



---

1800 GLENARM PLACE

---

SUITE 1100

---

DENVER, CO 80202

---

Phone 303.861.0362

---

WWW.COGA.ORG

---

## **2018 COGCC Flowlines Rules**

On February 13, 2018, the Colorado Oil & Gas Commission (“COGCC” or “Commission”), unanimously approved dozens of new regulations (“Rules”) as part of the state’s response to the Firestone tragedy. Most of the Rules pertain to flowlines and other types of piping systems, with other regulations increasing transparency in safety and gas leak reporting. From new domestic gas tap requirements to specifying where isolation valves must be installed on a pipeline, the Rules, together with the Commission’s existing regulations, provide the nation’s most stringent, comprehensive regulatory program for oil and natural gas operations.

New oversight rules set forth installation and design standards, equipment and facility registration obligations, enhanced integrity management, additional record keeping and reporting, and a stringent process for abandonment of flowlines. COGCC’s 1100 Series Rules were revised and reorganized to clearly delineate the life cycle of a flowline, from its registration with the Commission, through construction and installation, to integrity management and finally abandonment. The Commission carefully distinguished definitions between crude oil transfer lines, produced water transfer systems, and on and off-location flowlines, because these lines are each subject to different registration and mapping, design, and integrity management requirements.

To improve uniformity of operator participation within the Utility Notification Center of Colorado (UNCC), also referred to as the 8-1-1 “one call” program, every operator of a flowline or crude oil transfer line (“COTL”) must now become a Tier One member of the UNCC and supply UNCC with digital information about an operator’s underground facilities (i.e., vertical portions of wells and flowlines). UNCC maintains operator and location data that excavators rely on every day when preparing to dig. Relying on UNCC to host this information provides a centralized repository of reliable, updated data that enhances public safety and the safety of all underground facilities—not just oil and natural gas exploration and production facilities.

To further public safety, operators are now required to report to the director the location of the point a domestic tap connects to a flowline or wellhead, the address of the location where the tap delivers gas, as well as adhere to installation and other requirements for future domestic taps.



---

1800 GLENARM PLACE

---

SUITE 1100

---

DENVER, CO 80202

---

Phone 303.861.0362

---

WWW.COGA.ORG

---

As a result of this rulemaking, there are also new oversight regulations that include enhanced financial assurance requirements for certain systems, accident reporting, and registration requirements for gas gathering systems, compressor stations, processing, and storage facilities. The rules further incorporate an alternate method of tank gauging that allows operators to measure the volume of oil produced before the oil is removed from a storage tank.

The following provides a more detailed summary of the most significant rules.

## **Flowline Regulations**

### **Rule 1101: Registration Requirements**

#### Off-Location Flowlines

The changes to Rule 1101 imposes registration requirements focused on gaining increased information about specific types of pipelines. The COGCC defines flowlines “as segment of pipe transferring oil, gas, or condensate between a wellhead and processing equipment to the load point or point of delivery to an otherwise regulated line...”. On-location flowlines refer to lines that exist on a single oil and gas location, whereas off-location flowlines refer to lines that transport fluids between different locations. When an operator registers a new off-location flowline, it must report GPS endpoints of risers, pipeline materials used, related locations, and fluids conveyed by the pipeline. For all new off-location flowlines, operators must also include a geodatabase containing the pipeline alignment with the registration. The geodatabase includes geophysical data necessary for identifying the specific location of the pipeline. Operators must also update the registration with the line upon changes in alignment. This information will continue to populate the relational database the Commission is creating to better inform COGCC staff, the public, and operators about the movement of exploration and production fluids.

