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### **Statement of Basis, Specific Statutory Authority, and Purpose New Rules and Amendments to Current Rules of the Colorado Oil and Gas Conservation Commission, 2 CCR 404-1**

#### **Cause No. IR Docket No. 171200767 Flowline Rulemaking**

This statement sets forth the basis, specific statutory authority, and purpose for new rules and amendments (“Flowline Rules”) to the Colorado Oil and Gas Conservation Commission (“Commission”) Rules of Practice and Procedure, 2 CCR 404-1 (“Rules”). The Commission promulgated the Flowline Rules on December 11 & 12, 2017.

In adopting amendments to the Rules, the Commission relied upon the entire administrative record for this Rulemaking proceeding, which formally began on October 15, 2017, when the Commission submitted its Notice of Rulemaking to the Colorado Secretary of State.

#### **Background**

On August 22, 2017, Governor John Hickenlooper announced the state’s seven policy initiatives following a review of oil and gas operations that included stakeholder meetings. The Commission’s swift review was in response to the tragic home explosion in Firestone, Colorado on April 17, 2017, that killed two people and injured a third. The Governor called for the review on May 2, 2017, after the Frederick Firestone Fire Protection District completed its investigation into the home explosion. The investigation identified an abandoned oil and gas flowline connected to an active well as the cause of the explosion. The Rulemaking implements changes to the Commission’s flowline and safety rules in accordance with the review and Governor’s announcement.

#### **Stakeholder and Public Participation.**

On September 8, 2017, the Commission issued a Rulemaking scoping document that identified proposed changes to existing flowline rules. The scoping document solicited stakeholders to submit comments regarding the scope of the proposed flowline Rulemaking on or before September 29, 2017. Comments to the scoping document were received in writing, and in person at two stakeholder meetings that were held on September 21 and 25, 2017. More than 50 persons or parties attended the stakeholder meetings and the Commission received written comments during the stakeholder process. Among those in attendance at the stakeholder meetings were citizens, representatives of local governments, and industry groups.

The Commission encouraged public participation in the Rulemaking by allowing the public to comment on the proposed rules in advance of or during the hearing. Persons or organizations desiring to do so could also participate in the Rulemaking as a party. Parties could submit prehearing statements and comments, including alternative

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rules or amendments, and respond to the prehearing statements and comments submitted by other parties.

### **Statutory Authority.**

The Commission's authority to promulgate amendments to the Rules is derived from the following sections of the Colorado Oil and Gas Conservation Act ("Act"), §§ 34-60-101 - 130, C.R.S.:

- Section 34-60-105(1), C.R.S. (Commission has the power to make and enforce rules);
- Section 34-60-105(2)(a), C.R.S. (Commission has the authority to regulate the drilling, producing, and plugging of wells and all other operations for the production of oil or gas);
- Section 34-60-106(2)(d), C.R.S. (Commission has authority to regulate "Oil and gas operations so as to prevent and mitigate significant adverse environmental impacts on any air, water, soil, or biological resource resulting from oil and gas operations to the extent necessary to protect public health, safety, and welfare, including protection of the environment and wildlife resources, taking into consideration cost-effectiveness and technical feasibility."); and
- Section 34-60-108, C.R.S. (Commission has authority and procedure to adopt rules).

### **Identification of New and Amended Rules.**

In response to the Governor's directive to review its flowline regulations, consistent with its statutory authority and its legislative mandates, and in accord with the administrative record, the Commission added or amended the following Rules:

- 100-Series Rules: definitions of Breakout Tank, Domestic Tap, Flowline, Wellhead Line, Oil Transfer Line, Production Piping, Production Line, Dump Line, Manifold Piping, Process Piping, Peripheral Piping, Produced Water Flowline, Gathering Line, Grade 1 Gas Leak, Lockout, Maximum Anticipated Operating Pressure, Off-Location Flowline, Pipeline, Riser, Tagout and Tagout Device.
- 300-Series Rules: 312, 313A, 313B, and 328.d.;
- 600-Series Rules: 605.d.;
- 700-Series Rules: 711;
- 1100-Series Rules; and

