APPENDIX B

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. 1R Docket No. 191100692 2019 Flowline Rulemaking

This statement sets forth the basis, specific statutory authority, and purpose for amendments ("2019 Flowline Rules") to the Colorado Oil and Gas Conservation Commission ("Commission") Rules of Practice and Procedure, 2 CCR 404-1 ("Rules"). In adopting amendments to the Rules, the Commission will rely upon the entire administrative record for this Rulemaking proceeding, which formally began on October 8, 2019, when the Commission submitted its Notice of Rulemaking to the Colorado Secretary of State.

Background

On April 16, 2019, Governor Polis signed Senate Bill 19-181 into law. Senate Bill 19-181 ensures that oil and gas development and operations in Colorado are regulated in a manner that protects public health, safety, welfare, the environment, and wildlife resources. Senate Bill 19-181's amendments to the Oil and Gas Conservation Act ("Act"),

§§ 34-60-101–131, C.R.S., are effective as of April 16, 2019, the date the Governor signed the bill into law. Senate Bill 19-181 amends, among other provisions of the Act, § 34-60-106(19), C.R.S., directing:

> The commission shall review and amend its flowline and inactive, temporarily abandoned, and shut-in well rules to the extent necessary to ensure that the rules protect and minimize adverse impacts to public health, safety, and welfare and the environment, including by:
>
> (a) Allowing public disclosure of flowline information and evaluating and determining when a deactivated flowline must be inspected before being reactivated; and
>
> (b) Evaluating and determining when inactive, temporarily abandoned, and shut-in wells must be inspected before being put into production or used for injection.

Stakeholder and Public Participation

On August 1, 2019, the Commission announced it would undertake the rulemaking for the 2019 Flowline Rules in November of 2019. On September 5, 2019, the Commission

hosted its first stakeholder meeting for the 2019 Flowline Rules. On October 8, 2019, it issued a draft of the proposed rules with its Notice of Rulemaking and hosted a stakeholder meeting the following day, October 9, 2019, to explain the proposed rules and solicit stakeholder comments. In the Notice, the Commission invited stakeholders to participate formally as parties or informally by submitting oral or written comments. In addition, the Commission created online portals through which anyone could submit written comments regarding the 2019 Flowline Rules.

Statutory Authority

In addition to the specific language quoted above from Section 34-60-106(19), C.R.S., the Commission's authority to promulgate amendments to the Rules is derived from the following sections of the Act:

- Section 34-60-105(1), C.R.S. (Commission has the power to make and enforce rules necessary to enforce the Act);
- Section 34-60-106(2), C.R.S. (Commission may regulate the drilling, production, and pugging of wells and all other operations for the production of oil or gas);
- Section 34-60-106(2.5)(a), C.R.S. (Commission will regulate oil and gas operations in a reasonable manner to protect and minimize adverse impacts to public health, safety, and welfare, the environment, and wildlife resources and protect against adverse environmental impacts on any air, water, soil, or biological resource resulting from oil and gas operations);
- Section 34-60-107, C.R.S. (Commission has duty to regulate oil and gas operations so as to prevent waste of oil and gas); and
- Section 34-60-108, C.R.S. (Commission has authority to prescribe rules and procedure to adopt rules).

Identification of New and Amended Rules

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 (Flowline System, Grade 1 Gas Leak, Out of Service Locks and Tags (OOSLAT), Produced Water Transfer System, and Tagout Device);
- Rule 215;
- Rules 316C, 326 and 333;
- Rule 610;
- Rules 711, 712, and 713;

- Rule 906; and
- 1100 Series Rules.

Overview of Purpose and Intent

The Commission implemented Senate Bill 19-181's directives regarding public disclosure of flowlines and evaluating and determining when a deactivated flowline, inactive, temporarily abandoned, or inactive shut-in well must be inspected before being returned to active use. The three fundamental changes to the existing flowline and inactive well rules that implement these provisions are:

(1) Requiring Geographic Information System (GIS) data for all off-location flowlines and crude oil transfer lines and making that GIS data accessible to the public by viewing COGCC's online map; and

(2) Enabling COGCC staff to conduct inspections when an operator takes action to return an inactive flowline, temporarily abandoned well, or shut- in well to active status by requiring notice 48 hours prior to returning the line or well to service.

(3) Improving protection of public health, safety, welfare, and the environment by making other changes to the flowline and other rules, including requiring third-party verification for lines abandoned in place.

