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SCOPE

- R | This section presents **location and clearance** requirements for customer meters and regulators. Additional requirements for regulator and relief valve vents are included in Section 5126, Service Regulator and Relief Valve Vents.

CODE REQUIREMENTS

DOT §192.353 provides requirements for the location of customer meters and regulators.

DOT §192.355 requires that customer meters and regulators be protected from damage.

COMAR 20.55.09.07D requires that residential customer meters be installed as close as possible to the exterior of the building and that gas service may not be provided to new or renewed service if there is any underground pipeline after the meter unless the pipeline carries gas only to gas utilization equipment located outdoors.

METER LOCATION AND CLEARANCE REQUIREMENTS

Meters shall be installed in accessible locations so they can be easily read and changed. The location shall include adequate space to perform maintenance work on meters, regulators, relief valves, correcting instruments, automatic meter reading equipment, or other equipment.

- ▶ Locate meters and regulators outside unless there are no practical outside locations.
 - ▷ If it is necessary to locate the meter and regulator installation inside, install the regulator as near as practical to the point where the service line enters the building.
 - ▷ If 2 regulators are used in series, locate the first outside if feasible.
 - ▷ When multiple meters are used to serve customers in the same building, locate the meters in close proximity with each other such as on the same wall or in the same room.

PROTECTION FROM HAZARDS

- R | Meter and regulator installations must be protected from hazards. Install meters away from hazards whenever practical. Where not practical to locate the meter and regulators away from hazards, install protective guards around the meter installation. See **OM-5112**, “Protecting Meter Installations” for meter and regulator installations **protection requirements**.

HISTORIC DISTRICTS

In some historic districts or for some specific historic buildings, it may be necessary to locate meters in harmony with the historic character of the building or neighborhood. Contact Corporate Engineering if assistance is needed to determine an appropriate location in compliance with this section.

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OUTSIDE METER LOCATIONS

If practical, meter and regulator installations shall be located outside. Locate the meter on the front wall or on the side wall as near as practical to the front wall. If it is necessary to locate the meter on a rear wall, select a location that provides reasonable access to the meter.

Locate residential meters as close as possible to the exterior of the main residential building. Residential meters shall not be connected to underground piping downstream of the meter except for piping that serves gas utilization equipment located outdoors.

CLEARANCES FROM OUTSIDE REGULATORS AND METERS

The following location and clearance requirements apply to all outside regulators and meters:

- ▶ Maintain a minimum distance of 1-foot from arc-producing electrical equipment or other sources of ignition.
- R | ▶ **Regulator vents must** maintain a minimum distance of 10-feet from fan-induced ventilation air intakes to a building. This requirement does not apply to ventilation air intakes serving a single residential unit or to combustion air intakes.
- R | ▶ **For newly installed standard residential diaphragm meters, maintain a distance of 6 to 18 inches from the bottom of the meter and the final grade at the time of installation.**

ROOFTOP INSTALLATIONS

Meters and regulators shall not be located on rooftops unless there are no other alternatives. Corporate Engineering must approve any rooftop locations prior to installation. See Section 5314, Steel Distribution Services for additional access requirements for rooftop locations.

For rooftop meter installations, the following additional clearances must be maintained:

- ▶ A minimum of 6-feet from the meter to the edge of a roof or other unprotected drop-off
- ▶ A minimum of 3-feet from the meter to the edge of a roof where rigidly-fixed guards or rails that are at least 42-inches high are provided. Parapets or other building structures that are at least 42-inches high may be used in place of guards or rails.

METER PADS AND ENCLOSURES

Install rotary and turbine meters on a concrete pad. See Table 5111-1 for concrete pad size. See Section 5133, Large Load Meter and Regulator Installations for additional requirements for rotary and turbine meter installation.

If an outdoor meter is enclosed within a fence or other enclosure, the enclosure shall be constructed with sufficient dimensions to permit access for maintenance and operation. The shutoff valve must be accessible from outside of the fenced or enclosed area.

