_\_ ADDRESS: \_\_\_\_\_  
 MANUFACTURE: \_\_\_\_\_ MODEL: \_\_\_\_\_ SIZE: \_\_\_\_\_ TYPE: \_\_\_\_\_  
 SERIAL NUMBER: \_\_\_\_\_ LOCATION: \_\_\_\_\_

	REDUCED PRESSURE PRINCIPLE ASSEMBLY			LINE PRESSURE
	DOUBLE CHECK VALVE ASSEMBLY		RELIEF VALVE	PVB/SVB
INITIAL TEST	CHECK VALVE #1	CHECK VALVE #2		
	HELD AT _____ PSID CLOSED TIGHT <input type="checkbox"/> FAILED <input type="checkbox"/> LEAKED <input type="checkbox"/>	HELD AT _____ PSID CLOSED TIGHT <input type="checkbox"/> FAILED <input type="checkbox"/> LEAKED <input type="checkbox"/>	OPENED AT _____ PSID DID NOT OPEN <input type="checkbox"/>	AIR INLET DID NOT OPEN <input type="checkbox"/> AIR INLET FULLY OPEN YES <input type="checkbox"/> NO <input type="checkbox"/>
REPAIRS	<input type="checkbox"/> CLEANED _____ _____ <input type="checkbox"/> REPLACED _____	<input type="checkbox"/> CLEANED _____ _____ <input type="checkbox"/> REPLACED _____	<input type="checkbox"/> CLEANED _____ _____ <input type="checkbox"/> REPLACED _____	CHECK VALVE HELD AT _____ PSID CLOSED TIGHT <input type="checkbox"/> FAILED <input type="checkbox"/> LEAKED <input type="checkbox"/> <input type="checkbox"/> CLEANED <input type="checkbox"/> REPLACED _____
FINAL TEST	HELD AT _____ PSID CLOSED TIGHT <input type="checkbox"/>	HELD AT _____ PSID CLOSED TIGHT <input type="checkbox"/>	OPENED AT _____ PSID	AIR INLET OPENED AT FULLY OPEN YES <input type="checkbox"/> CHECK VALVE HELD AT _____ PSID

COMMENTS \_\_\_\_\_

INITIAL TEST (Signature) \_\_\_\_\_ Print Name \_\_\_\_\_ CERT. TEST NO. \_\_\_\_\_ DATE \_\_\_\_\_

FINAL TEST (Signature) \_\_\_\_\_ Print Name \_\_\_\_\_ CERT. TEST NO. \_\_\_\_\_ DATE \_\_\_\_\_

TESTER'S COMPANY NAME \_\_\_\_\_ TESTER'S PHONE NUMBER \_\_\_\_\_

AUGUST 2013



# III. Backflow Testing Proper Position and Handling of Gauge

## Proper Position and Handling of Gauge:

*Falsely Passing or Failing Devices*





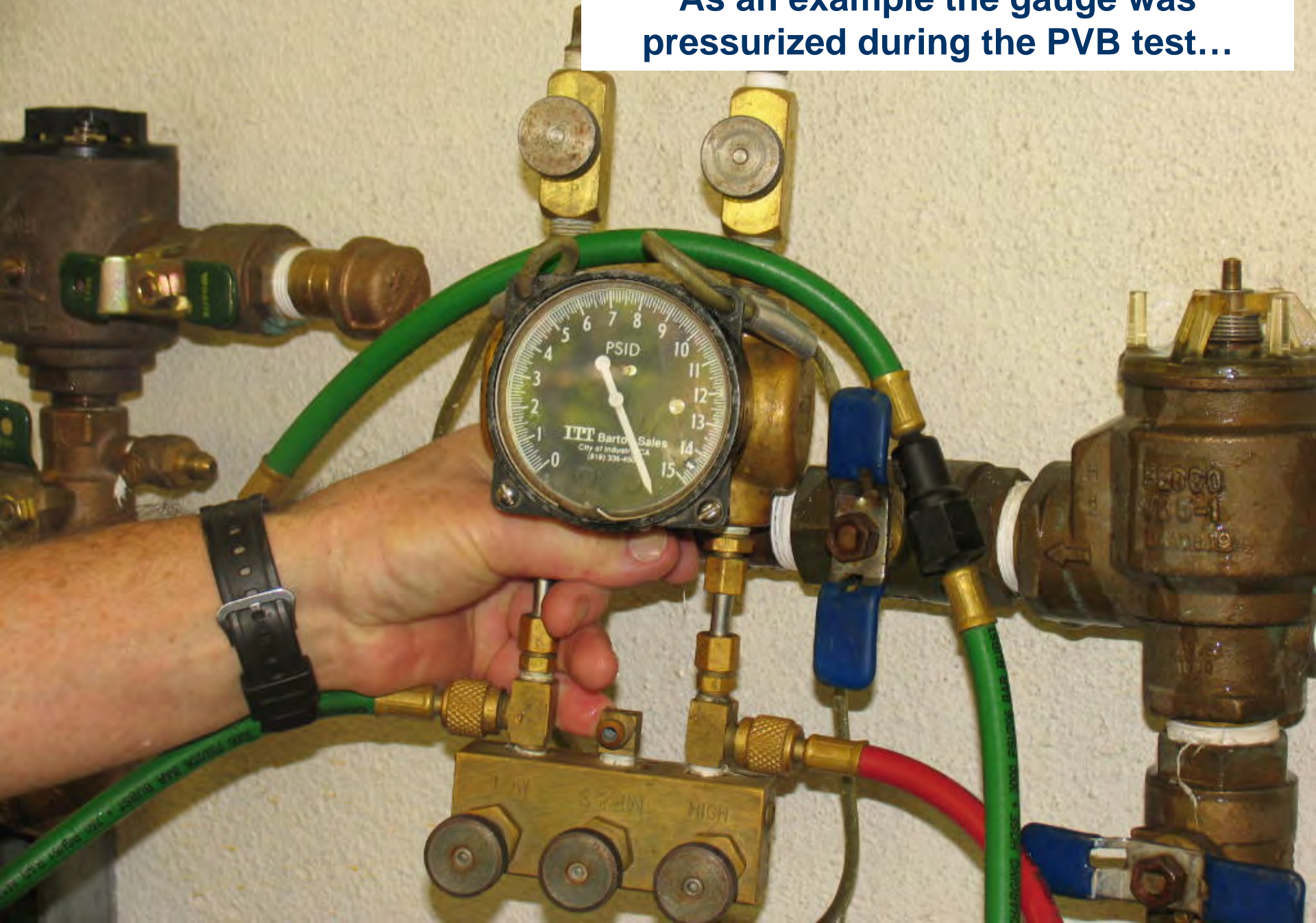
Things are not always what they seem!

REMEMBER THAT GAUGE HEIGHT  
AND LOOSE HOSES WILL AFFECT  
YOUR READINGS FOR ALL DEVICES  
EXCEPT THE RP ASSEMBLY!!



