

Gas Operations and Maintenance Manual

P-192.625

Odorization of Gas

Description

To establish guidelines for odorization of gas and testing of the odorant amounts. Each gas company shall continuously odorize gas by the use of a malodorant agent as set forth in this section unless the gas contains a natural malodor or is odorized prior to delivery by a supplier.

Regulatory Applicability

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K	Regulated	Transmission	Pipelines

- Regulated Gathering Pipelines (Type A)
- □ Regulated Gathering Pipelines (Type B)

State of Texas:

- Unless otherwise required by 49 CFR Part 192.625(B) or by TAC Rule 8.215, odorization is not required for:
 - o gas in underground or other storage;
 - gas used or sold primarily for use in natural gasoline extraction plants, recycling plants, chemical plants, carbon black plants, industrial plants, or irrigation pumps; or
 - gas used in lease and field operation or development or in repressuring wells.
- Gas shall be odorized by the user if:
 - the gas is delivered for use primarily in one of the activities or facilities listed above and is also used in one of those activities for space heating, refrigeration, water heating, cooking, and other domestic uses; or
 - the gas is used for furnishing heat or air conditioning for office or living quarters.
- In the case of lease users, the supplier shall ensure that the gas will be odorized before being used by the consumer.

Frequency

Continually odorize the gas and test levels.

- Record as frequently as necessary to maintain adequate odorization; but not less than once each quarter, record malodorant information for all odorization equipment.
- Perform sniff test annually

Page 1 of 6 Revised: April 2016



Gas Operations and Maintenance Manual

P-192.625

Odorization of Gas

Reference 49 CFR 192.625 Odorization of Gas

> **TAC Rule 8.215** Odorization of Gas

LA Title 43 Part XIII 2725 Odorization of Gas

Forms / Record WTG 1301

Retention WTG 1302 Odorant Usage Report / 5 Years

Farm Tap Odorant Inspection & Maintenance / 5 Years

WTG 1303 Odorant Concentration Test / 5 Years

Related **Specifications** None

OQ Covered Task

Odorization - Periodic Sampling 1211

1221 Odorization - Odorizer Inspection, Testing, Preventive and

Corrective 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.)

Page 2 of 6 Revised: April 2016



Gas Operations and Maintenance Manual

P-192.625

Odorization of Gas

Procedure Steps

The following steps are applicable to both distribution lines and odorized transmission lines, and are to ensure both are odorized to a concentration in air of 1/5 of the lower explosive limit of the gas and are readily detectable by a person with a normal sense of smell:

- 1. At intervals not exceeding once each quarter WTG will conduct an Odorant usage injection report, and record on WTG Form F-1301, which includes the following information:
 - a. Odorizer location
 - b. Brand name and model of odorizer
 - c. Name of malodorant, concentrate, or dilute
 - d. Quantity of malodorant at beginning of each reporting period
 - e. Amount added during reporting period
 - f. Quantity at end of reporting period
 - g. MMcf of gas odorized during month/quarter; and
 - h. Injection rate per MMcf
- 2. At intervals not exceeding 15 months, but at least once each calendar year, WTG will conduct Odorant concentration tests, and record on WTG Form F-1303, which include the following information:
 - a. Odorizer name and location
 - b. Malodorant concentration meter make, model, and serial number
 - c. Date test performed, test time, odorizer tested, and distance from odorizer
 - d. Test results indicating percent in gas in air when malodorant is readily detectable
 - e. Signature of person performing the test

NOTE: The Odorant concentration test shall be conducted at the furthest most point of WTG's system, downstream from the odorization equipment, which is representative of the gas within that system.

Page 3 of 6 Revised: April 2016

P-192.625
Odorization of Gas

Transmission - Class 3 or 4

- 1. This is not required if:
 - At least 50 percent of the length of the line downstream from that location is in a Class 1 or Class 2 location;
 - The line transports gas to any of the following facilities which received gas without an odorant from that line before May 5, 1975;
 - o An underground storage field;
 - A gas processing plant;
 - o A gas dehydration plant; or
 - An industrial plant using gas in a process where the presence of an odorant:
 - Makes the end product unfit for the purpose for which it is intended;
 - Reduces the activity of a catalyst; or
 - Reduces the percentage completion of a chemical reaction;
 - In the case of a lateral line which transports gas to a distribution center, at least 50 percent of the length of that line is in a Class 1 or Class 2 location; or
 - The combustible gas is hydrogen intended for use as a feedstock in a manufacturing process.

In regards to both Transmission and Distribution pipelines, if WTG obtains gas which malodorant previously has been injected WTG does not odorize the gas; WTG will conduct quarterly malodorant concentration tests and retain records for a period of five years.

Page 4 of 6 Revised: April 2016

P-192.625
Odorization of Gas

Odorant Requirements

Ensure the odorant is commercially available and complies with the following in the concentration that is it used:

- 1. The odorant may not be harmful to persons, materials, or pipe.
- 2. The products of combustion from the odorant may not be toxic when breathed nor may they be corrosive or harmful to those materials to which the products of combustion will be exposed.
- Is not soluble in water to an extent greater than 2.5 parts to 100 parts by weight.
 Is introduced to the pipeline system, to ensure the level of odorant concentration is consistent with the requirements listed on page 1 of this section.

Texas Intrastate Pipelines

Equipment Requirements:

The odorization equipment meets the following standards:

- 1. Must be commercially available in any installation made on or after February 4, 2009. Shop-made or other odorization equipment previously approved by the Commission and in use as of February 4, 2009, may continue to be used in its current service, but may not be re-installed in a different location.
- 2. Maintain a list of odorization equipment used, including the location of the odorization equipment, the brand name, model number, and the date last serviced. The list shall be available for review during safety evaluations by the TRRC Division.

Farm Tap Odorizer tests and reports.

As stated above, WTG will ensure all Farm Tap odorizers contain a natural odorant or are odorized to a concentration in air of 1/5 of the lower explosive limit of the gas by following the steps listed below:

- 1. Check, test, and service farm tap odorizers at intervals not exceeding 15 months, but at least once each calendar year.
- 2. At intervals not exceeding 15 months, but at least once each calendar year, WTG will conduct Odorant concentration tests, and record on WTG Form F-1303, which include the following information:
 - a. Odorizer name and location
 - b. Malodorant concentration meter make, model, and serial number
 - c. Date test performed, test time, odorizer tested, and distance from odorizer
 - d. Test results indicating percent in gas in air when malodorant is readily detectable

e. Signature of person performing the test

Page 5 of 6 Revised: April 2016

P-192.625 Odorization of Gas

In regards to both Transmission and Distribution pipelines, if WTG obtains gas which malodorant previously has been injected WTG does not odorize the gas; WTG will conduct quarterly malodorant concentration tests and retain records for a period of five years.

Page 6 of 6 Revised: April 2016