March 15, 2021

Oil and Gas Conservation Commission of the State of Colorado
1120 Lincoln St., Suite 801
Denver, CO 80203

Comments submitted via the COGCC eFiling system:
https://oitco.hylandcloud.com/DNRCOGEexternalAccess/Account/Login.aspx

Dear Commissioners:

Thank you for initiating a Financial Assurance (FA) rulemaking and for the opportunity to submit stakeholder comments on the Informational Docket.

Earthworks is a national nonprofit organization committed to protecting communities and the environment from the impacts of mining and energy development while seeking sustainable solutions.

It is very appropriate that the enabling legislation behind the FA rulemaking is Senate Bill 19-181, which requires stronger protection of the public welfare from the impacts of the oil and gas industry. If the COGCC were starting from scratch to craft FA for a previously unregulated area, the 700 Series rules in force today would be considered an unviable approach to protecting public welfare.

1. **Liability must be fully held by the oil and gas industry**

With regard to the first of the Commissioners’ questions presented with the Informational Docket, the **goal of FA should be to prevent the state and taxpayers from being forced to hold liability and the cost for full plugging and abandonment (P&A), including site reclamation and remediation.** FA should protect the state budgets and taxpayers of the future, which means significant changes to the industry accommodations and abuses of the past.

According to recent data from the Carbon Tracker Initiative, Colorado faces oil and gas financial liabilities of more than $8 billion, only 2% of which is covered by existing
bonds.1 The current FA rulemaking is a critical opportunity to address this concerning reality, stem a growing financial burden, and prevent even more degradation of water, air, and land.

Rules should be crafted so that oil and gas operators maintain sufficient FA to cover the full "cradle to grave" cost of maintaining and closing the wells from which they have derived profit for many years. There should be no gaps in coverage throughout the life of the well, regardless of changes in well status or ownership.

Earthworks is aware of the assertion by some oil and gas industry representatives that given market conditions and bankruptcy risks, higher FA levels could force a wave of abandoned wells. We argue that the opposite is true: without sufficient FA to cover the true costs of P&A and site reclamation, operators will be incentivized to abandon wells that they deem unprofitable at any given time. If it costs less for operators to bond wells than to plug them and reclaim and remediate sites, they will have a clear financial incentive to simply "walk away."

We also note that the risk of states absorbing liabilities due to bankruptcy may be exaggerated. A 2019 paper by the Institute for Energy Economics and Financial Analysis concluded that, "federal bankruptcy law does not let oil companies dodge responsibility for plugging old wells, rehabilitating drilling sites, or cleaning up contamination."2

2. The problem of “inactive” wells must be addressed

In response to the Commission’s question #13 regarding the definition of "inactive well," Earthworks believes that it is currently insufficient to dissuade operators from delaying P&A. The definition of "inactive" seems to be a mere stepping stone to place wells in long-term limbo. COGCC should exercise its full authority to prevent operators from defining their holdings as "inactive" in perpetuity.

According to recent data from the Carbon Tracker Initiative, nearly 10% of Colorado’s wells haven’t produced in at least two years, and many in over five; in addition, nearly 30,000 are low-producing

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stripper wells. These numbers represent a significant future liability risk that is very real in Colorado and other states and requires both more stringent rules and rigorous enforcement.

We note that in Pennsylvania, the Department of Environmental Protection (DEP) recently entered into legal agreements with two companies over operator exploitation of inactive well status. In one of the cases, Diversified Oil and Gas LLC was required to either "plug or produce" at more than 1,400 so-called "inactive" wells that actually met the state's definition of "abandoned." In the other case, Range Resources LLC was fined nearly $300,000 for incorrectly maintaining "inactive status" for over 40 wells that lacked any viability of returning to production.

Notably, in Colorado, "inactive" is a regulatory definition, creating confusion with regard to the relationship to statuses such as "shut in," "temporarily abandoned," and even "plugged and abandoned." Earthworks supports the recommendation in the final report (p. 4) of the Financial Assurance Technical Working Group (FATWG), which was established in accordance with Executive Order 2018-12, for greater clarity in how the inactive well definition relates to the well statuses used by operators. We also support the recommendation that "inactive well" be more specific in order to prohibit activities that do not represent actual production, such as swabbing tanks for trace volumes of old product.

The 100 Series in the Code of Colorado Regulations sets temporal parameters around the definition of "inactive well:" A shut-in well from which no production has been sold for a period of twelve (12) consecutive months or been temporarily abandoned for a period of six (6) consecutive months; or an injection well which has not been utilized for a period of twelve (12) consecutive months.