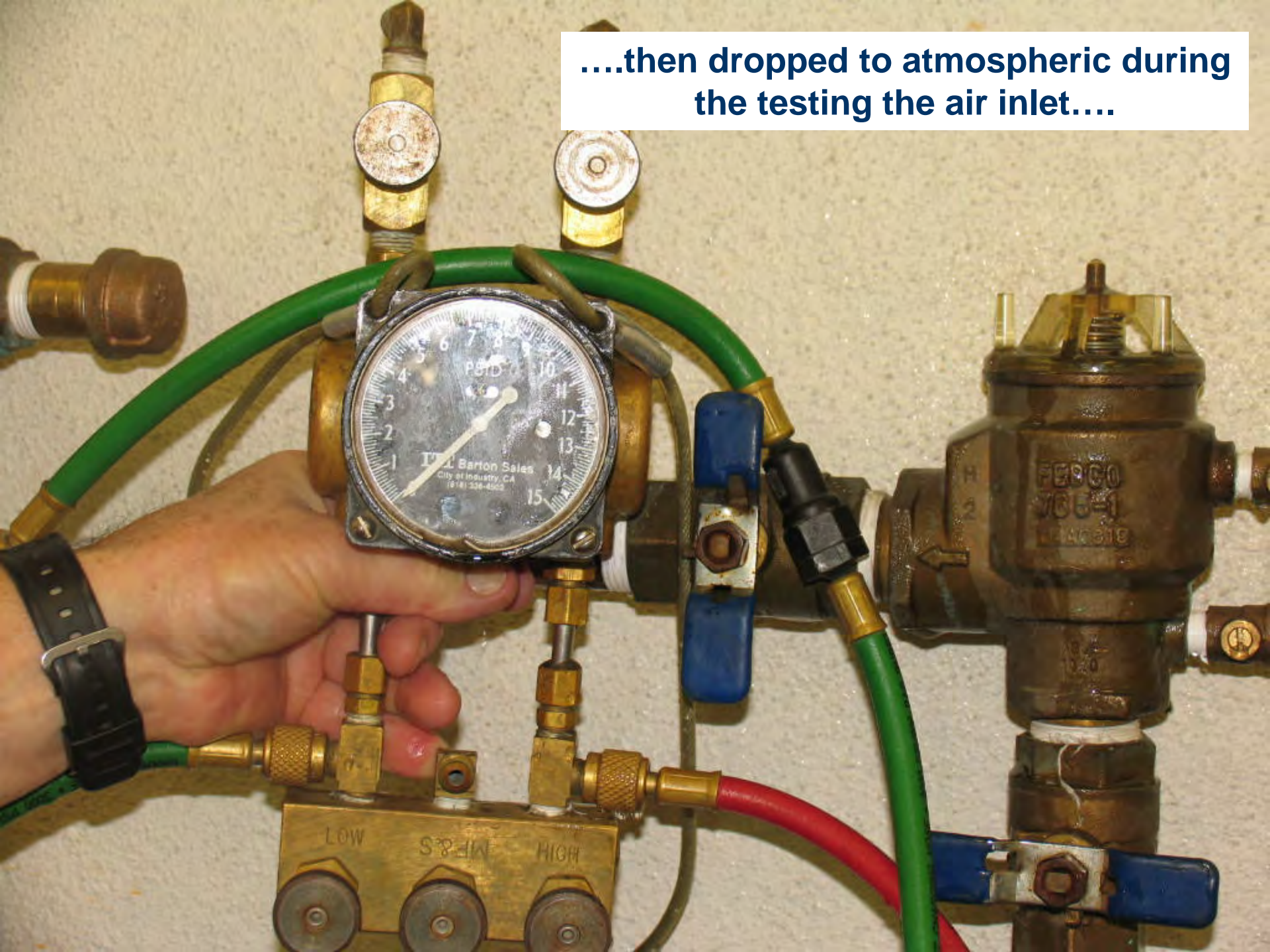


As an example the gauge was pressurized during the PVB test...

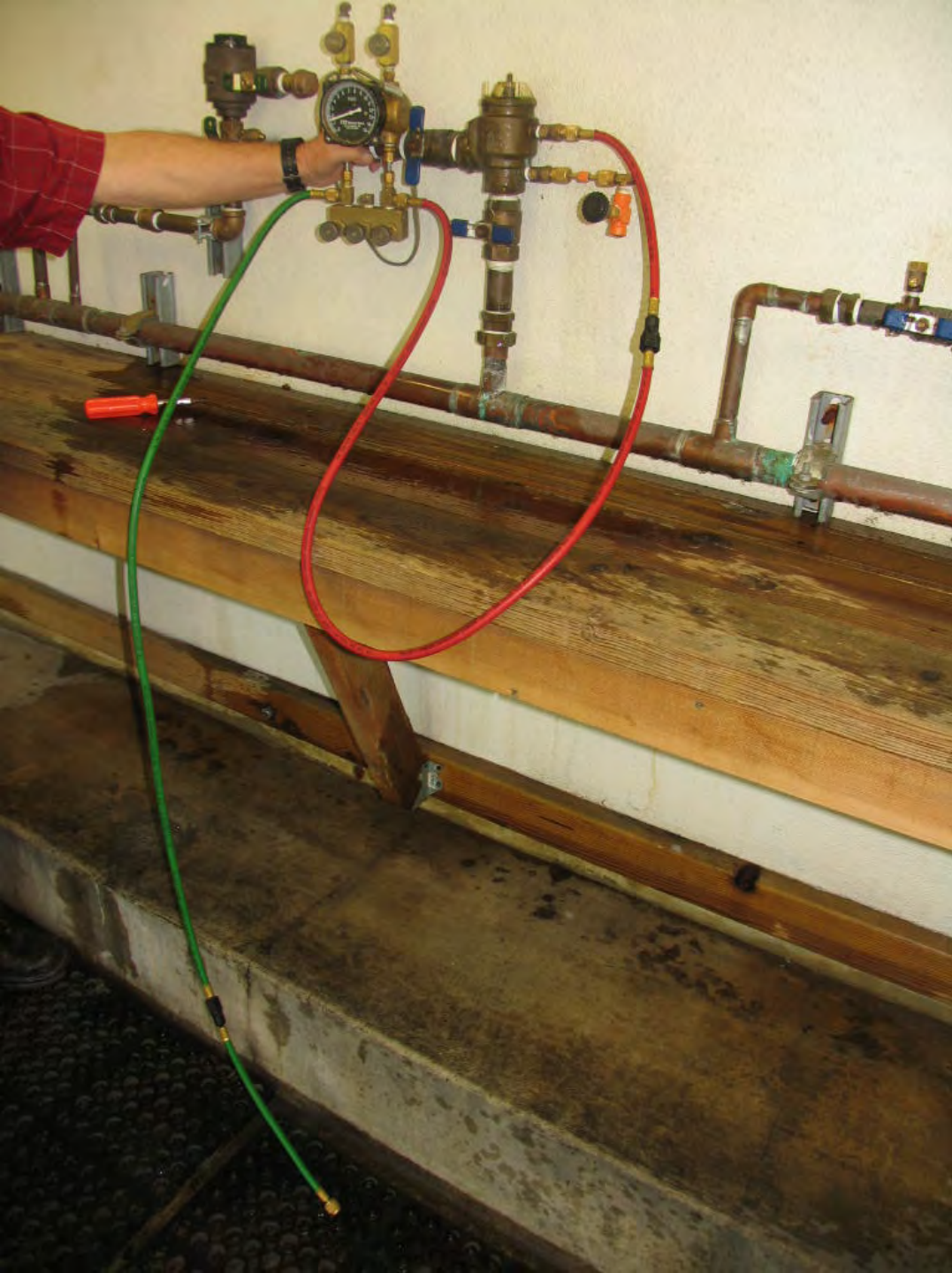




....then dropped to atmospheric during the testing the air inlet....