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- The Commission also adopted conforming or clarifying changes to Rules affected by flowline or related changes. 100-Series (Blowdown Pits, Oil and Gas Facility, Oil and Gas Operations, Plugging and Abandonment, Production Facility, Production Pits, and Special Purpose Pits); 303.b.; 317B; 318A; 328; 325; 330; 602; 604; 706; 802; 907; 1002; 1004; 1203; 1204; and 1205.

### **Overview of Purpose and Intent.**

On September 11, 2017, the Commissioners directed Staff to implement the two announced policy initiatives that require Commission rulemaking. The seven policy initiatives Governor Hickenlooper announced were:

- Strengthening the Commission’s Flowline regulations;
- Enhancing the 8-1-1 “one-call” program;
- Creating a nonprofit orphan well fund to plug and abandon orphan wells and provide refunds for in-home methane monitors;
- Prohibiting future domestic gas taps;
- Creating a technical workgroup to improve safety training;
- Requesting peer-review of certain Commission regulations; and
- Exploring an ambient methane leak detection pilot program.

Of these seven policy initiatives, the Commission can address two through rulemaking: strengthening the flowline regulations and improving the uniformity of operator participation in the 8-1-1 “one-call” program. In addition, the Commission can complement the Governor’s domestic tap initiative by improving safety oversight of oil and gas operations through the requirement of domestic tap reporting.

First, the Governor’s call to update the Commission’s flowline regulations stems from the information received by the Commission in response to its May 2, 2017 Notice to Operators (NTO) as well as the Commission’s own review of its flowline rules. The NTO required operators to, over the course of two months: identify, locate, and pressure test certain flowlines and submit that information to the Commission; and identify, mark, and lock out/tag out risers for abandoned flowlines and then, consistent with abandonment requirements, cut those risers to three-feet below grade. The Commission received new data on approximately 120,000 flowlines and associated risers, which data was the first step for the Commission to develop a relational database that uses flowline riser location to interrelate oil and gas locations.

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While operators were working through the NTO requirements and submitting data about flowlines during the summer of 2017, the Commission continued - with an elevated priority - its review of the flowline regulatory regime. Beginning in 2015, the Commission started reviewing its flowline program based upon recommendations contained within its 2014 Risk Based Inspections report prepared for the Colorado General Assembly. In 2015, the Commission established a Flowline Integrity Group within the Engineering Unit dedicated to enforcing the Commission's flowline regulations. The Commission has also reviewed its own and other state and federal rules regulating pipelines to ascertain areas where Colorado's flowline regulations could be improved. During this review, Staff identified regulatory changes that the Commission adopted in Order 1R-103. However, not all of the changes identified in Order 1R-103 were incorporated into the Rules; this Rulemaking corrects that oversight. Thus, the changes adopted by the Commission in the Flowline Rules reflect the research and findings made since 2015, as well as input from the stakeholders received before and during the Rulemaking.

Second, the Commission intends to improve the uniformity of operator participation in the Utility Notification Center of Colorado (UNCC), Colorado's "one-call" or "8-1-1" program. This reflects an improved collaboration between the Commission, the UNCC, and operators. In the wake of the Firestone tragedy, many people asked that the Commission create a database that maps all flowlines in Colorado. During the course of stakeholder meetings, the opportunity to partner with UNCC became the Commission's preferred option for housing increased, more specific information about flowlines. Requiring operators to become Tier One members and to supply UNCC with digital information about an operator's belowground operations (i.e., vertical portions of wells and flowlines) provides an elegant, efficient, and effective option for a state-wide organization to host information about belowground oil and gas operations. UNCC has an existing database that citizens and businesses rely on every day when preparing to dig. The team at UNCC is uniquely prepared with the expertise, staff, and existing database to incorporate information from operators that may change week-to-week and provide the updated information to the people who most need it - property owners preparing to dig. Relying on UNCC to host this information also provides a centralized information source for all Colorado citizens, local governments, and businesses of all underground facilities-not just oil and gas exploration and production facilities. To enhance this collaboration, the Commission imposed increased requirements for operators' participation in the UNCC program.