The amendments adopted as part of the 2019 Flowline Rules build upon the Commission's work during the Flowline Rulemaking in 2018 to generate a more complete database of information regarding flowlines and crude oil transfer lines – from installation to abandonment. The Commission will have complete GIS location data for all off-location flowlines and crude oil transfer lines, an understanding of each line's integrity management program with regular integrity verifications, investigation into integrity failures to better protect the environment from a spill or release, and, upon abandonment, a repository of information regarding the life-cycle of the flowline or crude oil transfer line.

Amendments and Additions to Rules

Rule 1101.a.

In a new section 1101.a., the Commission adopted rules to create different statuses for flowlines and crude oil transfer lines. These statuses are consistent with the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) statuses, which should create seamless regulation between the two agencies. Importantly, the rules require any flowline or crude oil transfer line to be Out of Service Locked and Tagged (OOSLAT – also a new defined term, discussed below) unless it is in active status or has been abandoned. This carries forward the requirement to ensure that upon accessing a

site, anyone can discern what lines are active and available for use. As initially proposed, the rule contemplated three scenarios for an active status line: (1) transmitting fluids; (2) undergoing repair or maintenance and locked out and tagged out as appropriate given the requirements of the federal Occupational Safety and Health Administration; and (3) holding fluid, but not transporting it, which is shut-in. The Commission considers these as three examples of active status, but removed this language from the rule as it may not be the exhaustive list of ways in which a line could be in active status. Clarifying changes were made throughout the rules to use consistent terms for these statuses.

Some stakeholders requested more specific language about what "isolation" means for purposes of the out of service status. The Commission considers downhole plugs one way in which an operator can isolate the flowline or crude oil transfer line from a wellhead, but recognizes there are other options, including, for example, a blind flange. Therefore, the Commission chose to use the less specific term, isolation.

Rule 1101.b.

The Commission moved the previous requirements in 1101.a. regarding registration of off- location flowlines into 1101.b. The most important change to this section is the requirement for operators to submit GIS data for all off-location flowlines to the Director. The Director will then make location information about flowlines publicly viewable on the Commission's map. As of October 31, 2019, every off-location flowline was required to be registered with the Commission. Therefore, for off-location flowlines that an operator has already- registered, but has not submitted its location information, the Commission established a deadline of December 1, 2020, for operators to submit the GIS data.

The rule specifies that for off-location flowlines in existence prior to May 1, 2018, the operator must provide "the most accurate data possible without using invasive methods and a minimum a horizontal positional accuracy of +/- 25 feet." This +/- 25 feet minimum requirement applies to a limited number of off-location flowlines, i.e., those that were in existence prior to May 1, 2018. For all off-location flowlines constructed after that date and for all crude oil transfer lines, Rule 215 has governed and continues to govern the accuracy requirements for instruments used to gather GIS data, which ensures greater data accuracy for all crude oil transfer lines and flowlines constructed after May 1, 2018.

By using the term, "the most accurate data possible without using invasive methods," the Commission intends for operators to provide the highest degree of locational accuracy they are able to provide without causing surface disturbance. Specifically for off-location flowlines made of metal, or that have tracer lines, the Commission recognizes operators obtain data with a greater degree of accuracy than +/- 25 feet using non-invasive techniques.

However, the Commission recognizes that some flowlines constructed prior to 1996 may not be made of metal or have tracer lines. The Commission finds that because it may be impossible to locate such lines without employing invasive methods, a +/- 25 feet degree of accuracy is appropriate. The +/- 25 feet degree of accuracy allows operators to obtain location information without invasive methods, such as re-trenching or potholing the

entire length of the flowline, which could create adverse health, safety, and environmental impacts, including soil and vegetation disturbance, emissions from heavy equipment, and risks to people who are digging near active subsurface utilities. The Commission understands that staff will issue guidance specifying techniques for providing "the most accurate data possible without using invasive methods," including, as appropriate, a minimum margin of error, for different categories of flowlines. Finally, the Commission finds that a degree of accuracy of +/- 25 feet provides the Commission with sufficient location information, i.e., a 50 foot corridor, to protect public safety in the event of an incident and to manage the abandonment process.

The Commission also changed from the existing term "geodatabase" to Geographic Information System data (or GIS data) to ensure the rules are understandable. In addition, because all lines must have GIS data, the Commission also removed the requirement to submit a layout drawing, which would be duplicative.

