

Gas Operations and Maintenance Manual

Description	This procedure gives the steps to inspect DOT vaults. At this time West Texas Gas, Inc. does not operate nor maintain any vaults.
Regulatory Applicability	 Each vault that is at least 200 cubic feet ☑ Regulated Transmission Pipelines ☑ Regulated Gathering Pipelines (Type A) □ Regulated Gathering Pipelines (Type B) ☑ Regulated Distribution Pipelines
Frequency	Once each calendar year, not to exceed a 15 month interval.
Reference	49 CFR 192.749Vault InspectionLA Title 43 Part XIII 2949Vault Inspection
Forms / Record Retention	F-192.749 Vault Inspection
Related Specifications	None
OQ Covered Task	1351 Vault Inspection and 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.)

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Procedure Steps

- 1. General
 - a) Once each calendar year, at intervals not exceeding 15 months, all vault locations greater than 200 cubic feet (5.66 cubic meters) shall be inspected to determine physical condition, adequate ventilation and ventilation equipment, to detect leaks, and condition of vault covers. The following procedures shall be utilized whenever entry into a vault is required. Prior to performing work within a vault, these procedures shall be reviewed to ensure adequate personnel are available and properly trained, and the appropriate equipment is available. Extreme caution should always be taken when preparing to do work within a vault due to potentially hazardous atmospheres.
- 2. Safety Procedures
 - a) Prior to entering a vault several safety precautions shall be taken. If possible, all motor vehicle engines shall be shut-off in the vicinity of a vault. If this not possible, the exhaust shall be kept away from the vault opening. All sources of ignition shall not be permitted in the work area, unless it is required to perform the work. In those situations care shall be taken to prevent accidental ignition (P-192.751 Protection Against Ignition). Safety equipment should be readily available at the work site and all personnel should be properly trained on its use. Adequate equipment shall be at the work location, such as:
 - i) dry chemical fire extinguishers,
 - ii) breathing apparatus, and
 - iii) safety harnesses.
 - b) Any equipment used for lighting the work area, i.e. flashlights, lighting fixtures, or extension cords, shall be of the type approved for hazardous areas.
 - c) The vault atmosphere shall be tested for combustible gas prior to removing the cover. This shall be performed by inserting a test probe into either the vent holes, pry holes, or by slightly lifting the cover. The probe shall be inserted no more than one foot within the vault. Once the cover is removed, further test shall be performed to determine the amounts of combustible gas and oxygen. These readings shall be taken at various levels within the vault. Depending on the results of this test one of the following two scenarios will apply.
 - i) Combustibles at 60% Lower Explosive Limit (3.0% natural gas in air) or less.
 - (1) The vault may be entered without a breathing apparatus after the following criteria has been met:
 - (2) either it has been tested that a safe oxygen level exists, or
 - (3) If ventilation can be adequately maintained through a forced draft method (suction draft ventilation is not as effective forced draft ventilation).
 - ii) Combustibles in excess of the 60% Lower Explosion Limit.
 - (1) The vault should not be entered unless:
 - (a) Ventilation maintains the LEL below 60% and a safe oxygen level exists.

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- (2) If the vault cannot be properly ventilated and the facility cannot be taken out of service in order to complete the repairs necessary, then the vault shall be entered:
 - (a) With the use of an approved breathing apparatus and harness.
- d) While working in the vault, ladders should be used for entry and exit. Once inside the vault, the interior shall be inspected for hazardous or unusual conditions. Repair work shall always be performed in teams of at least two individuals, depending on the circumstances. One person shall always remain on the surface at the vault site while the other performs the repair work. Should the use of breathing apparatus be required then two workers are required to remain on the surface at the vault site, one always observing the work which is being performed. Whenever work is being performed in a vault the atmosphere within the vault shall be regularly tested. Occurring at intervals of one hour the tests shall check for combustible gases and oxygen deficiency. Any type of electrical connections shall be made outside of the vault. Any electrical equipment that is utilized shall be approved for hazardous atmospheres.
- 3. Documentation and Records
 - a) Vault Maintenance results will be documented on F-192.749 or equivalent.



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