

Gas Operations and Maintenance Manual

P-192.736

Compressor Station Gas Detection

| Description | The purpose of this procedure is to ensure proper performance testing of fixed gas detection and alarm systems in compressor station buildings. |
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| Regulatory Applicability | ☐ Regulated Transmission Pipelines ☐ Regulated Gathering Pipelines (Type A) ☐ Regulated Gathering Pipelines (Type B) ☐ Regulated Distribution Pipelines |
| | All DOT regulated compressor station buildings unless the building is: - Constructed so that at least 50 percent of its upright side area is permanently open; or - Located in an unattended field compressor station of 1000 horsepower or less. |
| Frequency | As specified by equipment manufacturer (at least annually) |
| Reference | 49 CFR Section 192.736 Compressor Stations: Gas Detection LA Title 43 Part XIII 2926 Compressor Stations: Gas Detection |
| Forms / Record Retention | F-192.736 Compressor Station Gas Detection / 5 Years |
| Related Specifications | None |
| OQ Covered Task | 9679 Gas Detection and Alarm System 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

Purpose

This procedure establishes the requirements for the testing of compressor building personnel warning systems. It contributes to the compliance of DOT Regulation 192.736.

General

- 1. Each compressor will have a high gas alarm as required by engineering standards.
- 2. The warning alarm will be activated upon the detection of gas inside the compressor building at a level of not more than 25% LEL
- 3. The activation of the stations ESD system will be upon the detection of gas inside the compressor building at a level of not more than 45% LEL.
- 4. Testing of gas sensors and alarms as part of and included in the ESD systems test satisfies the requirements of this procedure.

Procedure

- The recommended interval for testing those components of the personnel warning system that involve gas detection and personnel alarms is once each calendar year or per manufacturer recommendations. The testing for all components of this system should not exceed 24 months.
- 2. Test each gas sensor by introducing a simulated condition that causes the sensor to produce an output response that should cause operation of the warning device.
- 3. Test the system in each compressor building by introducing a simulated condition to a gas sensor that results in operation of the alarm and verify that the appropriate personnel warning devices are functioning properly.
- 4. Calibrate, repair, or replace (as required) any sensor or alarm that does not operate as intended. Perform this maintenance immediately and retest the system.

Record

- 1. The use of an electronic scheduler will be used to ensure the test and calibration of the system is completed within the time frame set forth.
- 2. Document testing and calibration of the system on form F-192.736.
- 3. Maintain records for five (5) years.

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