To make information submittals consistent for off-location flowlines regardless of the registration path, the Commission also now requires information about the off-location flowline's corrosion protection and integrity management system. For lines that an operator has already registered, the operator must submit this information with their GIS data. The Commission, in this section and throughout the 1100-Series rules, changed the reporting timeline from a 30 day requirement to 90 days. The Commission expects operators to transition to quarterly reporting on flowline and crude oil transfer lines, which is a more efficient submittal process and also increases the efficiency for the Commission to review and audit operator submittals.

Further, the Commission deleted the previous version's references to the May 1, 2018 and October 31, 2019 deadlines, and related requirements. As of adoption of these rules, all actions required by the dates have passed, and therefore, the dates are now obsolete. The Commission also deleted other references to these dates where the action deadlines have expired. In other scenarios, the Commission left the May 1, 2018 date in the rules if it continues to establish a date that – going forward – has on-going regulatory importance.

Staff initially proposed a new subsection in Rule 1101 to allow for multiple off-location flowlines to be registered as a flowline system. Stakeholders provided feedback that the registration requirements should be the same whether the operator registered the off-location flowline individually or as a system. Based on that feedback, the Commission elected to broaden the language in Rule 1101.b. to accommodate multiple flowline registrations through the same Flowline Report, Form 44, instead of duplicating the requirements in a new subpart. Registering multiple flowlines using a single form presents some information technology challenges that the Commission is presently working with operators to resolve and that work will continue. Bulk registration affords important efficiencies and insights into how an operator is managing its fluids, which underscores the importance of creating this path to registration and working toward technical solutions.

Rule 1101.c.

The Commission moved its domestic tap registration requirements to 1101.c. and deleted the now-obsolete date references. The Commission also established its expectation that tracer wire or other metallic devices used to locate subsurface lines must be resistant to corrosion damage. To comply with this, the Commission expects operators to use coated copper wire or other co-equal means. The Commission also added this reference in other sections of the rule requiring tracer wires or location devices. Lastly, the Commission added requirements for installation of vapor control equipment as an increased safety measure.

Rule 1101.d.

The Commission's registration requirements for crude oil transfer lines and produced water transfer systems moved to Rule 1101.d. with a couple of changes, which have been discussed above, as the changes are similar to those made in other registration rule requirements. Again, the Commission established the requirement to submit GIS data by December 1, 2020, if an operator has previously registered a crude oil transfer line or produced water transfer system, but did not include GIS data of the location. In addition, the Commission clarified that multiple crude oil transfer lines can be registered through a single Flowline Report, Form 44. Again, the Commission is working towards information technology solutions to challenges of multiple registrations through a single form given the advantages of understanding an operator's entire system.

Rule 1101.e.

The Commission established the method by which it would make GIS data for flowlines publicly available and moved previously existing requirements for local government access to the Commission's GIS data to this section.

First, subpart (1) requires the Commission to make GIS data for off-location flowlines and crude oil transfer lines available to the public through the Commission's online map viewer. The Commission determined that the map data would be viewable at scales greater than or equal to 1:6,000. In addition, a member of the public can come to the Commission's office, or to a local government's office if the local government chooses to provide such data access, to view more specific location information for a specific parcel. These two provisions, in tandem, balance the statutory directive and public expectation that location information will be available with the need to ensure the Commission does not inadvertently provide such specific information that someone would rely on Commission data instead of calling the Utility Notification Center of Colorado (CO 811). In addition, the Commission's map viewer will include a specific directive for people to not rely on the Commission's map and to call CO 811 before excavating. The Commission believes it should support the role of CO 811 as the primary source of information about subsurface facilities, including those related to oil and gas.

Second, the Commission amended previous language regarding how it would provide underlying flowline GIS data received by the Commission to local governments. Only

those local governments that request to provide the information will receive it. Rule 1101.e does not obligate any local government to receive or provide information. As requested by stakeholders and directed by the Commission, the Commission's staff will create an online platform through which local governments can access the Commission's information in real time. Although earlier versions of the proposed rules limited the uses to which local governments could put the information, the Commission chose not to adopt such limits. During the rulemaking process, one local government requested permission to map Commission flowline or crude oil transfer line information. In response, the Commission amended the regulatory language to establish that local governments can reproduce or make information public to the same degree that the Commission does, recognizing that local governments will be subject to the same confidentiality constraints as the Commission. For example, a local government can map the Commission's flowline information so long as the information is not displayed at scales less than 1:6,000. And when accessing more detailed information, the online portal will include a confidentiality warning. The Commission believes this provision continues to balance the need of local governments for information with safety concerns associated with publicly distributing GIS data. Additionally, by making more detailed information viewable at local government offices, the Commission intends to make it easier for members of the public to view the information without traveling to Denver or Rifle, where the Commission's offices are located.

