



ECMC OPERATOR GUIDANCE

RULES 1102.o FLOWLINE OUT OF SERVICE AND 1104 FLOWLINE INTEGRITY MANAGEMENT GUIDANCE

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Summary

This guidance document explains when depressurized flowlines associated with shut-in wells do not require periodic integrity or pressure testing.

Background

Purpose:

The objective of this guidance is to clarify the application of Rule 1102.o., Rule 1104.c., Rule 1104.d, Rule 1104.e. and 1104.f. when wells are shut-in for an extended period. Situations involving a pipeline being inactive or taken out of service for more than one year may occur when:

- A well has been temporarily shut-in for extended maintenance;
- The well is temporarily abandoned or shut-in;
- The well is shut-in due to wellbore interventions for adjacent drilling and completion activities;
- Wellsite equipment was removed; and
- Well is shut-in or temporarily abandoned due to lack of production.

Current Commission rules require operators to test flowlines on a periodic basis throughout their operating lifetime.

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Rule 1104.c. sets forth the frequency an operator must comply with an integrity management program on below-ground on-location dump lines. Rule 1104.d. sets forth the frequency an operator must conduct an integrity management program on above-ground on-location flowlines. Rule 1104.e. sets forth the frequency an operator must conduct an integrity management program on below-ground on-location flowlines. Rule 1104.f sets forth the frequency operators must conduct an integrity management program on off-location flowlines, including produced water transfer lines and crude oil transfer lines.

Integrity testing per current Rule 1104.c., 1104.d., 1104.e. and 1104.f.

Rule 1104.c requires all below-ground dump lines to have integrity verified by an annual static-head test and a monthly AVO survey.

Rule 1104.d requires all above-ground on-location flowlines to have integrity verified by a monthly AVO survey.

Rule 1104.e requires all below-ground on-location flowlines be tested to ensure the integrity of the line. Specifically, this Rule provides that an operator may choose one of four integrity management programs:

1. A pressure test to maximum anticipated operating pressure every three years;
2. Smart pigging conducted every three years;
3. Continuous pressure monitoring; or
4. Annual instrument monitoring conducted pursuant to Rule 1104.j.(2).

Rule 1104.f. requires all off-location flowlines be tested to ensure the integrity of the line. Specifically, this Rule provides that an operator may choose one of four integrity management programs:

1. An annual pressure test to maximum anticipated operating pressure;
2. Continuous pressure monitoring;
3. Smart pigging conducted every three years; or
4. Annual instrument monitoring conducted pursuant to Rule 1104.j.(2).

Rules 1104.c., 1104.d., 1104.e. and 1104.f. apply to ***all*** flowlines unless the flowline meets the Flowline Exclusionⁱ definition. The Commission's Rules excludes lines when:

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- the operator prospectively marks and tags the line as a support line;
- the line is not integral to production;
- the line is used infrequently to service or maintain production equipment;
- the line does not hold a constant pressure; and
- the line is isolated from a pressure source when not in use.

Any flowline that meets the Flowline Exclusionⁱ definition is not subject to the integrity management provisions of Rules 1104. c., d., e. and f. The Flowline Exclusionⁱ definition provides that any flowline that is not integral to production; is used infrequently; does not hold a constant pressure; is isolated from a pressure source; and is properly marked will not be considered a flowline. The intent of the Flowline Exclusion is to address lines used in conjunction with production equipment that are not transferring the hydrocarbon and produced water fluids coming from or going into the wellbore during normal production operations. For this Guidance, support lines are defined as locked/tagged depressurized lines associated with shut in wells.

When a line is related to shut-in wells

Operators have asked COGCC Staff whether Rules 1104.c., d., e., and f. are applicable to flowlines that are connected to a well that is shut-in or temporarily abandoned for an extended time. To understand whether the integrity management provisions of Rules 1104.c., d., e. and f. are applicable to lines connected to a shut-in well, it is important to understand when a well may be shut-in.

Operators may be required to shut-in multiple wells, or even a field wide for a variety of circumstances. For example, field wide shut-ins to comply with federal Clean Air Act requirements or other state regulatory programs; or operators may shut-in existing offset wells while development of new well drilling and completion activities are occurring. Therefore, related flowlines are shut-in and inactive concurrent with a well or field being shut-in.