Rule 1101 also requires operators to register off-location flowlines constructed prior to May 1, 2018. If, at the time of registration, an operator has a geodatabase containing the alignment of an off-location flowline constructed prior to May 1, 2018, the geodatabase must be submitted with the Form 44 Registration. If an operator subsequently obtains or prepares a geodatabase containing the alignment of an off-location flowline constructed prior to May 1, 2018, that geodatabase must be submitted to the Commission via Form 44. However, the Commission



---

1800 GLENARM PLACE

---

SUITE 1100

---

DENVER, CO 80202

---

Phone 303.861.0362

---

WWW.COGA.ORG

---

does not expect operators to create a geodatabase containing the pipeline alignment for off-location flowlines in existence prior to May 1, 2018.

### Crude Oil Transfer Lines (COTL) and Produced Water Transfer Systems (PWTS)

A Produced Water Transfer System (PWTS) moves produced water between different oil and gas locations, and is comprised of a series of off-location flowlines. A PWTS is a network of interconnected off-location produced water flowlines emanating from multiple well sites or production facilities to a common destination point. A Crude Oil Transfer Line (COTL) conveys crude oil, crude oil emulsion, or condensate from more than one well site or production facility to a separate, remote oil and gas location. COTLs are those pipelines terminating at a production facility that has permanent storage capacity in excess of 25,000 barrels of crude oil or condensate or at a PHMSA regulated gathering line. Operators are now required to register with COGCC a COTL or PWTS before construction, and to update the registration with as-built information for the line or system and upon changes in alignment. Registration provides the Commission with information about these pipelines or systems important to the Commission's oversight of oil and gas exploration and production activities in Colorado. Similar to off-location flowlines, the Commission imposed recording requirements for crude oil transfer lines and produced water transfer systems to ensure local governments and surface owners are aware of the location of these pipelines.

### Recording of Access/Easement Documents

The rules provide the public greater information about where off-location flowlines or COTL and PWTS are by requiring the recording of documents or memoranda granting a right of access or easement to an off-location flowline or COTL or PWTS. Recording provides an opportunity for potential buyers and current owners planning to develop to review the recorded information prior to making their land planning decisions. In addition to a member of the general public being able to look up recorded documents, the operator must provide a copy of the recorded document if requested by the surface owner.

### Domestic Gas Taps

Within 30 days of installation or discovery of a domestic tap connected to the operator's flowline, the operator must submit a Form 44 to register the tap. Operators are required to



---

1800 GLENARM PLACE

---

SUITE 1100

---

DENVER, CO 80202

---

Phone 303.861.0362

---

WWW.COGA.ORG

---

report to the director the location of the point a domestic tap connects to a flowline or wellhead and the address of the location of where the tap delivers gas.

For new domestic taps, operators must adhere to installation requirements and provide odorant upon installation until abandonment. It's important to note that the Commission does not regulate the safety and integrity of domestic taps. Rather, PHMSA requires the testing of all pressure regulating or similar devices on domestic taps every 3 calendar years. See 49 CFR § 192.740(a).

#### Disclosure of Confidential Form 44 Data to Local Governments

Form 44s will include the facility layout drawing, which depicts general facility information and will be available to the public. Confidential geophysical and geodatabase information will not be available to the public. The Commission recognized that for purposes of emergency management and planning, local governments and first responders may require more discrete location information for off-location flowlines, crude oil transfer lines, and produced water transfer systems that is not readily available from UNCC or Form 44's general facility layout drawing. Accordingly, the Commission will upon request and subject to a confidentiality agreement provide the local governmental designee the geodatabase information for off-location flowlines, crude oil transfer lines, and produced water transfer systems within the jurisdiction he or she represents. The sole purpose for providing local governments with this geodatabase information is to aid in their emergency management and planning. Sharing this information with local governments for emergency management and planning provides the public with further assurances that first responders have the information necessary to address potential emergencies in their communities.

#### **Rule 1102: Flowline and Crude Oil Transfer Line Requirements**

The Commission adopted several new requirements or standards related to design, installation, repair, and maintenance of flowlines and crude oil transfer systems. The Rules include uniform industry standards that operators must follow when designing and installing their pipelines.