BELOW GRADE LOCATIONS

Customer meter and regulator installations shall not be located in below grade pits or vaults.

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Table 5111-1. Meter Installation Pad Sizes

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Meter Size	Regulator	Standard Drawing	Pad Size
AC250 or I250	Single regulator	D-8281-I-028B	None
AL425 or I400 (20LT)	Single regulator	D-8281-I-028B	None
AL425 (30LT)	Single regulator	D-8281-I-028B	None
1.5M	Single regulator	D8421-I-006 or D8421-I-041	24 in x 30 in ^{1 and 3}
2M	Single regulator	D8421-I-006 or D8421-I-041	24 in x 30 in ¹
3M	Single regulator	D8421-I-006 or D8421-I-041	24 in x 30 in ¹
5M	Single regulator	D8421-I-086 or D8421-I-087	24 in x 30 in ¹
7M	Single regulator	D8421-I-086 or D8421-I-087	24 in x 30 in ¹
11M	Single regulator	D8421-I-088, D8421-I-090, or D8421-I-091	30 in x 36 in ¹
	Dual Regulators	D8421-I-089	48 in x 48 in ¹
16M	Single regulator	D8421-I-088, D8421-I-090, or D8421-I-091	30 in x 36 in ¹
	Dual Regulators	D8421-I-089	48 in x 48 in ¹
23M	Custom design		10 ft x 18 ft ²
38M	Custom design		10 ft x 18 ft ²
56M	Custom design		11 ft x 20 ft ²
102M	Custom design		12 ft x 22 ft ²
T18	Custom design		10 ft x 18 ft ²
T35	Custom design		10 ft x 20 ft ²
T60	Custom design		11 ft x 22 ft ²
T140	Custom design		12 ft x 24 ft ²

¹ This dimension is for concrete pad only. Check drawing to determine location of service riser and houseline relative to meters and regulators. Add 3 feet in front of meter and regulator installation to permit maintenance access.

² This dimension is typical but may vary from actual pad requirement specified for the custom design. Contact Corporate Engineering to determine actual pad requirements.

³ 1.5M Meters do not always require a concrete pad.

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INSIDE METER LOCATIONS

Meters and regulators shall not be installed inside buildings or other structures unless there are no other practical alternatives. When meters are installed inside buildings, the location must have adequate clearance and accessibility for meter reading, maintenance, and operation. Inside meter locations must be ventilated. Pipe all relief valve vents and regulator breather vents to the outside. See Section 5126, Service Regulator and Relief Valve Vents for sizing and other vent requirements.

CLEARANCES FROM INSIDE METERS

The following location and clearance requirements apply to all inside meters:

- ▶ Maintain a minimum distance of 3-feet from sources of ignition.
- ▶ Maintain a minimum distance of 3-feet from sources of heat that could raise the temperature of the meter to 120-degrees Fahrenheit or otherwise damage the meter.

VENTILATION

Inside meters shall be installed in a ventilated space. The vent requirements are

- ▶ The vent shall allow the meter room to communicate either with the outside or with an occupied portion of the building.
- ▶ The effective vent area shall be
 - ▷ A minimum of 3-square inches for a cabinet containing 3 or fewer residential size meters
 - ▷ A minimum of 3-square inches for a meter room with a floor area of 10-square feet or less containing 3 or fewer residential size meters
 - ▷ A minimum of 10-square inches for a meter room or cabinet containing at least 1 commercial size meter 1.5M rotary or larger, or more than 3 meters of any size
 - ▷ A minimum of 10-square inches for a meter room with a floor area greater than 10-square feet, preferably
- ▶ The vent shall be located a minimum of 1-foot above the floor of the meter room.
- ▶ An undercut door is not considered to be a vent in compliance with this section.

If the meter is installed in a cabinet or closet, the interior of the cabinet or closet shall not communicate with a floor, ceiling, or wall cavity or with a room or building story other than the one containing the closet or cabinet.

