



Description This procedure gives steps to maintain DOT valves in good working condition.

Regulatory Applicability Each transmission line valve that might be required during an emergency
 Regulated Transmission Pipelines
 Regulated Gathering Pipelines (Type A)
 Regulated Gathering Pipelines (Type B)
 Regulated Distribution Pipelines

Frequency Once each calendar year at intervals not exceeding 15 months

Reference 49 CFR 192.745 *Valve Maintenance: Transmission Lines*
49 CFR 192.747 *Valve Maintenance: Distribution Systems*

Forms / Record Retention WTG 1104 *Emergency Valve Inspection / 5 Years*

Related Specifications None

OQ Covered Task 0331 *Visual Inspection and Partial Operation*
0341 *Valve Preventative Maintenance*
(In order to perform the tasks listed above; personnel must be qualified in accordance with West Texas Gas's Operator Qualification program or directly supervised by a qualified individual.)



Procedure Steps

Valve maintenance shall be an ongoing activity with major repairs conducted as operation and line scheduling permits. Routine maintenance also shall be performed during the required valve inspection, or more frequently as conditions dictate to ensure valves are in good working order at all times.

1. Coordinate maintenance activities with operations and all affected entities.
2. Verify location of valve to be inspected.
3. Have proper equipment and Traffic plan.
4. Verify the accessibility of the valve. Determine if this is a confined space. Use "Safe Entry Procedure" when entering underground or enclosed vaults.
5. Review safety procedures and Check air quality.
6. Verify the valve number and nameplate data, if applicable.
7. Verify the valve type and manufacturer. (Types of valves include gate valves, butterfly valves, ball valves, check valves, remote controlled valves, etc.)
8. Inspect valve and components.
 - a) Locate valve to be inspected by map or alignment sheet.
 - b) Ensure safe access to valve. Valve may be located within confined space or high traffic area. Appropriate plans and permits should be attached if applicable.
 - c) Verify valve number.
 - d) Check for visible leaks - be sure that inspection includes main body, packing area, plugs, reliefs (if applicable), and flange areas (Employee will visually inspect top, bottom, left and right.)
 - e) Check paint condition.
 - f) Check for operator damage.
 - g) Check the components to ensure they are not bent or broken.
 - h) Check the valve for correct open/close position per facility operations.
 - i) Ensure valve is locked as appropriate, when applicable.
 - j) Check for corrosion. If corrosion is found, initiate further investigation and remediation if necessary.
 - k) Ensure valve is protected from unauthorized operation and vandalism (Rupture mitigation valves in normal operations cannot be locked to prevent unauthorized operations)



9. Operate valve.
 - a) Partial operation (1/4 of a turn) is acceptable if full operation of the valve is not feasible.
 - b) Motor valves should be stroked using the power actuator. For remote control valves, initiate closing remotely
 - c) Ensure position indicators are correct.
 - d) For RMV check valves, ensure the valve operates as designed and does not allow high pressure to backflow.
10. Adjust operator/actuator as necessary per manufacturer's procedure.
 - a) Inspect exterior of operator for any damage.
 - b) Replace operator lubricant, as needed.
 - c) Inspect switch compartment for corrosion.
11. Lubricate valve stem, bearings, etc with appropriate product per manufacturer's procedure.
12. Lubricate valve seat as appropriate.
 - a) Grease valve bearings.
 - b) Spray threads and shaft with a dry lubricant, if applicable.
13. Pack valve stem per manufacturer or industry recommendations.
14. Verify proper tagging and component identification, if applicable.
15. Winterize valve when necessary.
 - a) Blowdown (depressurize) valve body.
 - b) Drain non-petroleum liquids (such as water) from valve body.
 - c) Operate injection equipment and inject appropriate antifreeze.
16. If valve is disassembled, internally inspect all parts and make any repairs according to manufacturer's procedures.
17. Document results.
18. Perform prompt remedial action to correct any valve that is found inoperable or designate another valve to use in case of an emergency until the inoperable valve is repaired.

Valve Specification

All valves (block, relief, service blowdown, etc.) and related equipment utilized in pipelines must meet the minimum standards outlined in API 6D. Each valve must be marked to indicate:

1. Manufacturer



2. Material
3. Size
4. Pressure or series rating
5. Specification standards to which it was manufactured

All valves installed in plastic pipe must be installed in a manner that protects pipe from excess torsional or shearing forces. This can be accomplished by:

1. Anchoring the valve to resist turning and rotation.
2. Making the transition from metal to plastic some distance from the valve. The transition must be well supported in compacted soil.

Rupture Mitigative Valves (RMV's)

To ensure communication between the RMV's and SCADA is working properly, a point-to-point verification must be completed for the valves, sensors, and communications equipment. To ensure the RMV is in good working conditions, the above procedure steps will be followed.

At this time WTG has chosen not to use manually operated valves for a RMV. The review and revisions will be made accordingly if WTG decides to utilize manually operated valves in the future.

Inoperable or ineffective isolation valves

If it is found that a RMV is inoperable or unable to maintain effective isolation, the valve must be replaced as soon as practicable but no later than 12 months after it is found. If the valve cannot be replaced within the 12-month requirement, an extension may be request from PHMSA following directions found in CFR 192.18.

Within 7 days of finding a RMV that is inoperable or is unable to maintain effective isolation, an interim isolation response plan must be determined and documented to maintain public safety. For such plan, RMV valve spacing is not required.