Operators are also required to conduct repairs and maintenance on lines and crude oil transfer lines to minimize failures, leaks and corrosion of the pipelines, and injury to persons and property. For example, operators are now required to lock-out or tag-out isolation valves on all



---

1800 GLENARM PLACE

---

SUITE 1100

---

DENVER, CO 80202

---

Phone 303.861.0362

---

WWW.COGA.ORG

---

flowlines not in active use. A line is not in active use when it is not holding pressure or flowing fluids. This requirement is integral to protecting public safety.

### **Rule 1103: Flowline and Crude Oil Transfer Line Valves**

The Commission added Rule 1103 to require that operators install isolation and check valves on flowlines and crude oil transfer lines in specific circumstances, including certain water crossing areas consistent with input received from the Colorado Department of Public Health and Environment (CDPHE). Operators are also required to maintain and repair these valves.

Operators are required to conduct annual maintenance operations on certain isolation valves installed on flowlines (but not manifold, peripheral, or process piping) and crude oil transfer lines. The isolation valves are valves closed to the atmosphere. Operators are now required to perform either a function test of the isolation valve or to maintain the valve in accordance with its manufacturer’s specifications. To mitigate any unintended release of emissions when performing a function test, operators are encouraged to conduct function tests outside of peak ozone season, which for the Denver Metro/North Front Range area is May 1 – September 30.

### **Rule 1104: Integrity Management**

The Commission established a comprehensive Integrity Management program. Operators are required to integrity test all new or repaired flowline and crude oil transfer line segments prior to putting them into service and periodically thereafter until the lines are abandoned. The Rules impose specific and stringent integrity management regimes for different categories of pipelines. Operators are required to test flowlines and crude oil transfer lines on a periodic basis throughout their operating lifetimes. Rules 1104.c. through f. establish the acceptable integrity management programs for each type of flowline or crude oil transfer line.

#### Integrity management requirements include:

- below-ground dump lines must be verified by performing an annual static-head test and a monthly audio, visual, olfactory (“AVO”) detection survey of the entire line.<sup>1</sup> 1104.c.

---

<sup>1</sup> When performing an “AVO” detection survey, an operator must survey the entire flowline length using audio, visual and olfactory techniques to detect integrity failures, leaks, spills or releases, or signs of a leak, spill, or release. 1104.j.(1). Where the Rules permit, an operator may also conduct a survey using an instrument monitoring method capable of detecting integrity failures, leaks, spills or releases, or signs of a leak, spill or release. 1104.j.(2).



---

1800 GLENARM PLACE

---

SUITE 1100

---

DENVER, CO 80202

---

Phone 303.861.0362

---

WWW.COGA.ORG

---

- above-ground on-location flowlines must be verified by performing a monthly AVO detection survey of the entire line. 1104.d.
- below-ground on-location flowlines must be verified by either a pressure test to Maximum Anticipated Operating Pressure (“MAOP”) every three years, smart pigging conducted every three years, or continuous pressure monitoring. 1103.e.(1). Alternatively, an operator may verify below-ground on-location flowlines by conducting annual instrument monitoring conducted pursuant to Rule 1104.j.(2).
- off-location flowlines, excluding produced water flowlines, and COTLs, must similarly be verified by either annual pressure testing to MAOP, continuous pressure monitoring or smart pigging conducted every three years, with the pigging option subject to the same pig criteria applicable to below-ground on-location flowlines. 1104.f.(1). Alternatively, an operator may verify below-ground on-location flowlines by conducting annual instrument monitoring conducted pursuant to Rule 1104.j.(2).
- off-location below ground produced water flowlines must be verified by either a pressure test to MAOP every three years, smart pigging conducted every three years, or continuous pressure monitoring. 1104.f.(2).
- above-ground off-location produced water lines must be verified by either the options listed in 1104.f(2) or monthly AVO inspections. 1103.f.(3).

