	LAST REVIEW DATE: 2/21/2021	REVIEW CYCLE:
	EFFECTIVE DATE: 5/10/2021	5 Years

SPECIFICATION: G-699-4a

TITLE: INSTALLATION AND INSPECTION OF GAS SERVICE REGULATOR VENT LINE PROTECTORS (VLPs)

VOLUME: 3, 10 and Yellow Book

COURSE ID: [GAS0564](#)

CORE GROUP: Gas Distribution Services (GDS),
Emergency Response Force Lead
Mechanic (ERFL)

TARGET AUDIENCE: Gas Measurement, Gas Distribution
Services (GDS), Gas Construction,
Pressure Control, Construction, Gas
Contractors, Emergency Response Force
Lead Mechanic (ERFL)

Administrative Revisions

REV 4a (8/29/2022)

Renamed section 9.0: to “Climate & Environmental Considerations” added content referring to the climate change impact considerations.

Renumbered section 9.0: section 9.0 was renumbered to section 10.0 References.
Added in reference to “Climate Change Adaptation & Resiliency”
Corporate Instruction ([CI-610-4](#))

REVISIONS: (See ★)

- 1) Section 7.0
 - Deleted Section 7.0: VLP Annual Inspection in its entirety. Renumber subsequent sections. Removed section from Table of Contents.
- 2) Section 9.0
 - Reformatted and alphabetized references in Reference Section.




Gas Operations Standards

**TITLE: INSTALLATION AND INSPECTION OF GAS SERVICE
REGULATOR VENT LINE PROTECTORS (VLPs)**

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	EH&S REVIEW BY: C. Little		OPERATIONS REVIEW BY: N/A		
	AUTHOR:	APPROVED BY:	DATE APPROVED:	VOLUME: 3, 10 and YB	PAGE 1 OF
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TITLE: INSTALLATION AND INSPECTION OF GAS SERVICE REGULATOR VENT LINE PROTECTORS (VLPs)

1.0 SCOPE


- 1.1 This specification details the installation and inspection of Vent Line Protectors (VLPs) on new and existing gas service regulator (indoor and outdoor) vent outlet terminus.
- 1.2 VLPs are devices that prevent the flow of water into a gas service regulator vent outlet terminus.

2.0 LEGAL REQUIREMENTS

- 2.1 Code of Federal Regulations, Title 49, Part 192, "Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards." 192.355 (b)
- 2.2 Rules and Regulations of the State of New York, Public Service Commission, 16 NYCRR Part 255, "Transmission and Distribution of Gas." 255.355 (b)
- 2.3 National Fuel Gas Code (NFPA 54)

3.0 GENERAL

- 3.1 Specification [G-8217](#), "Flood-Prone Areas for the Installation of Gas Service Regulator Vent Line Protectors (VLPs)" lists the areas by M&S plate where VLPs shall be installed. Local management may determine other areas where VLPs may be required.
- 3.2 Where the installation of VLPs is impractical, the vent line terminus shall be raised to a minimum of 3 feet above the Base Flood Elevation (BFE) provided on the Federal Emergency Management Agency (FEMA) maps.
- 3.3 Gas service regulator vents shall be installed per Drawing [EO-17118](#), "Regulator Vent Installation." Where the installation of a VLP will not provide the required 18" clearance from the lower end of the VLP to final outdoor grade, provisions must be made to elevate the vent outlet terminus.
- 3.4 The VLP shall be installed perpendicular to the ground and shall not exceed 10 degrees in the vertical position.

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3.0 **GENERAL** (Continued)

- 3.5 All threaded joints on pipe and pipe fittings shall be sealed with Teflon tape or approved pipe dope.
- 3.6 All uncoated outdoor piping and fittings shall be painted with suitable non-lead outdoor paint for use on metal surfaces.
- 3.7 Obtain permission from the customer prior to installing, removing, or performing maintenance on a VLP. If access is denied, install a Class C warning tag in accordance with [G-11837](#).

4.0 **INSTALLATION FOR INDOOR REGULATORS**

- 4.1 Using the table below, select a VLP properly sized to the existing service regulator vent or vent line.

Vent Outlet Terminus Size	VLP
1/2", 3/4", 1", 1 1/4", 1 1/2"	1"
2" and above	See Section 6.0

- 4.2 Remove the existing vent line cap.
- 4.3 Using the table below, select a properly matched 90° elbow to adapt from the vent line terminus to the VLP.