However, in practice these parameters appear to be largely meaningless. For FA requirements to have any significance and incentivize operators to P&A "inactive," non-producing wells, there must be a required timeframe within which this has to occur. A clear relationship between P&A timing and production status is necessary to answer the Commission's question #16 regarding how to

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4 Consent Order and Agreement, Pennsylvania DEP and Diversified Oil and Gas LLC, March 7, 2019, [https://files.dep.state.pa.us/Newsroom/NewsroomPortalFiles/DiversifiedCOA.PDF](https://files.dep.state.pa.us/Newsroom/NewsroomPortalFiles/DiversifiedCOA.PDF).
5 Consent Assessment of Civil Penalty, PA DEP and Range Resources Appalachia LLC, January 7, 2021, [https://files.dep.state.pa.us/Newsroom/NewsroomPortalFiles/Range_Executed_CACP.pdf](https://files.dep.state.pa.us/Newsroom/NewsroomPortalFiles/Range_Executed_CACP.pdf).
differentiate between wells that will be returned to production and those that are simply being held because it is less expensive for the operator to do so than to pursue closure.

Earthworks recommends that COGCC explore options to more clearly define "no production has been sold" (and "has not been utilized" in the case of injection wells). Colorado regulation currently lacks such standards. For example, Sec. 211 requires P&A when the well "is no longer used or useful," a very vague concept open to subjective interpretation and abuse.

COGCC should consider building on standards that do exist. One example is the use of "in paying quantities" by the US Bureau of Land Management and the states of North Dakota and Alaska when assessing whether or not an oil or gas well is producing sufficiently to delay P&A. This means that a well yields a return in excess of operating costs, regardless of whether operations as a whole may ultimately result in a loss.

In other words, if production and expense were plotted on a graph, the "paying quantities" threshold would be breached when the production line drops below the expense line, i.e., the dollar amount realized from production is less than the cost of P&A. With such a standard, operators could not delay closure indefinitely while waiting for some future (possibly imaginary) time when prices surge and operating costs decline. This scenario is akin to homeowners often selling property with a higher debt (mortgage) than market value.

Earthworks supports the recommendation in the FATWG report (pp. 3-4) that COGCC amend Sec. 707 to increase bonding amounts for excess inactive wells and lower the threshold for what constitutes this class of wells in order to “incentivize operators to reduce the number of wells they maintain in inactive status.” The FA amounts in Sec. 707 should be adjusted to match actual P&A and reclamation costs; current levels ($10,000-20,000) are a mere fraction of that.

COGCC should also amend Sec. 707 to prohibit waivers or modifications for operator financial assurances for excess inactive wells by requiring that P&A be pursued within a specific timeframe. Regulatory language asking operators to return wells to production in "a timely manner" or pursue

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8 BLM: 43 Code of Federal Regulations § 3162.3-4 (Well abandonment); 11 Alaska Administrative Code §83.395 (Definitions); and North Dakota Administrative Code §43-02-03-55 (Abandonment of Wells, Treating Plants, or Saltwater Handling Facilities - Suspension of Drilling).
P&A on an "acceptable schedule" is so vague as to be meaningless. This timeframe should be at most 12 or 6 months, as delineated in the definition of "inactive well"—although we recommend that COGCC consider an even shorter timeframe.

Going forward, COGCC should consider changes to other regulations that enable operators to claim "temporarily abandoned" status for years on end. In particular, Sec. 319(b)(1) and Sec.434(b)(1) allow operators to request extensions for temporary abandonment status; Sec.326(c)(2) and Sec.417(c)(2) allow wells to remain in that status as long as they have passed mechanical integrity tests every five years (a time period long enough for structural failure and extensive pollution to occur).

3. Rules should be comprehensive
New FA rules should address all aspects of P&A (including site reclamation and remediation), and associated bonding and other financial mechanisms should be set at levels sufficient to cover all processes.

In addition to significantly increasing FA levels overall in Sec. 706, COGCC should also increase site reclamation surface owner protection covering crop and land damage, since those currently in Sec. 703 are severely deficient (a maximum of $5000 per well). COGCC should also consider whether a new category of FA is needed for surface reclamation and remediation at sites that don't include wells (e.g., gathering facilities).

To determine the cost of plugging and site reclamation and remediation, the variability among oil and gas sites should be taken into account. Some sites have a single well while others have multiple wells, chemical and waste storage, compressor engines, and other equipment—all of which are potential pollution sources and need to eventually be properly closed and removed.