The Commission understands the calls from many stakeholders to map all flowlines and gathering lines on its online map viewer. For lines within the Commission's jurisdiction, the Commission is obtaining the data necessary to map all of those lines. The Commission requested permission from PHMSA to map the pipelines within its jurisdiction on the Commission's map (subject to the same data availability limitations that the federal government imposes), but PHMSA does not allow this. Presently the Public Utilities Commission does not map pipelines within its jurisdiction, so data for the Commission to map is not available.

Rule 1102

The Commission updated and or clarified a number of standards throughout the rule, and other 1100-Series rules.

Rule 1102.d.

In Rule 1102.d., the Commission's amendments better protect and minimize adverse impacts to public health, safety, and welfare and the environment from flowlines as required by Section 34-60-106(19). First, in subpart (6), the Commission requires operators going forward to install caution tape, which if so designed, can also function as the tracer device, a minimum of one foot below grade for newly installed pipe. This measure is designed to prevent damage to the pipe during excavation. The Commission also included language about corrosion protection for tracer wire or metallic locating devices discussed above.

Second, in subpart (7), the Commission now requires operators to minimize impacts to land under construction, structures, and wildlife resources when installing flowlines. Some stakeholders raised the issue of wildlife resource impacts during the siting or installation of flowlines or crude oil transfer lines as something the Commission should address during this rulemaking. The Commission agrees that during installation operators should minimize impacts to wildlife resources and, therefore made the change to subpart (7). The Commission, however, will take up the question of siting flowlines as part of the Mission Change Rulemaking's broader conversation regarding the Commission's process to review and permit oil and gas locations and facilities. Important to this future undertaking is considering the new statutory framework regarding avoiding, minimizing, and mitigating impacts from oil and gas development, which would include flowlines, as part of the permitting review.

Third, the Commission changed references to manufacturer's procedures and practices to manufacturer's specifications in subpart (10). The Commission made conforming changes throughout the 1100-Series to ensure that the rules use a consistent, single term – manufacturer's specifications – when an operator may rely upon manufacturer's directives, whether in the form of guidelines, instructions, policies, procedures or specifications.

1102.e.

The Commission revised subpart (2) to be more protective of public health, safety, welfare, and the environment by ensuring that pipes buried with less than three feet of cover are intended to be exposed and are designed and installed to withstand exposure to the elements. Clearly, a surface owner can require more cover than the minimum requirements established by the rule. The Commission also included the requirement for operators to – as is reasonable and necessary under the circumstances – install barricades to protect above-ground flowlines and crude oil transfer lines and associated infrastructure from vehicular impacts.

1102.f.

The Commission adjusted the top soil management requirements to eliminate redundancy – and perhaps potential conflicts – between the 1100-Series and 1000-Series regarding top soil management. In addition, the Commission imposed more rigorous top soil management requirements by narrowing the width of a trench for which an operator is not required to salvage top soil.

1102.g.

The Commission updated its marking requirements to clarify that operators installing a marker that complies with the federal requirements also meets the Commission's requirements. In addition, the Commission removed confusing language about "in designated setback locations," to clarify that markers are required when flowlines or crude oil transfer lines cross public rights-of-way or utility easement crossings.

1102.h.

The Commission updated 1102.h. to require, going forward, that all third-party inspectors of crude oil transfer lines are either Professional Engineers, working under the supervision of a Professional Engineer, or have obtained a certification qualifying them to perform certain inspections. In response to stakeholder requests, the Commission expanded this requirement to also apply to all off-location flowlines. Recognizing that different types of pipeline material may require different knowledge and training, the Commission also added separate standards for inspectors who certify pipes made of material other than welded steel.

1102.i. and 1102.j.