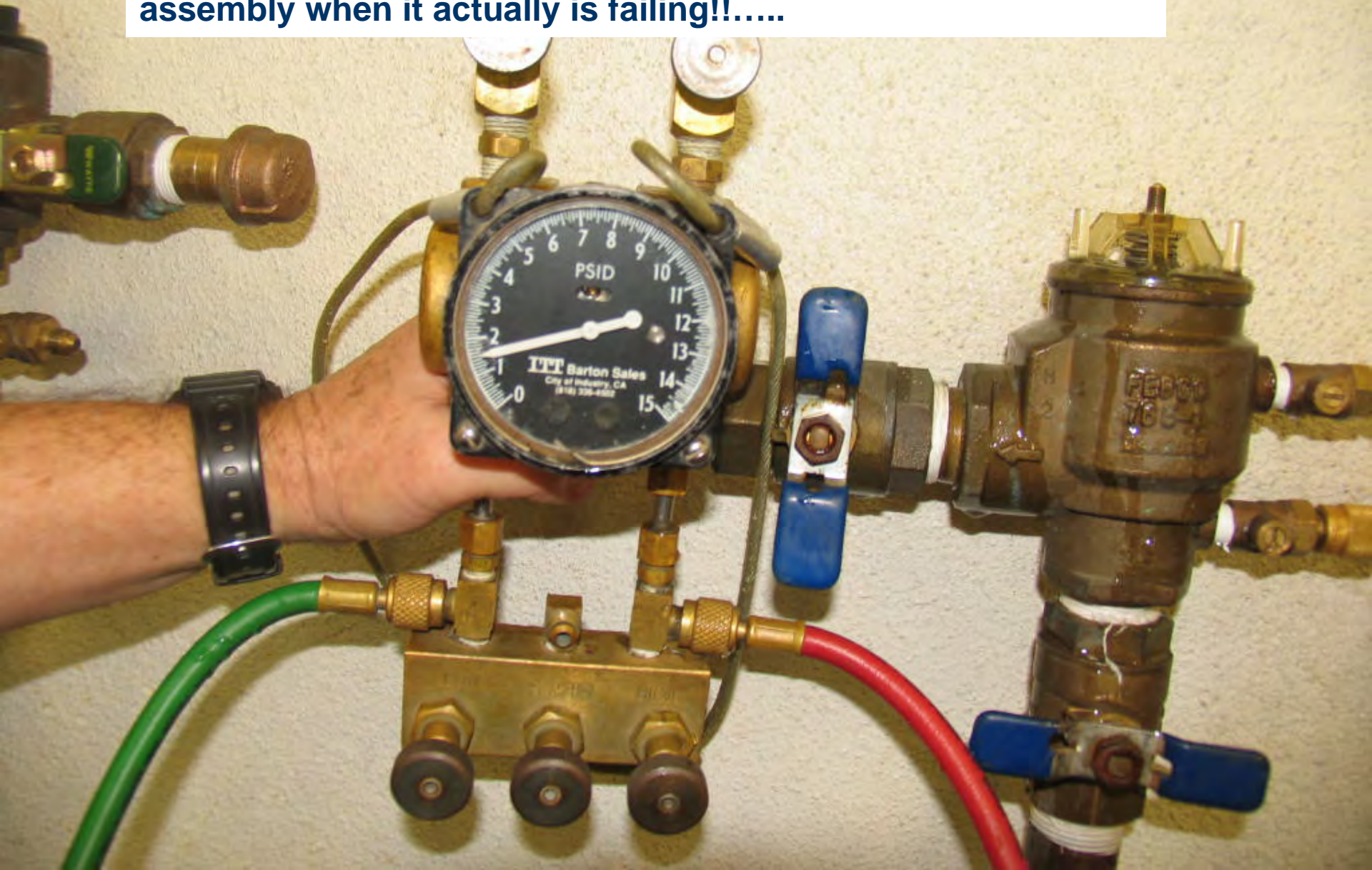


**You must be careful to account for dangling hoses and gauge height on DC's, PVB's and SVB's.**

**Removing the unused hoses is the best idea.**



**With the low side hose reaching the floor, the pressure is elevated 1.5 psi and may indicate a passing backflow assembly when it actually is failing!!.....**





But let's see what happens when the hose is eliminated....





With the hose removed, the pressure drops to 0.0!







**Elevation is also a concern.**

**With the device held at the height of the water in the column, this double check passes.**

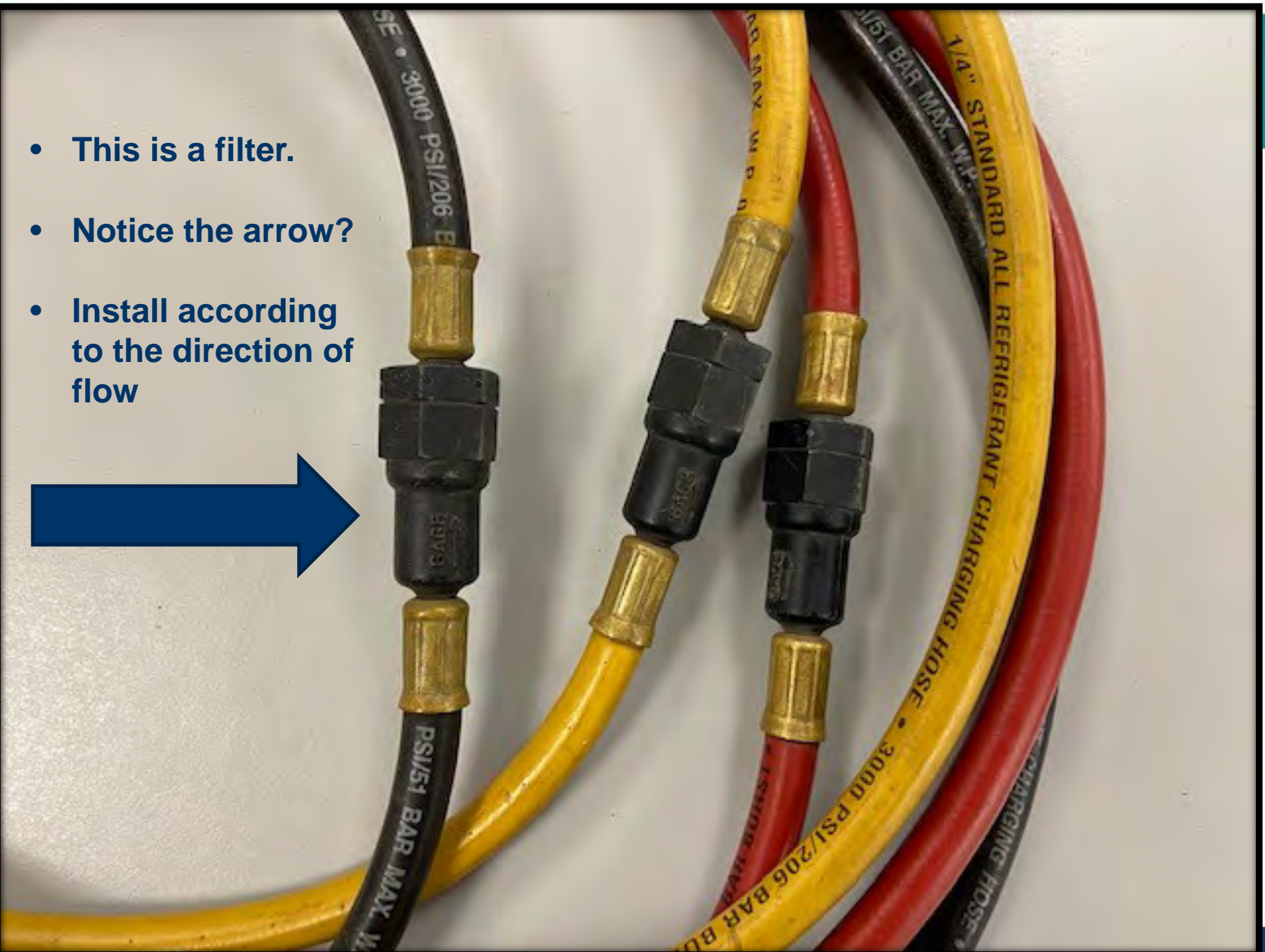
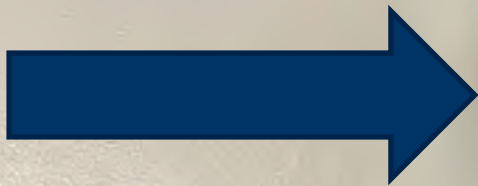