Earthworks therefore recommends a tiered and risk-based approach to determining FA levels. When evaluating adequate FA amounts, the Commission should consider factors including but not limited to the Basin and formation in which the well is located; well depth; road access; proximity to natural and human communities; the level of recontouring and reseeding required; and potential soil and water contamination.
In addition, according to the FATWG report (p. 7), “... a more robust model (for bonding) could be established that takes into account the age of the well, type of well, production curve, testing history, remediation and reclamation liability (tanks, pits, etc.), spill history, and other potential liabilities.”

COGCC should err on the side of a "worst case" rather than a "best case" scenario when considering new FA mechanisms. A precedent for this is found in how the Colorado Division of Reclamation, Mining, and Safety approaches FA, including an 18% “performance guarantee” requirement, which would be invoked should the Division have to assume responsibility for closure of a site, and thereby incur administrative expenses not covered by the initial warranty.7

4. Rules should cover all wells
In response to the Commission’s question #9 regarding whether currently orphaned sites should be addressed separately from new sites, Earthworks recommends that both be part of the current FA rulemaking. Separation of the two aspects risks delay in addressing either one.

The FA rulemaking appears to only contemplate changes for wells going into abandoned status or subject to a transfer of ownership. In response to the Commission’s question #7 regarding the intersection of FA with other rules, we encourage consideration of mechanisms to offset plugging and site reclamation and remediation costs for existing wells. It is essential that the new rules apply to every non-orphaned well in the state, i.e., all wells that have a responsible party associated with them.

Earthworks recommends a phased approach to bond recalculations, which would give operators time to post the appropriate bond amounts. This is where production status could play a role; for example, COGCC could require the owners of stripper wells and wells likely to be shut in or temporarily abandoned to "bond up" sooner than newer wells. Ideally, within a few years of the adoption of the final rules, all wells in Colorado with a responsible party should be bonded according to the actual costs of future plugging and site reclamation and remediation.

Current funding for the orphan well program is clearly insufficient. Earthworks supports the recommendation in the FATWG report (p. 13) that COGCC consider alternatives to bonding in the current rulemaking. We recognize that additional regulatory and legislative action may be needed to realize mechanisms such as an operator-supported fund and higher civil penalties, settlements, and

7 Personal communication with Division of Reclamation, Mining and Safety staff, March 2021.
severance taxes. However, the Commission should exercise its full authority to advance these mechanisms, for example through higher permit application fees. We also encourage COGCC to consider changes to Sec. 502(b)(1) so that operators cannot seek variances from FA requirements.

COGCC should develop requirements for additional FA whenever wells or sites are transferred to new operators. This measure is absolutely essential to ensure that operators acquiring large numbers of wells (particularly marginal ones) are prepared to fully cover all P&A and site reclamation and remediation costs. Earthworks supports the recommendations in the FATWG report that COGCC requires per-well or site fees at the time of transfer (p. 4) and additional bonding or other financial assurance "as risk increases or at the time of transfer to another operator" (p. 7).

5. Bonding levels should be far higher and subject to review

COGCC's current FA levels are highly insufficient. COGCC's current estimate to plug, reclaim, and remediate ($82,500) is for an average, single-well, vertical site--and therefore far too little for any cases with different circumstances. Notably, the FATWG report concluded (p. 7) that the average FA available for orphan well work bond claims in 2010-2018 was only 10% ($8,000) of that average estimated cost.

This wide discrepancy is a key reason why Colorado holds such extreme levels of liability. In addition, the gap between liability and actual cost needs is likely to only grow with time. Existing estimates of plugging costs for a single deep shale well range from $300,000-$1 million. A recent program in North Dakota--where many wells have similar average depth and age as in Colorado--ran into per-well costs of $112,000 for plugging only, with an additional estimated reclamation cost for some wells of $75,000.

COGCC should adopt requirements for periodic review of bonding levels in order to integrate changes in economic circumstances and increased risk due to the declining condition of wells and sites (which

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can in turn cause soil and water pollution). Without such review, the state and taxpayers will continue to bear the burden of growing liability, rather than operators.

We refer again to the Colorado Division of Reclamation, Mining, and Safety, which reviews the adequacy of reclamation bonds at least every four years, and potentially more frequently following site inspections.\textsuperscript{10}

For the COGCC to adopt that model, new FA rules would call for the elimination of blanket bonds (discussed below) and the bonding of individual wells in an amount sufficient to cover the actual cost of the work of plugging and site reclamation and remediation. These individual bonds would be reviewed annually for current adjustment for Cost of Living/inflation/market-based adequacy that reflects the actual cost of closure in as-close-to real time as possible.