To conform with OSHA requirements, the Commission clarified its expectations for standards operators must follow while performing maintenance or repairing flowlines or crude oil transfer lines. The rules now require an operator to take precautions to prevent unintentional releases when performing maintenance or repairing flowlines or crude oil transfer lines. The Commission also added a standard in Rule 1102.a. that is referenced in 1102.j. for repair and its expectation that unsafe equipment is repaired or removed.

1102.m.

Given the importance of manufacturer's specifications throughout the rules, the Commission believes it important for the protection of public health, safety, welfare, the environment, and wildlife to have access to the manufacturer's specifications an operator uses when designing, operating, or installing flowlines or crude oil transfer lines. The change to 1102.m. establishes that it is the operator's responsibility to maintain a copy of or access to (e.g., online) manufacturer's specifications that the operator uses and ensures the specification is available for evaluation if a question arises regarding the operator's compliance with the specification. In addition, the Commission broadened the specific records that must be maintained and explained how long those must be maintained.

1102.n.

Changes to the section clarify the Commission's expectations regarding compliance with the Utility Notification Center of Colorado (CO 811) requirements. The changes also acknowledge that some operators registered with the Commission may not have underground facilities – e.g., financial assurance providers and transporters – and that these operators are exempt from the section's requirements.

1102.o.

The Commission adopted increased requirements in Rule 1102.o. to implement Senate Bill 19-181's directive for the Commission to inspect inactive flowlines before the operator returns the line to active status. In sum, for any off-location flowline or crude oil transfer line that has been inactive – meaning out of service or shut in – for more than ninety days, the operator must pressure test the line before returning it to use and must notify the Commission at least 48 hours before the pressure test. This notice allows the Commission

staff to conduct an inspection during the pressure test and observe the operator when returning the inactive line to use.

In addition, the rule clarifies that shut-in off-location flowlines and crude oil transfer lines, which are still in active status, must continue with their integrity management regimes while shut-in. In contrast, out of service off-location flowlines and crude oil transfer lines are not subject to integrity management because those lines are locked out and tagged out, disconnected from any source of fluids, and any liquids have been evacuated.

Rule 1104

In Rule 1104, the Commission made clarifying changes throughout regarding the status of a line, updating standards, and timing.

Rule 1104.a.

The Commission modified Rule 1104.a. to ensure operators verify integrity and take affirmative steps to maintain it in the event the line cannot be put into active status within 90 days. This language accommodates those lines that have some segments subject to Commission jurisdiction and other segments subject to PHMSA.

Rules 1104.e. and f.

The record for this 2019 Flowline Rulemaking includes a study by Daniel Zimmerle, Kathleen M. Smits, and Bridget Ulrich of Colorado State University, Colorado School of Mines, and the University of Texas, respectively, entitled "Current and Near-Term Technology Options to Detect Leakage of Hydrocarbons, Water, and Gas from Flowlines," published on October 31, 2018. The study was requested and funded by the Commission. The Commission has reviewed the study and is familiar with its contents. One of the study's conclusions is that "relying on one technology/method will likely miss leaks" and that evidence from field trials is "clear" that "one method will not detect all leaks." Accordingly, the study recommended "that independent, complementary methods be considered for deployment." Although the Commission chose not to adopt a requirement for redundant or multiple leak detection methods at this time, the Commission instructed its staff to review leak detection methods, technologies, and standards, including emerging technologies, and to promptly report the result of this review to the Commission. Additionally, the Commission may consider amending its leak detection standards, as appropriate, as part of the forthcoming Mission Change rulemaking.

Rule 1104.g.

The Commission requested additional input from parties regarding the request that this rule also apply to off-location flowlines. Given the challenges with implementing this requirement under existing technology, the Commission chose to not apply this rule at the present to all off-location flowlines. However, as discussed above, the Commission instructed staff to review emerging leak detection technologies, and may consider

amending its leak detection standards, as appropriate, as part of the forthcoming Mission Change rulemaking.

Rule 1104.h.

The Commission clarified that for off-location flowlines and crude oil transfer lines, the initial pressure test must be conducted for four hours. This is in addition to the previously existing requirement to conduct the test in accordance with the rule's enumerated standards. The Commission separated on-location flowlines from the four hour requirement because the duration of the test need not be four hours, but the test must be performed in accordance with one of the identified standards and for a duration that is appropriate to demonstrate integrity.

Some parties suggested that the Commission require integrity tests any time a flowline changes ownership. Although the Commission chose not to add such a requirement at this time, it intends to revisit the issue during the forthcoming Mission Change or other rulemaking, which will encompass broader issues of asset transfer and custody changes.