**But holding it higher than the water in the column actually lowers the pressure causing this device to appear in failure.**




- This is a filter.
- Notice the arrow?
- Install according to the direction of flow





# IV. Submittal of Test Reports



COUNTY OF ORANGE  
**HEALTH CARE AGENCY**  
 REGULATORY HEALTH SERVICES  
 ENVIRONMENTAL HEALTH  
 1241 E. Dyer Rd #120, Santa Ana, CA 92705 (714)433-6286 FAX: (714)433-6481  
 OCBackflowTests@ochoa.com  
**BACKFLOW PREVENTION ASSEMBLY TEST & MAINTENANCE REPORT**

OWNER: \_\_\_\_\_ ADDRESS: \_\_\_\_\_

MANUFACTURER: \_\_\_\_\_ MODEL: \_\_\_\_\_ SIZE: \_\_\_\_\_ TYPE: \_\_\_\_\_

SERIAL NUMBER: \_\_\_\_\_ LOCATION: \_\_\_\_\_

REDUCED PRESSURE PRINCIPLE ASSEMBLY				LINE PRESSURE
DOUBLE CHECK VALVE ASSEMBLY				
CHECK VALVE #1	CHECK VALVE #2	RELIEF VALVE	PVB / SVB	
HELD AT _____ PSID CLOSED TIGHT <input type="checkbox"/> FAILED <input type="checkbox"/> LEAKED <input type="checkbox"/>	HELD AT _____ PSID CLOSED TIGHT <input type="checkbox"/> FAILED <input type="checkbox"/> LEAKED <input type="checkbox"/>	OPENED AT _____ PSID DID NOT OPEN <input type="checkbox"/>	AIR INLET OPENED AT _____ PSID DID NOT OPEN <input type="checkbox"/>	
<input type="checkbox"/> CLEANED _____ _____ _____ <input type="checkbox"/> REPLACED _____ _____ _____	<input type="checkbox"/> CLEANED _____ _____ _____ <input type="checkbox"/> REPLACED _____ _____ _____	<input type="checkbox"/> CLEANED _____ _____ _____ <input type="checkbox"/> REPLACED _____ _____ _____	CHECK VALVE HELD AT _____ PSID CLOSED TIGHT <input type="checkbox"/> FAILED <input type="checkbox"/> LEAKED <input type="checkbox"/> <input type="checkbox"/> CLEANED _____ <input type="checkbox"/> REPLACED _____ _____ _____	
<b>INITIAL TEST</b>	<b>FINAL TEST</b>	HELD AT _____ PSID CLOSED TIGHT <input type="checkbox"/>	HELD AT _____ PSID CLOSED TIGHT <input type="checkbox"/>	OPENED AT _____ PSID AIR INLET _____ PSID CHECK VALVE _____ PSID CLOSED TIGHT <input type="checkbox"/>

PASS  FAIL  PURVEYOR \_\_\_\_\_

COMMENTS \_\_\_\_\_

INITIAL TEST (SIGNATURE) \_\_\_\_\_ PRINT NAME \_\_\_\_\_ CERT. TESTER NO. \_\_\_\_\_ DATE \_\_\_\_\_

FINAL TEST (SIGNATURE) \_\_\_\_\_ PRINT NAME \_\_\_\_\_ CERT. TESTER NO. \_\_\_\_\_ DATE \_\_\_\_\_

TESTER'S COMPANY NAME \_\_\_\_\_ TESTER'S PHONE NUMBER \_\_\_\_\_

- Why do I have to?
- Which reports do I send?
- Who do I send it to?
- What format do I send it in?
- What is the difference between an initial test and a final test report?
- Who reviews these reports anyway?



# Submittal of Test Reports- *Why?*

## Why do you have to submit test reports to us?

- Title 17 Health & Safety Code Section 7605
- The Orange County Cross Connection Control Group Code of Conduct
- *Send in a report every time you install, repair, relocate, or test annually a PVB, SVB, DC or RP*

**“All backflow device test reports must be submitted to the water purveyor and the County Health Department within 10 working days of the initial test, no matter what the result. “**



# Submittal of Test Reports: *Procedure*

- Complete the test report completely.
- Review for mistakes and items that you may have missed.
- Remember to sign your name and include your OC tester #.
- Record comments and observations on the test report!
  - Was it leaking when you arrived? ***Write it down***
  - Was the #2 shut off valve closed when you got there?  
***Write it down***
  - How did you repair failing devices? ***Write it down***
  - Was the device missing or stolen? ***Write it down***
  - Was the device corroded? ***Write it down***
  - Did bees turn the backflow into a hive? ***Write it down***



# Submittal of Test Reports: *Procedure*

Once the report is ready to hand-in:

- Scan the report and save in a PDF format. Name the report as:

**YOUR OC TESTER #- Location of device**

Examples: 5321- 1241 E Dyer Rd

1234- 1700 Anywhere Street

- CC' OCHCA when you email a copy into the water purveyor within 10 days of testing the device (pass or fail).
- Send reports to OCHCA at:













[OCBackFlowTests@ochca.com](mailto:OCBackFlowTests@ochca.com)

*If there must be a delay in the submission of a report, the tester shall contact the water agency Cross Connection Specialist in whose jurisdiction the device is located or OCHCA.*