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ACCESSIBILITY

To determine if a meter is accessible, verify that a meter reader or technician will be able to get to the meter safely and that there is adequate space to

- ▶ Use a wrench to loosen or tighten swivel nuts, vent line union, or flange bolts
- ▶ Operate or lock the stopcock or valve
- ▶ Read the meter dial and meter badges
- ▶ Read the numbers on an automatic meter reading device
- ▶ Remove an automatic meter reading device for replacement or battery change
- ▶ Maneuver the meter into and out of position and hold in position while turning swivel nuts without undue body strain, undue risk of contacting hot surfaces, or unreasonable exposure to other personal hazards
- ▶ Adjust the regulator
- ▶ Remove the meter or regulator without removing other mechanical equipment
- ▶ Remove other mechanical equipment without removing the meter or regulator

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SCOPE

Each service regulator must be tested and, if necessary, adjusted any time the meter that it serves is set, reset, or changed. This section describes the procedures for testing and adjusting service regulators and checking vent lines. Monitor/operator service regulators are not covered in this section; for more information see Section 5123.

CODE REQUIREMENTS

DOT §192.195 establishes requirements for over-pressure protection.

DOT §192.197 establishes requirements for control of the pressure of gas delivered from high pressure distribution systems.

DOT §192.199 establishes requirements for the design of pressure relief and limiting devices.

DOT §192.355 establishes requirements for protection of service regulators from damage and requirements for venting regulators and relief valves.

DOT §192.357 establishes requirements for the installation of service regulators.

GENERAL

A service regulator must be tested and, if necessary, adjusted each time the meter is set, reset, or changed. A vent line must be inspected and tested anytime gas to the regulator has been shut off.

REGULATOR TEST

A regulator test consists of:

- ▶ A vent-line pump test
- ▶ Low load test
- ▶ High load test
- ▶ Lock-up test

R | **The pressure limit specifications and orifice sizes to produce various test flow rates (low load and high load) are shown in Table 5121-1.**

If the regulator fails any of the four tests, service or replace the regulator.

R | If **the failed regulator** is a mercury-sealed regulator, contact Washington Gas Dispatch at 703-750-4831 for replacement by a qualified technician.

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R | Table 5121-1. Regulator Function Test Specifications
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Regulator Type		Regulator	Low-Load Delivery Pressure	High-Load Min Delivery Pressure	Lock-Up Max Pressure	Load Tester 12443 (Old) Orifice (Drill Size)		Load Tester 3188883 (New) Orifice (Drill Size)	
						Low-Load	High-Load	Low-Load	High-Load
Residential	Standard	Mercury	5.5" w.c.	5.0" w.c.	7.5" w.c.	#34	None 1.Remove Cap 2.Flow Gas through Valve	#46	#37
		Legacy (B42R, etc.)	7.0" w.c.	6.5" w.c.	9.0" w.c.				
		Pietro Fiorentini FE-Series	7.0" w.c.	6.5" w.c.	11.0" w.c.				
	2 psig delivery		2.0 psig	1.85 psig	2.25 psig	#47	#27	#49	#43
Regulator Type	Regulator	Low-Load Delivery Pressure	High-Load Min Delivery Pressure	Lock-Up Max Pressure	Load Tester 2334526 (New, Commercial) Orifice (Drill Size)				
						Low-Load		High-Load	
Commercial	7.0' w.c. delivery	7.0" w.c.	6.5" w.c.	9.0" w.c.	7/32"		5/16"		
	2 psig delivery	2.0 psig	1.85 psig	2.25 psig	#27		#11		

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VENT-LINE INSPECTION AND TEST

Visually inspect the condition of the vent-line, looking for and correcting any of the following deficiencies:

- ▶ Confirm screen ell is present and in good condition
- ▶ Confirm screen ell is a minimum 12-inches above any horizontal surface directly below the vent
- ▶ Condition and sizing of the piping
- ▶ Clearances from sources of ignition and building openings
- ▶ Evidence of blockage

Test the vent line to verify that the line is clear. When a vent line is disconnected, a Washington Gas approved container must be in place under the vent line union or any other disconnected vent piping, to contain debris that may fall from inside the vent piping. The line shall be tested with an approved testing device. No more than 2" w.c. back pressure should be created. If a higher back pressure is created, or if the back pressure does not dissipate immediately after pumping has stopped, the line may have a blockage and must be cleared.