The Commission also adopted gas leak reporting requirements to ensure the director is aware of integrity failures that result in a release of gas. The Commission adopted a new definition for a Grade 1 Gas Leak, which includes leaks that present an immediate hazard or threat of hazard to any waters of the state, a residence or occupied structure, livestock, or public byway.

#### **Rule 1105: Abandonment**

Operators are subjected to more detailed abandonment and reporting requirements. Importantly, flowlines and crude oil transfer lines (COTLs) remain subject to all registration and



---

1800 GLENARM PLACE

---

SUITE 1100

---

DENVER, CO 80202

---

Phone 303.861.0362

---

WWW.COGA.ORG

---

integrity management requirements until the operator completes each and every abandonment requirement in COGCC Rule 1105.

The Commission revised the abandonment provisions to clarify and specify that all flowlines and COTLs are considered active, and thus subject to Rules 1101 through 1104, unless the line has been fully abandoned pursuant to new Rule 1105. Thus, operators are required to conduct integrity tests on a flowline or COTL that is not in active use. Rule 1105 specifies the steps that an operator must perform to fully abandon a line, including lockout and tagout of all risers associated with the line when the line is taken out of service, but not abandoned.

Additionally, the Commission required operators to notify the director upon abandonment of a flowline or COTL. Commission staff will provide the report (Form 44) to the local government designee and the UNCC. Providing the Form 44 abandonment notice to UNCC and the appropriate LGD will allow those entities to coordinate directly with the operator regarding the abandoned lines.

### **600 Series Safety Regulations – Accident Reporting**

The Commission amended the existing accident reporting requirements in Rule 602 to ensure operators timely and thoroughly notify the Commission of safety events, including any “reportable injury”, as the term is defined by the U.S. Department of Labor, Occupational Safety and Health Administration, suffered by an oil and gas worker. Operators may initially notify the director of a safety event by telephone, text message, or email. The amendments also clarify what information the Commission may seek from an operator about the safety event.

### **700 Series Financial Assurance and Oil and Gas Conservation and Environmental Response Fund Regulations**

The Rules have added a financial assurance requirement for produced water transfer systems (PWTS). The Commission determined that it was necessary to require a bond for PWTS due to the potential health and safety hazards associated with a failure of a PWTS and release of E&P Waste. Operators of PWTS will now be required to provide statewide blanket financial assurance in the amount of \$50,000 or in any amount voluntarily agreed to with the Director, or in an amount determined by order of the Commission. Operators of small PWTS gathering or processing less than seven hundred barrels of water per day may provide financial assurance in the amount of \$5,000.



---

1800 GLENARM PLACE

---

SUITE 1100

---

DENVER, CO 80202

---

Phone 303.861.0362

---

WWW.COGA.ORG

---

### **References & Additional Information**

- Final Adopted COGCC Flowline Rules, [http://cogcc.state.co.us/documents/reg/Rules/FlowlineRulemaking/Flowline\\_Adopted%20Rules%201318.pdf](http://cogcc.state.co.us/documents/reg/Rules/FlowlineRulemaking/Flowline_Adopted%20Rules%20201318.pdf)
- Information Associated with the Flowline Rulemaking, <http://cogcc.state.co.us/reg.html#/rules/flowlinerulemaking>
- Commissioner Workshop Presentation (January 4, 2018), providing key terminology and illustrative examples of concepts [http://cogcc.state.co.us/documents/reg/Rules/FlowlineRulemaking/Flowline%20Workshop\\_20180104.pdf](http://cogcc.state.co.us/documents/reg/Rules/FlowlineRulemaking/Flowline%20Workshop_20180104.pdf)
- Pipeline and Hazardous Materials Safety Administration (PHMSA), <https://www.phmsa.dot.gov/>
- Utility Notification Center of Colorado (UNCCC, 811), <http://colorado811.org/>
- Colorado Public Utilities Commission's Pipeline Safety Program, <https://www.colorado.gov/pacific/dora/gaspipelines>