In addition, the Commission also amended specific regulatory requirements in an effort to prevent fluid releases from pipelines and empower the Commission to respond in the event of an exploration and production fluid release. First, the Commission clarified and enhanced provisions related to its oversight of lines transporting produced water, and gas gathering lines to ensure the Commission can adequately respond to a release of exploration and production waste. Second, the Commission included an additional method to gauge tanks that provides accurate and reliable data, and does not require opening hatches, thus preventing the release of

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gases. Third, the Commission imposed specific requirements for check valves. Check valves operate to allow fluid flow in only one direction and serve an important purpose where reversing flow could cause damage.

The changes adopted by the Commission also require reviewing the entire set of Rules to make conforming changes, which are reflected in the amended rules.

### **Amendments and Additions to Rules.**

#### ***100 Series Rules: Amended Definitions.***

The definitions of “flowline” and “gathering line” were amended from a technical, narrative description to a description that reflects the different spheres of authority held by the Commission and the Colorado Public Utilities Commission (PUC) or the Pipeline and Hazardous Materials Safety Administration (PHMSA), a federal agency within the U.S. Department of Transportation. An additional source of guidance that assists in determining jurisdiction between the Commission and PUC or PHMSA is API RP 80, Guidelines for the Definition of Onshore Gas Gathering Lines, 1st Edition, April 1, 2000. The Commission also added a definition of “pipeline” to create a term that encompasses both flowlines and gathering lines as some provisions in the Rules need to apply to both categories of lines. The Commission also added descriptions of types of flowlines to assist in understanding the different installation or integrity management needs of these various lines. Focused, technical stakeholder comments from the Colorado Petroleum Council and Colorado Oil and Gas Association were integral to the Commission’s development of these definitions. The Commission’s amendments distinguish between flowlines that exist on a single oil and gas location and those flowlines that leave one location to transport fluids to a different location, what are defined as “Off-Location Flowlines”.

Notably, the Commission added a definition of a Grade 1 Gas Leak. This definition is included to assist in the reporting of gas leaks to the Commission. Additionally, the Commission added definitions to clarify terminology, such as riser, dump lines, and maximum anticipated operating pressure. These definitions are incorporated to assist the public understanding of oil and gas operations as well as operator compliance with the amended Rules.

#### ***1100 Series Rules: Revised Flowline Regulations.***

The 1100 Series 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. In revising the 1100 Series, the following section changes were made:

Rule 1101. Registration Requirements

Rule 1102. Installation, Operations, Maintenance, Repair and Reclamation

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Rule 1103. Flowline Integrity Management  
Rule 1104. Abandonment

The details contained within each of these sections is discussed below.

### **1. Rule 1101.**

The changes to Rule 1101 focused on gaining increased information about specific types of lines. The Commission imposed a registration requirement for flowlines that convey fluids away from an oil and gas location and to a different site. This regulation ensures the Commission continues to continually collect updated and new data gathered from operators responding to the NTO. Operators must now submit information about the off-location Flowlines, including GPS endpoints of risers, materials used to construct, related locations (by COGCC Facility Number), and fluid conveyed. This information will build into the relational database the Commission is creating to better inform staff, the public, and operators about the movement of exploration and production fluids.

The Commission also required the registration of all known domestic taps. In the furtherance of public safety associated with oil and gas operations, operators are required to report to the Director the GPS location of the point a domestic tap connects to a flowline and the address of the location of where the tap delivers gas. The safety and integrity of domestic taps are not regulated by the Commission. 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). This addresses some concerns raised to the Commission including Boulder County's stakeholder comments.

