



## **STANDARD OPERATING PROCEDURE** **FLOWLINE PRESSURE TEST INSPECTION**

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### **Document Control:**

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### **General Instructions and Safety Tips While Onsite**

- a. Wear proper PPE and safety equipment (4 gas monitor) at all times.
- b. Check in with the company man, and/or site supervisor. Review and participate in training (JSA) as requested by company personnel.
- c. Park in such a manner that you can drive forward to leave.
- d. Be aware there may be equipment moving on location at all times. Do not assume the operators of that equipment can see you.
- e. Use Garmin GPS unit and Laptop maps to record/ensure the flowline is at the proper coordinates.
- f. When leaving location, sign out if sign in was required.

### **Flowline Pressure Testing Inspection Procedures**

Once COGCC staff has received notice of scheduled flowline pressure testing:

- a) Open Field Inspection Report
- b) Enter draft Field Inspection Report (FIR) and note document number
- c) Provide FIR document number to operator for inclusion on documentation

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- d) Operator must completely document test and maintain records (for 3 Yr Period)
- e) Operator must chart test or record information on data logger. If these are not available, at the discretion of the inspector, a pressure gauge may be used and the pressures written down at intervals of not less than 5 minutes.

*Operator must use a chart that is appropriate for pressure range of the test.*

### When witnessing a Flowline Pressure Test:

- a) Testing must be started within 30 minutes of scheduled testing time
- b) Failed tests may result in an Action Required inspection or written warning
- c) Operator must contact the inspector ASAP with changes in the test schedule.

### **Information for Operators**

*Discuss with operators when they contact you to schedule the test or to notify you of the test.*

- 1) The time during pressuring up and pressuring down is not considered part of the test.
- 2) Flowlines may be pressure tested with wellhead fluids or hydro-tested. COGCC staff may approve air or nitrogen pressure testing.
- 3) Flowlines are to be tested to maximum anticipated operating pressure, based on the previous year's operating pressures. If a recent change in operation has occurred resulting in higher operating pressures i.e. higher injection pressure, re-frac, etc., lines should be tested at a pressure that meets the new conditions. It is recommended that the test begin after fluid pressure has stabilized and test for an appropriate time.
- 4) The COGCC requires minimum test duration of 15 minutes and potentially up to 60 minutes to allow for pressure stabilization; or if in higher risk areas such as Sensitive Areas or Surface Water Supply Area as defined in the 100-Series Rules.
- 5) Pressure deviations greater than 10% during the test or has not stabilized in the last 5 minutes does not satisfy the pressure testing requirement of Rule 1101.e unless an exception is granted. For flowlines, a stable pressure reading for a digital data logger shall be defined as +/-1% of the test pressure.

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- 6) It is recommended that pressure deviations identified during the test be internally documented and retained. Any pressure deviations not readily explained by test fluid type, weather fluctuation, or other reasons should be treated as potential leaks in the system, investigated accordingly, and repaired if required.
- 7) Systems operated at less than an average of 15 psig are exempt from pressure testing requirements per Rule 1101.e.(2). Operators will be required, upon request, to provide sufficient data to demonstrate the applicability of this exemption. This does not apply for pressure tests performed under the NTO of 5/2/2017.
- 8) Rule 1101.e.(1) requires all *New* flowlines to be pressure tested to maximum anticipated operating pressure prior to initiating service.

### Operator Flowline Inventory and Testing Schedule:

Operators must maintain records of flowline pressure testing for commission inspection for (3) years and include the following information for each segment:

1. Date of last pressure test.
2. Results of last pressure test to include data points and a graphical representation of the entire test.
3. A general statement that flowlines in the inventory are exempt per Rule 1101.e.(2) or covered by an approved continuous monitoring program. This does not apply for pressure tests performed under the NTO of 5/2/2017.

### Flowline Field Inspection Responsibilities

- a. Deem flowline pressure test passing or failed based on guidelines.
- b. Sign or initial passing pressure test charts or data sheets.
- c. Provide operator with COGCC FIR document number.
- d. Communicate all appropriate operator information listed on this SOP.
- e. Observe general inspection items on and around location and communicate with COGCC staff accordingly.

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## Additional Information for Operators

### Flowline Classification

COGCC has determined that Flowlines include all of the following:

- a) Well Site Flowline – the line between the wellhead and the separator.
- b) Sales Line – the gas line from the separator to the gas meter.
- c) Dump Lines – the low pressure water, condensate and oil lines which go to storage tank(s).
- d) Process Piping – in multi-well pad situations, individual dump lines manifold together prior to going to a set of tanks connected by piping.
- e) Non-Well Site Flowline – the line between the Well Site and the point of transfer when the water treatment facility, production facility or transfer point is not located at the Well Site.

### COGCC jurisdiction for Gas Flowlines

Gas flowlines start at the individual wellhead and end where gas transitions to single phase flow from two or more wells. Generally this will occur at the production separator's outlet flowmeter that is used to measure produced gas on-pad to pay royalties, fees and sales. This flowmeter is defined as the “point of lease sales transfer” from the producer to carrier (i.e. pipeline) for transport or, in the absence of custody transfer, after initial separation at the primary field site.