If the vent line cannot be cleared, leave gas off and contact Washington Gas Dispatch.

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SCOPE

Each service regulator must be tested and adjusted any time the meter that it serves is set, reset, or changed. This section describes the procedures for inspecting, testing, and adjusting monitor/operator service regulators and their installation and checking related vent lines.

CODE REQUIREMENTS

DOT §192.195 establishes requirements for over-pressure protection.

DOT §192.197 establishes requirements for control of the pressure of gas delivered from high pressure distribution systems.

DOT §192.199 establishes requirements for the design of pressure relief and limiting devices.

DOT §192.353 establishes requirements for the location of service regulators.

DOT §192.355 establishes requirements for protection of service regulators from damage and requirements for venting regulators and relief valves.

DOT §192.357 establishes requirements for the installation of service regulators.

GENERAL

Monitor regulators are used in series with an operator regulator to provide over-pressure protection in case the operator fails. Generally, this type of installation is used for large loads where due to the type of regulators required a monitor is the best method to provide this protection. A small capacity relief valve should also be used to provide additional protection.

Monitor/operator regulator installations used as service regulators must be inspected at least once each calendar year not to exceed 15 months.

INSPECTION

Whenever a monitor/operator regulator installation is inspected, it may be necessary to put the job on by-pass or shut off the gas. Be sure that gas is off and pressure is relieved before opening any inspection ports or taking apart any equipment.

To complete an inspection,

- ▶ Check both the monitor and operator for outlet pressure setting and lock-up. If either requires resetting or fails to lock-up completely, both must be inspected for the condition of the valves and other internal parts subject to wear. Replace any worn or damaged parts.
- ▶ Check the relief valve for set-point and condition. Verify that if a valve is installed between the relief valve and the line it is protecting that the valve is locked open.
- ▶ Check the condition of the static lines. Verify that any valves in a static line are locked open.

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ENGINEERING AND OPERATING STANDARDS

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- ▶ Verify that all regulator vents and relief valve vents terminate outside in accordance with Section 5126.
- ▶ Inspect the strainer basket. Do not blow gas from the strainer in an attempt to clean the strainer. Gas must be shut off and the basket removed for proper inspection. Remove any build-up of dust or dirt. Replace the basket if it is worn or damaged.
- ▶ Verify that the installation is properly protected from damage including vehicle traffic. See Section 5112 for requirements.

Any deficiencies found must be corrected before the regulator installation may be returned to service.

RECORDS

Inspection records must be maintained for at least 5 years.

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SCOPE

Mercury-sealed regulators use mercury to seal the relief vent that serves as overpressure protection. This section describes the hazards, safety concerns, and limitations concerning mercury-sealed regulators.

CODE REQUIREMENTS

DOT §192.195 establishes requirements for overpressure protection.

DOT §192.197 establishes requirements for control of the pressure of gas delivered from high-pressure distribution systems.

DOT §192.199 establishes requirements for the design of pressure relief and limiting devices.

EPA §302.4-6 establishes requirements for determining reportable quantities for mercury spills.

IDENTIFYING MERCURY-SEALED REGULATORS FOR REPLACEMENT

Mercury-sealed regulators shall be replaced when any of the following are encountered:

- ▶ The regulator has “blown” or is weeping gas.
- ▶ The regulator is being tested and fails the functional and lock-up test, or malfunctions.
- ▶ The system is being uprated to a MAOP above 25 psig.
- ▶ The service is being replaced.
- ▶ The connecting piping is being altered or replaced, making it practical to change the regulator.
- ▶ The regulator is scheduled for removal.

Mercury-sealed regulators remaining in service shall be appropriately documented in CAD.