When a well is shut-in, Rule 1102.i.(4) requires the operator to lock and tag-out isolation valves on **all** flowlines not in active use. A flowline is not in active use when it is not holding pressure or fluids.

Applicability of Rule 1104.c, 1104d, 1104.e. and 1104.f. to flowlines not in active use

COGCC Staff believes the Flowline Exclusionⁱ definition can be applied towards an off-location flowline or crude oil transfer line connected to a well shut-in for more than one year [12 months] and reported on a Flowline Form 44 as not in service per 1102.o.

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The following criteria must be met:

A flowline connected to a shut-in well is not integral to production

The flowline will no longer be integral to production since production from the well has ceased.

A flowline connected to a shut-in well is used infrequently

The line itself will not be in use since the well has been shut-in.

A flowline connected to a shut-in well does not hold a constant pressure

When an operator shuts-in a well, the flowlines associated with the well no longer hold a constant pressure.

A flowline connected to a shut-in well is isolated from a pressure source when not in use

The line will be isolated from a pressure source since the isolation valves must be locked-out or tagged-out per Rule 1102.i.(4).

The operator will properly mark and tag flowlines connected to a shut-in well

COGCC Staff expects that operators will clearly mark and tag these flowlines so that field inspectors and the operators themselves can easily identify the lines not in service because of shut-in wells

If the criteria are met, line is reported and tagged as shut-in, lines are not subject to going integrity management provisions of Rules 1104.e. and f. while the line is not in service.

Also, Dump lines and on-location flowlines connected to a well shut-in for more than one year [12 months] qualify for the Flowline Exclusion after lock-out tag-out if labeled “Out of Service”.

Rule 1102.o. requires an operator to notify the Commission when an off-location flowline or crude oil transfer line is removed from service (idle or inactive) for longer than 90 days.

Current Rule 1102.o. Requirements for shut-in or out of service off-location flowline or crude oil transfer line for inspection

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1102.o. The operator of an off-location flowline or crude oil transfer line must submit a Flowline Report, Form 44, to the Director identifying the off-location flowline or crude oil transfer line or segment thereof that has been removed from service for more than 90 days. The Form 44 must be submitted within 120 days of applying Out of Service Locks and Tags (“OOSLATs”).

Applicability when a line is taken out of service:

In accordance with Rule 1102.o Requirements for shut-in or out of service off-location flowline or crude oil transfer line for inspection, an operator is required to submit a Flowline Report Form 44 for director approval when a line is no longer in service for more than 90 days.

1. When a line is taken out of service, an operator needs to perform a flowline integrity test per Rule 1104 followed by lockout-tagout of the line and where appropriate air-gap the line.
2. When a line has been out of service for more than 90 days, prior to bringing the line back into service, a flowline integrity test per Rule 1104 will be required. This pressure test is to maximum anticipated operating pressure. Not less than 48 hours prior to pressure testing, operators must submit notice with a Field Operations Notice, Form 42 – Notice of Return to Service, to the Director of the scheduled date for the pressure test.

COGCC Staff cautions operators that the Flowline Exclusion¹ definition cannot be relied upon to avoid compliance with Rules 1104.c., d., e., and f. The Flowline Exclusion¹ definition is applicable only to dumlines, on-location flowlines and off-location flowlines connected to a well shut-in for more than one year [12 months].

Guidance Disclaimer

This is a guidance document, not a formal rule. The purpose of this guidance document is to inform all interested stakeholders of the Commission’s interpretation of, and expectations concerning, the formal Commission Rules, Field Orders or policies discussed herein. Interpretative rules or general statements of policy, such as this guidance document, are not meant to be binding as rules under the State Administrative Procedure Act. § 24-4-103(1), C.R.S.

Document Change Log

Change Date	Description of Changes
January 15, 2019	Document Created and Finalized

Rules 1102.o., 1104.c., d., e. and.f.: FLOWLINE INTEGRITY MANAGEMENT GUIDANCE

July 31, 2023	Updated OOSLAT reporting requirements
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ⁱ From the Commission 100 series definitions of Flowlines, there are several defined *Flowline Exclusions*: A line that would otherwise meet any of the foregoing descriptions will not be considered a flowline if **all** of the following are satisfied:

- the operator prospectively marks and tags the line as a support line;
- the line is not integral to production;
- the line is used infrequently to service or maintain production equipment;
- the line does not hold a constant pressure; and
- the line is isolated from a pressure source when not in use.