# Submittal of Test Reports: *Example*

Last changed: Thursday, March 19, 2020

 2132-1120 S Richfield Rd.pdf 504 KB	 2132-1150 S Las Brisas Place (3).pdf 1 MB	 2132-3801 Belgian Lane.pdf 434 KB	 2132-3871 Belgian Lane.pdf 434 KB
 2132-3878 Welsh Pony Lane.pdf 433 KB	 2132-3936 Congressional Ct.pdf 432 KB	 2132-4048 Duke Dr.pdf 480 KB	 2132-4244 Genoa Way.pdf 479 KB
 2132-4343 Avocado Grove Ln.pdf	 2132-4357 Avocado Grove Ln.pdf	 2132-5042 Burgundy Lane.pdf	 2132-16631 Lathrop Dr.pdf



1717 E. Miraloma Ave., Placentia, CA 92870  
Phone: (714) 701-3000 Fax: (714) 701-3058  
Email: backflowreports@ylwd.com

Save All Attachments

Attachments:

2132-4244 Genoa Way.pdf

OK

## BACKFLOW PREVENTION DEVICE ELD TESTING & MAINTENANCE REPORT

FIRST NOTICE



### Yorba Linda Water District Backflow Test Reports

Retention Policy HCA Default Retention Policy - 732 Days (2 years)

Expires 3/13/2022

 2132-5058 Burgundy Lane.pdf 433 KB	 2132-17121 Santa Cruz Court.pdf 432 KB	 2132-18130 Spyglass Hill.pdf 432 KB	 2132-18140 Watson Way.pdf 441 KB
 2132-18233 Nicklaus Road.pdf 441 KB	 2132-18905 Seabiscuit Run.pdf 700 KB	 2132-22833 La Palma Ave.pdf 2 MB	



# Submittal of Test Reports

Who reviews these reports anyways?

- The OCHCA Staff
- The water purveyor
- Property owners
- Anyone (including attorneys)- Public Records Act Request

The California Public Records Act is found in the California Government Code, beginning at Section 6250. Records subject to inspection and copying include any writings, meaning any handwriting, typewriting, printing, photostating, photographing, and every other means of recording upon any form of communication or representation, including information available in an electronic format.



# Submittal of Test Reports: *Reminders*

- The tester shall ensure that they are using the approved test report form as required by the water agency and/or OCHCA.
- A tester shall not knowingly file a false statement or report regarding a backflow prevention device.
- Ensure that you sign your own reports!



# V. Certification Testing

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# Certification Testing- *Why?*

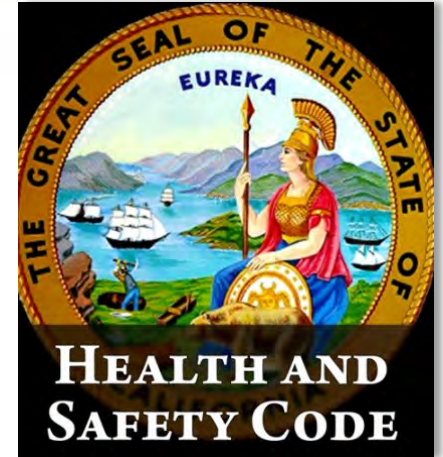
## Why is Certification Important?

- Certification with OCHCA is required to test backflow devices in Orange County!
- **Financial benefit:** additional employment opportunities
- **Employer benefit:** qualified staff to do a variety of jobs, more marketability, can be used in hiring process
- **Personal satisfaction:** strong command of plumbing trade, reflects many years of experience



# Certification Testing- *Why?*

## ***Why Does OCHCA have Backflow Tester Certification Program?***



- Health & Safety Code - Section 116810 – To ensure that testing and maintenance of backflow prevention devices are performed by persons qualified to do testing and maintenance, local health officers may ***maintain programs for certification of backflow prevention device testers.***



# Certification Testing- *More Why?*



**California Code of Regulations Title 17 – Section 7605 (b):** Backflow preventers shall be tested by persons who have demonstrated their competency in testing of these devices to the water supplier or *health agency*.

*\*Note: Title 17 may be revised in the forthcoming Policy Handbook by SWRCB Drinking Water Division.*

# Certification Testing: *New Tester Process*

**Step #1: 40-Hour Training Course-** To qualify for certification in Orange County, a person must first have attended and passed a backflow device tester's course that is approved by OCHCA. The course must provide at least forty (40) hours of instruction covering theory, testing and maintenance of backflow prevention devices, and the applicable laws and regulations relating thereto. Approved tester's courses include, but are not limited to:

- Santiago Canyon College- Water Utility Science 065
- USC Foundation for Cross Connection Control and Hydraulic Research short course
- American Water Works Association (AWWA) backflow class
- Other approved community college backflow testing courses or equivalent



# Certification Testing: *New Tester Process*

**Step #2- Appointment-** The applicant must email [OCBackFlowTests@ochca.com](mailto:OCBackFlowTests@ochca.com) to schedule an appointment to obtain and complete a tester's application form and take the certification exam. You must provide documentation that you have successfully passed a 40-hour class (Step #1).

**Step #3- Certification Exam-** Any person applying for initial certification may be required to pass both a written and a performance (practical) exam. A score of at least 80% must be attained on the written exam in order to qualify for the practical exam.

# Certification Testing: *New Tester Process*

**Step #4-** The practical exam consists of correctly testing a pressure vacuum breaker, a spill-resistant vacuum breaker, a double check valve backflow prevention device, and a reduced pressure principle backflow prevention device with a 1-hour time period. Other backflow prevention devices that are approved in the future by the USC Foundation for Cross Connection Control, the State Department of Health Services and OCHCA may also be included in the certification exam.

During the practical examination, a test report form must be completed for each device tested. Additionally, the candidate must also correctly complete a written troubleshooting quiz. A test bench with deliberately failed devices may replace the quiz in the future.



# Certification Testing: *New Tester Process*

**Note 1:** If you have successfully passed a certification examination by specific third party testers (e.g., AWWA, USC, etc.) AND you submit to OCHCA:

- Contact us at [OCBackFlowTests@ochca.com](mailto:OCBackFlowTests@ochca.com)
- Proof of your tester certificate within one (1) year of passing
- Completed application and a current picture
- Backflow tester fee payment

**Both the written and practical exam may not be required!**



Sign In Cr

American Water Works Association  
**California-Nevada** Section

USC University of Southern California

Foundation for Cross-Connection Control  
and Hydraulic Research

75 CELEBRATING YEARS

a Division of the University of Southern California

about | contact us

# Certification Testing: *New Tester Process*

**Note 2:** If you hold a current certification in a neighboring county (e.g., LA, Riverside, Ventura, etc.) and want to get certified with OCHCA:

- Contact us at [OCBackFlowTests@ochca.com](mailto:OCBackFlowTests@ochca.com)
- Provide proof of other County certification
- Submit completed application
- Schedule practical appointment
- Pay backflow tester fee
- Pass the practical hands-on exam





# VI. Recertification Testing



# Recertification Steps- *Process*

**Step #1- Refresher Class-** A tester must have taken an approved refresher class within the time period two (2) years before their recertification date. Orange County Environmental Health offers free refresher trainings online at

<https://www.ochealthinfo.com/about-hca/public-health-services/environmental-health-services/water/cross-connection>.





# Recertification Testing- *Process*

**Step #2- Recertification scheduling-** OCHCA will email out recertification notices approximately thirty (30) days prior to expiration. Testers must notify OCHCA of an email or other contact information change immediately. After you receive the reminder notice, follow the instructions to sign up for an appointment on [ohealthinfo.com/eh](http://ohealthinfo.com/eh).

