

OPERATION AND MAINTENANCE

Reference: [192.745](#), [192.747](#)

OSHA Link: N/A

Chapter 8: Valve Maintenance

08) VALVE MAINTENANCE

I. Transmission and Distribution Valves

8.1.1 General

Newly installed valves will be designated as a Critical Valve, Network Valve, or Valve-Other. These valves may be redesignated as the system is extended, interconnected, or modified.

- A. Critical Valves are valves necessary for the safe operation of the system in an emergency. The requirements of CFR 192.181 provide guidance on valves that may be used in an emergency. Valves in the following locations are Critical Valves:
- Regulator or meter station inlet valves
 - Regulator or meter station outlet valves when multiple feeds are present
 - Mainline valves on transmission lines
 - Section isolation valves spaced to reduce the time to shut down a section of main in an emergency. Considerations for selecting section isolation valves include:
 - (i) Pressure, diameter, and material type of mains
 - (ii) Population density, critical customers, and consequences of a failure
 - (iii) Critical crossings such as interstate highways, rivers, railroads, or levees
- B. Network Valves are valves that can be used for the control of gas flow through a system that are not designated as critical valves.
- C. Valve-Other are valves not used for control of gas flow through a system which may be typically closed.
- Valve for blow down/purge
 - Dead-end or stub valve
 - Other valves not designated as critical or network valves

The location of all critical transmission and distribution valves shall be shown in the appropriate Company GIS system.

Valves on transmission pipelines used to minimize the volume of gas released from a pipeline and to mitigate the consequences of a rupture designated as a rupture mitigation valve (RMV) or alternative equivalent technology (AET-V)

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(e.g., manually operated valves, locally operated valves, or check valves) will be designated as “RMV valves” or “AET-V” respectively. RMV valves and AET-Vs will be inspected and maintained with the same frequency and requirements as “Critical Valves” shown below except as noted. RMV valves and AET-Vs shall be shown in the appropriate Company GIS system.

8.1.2 Maintenance Schedule

Each line valve designated “critical” shall be inspected, operated, and lubricated at intervals not exceeding fifteen (15) months, but at least once each calendar year, for safe operation. Valves designated as “network” after August 28, 2023 will be inspected, operated, and/or lubricated as appropriate every five (5) years. Inspections will be documented in appropriate Company systems.

8.1.3 Valve Maintenance Procedure

Servicing should include greasing and tightening in accordance with the applicable manufacturer's recommendations. Such procedure includes the following:

- A. The critical valve is to be partially operated or via reverse flow in the case of check valves (to the extent of confirmation to the inspector that the valve will move from its seat), lubricated if necessary or applicable, checked for leaks, checked for locking device (if aboveground and required), and checked for the need for any additional required maintenance, such as painting.
- B. In addition to the above, underground valve inspection includes checking the alignment of the valve box to permit the use of a key or tee wrench and clearing any debris from the valve box or vault that would interfere with rapid operation of the valve.
- C. No affected valve shall be installed below grade without a valve box which will permit its operation from above grade. When existing buried valves are uncovered for any purpose, a valve box should be installed which will permit its operation from above grade when practical.
- D. In the event a “Critical Valve” is found not to operate, maintenance shall be performed. If it continues to be inoperable, another valve shall be designated as a “Critical Valve” or the inoperable valve must be replaced.
- E. In the event an “RMV Valve” or “AET-V” is found not to operate, maintenance shall be performed, or the valve replaced as soon as practical, but no later than 12 months after the valve is found to be inoperable. Designate an alternative valve within 7 calendar days of finding an inoperable valve while maintenance or a scheduled replacement can be made. Alternative valves are not required to comply with the valve spacing requirements. Designated alternative valves must have a

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documented interim response plan. Notify and coordinate with Gas Control and Engineering throughout the process as applicable.

Note: A request for an extension may be made to PHMSA in accordance with the procedures in O&M 1.4.6, Notification to PHMSA Under Part 192, if repair or replacement of the RMV valve or AET-V within 12 months is economically, technically, or operationally infeasible.

- F. For valve maintenance in vaults, refer to Operations and Maintenance Section 11.6, Vault Maintenance, for vault entry procedures.