Third the Commission requires the registration before construction of an oil gathering line. This is to provide the Commission with an understanding of how fluids are moving and in the event of a release provide proper agency response. A similar registration provision for gas gathering lines is included in 313B.

### **2. Rule 1102.**

Rule 1102 establishes the standards operators must follow and employ when designing and installing flowlines. As the Commission found during its review, having more specific installation and construction standards - that are tested and established by third-parties - would create a more uniform and improved regulatory regime as well as provide greater certainty for the regulated industry. The Commission included in the Flowline Rules industry standards that operators must follow when designing and installing their lines. Industry stakeholder comments supported using improved standards established by third parties.

Operators are also required to conduct repairs and maintenance on flowlines so as to

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prevent failures, leaks and corrosion of lines and injury to persons and property. In furtherance of the Commission's expectation that flowlines will be properly maintained so as to ensure safety to persons and property, the Commission required that all flowlines not in active use have all valves locked or tagged out. This requirement is integral to protecting public safety.

Operators are also now required to become Tier One members of the UNCC and to participate in Colorado's One Call notification system. Rule 1102 requires operators to include their UNCC member code on their Operator Registration, Form 1, Form 10 or Form 12 that are filed with the Commission. With the Commission registration, operators are granting the Director permission to access information the UNCC has on file for that operator, including the location of underground oil and gas facilities. Operators are also required to submit and update information with UNCC to ensure that the UNCC database is accurate.

Rule 1102 also requires operators to maintain accurate records relating to flowline maintenance, repairs, testing and other related data so operators have a living history of each flowline's management. In accordance with Rule 205, the Director has the authority to inspect these records. Maintaining these records is imperative to ensuring that operators are maintaining compliance with Section 1100. Boulder County's stakeholder comments encouraged and recognized the importance of this requirement.

### **3. *Rule 1103.***

The purpose of Rule 1103 was to establish a comprehensive Flowline Integrity Management program that requires testing of all flowlines both prior to being put into service and after. All new flowlines, including flowlines that have been repaired, are required to be tested to their maximum anticipated operating pressure in accordance with API RP 1110, Recommended Practice for the Pressure Testing of Steel Pipelines for the Transportation of Gas, Petroleum Gas, Hazardous Liquids, Highly Volatile Liquids or Carbon Dioxide (6<sup>th</sup> Ed., February 1, 2013). Consistent with the NTO, flowlines that must be tested to their maximum anticipated operating pressure include: Wellhead Lines, Oil Transfer Lines, all Production Piping except Dump Lines, Peripheral Piping and Produced Water Flowlines.

Once in service, Flowlines are required to be tested for integrity on a periodic basis. Rule 1103 allows operators to select from several testing options, such as continuous pressure monitoring and optical gas imaging to satisfy the testing requirements. These options include industry accepted technologies, some of which are used to comply with other regulatory programs such as the Colorado Department of Public Health and Environment, Air Quality Control Commission, Regulation No. 3 (5 C.C.R. 1001-5), and Regulation No. 7 Section XVII.B.1 (a-c) and Section XII.

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Because an operator likely does not have control over the surface lands, Rule 1103 provides for increased oversight of off-location flowlines that move produced fluids between two or more different oil and gas locations. Off-location flowlines must demonstrate integrity through annual pressure test, continuous pressure monitoring or annual visual inspection if it is an above ground off-location flowline.

The Commission recognizes that dump lines may not be suitable for a pressure test. These lines may not be designed or intended for internal pressure such as vacuum systems, or they may contain parts that cannot be isolated. Additionally, it may be impractical to conduct pressure testing on lines that cannot be temporarily closed to isolate the test section. Line systems that are not suitable for applied pressure testing, are nonetheless required to maintain mechanical integrity. For belowground dump lines, operators must conduct a static head test every three years. For above ground dump lines, operators must conduct an annual visual inspection. Inspections will include visual examination of joint appearance, mechanical checks of bolts and joint tightness, and such other relevant examinations and methods to verify integrity.