- *It is the tester's responsibility to schedule and take their own recertification exam.*
- *We may open up the testing room for some training days, so please read carefully.*

# Recertification- *Process*



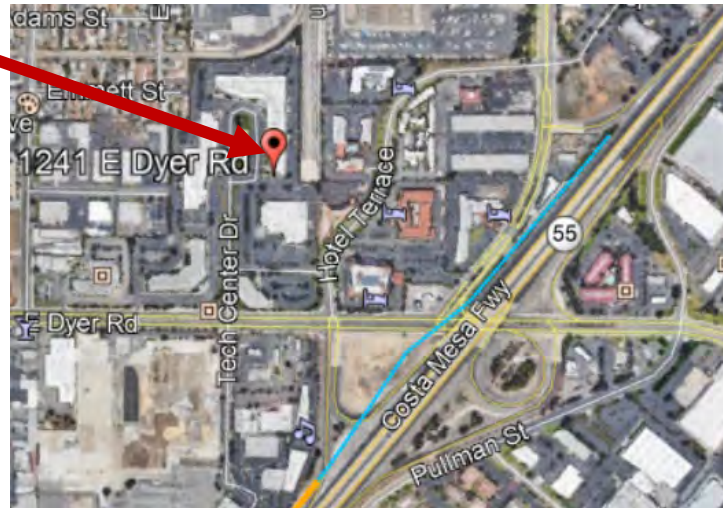
For recertification follow the following steps:

- Step 1- [Click here to schedule an backflow tester recertification appointment.](#)
- Step 2- Enter your first name, last name, and cell phone #. Your cell phone number is associated to your appointment. Cell phone numbers cannot be shared by multiple testers. Click next ->
- Step 3- Enter your email address and business name (if applicable). Click next->
- Step 4- Select the **Backflow Tester Button** and select **Backflow Test Scheduling**. Click next->
- Step 5- Select **Schedule an appointment for another day and time**. Click next->
- Step 6- Select the date and time of your appointment. You will receive a text message with information about your appointment.
- Step 7- Enter your email. Click next->
- Step 8- Enter your OC Tester # or New, the date of your last refresher class or new, and the refresher class provider or new. Click next->
- Step 9- Click done
- Step 10- Additional email instructions (see attachment ) will be mailed to you from the QLess system. Please ensure to read these instructions thoroughly and complete all required paperwork prior to your appointment. If you do not receive the email, check your junk mail and allow for emails from the QLess system.



# Recertification- *Process92*

**Step #3- Day of your test- Your test will be held at the OCHCA building at 1241 East Dyer Rd, Santa Ana CA 92705**



- *Bring your method to pay, completed [application](#), ID, proof of refresher class, test gauge, and proof of test gauge calibration.*
- *Review the [Code of Conduct](#) before your appointment.*

# Recertification- *Process*

## Step #4- Go into the Lobby-

- Park at the front of the building. Access to the lobby is no longer available from the backside of the building.
- Obtain a parking pass and place it in your vehicle or park in guest parking.
- Enter and wait in the Environmental Health lobby at or before your appointment time until you are alerted to come up to the counter.
- Provide staff your completed [application](#).
- Pay for the backflow refresher recertification when prompted.
- Wait until staff escorts you from the lobby to the testing cage.



# Recertification- *Process*

**Step #5- Test area-** Walk with your proctor to the testing area in the back. Provide the proctor with confirmation of gauge calibration and backflow refresher. The proctor will read detailed instructions to you before you begin. For your and our safety, cameras may be present in the back of the building and inside the testing lab.



# Recertification- *The Practical*



## Step #6- Practical Test

- One (1) hour to complete both parts to pass
  - Unlimited attempts within an hour

1. Successfully test all four (4) devices per USC 10<sup>th</sup> Edition testing procedures:

- Reduced pressure principle backflow prevention assembly (RP)
- Double check valve (DC)
- Spill resistant pressure vacuum breaker assembly (SVB)
- Pressure vacuum breaker (PVB)

2. Troubleshooting questions

- Correctly answer all three (3) written questions



# Recertification- *Reminders*

- Recertification consists of the practical test and fee payment only if the tester is recertifying within one (1) year of their OCHCA expiration date or if they are currently certified in neighboring county AND have taken the refresher class within the last two (2) years.
- If the OCHCA certification is expired more than one (1) year, but less than two (2) years, the tester will need to take a refresher class, the written exam, and the hands-on practical exam.
- If the OCHCA certification is expired for two (2) or more years, the tester will need to pass a 40-hour training course, the written exam, and the hands-on practical exam.

\*Tester fee payments apply to all of the above scenarios.

# Recertification- *After you pass!*

## Step #7- After the Practical-

- After passing the exam, take photo for ID.
- You may then pay for Approved Tester List.
  - **Approved Tester List-** A certified tester may choose to be placed on the list of OCHCA certified testers. To be placed on the certified tester list, a tester must be currently certified by OCHCA and pay the tester's list fee. The OCHCA list is organized by city, with testers listed under one city on the basis of the seniority of their tester number. The tester list is organized in this way to facilitate a business' attempt to find testers working in their area. Although a tester is listed under one city, he/she may test throughout Orange County.





# Recertification- *If You Don't Pass* 😞

## Alternate Step #7- After the Practical-

- You can test with OCHCA three (3) times during a six (6) month period.
  - Each test will require a separate fee payment
  - You may get a different proctor
  - You may get a different troubleshooting test
  - Study the USC Manual of Cross Connection 10<sup>th</sup> Edition!
- If you do not pass after the 3<sup>rd</sup> try, you will have to wait until the next recertification period and take another refresher class.

# VII. Enforcement





# Enforcement

California Health and Safety Code Section 116820 states:

*“The local health officer may suspend, revoke or refuse to renew the certificate of a tester, if, after a hearing before the local health officer or his designee, the local health officer or his designee finds that the tester has practiced fraud or deception or has displayed gross negligence or misconduct in the performance of his or her duties as a certified backflow prevention device tester.”*

***\*OCHCA is the local health officer for all of Orange County.***

# Enforcement

- Also, failure to adhere to the Code of Conduct for Backflow Prevention Device Testers Certified in Orange County
- OCHCA requires you to review and sign that you will abide by the Code of Conduct at every certification/recertification



## Code of Conduct for Backflow Prevention Device Testers Certified in Orange County

The Orange County Cross Connection Control Group (OCCCCG) exists to provide all of its members with a professional atmosphere in which to discuss existing procedures and to become familiar with new developments in the field of cross connection control and to encourage improved quality of service, professionalism, and programs. To this end, we, the members of the OCCCCG require the following Code of Conduct for backflow device testers certified in Orange County:

1. A tester must have a current tester certification from Orange County Environmental Health (County Health Department) to test backflow prevention devices in Orange County.
2. A tester must not knowingly falsify the results of backflow device field tests performed by him.