Vent Line Terminus	Elbow Size
1/2" male thread	1/2" female to 1" female
3/4" male thread	3/4" female to 1" female
1" male thread	1" female to 1" female
1/2" female thread	1/2" male to 1" female
3/4" female thread	3/4" male to 1" female
1" female thread	1" male to 1" female



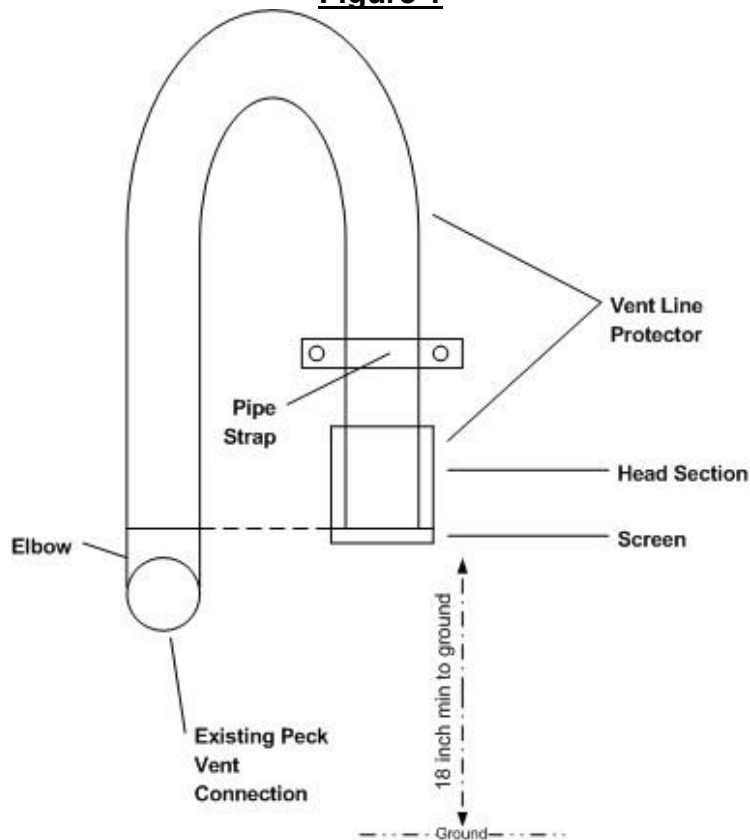
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4.0 **INSTALLATION FOR INDOOR REGULATORS** (Continued)

Vent Line Terminus	Elbow Size
1 ¼" male thread	1 ¼" female to 1" female
1 ½" male thread	1 ½" female to 1" female
1 ¼" female thread	1 ¼" male to 1" female
1 ½" female thread	1 ½" male to 1" female

- 4.4 Attach the VLP with 90° elbow to the existing vent line terminus. The VLP should be in the vertical position with the screen section closest to the ground. Ensure 18" clearance from the lower end of the VLP to final outdoor grade.
- 4.5 Attach the 2 hole pipe strap (supplied with the VLP) or equivalent to the VLP. Ensure the VLP is securely in place. (Figure 1)

Figure 1



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4.0 INSTALLATION FOR INDOOR REGULATORS (Continued)

- 4.6 Screws or other hardware used to attach the mounting bracket to the building face shall be hardened and corrosion resistant.
- 4.7 For curb valve location tag installation requirements, see Specification [G-8028](#), "Requirements for Indicating the Location of the Curb Valve Box on a Gas Service with an Indoor Regulator."

5.0 INSTALLATION FOR OUTDOOR REGULATORS


- 5.1 Using the table below, select a VLP properly sized to the existing service regulator vent or vent line.

Vent Outlet Terminus Size	VLP
½", ¾", 1", 1 ¼", 1 ½"	1"
2" and above	See Section 6.0

- 5.2 Remove the existing vent cap from the regulator.
- 5.3 Using appropriately sized pipe and elbows, install **only the head section** of the VLP such that the screen section is closest to the ground. Ensure 18" clearance from the lower end of the VLP to final outdoor grade.
- 5.4 If 18 inches ground clearance cannot be maintained, attach the VLP to the building face as in Figure 1 and run 1" pipe and fittings from the regulator to the VLP.

6.0 VENT LINE TERMINUS 2 INCHES AND GREATER

- 6.1 For industrial regulator installations with (4) 2 inch vent terminus, a single 1 inch VLP is required for each 2 inch vent terminus. Industrial regulators include Fisher models 99, 133HP, 133L, 1098, and EZR.
- 6.2 For a vent line terminus equal to or greater than 2 inches in diameter, a VLP manifold (Figure 2) should be used with (5) 1 inch VLPs.