This approach is gaining traction on the federal level, in recognition of the growing public liability burden posed by the oil and gas industry. Bills have been introduced in the US Congress to reform federal bonding rules, including a requirement that bond amounts must be adjusted at least every three years for inflation.\textsuperscript{11}

6. Blanket bonds should be prohibited

As currently written, Sec. 706 allows operators to submit statewide blanket bonds of merely $60,000 for the drilling and operation of less than 100 wells or $100,000 for 100 wells or more. These levels are a mere fraction of COGCC’s estimate ($82,500) to plug and reclaim a site with just one shallow well.

In addition, a recent analysis by the Carbon Tracker Initiative demonstrates that plugging liability held by the top ten operators in Colorado for over 60% of wells in the state (32,000) is covered by blanket bonds. Given the low FA amount represented by blanket bonds and a premium level of only 1%, these operators pay on average $0.32 per well annually to maintain their bonds.\textsuperscript{12}

\textsuperscript{10} Policies of the Colorado Mined Land Reclamation Board, Section 20.7.1.2.4.
\textsuperscript{11} US Senator Michael Bennett, The Oil and Gas Bonding Reform and Orphaned Well Remediation Act; and US Representative Alan Lowenthal, The Bonding Reform and Taxpayer Protection Act.
Earthworks appreciates the FATWG’s conclusion (p.5) that current bonding amounts are insufficient and must change. However, we disagree with FATWG’s recommendation that "the Commission should refrain from increasing blanket bonding amounts because most companies already maintain excess inactive well bonding that dwarfs blanket bonding amounts.” (Emphasis added.)

To paraphrase, excess inactive well bonds are themselves dwarfed by the real P&A liability risk represented by each well. As discussed above, operators’ propensity for holding large numbers of inactive, shut-in, and temporarily abandoned wells threatens to increase the number of wells that will never be plugged and reclaimed, along with state and public liability. Blanket bonding is, in fact, the crux of the problem--and should never be a basis for highly insufficient FA levels. COGCC should prohibit blanket bonding in the upcoming rulemaking and replace this scheme with adequate bonding for individual wells and sites.

7. Financial assurance instruments should be cash-based only
A core principle in FA is that the instruments allowed should be ones that cannot fail. With Colorado facing a critical situation with "underbonding" and associated liability, the agency should not perpetuate lax FA rules. COGCC currently allows several types of FA instruments, but some are less reliable because they depend on future oil and gas production and third party guarantors and may not cover a well "cradle to grave."

COGCC should assess whether an FA instrument is backed by the full faith and trust of the insurer and minimizes the risk faced by the state. COGCC should only allow reliable, protective, cash-based instruments, such as trust funds, cash or certificates of deposit, surety bonds, and letters of credit.

Importantly, cash-based instruments are regulated by banking and US Treasury authorities, reducing the burden on regulators to continually track the financial stability of issuing institutions. COGCC should consult with attorneys and develop language necessary to minimize risks associated with these instruments (for example to ensure that certificates of deposit can’t be seized by creditors during bankruptcy).

There is precedent for this approach in other parts of Colorado’s regulatory system. The Division of Mining, Reclamation, and Safety is currently undergoing a rulemaking to amend the Mined Lands Reclamation Act that would (among other provisions) require companies to provide actual funds and
prohibit corporate guarantees.\textsuperscript{13} In addition, the Department of Public Health and Environment allows only cash-based instruments in its solid waste FA program.\textsuperscript{14}

Earthworks support the recommendation in the FATWG report (p. 4) that COGCC should develop a model to determine the risk posed by an operator's holdings with regard to P&A and reclamation costs, in relation to its financial resources and assurance levels. We recognize that the Commission currently lacks the ability to conduct such an assessment, but also that such an evaluation may be necessary to minimize the state's risk and liability. In other words, if an operator cannot guarantee that it can hold 100\% liability for its profit-generating activities, it is worth asking whether that operator should be allowed to do business in Colorado.

Thank you for your time and consideration of our comments. Earthworks looks forward to continued dialogue with COGCC and the many stakeholders whose engagement will ensure the promulgation of comprehensive and effective financial assurance rules in Colorado.

Sincerely,

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\textsuperscript{13} As enabled by Colorado HB 19-1113, Protect Water Quality Adverse Mining Impacts, https://leg.colorado.gov/bills/hb19-1113.