### EXAMPLES:

- Signing backflow test reports for tests he did not perform.
  - Making unneeded repairs.
  - Not having proper backflow certification to perform tests in Orange County.
  - Not using proper test procedures as established by Orange County Environmental Health.
  - Using unauthorized backflow test equipment.
3. A tester must not remove, replace, or relocate a backflow device without the approval of the water purveyor or the Orange County Health Department
  4. All backflow device test reports must be submitted to the water purveyor and the County Health Department within 10 working days of the initial test, no matter what the result. If there is a specific problem relating to the test or the test report form, the tester must call the water agency or the County Health Department.
  5. All backflow reports must be submitted on proper forms. They must be legible and contain all appropriate information pertaining to the test.
  6. A tester must attend a backflow prevention device tester update seminar at least once every two years. The seminar must review current test procedures and be approved by Orange County Environmental Health.
  7. It is the tester's responsibility to inform Environmental Health of any changes in their address, phone numbers, etc. To report changes, contact Sham Elmishad at (714) 433-6284 or email changes to [HElMishad@ochca.com](mailto:HElMishad@ochca.com) and Erasmo Jacinto at (714) 433-6288 or email changes to [EJacinto@ochca.com](mailto:EJacinto@ochca.com).

Any tester failing to comply with the provisions of this Code of Conduct is subject to disciplinary action. The results of the action can be the loss of testing privileges in the county or in a water purveyor's jurisdiction. Also, it is a misdemeanor violation to knowingly file a false test report.

Adopted: 4/27/1989  
Revised: 4/16/2020



# Enforcement: *Reminders*

1. A tester must have a current tester certification from OCHCA to test backflow prevention devices in Orange County.

2. A tester must not knowingly falsify the results of backflow device field tests performed by him.

## EXAMPLES:

- Signing backflow test reports for tests he did not perform.
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- Using unauthorized backflow test equipment.

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# Enforcement: *Reminders continued*

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4. All backflow reports must be submitted on proper forms. They must be legible and contain all appropriate information pertaining to the test.
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6. It is the tester's responsibility to inform OCHCA of any changes in their address, phone numbers, etc. To report changes, contact Sham Elmishad at (714) 433-6284 or email changes to [HElmishad@ochca.com](mailto:HElmishad@ochca.com) and Erasmo Jacinto at (714) 433-6288 or email changes to [EJacinto@ochca.com](mailto:EJacinto@ochca.com).



# Enforcement- *How?*



- Test reports reviewed by both the water purveyor and OCHCA for “red flags”
- We do random auditing
- Each water purveyor has unique auditing processes
- Onsite random back testing is done
- Onsite specific back testing – with cause is also done
- Phone inquiries with testers and onsite managers
- Complaints and concerns are addressed with a thorough investigation

# Enforcement– *Some Examples of “Red Flags”*

- Missing data
- Conflicting data
- Report results for the wrong device
- Missing signature/tester info
- Missing final report post repairs
- Reporting results for untenable or uninstalled devices
- Testing with expired certification
- Allowing non-certified testers to test devices
- Performing unneeded repairs
- Not using approved test procedures (Currently USC Manual of Cross Connection 10<sup>th</sup> ed.)
- Using unauthorized or non-calibrated backflow test equipment.
- **Complaints from other testers, water purveyors, customers, etc.**





# Enforcement- *OCHCA Procedure*

OCHCA completes some or all of the following actions during an possible enforcement situation:

- Data collection and inspections (back testing)
- Collaboration with the water purveyor
- Phone calls to all parties involved
- Office meetings to discuss issues
- Disciplinary hearing is held
- Suspension notice issued temporary or long term (1-2 years or indefinitely)
- Suspension terms are defined
- Possible referral to the District Attorney's office for prosecution

# VIII. FAQs

FREQUENTLY

QUESTIONS

ASKED



# VIII. FAQs- *General*

*Who do I contact with questions?*

<b>Lauren Robinson</b>	<b>(714) 433-6280</b>	<b><a href="mailto:LRobinson@OCHCA.com">LRobinson@OCHCA.com</a></b>
<b>Sham Elmishad</b>	<b>(714) 433-6284</b>	<b><a href="mailto:HElmishad@ochca.com">HElmishad@ochca.com</a></b>
<b>Erasmio Jacinto</b>	<b>(714) 433-6288</b>	<b><a href="mailto:EJacinto@ochca.com">EJacinto@ochca.com</a></b>

*What happened to the following OCHCA Water Quality staff?*

- Pauline Liu- City of Anaheim
- Larry Brennler- Retired
- Jennifer Reyes- Mesa Water District
- Kristen Schroeder - City of Huntington Beach
- Lauren Hatch - Irvine Ranch Water District
- John Banoczi - Retired
- Marty Friebert - Retired
- Larry Finch- Retired

# FAQs- *General*

## Methods of Payment for the test

- Cash
- Credit Card – must have identification
  - Must be in your name or if another person is paying they must be present
- Check
  - The check must be YOURS (personal) or the Company you work for
  - NO personal checks from another person will be accepted UNLESS the other person is with you and has identification



# FAQs- Backflow Tester List

## BACKFLOW PREVENTION DEVICE TESTERS

The following Backflow Prevention Device Testers are certified by the Orange County Health Care Agency, Division of Environmental Health as of April 15, 2020.

**Note:** Although the testers are listed under a specific city or County area they are certified to test throughout Orange County. A business license and/or plumbing permit may be required by the city in which the work is being conducted. Also, State law requires that anyone who contracts to do construction work be licensed by the Contractors State License Board in the license category in which the contractor is going to be working if the total price of the job is \$900.00 or more (including labor and materials). A State Contractors license is not required for the testing of backflow devices as long as the total cost of the work is under \$500.00.

### Alliso Viejo

F.A.S.T. Fire Protection  
David Webb #1357  
(949) 766-3226

H2O Backflow Service  
Reynold Olms #2205  
(949) 400-8276

### The Backflow Guys

Denis LaVertu, Sr. #2068  
(949) 412-8749  
(949) 380-9751 FAX

National Backflow, Inc.  
Michael Crume #2478  
(949) 273-8614  
(949) 273-8615 Fax

Blue Water Backflow  
Bahram (Bob) Sarwary #3281  
(949) 335-2314

Abackflow Service Tech  
James Hadley #2409  
(949) 433-6632

South Coast Backflow  
Jose Llerenas #3321  
(714) 709-6215

Backflow Time  
Andrew Riihimaki #3174 (800)  
678-8979

### Anaheim

Backflow Apparatus & Valve  
Co. (BAVCO)  
Bob Purzycki #288  
(714) 891-5605  
(800) 458-3492

Thomas Plumbing Co.  
Thomas Miller #977  
(714) 527-5201  
(714) 801-7315 (Cell)

Gene Pira #441  
(818) 342-4744

Aabco Plumbing  
Eric Nofziger #1772  
(714) 307-9438  
(714) 817-8569 Fax

Prevent Backflow & Plumbing  
James Motts #1980  
(714) 635-9902

Aqua Backflow & Chlorination,  
Inc.  
Kelly Kieswetter #2502  
(888) 598-7251

Backflow Testing & Service Co.  
Noel Trevino #2443  
(310) 316-6246  
(310) 487-9909

AAA Companies  
Aaron Dricker #2647  
(800) 892-4784

Anthony's Plumbing  
Anthony Tubbs #2780  
(855) 720-4366

### Anaheim

Pennine Plumbing  
Christopher McGrath #2543  
(562) 407-2724

Ramsey Backflow & Plumbing  
Adam Ramsey #2930  
(714) 778-8444

Living Waters Backflow  
Jarrod Burris #2446  
(760) 646-0194

Los Angeles Plumbing and  
Backflow Inc.  
Esteban Espindola #2760  
(626) 814-0818

Cintas Fire Protection  
Justin Colanino #2926  
(800) 841-9696

NIR Plumbing  
Serio Cortez #3040  
(951) 300-6681

Accurate Backflow Testing  
Sean Vincent #3061  
(818) 909-7880

2 The Point Environmental  
Services  
Walid Makhlof #3069  
(714) 305-9894

Go Fire Protection  
Ryan Golub #3067  
(951) 310-2709

AE Landscape Design  
Brian Bluhm #3094  
(909) 980-8300

- Once you successfully recertified with OCHCA, you can choose to be on the OCHCA backflow tester list
- Remember that to be placed on the list you will have to submit a separate payment!
- The Backflow Tester list can be viewed here:

<https://www.ohealthinfo.com/eh/water/bftesters>

# FAQs- Recertification

- If you sign up for a 8:00-9:30 AM appointment, when should you arrive?