Rule 1104.i.

The Commission added an API Recommended Practice regarding continuous pressure management to provide additional guidelines regarding how an operator may implement this integrity management option. The Commission will work with operators currently using continuous pressure monitoring as they evaluate whether their current continuous pressure management plan is in accordance with the Recommended Practice.

Rule 1104.k.

The Commission included an important regulatory step to create a uniform process for operators to, first, evaluate whether a spill or release of fluids resulted from an integrity management failure, and second, turn to Rule 906 to report and investigate the spill or release, if necessary. This ensures investigation and reporting (via an existing process) for all spills or releases, irrespective of the source.

Rule 1105.

The Commission's changes to the abandonment process focus on (1) a presumption that abandoned infrastructure is removed, unless certain conditions demonstrate abandoning a line in place is more protective of public health, safety, welfare, the environment, or wildlife; (2) establishing notice procedures to allow the Commission staff to inspect during abandonment; and (3) clarifying the reporting and notice requirements confirming abandonment. Importantly, while abandonment of a flowline is underway, but risers have not been removed, operators must apply OOSLAT. Operators must follow all requirements in Section 1105 apply as soon as the operator initiates abandonment steps for a line.

Because these changes to the abandonment process are significant, the Commission

instructed staff to report back to the Commission in November 2020 about the status of implementing the new abandonment rules, including the inspections, audits of documentation, and summary of abandonment processes.

Rule 1105.d.

Given the Commission's presumption that flowlines will be removed, unless abandonment in place is more protective of public health, safety, welfare, the environment, or wildlife resources, the Commission created a process to accommodate a 30-day pre- abandonment notice and review as appropriate for abandonment of all flowlines and crude oil transfer lines. This process also affords the Commission an opportunity to inspect the abandonment process and provides notice and an opportunity to comment to the local government and surface owner.

During abandonment, operators must always remove the line's risers, the risers associated with cathodic protection, and above-ground equipment, regardless of whether the operator also removes the line, or abandons it in place.

When operators abandon an off-location flowline or crude oil transfer line, the operator must submit notice to the Commission thirty days before abandonment will commence. If the operator seeks to abandon the flowline in place, the operator must provide appropriate documentation demonstrating why abandonment in place is appropriate under one of the enumerated exceptions in Rule 1105.d.(2)A.–H. The Director may review the notice and documentation, to determine if the proposed abandonment process is less impactful to public health, safety, welfare, the environment, and wildlife resources than the alternative. Within thirty days of the notice and documentation being submitted, if the documentation does not support an exception from the removal requirement, the Director may require removal. The Director may also request additional information or impose conditions of approval, such as flow filling the line abandoned in place. The Commission understands that the Director will issue guidance providing additional specificity about the notice and review procedures and informational requirements for abandonment notices.

The exceptions allowing an operator to abandon a line or section of a line in place are:

- A surface owner agreement executed by a surface owner. The agreement may be executed by either the current or the former surface owner. The Commission may require removal regardless of the preferences of a surface owner, if necessary to protect public health, safety, welfare, the environment, or wildlife resources.
- The line is subject to the jurisdiction of the federal government, and the relevant federal agency directs abandonment in place. The Commission intends for this exception to apply only on federal land or federally-owned mineral estate, if PHMSA has joint jurisdiction over the line and requires abandonment in place, or similar circumstances. A federal agency that controls the surface or mineral estate may direct abandonment-in-place through a field office directive, rule, or permit condition.

