

**NOTICE TO OPERATORS DRILLING WELLS IN THE BUZZARD, MAMM CREEK,
AND RULISON FIELDS, GARFIELD COUNTY AND MESA COUNTY**

**PROCEDURES AND SUBMITTAL REQUIREMENTS FOR COMPLIANCE WITH
COGCC ORDER NOS. 1-107, 139-56, 191-22, AND 369-2**

April 24, 2018

This Notice to Operators (NTO) was developed to promote consistency with bradenhead pressure monitoring and reporting procedures for all wells subject to COGCC Order Nos. 1-107, 139-56, 191-22, and 369-2. The orders were approved by the Commission in 2004, and they established a bradenhead monitoring area (BMA) for Townships 6 through 9 South, Ranges 91 through 93 West, 6th P.M.

The following summarizes the order requirements for all wells within the BMA:

Equipment Requirements

- Upon completion of any well, and on wells presently completed, the operator shall equip the bradenhead access to the annulus between the production and surface casing, as well as any intermediate casing, to above ground level with approved fittings to allow safe and convenient determination of pressure and fluid flow.

Testing Requirements

- Operators shall test all wells for pressure and flow on an annual basis.
- Operators shall notify COGCC staff a minimum of ten (10) days prior to monitoring to allow COGCC staff to witness testing on a random basis.
- The test shall be performed by verifying the tubing and casing pressures and flow characteristics of the well. A pressure gauge with a range of one thousand (1000) psig shall be used to measure the bradenhead (surface and intermediate casing) pressure(s).
- If bradenhead pressures greater than one hundred fifty (150) psig are observed or a continuous flow of liquid at any pressure, such conditions and pressures shall be immediately reported to COGCC staff.

Reporting Requirements

- The results of the annual bradenhead test for pressure and flow for all wells shall be provided to the COGCC staff on a spreadsheet no later than November 1 of each calendar year. Remedial requirements and additional subsequent monitoring will be determined by COGCC staff based on the results of the annual tests.
- If bradenhead pressures greater than one hundred fifty (150) psig are observed or a continuous flow of liquid is observed at any pressure, then a Bradenhead Test Report, Form 17 shall be submitted electronically to COGCC staff within seven (7) days of the bradenhead test.

All fittings and valves used for annular pressure monitoring shall remain exposed and not buried to allow for COGCC inspection at all times. A rigid housing may be used to protect the fittings and valves, provided that the housing can be easily opened or removed.

While the Commission orders only specify annual monitoring, additional monitoring should be performed by the operator at a frequency sufficient to identify significant bradenhead pressure changes if the operator has reason to believe that the bradenhead pressure has the potential to exceed 150 psig. If COGCC staff or an operator has reason to believe, based upon site-specific conditions, that a threshold pressure lower than 150 psig is appropriate, then the operator should use a lower pressure. Such a decision shall be included in the operator's annual bradenhead test report.

To promote consistency between test measurements over time, the operator shall shut in the bradenhead annulus and, if present, the intermediate casing-production casing annulus for a period of seven (7) days prior to performing pressure tests. Operators should not allow bradenhead pressure to build above 150 psig. If bradenhead pressure builds above 150 psig prior to the end of the seven (7) day shut in period, then the operator shall bleed off the bradenhead pressure and record the shut in duration prior to the bleed off.

Mitigation and Remediation

Bradenhead pressure mitigation or remediation will be required for all wells with bradenhead pressures that exceed 150 psig. Venting and continued monitoring will typically be required as an initial mitigation step by COGCC staff, unless high pressures, high flow rates, or significant fluid (water or mud) volumes are observed during monitoring. If these conditions are observed, then remediation will be considered. Any liquids that are blown down from the bradenhead are considered exploration and production waste and must be handled in accordance with COGCC's 900-Series rules.

Venting requests will be considered by COGCC staff, at the operator's discretion, for wells that have bradenhead pressures less than or equal to 150 psig. Keeping bradenhead valves open "full time" is considered venting by COGCC staff.

Rule 912.b. requires prior approval on a Form 4 (Sundry Notice) to vent bradenhead gas. However, operators should not allow bradenhead pressure to build above 150 psig. COGCC staff will grant verbal approval to vent while an operator is preparing the Form 4 if expedited approval is necessary. Only one Form 4 vent request is required per well. Subsequently, venting status should be reported for all venting wells on the operator's annual spreadsheet report. COGCC staff encourages the use of combustors if the vented gas flow rate and thermal content warrant their use without requiring excessive supply gas to keep the combustors lit. The operator is responsible for obtaining any air permits that may be required by the Colorado Department of Public Health and Environment.

When cement remediation is required, COGCC staff will grant approval to vent as necessary to mitigate pressure buildup until remediation is performed (generally a 30-day period to provide the operator sufficient time to develop and implement a remediation procedure). Remedial cement procedures must be approved on a Form 4 prior to performing any remedial work. Remedial cement procedures must be designed to eliminate or significantly decrease bradenhead pressure.

COGCC Contacts

Please see COGCC's "CONTACTS" section of our webpage for current contact information. Key contacts for this NTO are Craig Burger (Western Region Engineering Supervisor) and Shaun Kellerby (Northwest Region Field Inspection Supervisor).

Annual reports, Form 17's, Form 4's, and any other requests for approval or reports of significant problems should be submitted to the West Region Engineering Supervisor, or his local staff, at the discretion of the supervisor.

Bradenhead monitoring test ten (10) day notices should be submitted to the Northwest Region Field Inspection Supervisor, or his local staff, at the discretion of the supervisor.

*** Policy Revisions**

Original notice to operators was dated July 8, 2010.

Revision No. 1, April 24, 2018: Revised policy to reflect personnel changes.