TESTING AND ADJUSTING MERCURY-SEALED REGULATORS

A mercury-sealed regulator must be tested each time the associated meter is set, reset, or changed. See the test procedure described in Section 5121. If the regulator does not meet the requirements of the test, contact Washington Gas Dispatch at 703-750-4831 to have a qualified person replace the regulator.

Vent-line Pump Test

When a vent-line is disconnected to perform a vent-line pump test, a Washington Gas approved container must be in place under the vent-line union or any other disconnected vent piping, to contain mercury or other debris that may fall from inside the vent piping.

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- ▶ Before disconnecting the union, tap on the vent-line, to dislodge any mercury that may be present.
- ▶ Perform a vent-line pump test with U-gauge per Section 5121, Testing and Adjusting Service Regulators.
- ▶ If vent-line is blocked, check outside vent termination. Place an approved Washington Gas container under the vent-line, remove screen or screen ell, and clear any visible dirt. If blockage remains, leave gas off and contact Washington Gas Dispatch.
- ▶ If any debris falls from the vent-line into the container, the container shall be sealed and transported to the appropriate Washington Gas facility and placed within the container labeled “Mercury Regulators”.

MERCURY REGULATOR REMOVAL, HANDLING, AND SPILL CLEANUP

Whenever mercury-sealed regulators are removed from service, care must be taken to prevent mercury spills and contamination.

THE FOLLOWING PRECAUTIONS SHALL BE FOLLOWED:

- ▶ Only those persons trained and qualified in handling mercury-sealed regulators may change or remove mercury-sealed regulators.
- ▶ A mercury vapor reading shall be taken before work commences and after work is complete.
- ▶ If mercury is visible, or vapor is detected before work begins, all work shall stop and Dispatch shall be notified immediately.
- ▶ Persons removing mercury regulators shall wear nitrile safety gloves.
- ▶ A Washington Gas approved container shall be used when removing a mercury-sealed regulator. The approved container shall remain in place, until all piping is reconnected. All openings on the regulator shall be plugged and/or capped as the regulator is disconnected. The regulator and all other disconnected fittings, debris, etc, shall be stored and transported in the approved container.
- ▶ The regulator and all other removed fittings, debris, etc, shall be transported to the appropriate Washington Gas facility and placed within the container labeled “Mercury Regulators”.

MERCURY SPILLS

- ▶ All mercury spills, regardless of quantity, and/or any evidence of previously spilled mercury must be reported immediately to Washington Gas Dispatch.
- ▶ Do not attempt to clean any spills. The on-call Safety and Environment responder will arrive on-site to assess the spill and perform the clean-up process. The person reporting the spill shall remain on site to assist the on-call responder as needed.

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- ▶ Take precautions to prevent further spills and stay out of the spill area to prevent spreading the spill.
- ▶ Keep the public from entering the spill area.
- ▶ If spill occurs inside a vehicle, the vehicle must be taken to SOC and shall not be used until it has been evaluated and cleared by Safety and Environment.

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SCOPE

This section presents requirements for service regulator and relief valve vents, extended vents, vent line sizing, underground vent lines, breather vents, and vent termination.

CODE REQUIREMENTS

DOT §192.355 establishes requirements for venting regulators and relief valves.

REFERENCES

VASCC Guidance for Location of Service Regulators and Vents (§192.353 and §192.355) defines service regulator vent clearance requirements in Virginia

SERVICE REGULATOR AND RELIEF VALVE VENTS

Relief valve vents and regulator internal relief valve (IRV) vents are sized to allow gas to flow freely when the relief valve operates. An internal relief valve is built into a regulator; the vent acts both to relieve gas pressure when the relief valve operates and to provide the atmospheric reference pressure on top of the diaphragm. A breather vent provides only an atmospheric reference on top of the diaphragm.

Each relief valve vent, internal relief valve vent, and regulator breather vent must terminate outside where gas can vent safely away from building openings. Install a vent line if necessary to extend a vent termination to a point where the termination meets the requirements of this section. Each relief valve vent and each internal relief valve vent must have its own separate vent line.