- The line is co-located with other active pipelines or utilities or is in a recorded right of way. Excavating from a trench with active utilities creates a risk to public safety and workers that the Commission does not encourage.
- Removal of the line would cause significant damage to natural resources, including wildlife resources, topsoil, or vegetation. The Commission used the term "including" before the phrase "wildlife resources, topsoil, or vegetation" to indicate that this list of natural resource is not exclusive. The Commission recognizes that revegetation is an important environmental benefit that the Commission wants to encourage, and re-disturbing successful revegetation may have harmful impacts, particularly in more arid areas. However, the Commission does not intend to allow abandonment-in-place wherever partial or complete revegetation has occurred, but rather only when there would be "significant" damage to a resource and when abandonment-in-place is not otherwise harmful to public health, safety, welfare, the environment, or wildlife resources, considering all relevant information. For example, if a rural area is revegetated, but there are plans for it to be redeveloped as a residential area in the near future, the harm to the vegetation (which may be disturbed in the near future anyway), would likely not outweigh the risks to public health, safety, and welfare of abandoning the line in place.
- The flowline or crude oil transfer line is in a restricted surface occupancy area or sensitive wildlife habitat. The Commission recognizes that the surface disturbance associated with removal in such areas is likely to be detrimental to ecosystems, plants, and wildlife.
- The flowline or crude oil transfer line crosses or is within 30 feet of a public road, railroad, bike path, public right of way, utility corridor, or activity utility or pipeline crossing.
- The flowline or crude oil transfer line or a segment of the line crosses or is within 30 feet of or under a river, stream, lake, pond, reservoir, wetlands, watercourse, waterway, or spring.
- The operator demonstrates and quantifies that the removal of the flowline will cause significant emissions of air pollutants. The Commission understands that some emissions will result from all removal processes, and does not intend this exception to apply to every abandonment. However, in some circumstances, these emissions may have more significant impacts on public health or the environment than others. For example, emissions may be a greater concern for facilities located close to an occupied dwelling unit, school, or hospital, or if an unusually large number of truck trips are required in an ozone nonattainment area. The Commission understands that the Director may issue guidance to assist operators in evaluating and quantifying when emissions associated with removal would be "significant."

The Commission also created a catch-all exception in Rule 1105.d.(3) to allow abandonment-in-place in situations that do not fall within any of the exceptions

enumerated in Rule 1105.d.(2), but where abandonment-in-place is more protective of public health, safety, welfare, the environment, or wildlife resources than removal. The Director may only approve such requests for abandonment in place if the Director finds, within 30 days, that abandonment-in-place is less impactful to public health, safety, welfare, the environment, or wildlife resources than removal.

Under Rule 1105.d.(4), the Commission will require operators to provide notice of abandonment to the surface owner and relevant local government. The local government and/or surface owner may submit comments to the Director about the impact of removal or abandonment in place within 15 days of receiving such notice. This allows the Director to understand the surface owner's or local government's perspective or preference when evaluating the abandonment notice and information. Current and future land use are appropriate topics for local governments to address in their comments, and the Commission encourages local governments to consider commenting about these topics.

Rule 1105.e.

The Commission's amendments to the abandonment process require documentation to support abandonment in place and that the lines are safe and inert. This additional documentation provides confirmation for the Commission that abandonment in place is appropriate, and that operators have taken all requisite precautions to ensure that a line was abandoned in place safely. The Commission also requires including information about the line's most recent pressure test to ensure any environmental impacts have been identified and are cleaned up or are in the process of being cleaned up.

Rule 1105.f.

The Commission's changes to flowline abandonment notifications for off-location flowlines or crude oil transfer lines establish information required to be submitted to the Commission for abandonment – and this information will create a complete repository of the line's life cycle. The changes also establish by rule what is occurring in practice for on-location flowlines. Receiving the Field Operations Notice, Form 42 – Abandonment of Flowlines for an on- location flowline allows staff to verify the operator has completed abandonment of all facilities when staff evaluates the operator's submittals for well abandonment. In addition, the Forms can be automatically sent to surface owners and the relevant Local Government Designee. Conforming changes were made to Rule 1105.g.

Because of the importance to public safety of ensuring that operators follow all Commission Rules when abandoning a line in place, the Commission requires third-party verification that abandonment in place was conducted properly. The third-party verifier must be a professional engineer, supervised by a professional engineer, or have other specific training or experience in abandoning lines. Additionally, the third-party verifier must be on-site and observe that the requirements for abandonment-in-place under Rule 1105.e.(1)–(4) are met.

Rule 1105.g.

The Commission amended existing language requiring that abandonment forms be

provided to the appropriate local government and CO 811.

Rule 326.

The Commission's changes to Rule 326 implement Senate Bill 19-181's directive for the Commission to inspect an inactive, shut-in well or inactive, temporarily abandoned well before the operator returns the well to production or injection. Operators are now required to provide notice at least 48 hours prior to returning an inactive, shut-in well to production or injection or to conducting the work necessary or installing equipment necessary to return an inactive, temporarily abandoned well to production or injection. This notice allows the Commission staff to conduct an inspection and observe the operator's work when returning the inactive well – regardless of whether it became inactive through temporary abandonment or being shut-in – before returning it to production or injection.