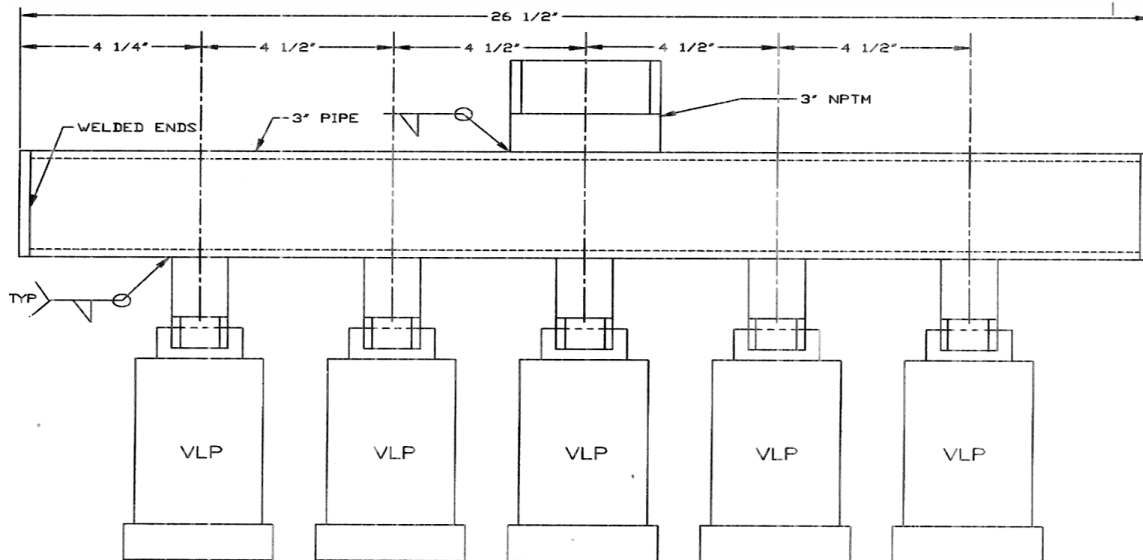
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6.0 VENT LINE TERMINUS 2 INCHES AND GREATER (Continued)

Figure 2



- 6.3 When installing vent line manifold with VLPs, ensure that is adequately supported.
- 6.4 When encountering multiple 2 inch and above vent terminus, strong consideration should be given on raising existing vent line to a minimum of 3 feet above the Base Flood Elevation (BFE) provided on the Federal Emergency Management Agency (FEMA) maps.

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7.0 MERCURY CONTAMINATION PRECAUTIONS

- 7.1 All personnel performing work on regulators and associated piping shall be aware of potential mercury contamination and have knowledge of the notification/reporting requirements in the event of a mercury find or spill.
- 7.2 When potential mercury-containing equipment such as gas regulators and gas vent lines are worked on or handled, proper mercury spill protection and PPE shall be used in accordance with [CEHSP S11.00](#), "Mercury Management Program".
- 7.3 If mercury is discovered or if a mercury spill occurs, immediate notifications to the EH&S Control Desk and Chem Lab shall be made. Cleanup shall only be performed by the Chem Lab in accordance with [GEHSI E02.23](#), "Mercury Spill Containment."

8.0 RECORDS RETENTION


Any records generated in the course of performing work in accordance with this specification shall be maintained as required by Corporate Instruction [CI-870-1](#) "Records Management". Guidance on the retention of Company Gas Operations records can also be found on the [Records Management](#) intranet site

9.0 CLIMATE & ENVIRONMENTAL CONSIDERATIONS

Climate change may impact certain design criteria of the Gas system. For guidance on climate change impact considerations, please refer to the "Climate Change Adaptation & Resiliency" Corporate Instruction ([CI-610-4](#)).

★ 10.0 REFERENCES

CEHSP S11.00	Mercury Management Program
CI-870-1	Records Management
EO-17118	Regulator Vent Installation


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★ 10.0 REFERENCES (Continued)

G-11837	Investigation of an Inside Gas Leak or odor Call and Issuance of a Warning Tag
CI-610-4	"Climate Change Adaptation & Resiliency" Corporate Instruction
G-8028	Requirements for Indicating the Location of the Curb Valve Box on a Gas Service Regulator with an Indoor Regulator
G-8217	Flood-Prone Areas for the Installation of Gas Service Regulator Vent Line Protectors (VLPs)
GEHSI E02.23	Mercury Spill Containment
NFPA 54 (ANSI Z223.1) National Fuel Gas Code	

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