

NATURAL GAS SYSTEMS

INSPECTION, TESTING, AND PURGING

Reference: 2012 Edition National Fuel Gas Code
National Fire Protection Association (NFPA 54) Section 8

Facility _____ City _____

1. **Test Pressure. 8.1.4** ☐ YES ☐ NO

A. Was a pressure test measured with a manometer or with a pressure measuring device designed and calibrated to read, record, or indicate a pressure loss due to leakage during the pressure test? The source of pressure shall be isolated before the pressure tests are made.

B. Was the test pressure used no less than 1 ½ times the proposed maximum working pressure, but not less than 3 psi (20kPa), irrespective of design pressure? Where the test pressure exceeds 125 psi (862 kPa), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe.

C. Test duration shall be not less than ½ hour for each 500 ft³ (14 m³) of pipe volume or fraction thereof. When testing a system having a volume less than 10 ft³ (0.28 m³) or a system in a single-family dwelling, the test duration shall be a minimum of 10 minutes. The duration of the test shall not be required to exceed 24 hours.
2. **Detection of Leaks and Defects. 8.1.5** ☐ YES ☐ NO

Did the piping system withstand the test pressure specified without showing any evidence of leakage or other defects? Any reduction of test pressure as indicated by pressure gauges shall be deemed to indicate the presence of a leak unless such reduction can be readily attributed to some other cause. Leakage shall be located by means of an approved gas detector, a noncorrosive leak detection fluid, or other approved leak detection methods.

Note: Matches, candles, open flames, or other methods that provide a source of ignition shall not be used.
3. **System and Equipment Leakage Test. 8.2** ☐ YES ☐ NO

A. Test Gases. Was a piping system pressure tested when fuel gas is used for leak checks?

B. Before Turning Gas On. Before gas is introduced into a system of new gas piping, was the entire system inspected to determine that there are no open fittings or ends and that all valves at unused outlets are closed and plugged or capped?

C. Test for Leakage. Immediately after the gas is turned on into a new system or into a system that has been initially restored after an interruption or service, was the piping system tested for leakage?

D. Placing Equipment in Operation. Gas utilization equipment shall not be placed in operation until after the piping system has been tested and purged.

4. **Purging. 8.3**

☐ YES ☐ NO

A. Removal from Service. When the gas piping is to be opened for an addition, a modification, or for service, was the section to be worked on turned off from the gas supply at the nearest convenient point and the line pressure vented to the outdoors or to ventilated areas of sufficient size to prevent accumulation of flammable mixtures? Was remaining gas in piping over 2 ½ inches in size displaced with an inert gas as required by Table 8.3.1?

B. Placing in Operation. Was piping full of air displaced with fuel gas or inert gas prior to placing it in operation? The air can be safely displaced with fuel gas provided that a moderately rapid and continuous flow of fuel gas is introduced at one end of the line and air is vented out at the other end. The fuel gas flow shall be continued without interruption until the vented gas is free of air. The point of discharge shall not be left unattended during purging. After purging was the vent closed? Piping over 3 inches in diameter see Table 8.3.1.

C. Discharge of Purged Gases. The open end of piping systems being purged shall not discharge into confined spaces or areas where there are sources of ignition unless precautions are taken to perform this operation in a safe manner by ventilation of the space, control of purging rate, and elimination of all hazardous conditions.

D. Placing Equipment in Operation. Was all equipment purged and then placed in operation after the piping has been placed in operation?

5. When was the system tested? Date _____
Who conducted the testing? _____
Did anyone witness the test? ☐ YES ☐ NO
Name _____

6. Name of person completing report? _____
Please print _____ Phone # _____

Please return to:
South Dakota Dept of Health
Office of Licensure and Certification
600 E Capital
Pierre, SD 57501
(605)773-3356 (605)773-6667 Fax

Signature

Name of Firm Phone #

E-mail Address