VENT LINES AND TERMINATIONS

On all New Business projects, the installation of vent lines aboveground shall be the preferred method.

Vent lines may only be installed underground:

- ▶ When replacing an existing underground vent line
- ▶ When an aboveground route is not practical

All vent terminations¹ shall:

- ▶ Terminate outdoors at least 12-inches above grade with an insect-resistant screen
- ▶ Maintain a minimum of 12-inches clearance from any horizontal surface directly below the vent
- ▶ Allow gas to vent freely away from building openings such as windows, doors, or air intakes

¹ Vents or outlets of vents in Virginia must maintain the clearance requirements of the “VIRGINIA: ADDITIONAL VENT CLEARANCE REQUIREMENTS” section below.

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- ▶ Maintain the same clearance from direct vent appliance intakes as from sources of ignition.
- ▶ Maintain at least 10-foot clearance from fan-induced ventilation air intakes to a building. This requirement does not apply to ventilation air intakes serving a single residential unit or to combustion air intakes.
- ▶ Maintain clearance above the roof surface if terminating a relief valve vent or an IRV vent above a flat roof.
 - ▷ For a vent from an IRV regulator with a $\frac{3}{4}$ -inch inlet connection, maintain at least 3-foot clearance.
 - ▷ For a vent from an IRV regulator with inlet connection larger than a $\frac{3}{4}$ -inch or from a separate relief valve, maintain at least 4-foot clearance.
- ▶ Orient the termination point so that flow from the vent is downward to prevent entry of rainwater into the vent.
- ▶ Terminate above the high-water mark in areas known to flood. If known, terminate above the 100-year flood level.

VIRGINIA: ADDITIONAL VENT CLEARANCE REQUIREMENTS

- ▶ The regulator vent must be located a minimum of 3 feet horizontally away from any openings into buildings, and the regulator vent or vent outlet shall not be installed underneath any openings located on the first floor of the building.
- ▶ The regulator vent or vent outlet must be located a minimum of 3 feet horizontally away from any rotating electrical equipment and shall not be installed underneath any such equipment.
- ▶ The regulator vent or vent outlet shall be at least 10 feet horizontally away from any powered intake vents.
- ▶ Where possible the operator shall maintain a minimum of 3 feet of radial separation between the regulator vent or vent outlet and any electric meters, electrical equipment disconnecting boxes, electrical outlets, etc. However, at no time, a regulator vent or vent outlet shall be installed with less than 1 foot of radial separation from any electric meters, electrical equipment disconnecting boxes, electrical outlets, etc.

EXTENDING VENTS

Piping used to extend an internal relief valve vent or a separate relief valve vent must be sized to provide adequate overpressure protection and must not connect to any other vent piping. See Table 5126-1. Valves are not permitted in a vent line. Each threaded joint must be assembled with a suitable pipe-thread sealant. For each vent line, install a union as near as practical to the regulator or relief valve to permit the vent line to be temporarily disconnected for testing. If the vent line is to be larger than the connection to the regulator or relief valve, transition to the larger

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size as soon as practical after the union. The union may be omitted for vent lines less than 5-feet long where the regulator or relief valve is located outdoors, and the vent line can be tested and the regulator serviced without the use of a union.

VENT LINE SIZING

Relief valve vent lines shall be sized using Table 5126-1. An example vent line construction is illustrated in Figure 5126-1. Contact Corporate Engineering for situations not covered by this table. The equivalent length is found by adding the length of the pipe and the equivalent length for each fitting used. The equivalent length for common fittings are as follows:

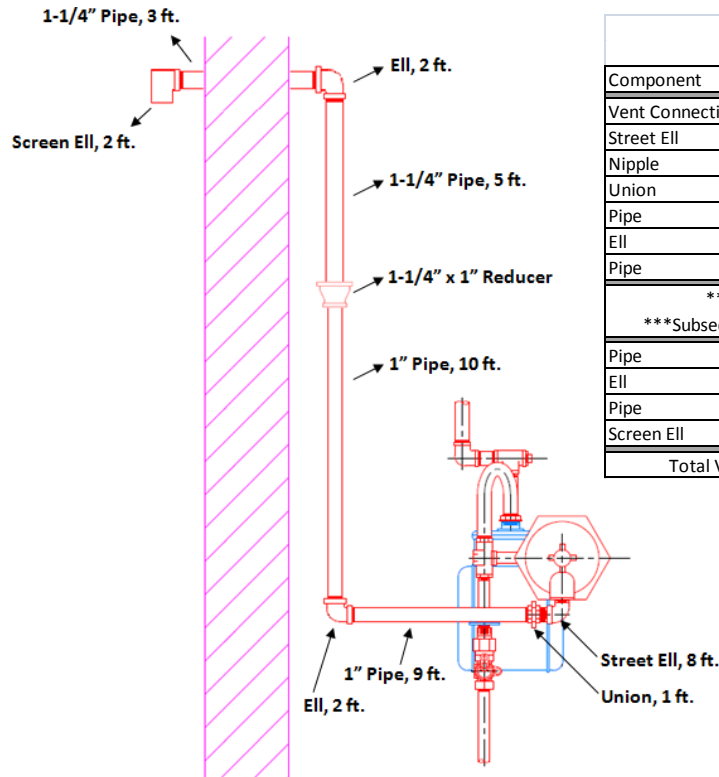
- ▶ Elbow or screen elbow – 2-feet
- ▶ Street elbow – 8-feet
- ▶ Tee through run – 2-feet
- ▶ Tee through side – 4-feet
- ▶ Union, socket, or coupling – 1-foot

Table 5126-1. Minimum Pipe Size for Service Regulator or Relief Valve Vent Lines

Regulator or Relief Valve Vent Connection Size (in)	Vent Piping Sizing			
	First 30 ft of vent piping (or less) (in)	Piping 31 to 60 ft beyond vent (in)	Piping 61 to 90 ft beyond vent (in)	Piping 91 to 120 ft beyond vent (in)
$\frac{1}{2}$ or less	$\frac{3}{4}$	$\frac{3}{4}$	1	$1\frac{1}{4}$
$\frac{3}{4}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$
1	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
$1\frac{1}{2}$	$1\frac{1}{2}$	2	3	4
2	2	3	4	5
$2\frac{1}{2}$	3	4	5	6

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Figure 5126-1. Example Vent Line Construction (not to scale)


Vent Line Legend			
Component	Size	Equivalent Feet	Total Feet
Vent Connection	1"	0	0
Street Ell	1"	8	8
Nipple	1"	~0 (close)	8
Union	1"	1	9
Pipe	1"	9	18
Ell	1"	2	20
Pipe	1"	10	30
1st 30 Feet Completed			
Subsequent Vent Line Must be Upsized			
Pipe	1-1/4"	5	35
Ell	1-1/4"	2	37
Pipe	1-1/4"	3	40
Screen Ell	1-1/4"	2	42
Total Vent Line Length (Equivalent):			42

BREATHER VENTS

Breather vents must terminate outside and meet the same vent termination requirements as for relief valve vents. Piping used to extend a breather vent must be sized using Table 5126-1. A breather vent shall not be connected to a vent line from an internal relief valve regulator or a relief valve. Connecting 2 or more breather vents to the same vent line is allowed only when designed for a specific location and must be approved by Corporate Engineering.

Vent Limiters

Vent limiters are not permitted on any Washington Gas-owned regulator. Vent limiters may be used in lieu of a vent line for a breather vent on regulators installed for the customer to become a part of the customer's house piping and must meet the following conditions:

- ▶ The vent limiter is designed for inside termination.
- ▶ The vent limiter complies with ANSI Z21.80.
- ▶ The vent limiter is approved for use by the regulator manufacturer.
- ▶ The use of a vent limiter is permitted by the jurisdiction having authority.

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