*In this example, you should be in our lobby at 8:00 or before. Your appointment will run from 8:00-9:30 AM. Please try to be on time, we are typically booked solidly all day. If you are late for your appointment, this compromises our ability to provide you a 1-hour test time frame and impacts the testers scheduled after you. We may have to reschedule you to a different time or day. Please contact us or text "C" to QLess if you are unable to make your appointment when it is assigned.*





# FAQs- *Recertification*

- Do I have to pay before I take the hands-on practical for recertification? *YES*
- What if I do not pass? Do I get a refund? *NO*

***\*Please study and be prepared\****

# FAQs- *Recertification*

- **What if I haven't taken an update seminar in the last 2 years and come in for the hands on test for recertification?**

*You can no longer take the hands on test for recertification until you have attended a backflow prevention device tester update seminar.*

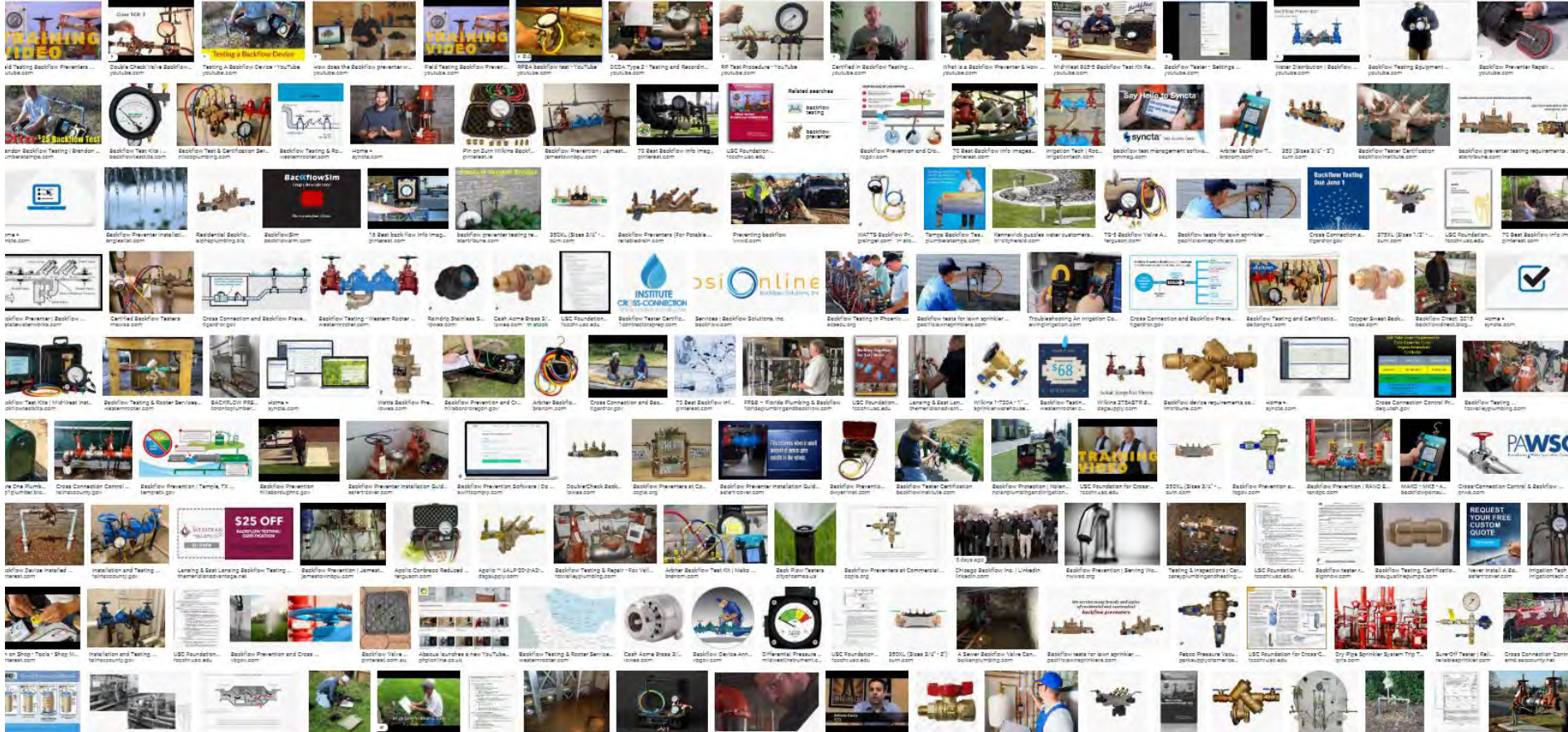
*The seminar must review current test procedures. (ex: AWWA, ABPA, IAPMO, USC or other approved)*

*Bring proof of attendance with you to your appointment if you do not complete the OCHCA refresher.*



# FAQs- Recertification

Study the USC Manual of Cross-Connection Control 10<sup>th</sup> Edition!!!!



**Do NOT rely on YouTube videos to study!!!!**

# IX. Coming Soon

## Cross Connection Control Policy Handbook



- The Division of Drinking Water of the SWRCB is developing a handbook to be released in 2022, which will repeal Title 17.
- Title 17 mandated cross-connection control regulations since 1987 across California.



# Handbook – Potential Impacts

- Clarification of language for PWS/Water Districts/Purveyors, including denial or discontinuation of water service if no corrective action is taken to maintain backflow prevention.
- Each PWS/Districts/Purveyors may require a schedule for ensuring 100% of backflows in system will be tested.
- May require Database of backflow inventory, testing records, hazard assessments, and testers.
- PWS/Districts/Purveyors may expand oversight of backflow tester certification, detecting falsified reports, corrective measures.
- The state may allow ANSI (American National Standards Institute) as third party entity to create certification standards for organizations who certify specialists and backflow testers.

# X. Quiz

➤ [Click Here for the Quiz!](#)

- Submit your quiz to [OCBackflowtests@OCHCA.com](mailto:OCBackflowtests@OCHCA.com)
- After you submit your quiz, you will receive an email within the next week with either:
  - Your certificate of completion
  - OR instructions to re-take the quiz because you did not score at least a 70%.





Thank you  
and stay safe!

Submit any questions to [OCBackflowtests@OCHCA.com](mailto:OCBackflowtests@OCHCA.com)