Rule 610.

The Commission included language in a new rule – Rule 610 – to ensure operators reviewing the safety rules and who may consider a Grade 1 Gas Leak a safety (not E&P Waste) issue understand the responsibility to report a gas spill or release through the 900 Series. To ensure the agency captures the data, operators also must report the document number for the Form 19 associated with the leak on the appropriate Form 44.

Rule 906.

Consistent with previous changes discussed, the Commission updated Rule 906 to create a clear process for operators to also report Grade 1 Gas Leaks as well as any other flowline integrity failure that causes a reportable spill or release pursuant to Rule 906.b.(1). The Commission also clarified what information should be submitted as part of an Initial Spill Report and numbered previously unnumbered paragraphs for clarity. In addition, the inclusion of "gas" in the language of 906 ensures clarity that spill or release contemplates a spill or release of gas, in addition to a spill or release of liquids or produced water.

Conforming Changes

Definitions – 100 Series Rules.

The Commission created a new definition: Out of Service Locks and Tags (OOSLAT). The definition harmonizes Commission rules with those of PHMSA and OSHA. It is critically important to keep out of service flowlines and crude oil transfer lines from being connected to active sources of fluids or pressure; however, the Commission's existing definition of lock out and tag out devices may only be used when an operator is locking out and tagging out equipment for repairs or maintenance according to OSHA. Therefore, the Commission

developed the OOSLAT definition to create a separate lock out/tag out process for out of service lines—enabling operators to comply with federal and state requirements.

In addition, the Commission clarified the definition of a produced water transfer system to conform with the 700 Series and modified the definition of tagout device to conform with changes to the status requirements of lines as well as the shut-in requirements of Rule 1102.o.

Rule 215.

The Commission updated Rule 215 to reflect changes in the technology used to determine GPS or GIS data. This is a critical definitional change given the importance of obtaining accurate GIS data for mapping of off-location flowlines and crude oil transfer lines.

Rule 216.

Although the Commission considered adding requirements for operators to submit information about their plains to convey fluids, including liquids, gas, and produced water, in Comprehensive Drilling Plan (CDP) submittals, the Commission chose not to adopt such a requirement at this time. The Commission may revisit this issue during the forthcoming Mission Change rulemaking. Rule 312.

As discussed above, some stakeholders requested changes to the Commission's requirements for transferring assets. As that would be a significant change and the concept could relate to many other aspects of asset transfers, the Commission determined the issue should receive additional staff and stakeholder input as part of the upcoming Mission Change rulemaking.

Rule 316C.

This rule clarification ensures all requirements to file a Form 42 are included in a single procedural rule.

Rule 333.

This rule clarification makes consistent the reference to the Utility Notification Center of Colorado as updated in the 1100 Series rules.

Rules 711, 712, and 713.

When the Commission updated its rules in 2018, it included produced water transfer systems as a type of facility for which the Commission would collect financial assurance

to ensure compliance with the 900 Series rules. Including it in this section led to confusion as some operators thought a single blanket bond would cover both produced water transfer systems as well as any other facility listed in Rule 711. The Commission, therefore, moved the financial assurance requirements for produced water transfer systems into Rule 712 to provide clarity that the Commission requires a separate financial assurance dedicated for an operator's produced water transfer system. The previous Rule 712 was renumbered to Rule 713. The Commission did not address adjusting financial assurance requirements in these three rules because SB 19-181 directed the Commission to broadly consider changes to financial assurance. The Commission will undertake a review of its entire financial assurance requirements, including these, when it implements this statutory directive.

Other Topics

Many stakeholders discussed the regulation of gathering lines in their written statements and oral testimony to the Commission. The Commission understands that the Colorado Public Utilities Commission (PUC) is in the process of developing a notice of produced rulemaking to update its gathering line regulations. The Commission instructed the Director to provide a copy of the final 2019 Flowline Rules, as adopted, to the PUC. The Commission further instructed the Director and his staff to work with the PUC by offering the Commission's expertise, to coordinate with the PUC in advance of the forthcoming rulemaking, and to participate in the forthcoming rulemaking.

Effective Date

The Commission adopted the proposed amendments during its hearing on November 19–21, 2019. These amendments will become effective, per § 24-4-103, C.R.S., twenty days after publication in the Colorado Register.