#### **4. *Rule 1104.***

In the Flowline Rulemaking, the Commission moved the abandonment provisions of Rule 1103 to a new Rule 1104. The abandonment provisions were also revised by the Commission to clarify and specify that all flowlines are considered active, and thus subject to Rules 1102 and 1103, unless the line has been abandoned. This means that even if a flowline is not in active use, operators must still test the flowline, in accordance with Rule 1103, for integrity. Rule 1104 specifies the steps that must be taken to fully abandon a flowline, which now include lockout and tagout of all risers associated with the flowline, if the flowline is not being used, but not yet abandoned.

Additionally, the Commission required in Rule 1104, that upon abandonment of a flowline, operators must notify the Director by filing a Form 44. The Notice of Flowline Abandonment on Form 44 will be provided to the local government designee and the UNCC.

### **Other Rule Additions and Amendments**

The Commission made the following additions and amendments to the below-listed rules. These changes were primarily designed to clarify specific details of these rules or to conform them to the amendments to the 1100 Series Rules.

#### ***100 Series Rules: Definitions***

The 100 Series definitions were amended to make conforming changes to defined terms.

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### ***200 Series Rules: Revised Comprehensive Drilling Plans***

Rule 216 was amended to make conforming changes to defined terms.

### ***300 Series Rules: Revised Registration and Fluid Management Requirements***

Rule 313B was added by the Commission to require the registration of all produced water flowline transfer systems. In registering a produced water flowline transfer system, the operator must provide a facility layout drawing and topographic map. The registration requirements for produced water flowline transfer systems also apply to new gas processing plants and new underground gas storage facilities. In furtherance of public health, safety and welfare the Commission believed it was imperative to have the registration information called for in Rule 313B for these facilities. Additionally, in furtherance of public health, safety and welfare the Commission believed it was imperative to have the registration information for gas gathering lines.

As amended, Rule 328 incorporates an alternate method of tank gauging that requires the volume of oil produced to be measured before removal. This requirement is more protective of public health, safety, and the environment because it does not require opening a hatch, and thus prevents gas emissions. In addition, the Commission has historically approved variances allowing for operators to use this methodology, thus demonstrating its efficacy. This amendment allows operators to use an equally effective gauging method that is safer without seeking a variance.

The Commission made conforming changes to Rules 303, 312, 313 and 317B.

### ***600 Series: Required Annual Valve Checks and Installation of Check Valves.***

Rule 605.d. has been revised to require annual valve checks and to require the installation of valves on flowlines at certain locations, including certain water crossing areas. Additionally, Rule 605.d., now requires check valves on flowlines when two or more wells produce through that flowline. This requirement is more protective of public health, safety, and the environment because it allows for the shutting down of a flowline in the event of a failure, thus significantly decreasing the volume of produced fluids that may have otherwise escaped from the flowline.

### ***700 Series: Revised Bonding for E&P Waste from Water or Gas Gathering.***

Rule 711 was amended to make conforming changes to defined terms. Additionally, an operator of a produced water flowline transfer systems must provide a financial assurance. The Commission determined that it was necessary to require a bond for produced water flowline transfer systems due to the potential health and safety

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hazards associated with a failure of a produced water flowline transfer system and release of E&P Waste.

### ***900 Series Rules: Addition of Grade 1 Gas Leak Reporting.***

Rule 906 was amended to include the mandatory reporting of any Grade 1 Gas Leak.

Rule 907 was amended to make conforming changes to defined terms.

### **Effective Date.**

The Commission adopted the proposed amendments in accordance with the Governor's announced initiatives, which amended Rule 100 Series, revised the 1100 Series [INSERT], at its hearing on December 11-12, 2017, in Cause No. IR, Docket No. 171200767. These amendments will become effective, per Section 24-4-103, C.R.S., twenty days after publication in the Colorado Register.