

FOUR BASIC REQUIREMENTS OF THE SETBACK PROPOSAL

- 1) **Increase setback requirement to 1,000 feet from a home, 1,500 feet from public use facilities**
- 2) **Enhanced Planning Process** through a new form 2A process for each new location and a “Residential Drilling Plan” to ensure area-specific planning is done to minimize cumulative impacts, increase efficiencies, and provide for meaningful local input.
- 3) **Mitigation of Impacts** through best practices and best available technologies
- 4) **Increased Monitoring and Enforcement**

****Note: This proposal does not preclude local government authority or ability to guide land use decisions in their jurisdiction**

DETAILED DESCRIPTION OF EACH REQUIREMENT

1) Increase setback requirement to 1,000 feet from a home, 1,500 feet from public use facilities

Rule(s) affected: Setbacks, Rule 603

- 1,000 foot setbacks from residences (for wells, condensate tanks, glycol dehydrators...)
 - Exceptions (waivers) are available between 600 and 1000ft if:
 - There is an enhanced Form 2A permit review and a Residential Drilling Plan as described below in 2).
 - Operator gets informed consent from all homeowners within 1,000ft, as follows:
 - For new wells, consent of informed landowners and split estate owners must be documented as part of the 2A process;
 - For multi-lot developments, consent of developers must be noted in the land title work of any lot within 1,000 feet of a well
 - Operator complies with enhanced residential drilling and production standards as generally described below in 3).
 - COGCC grants the exception or waiver through its variance process under Rule 502(b)
- 1,500 feet mandatory setback for schools, hospitals, nursing homes and other public use facilities. As currently defined by Rule 603(c), these enhanced setbacks would apply to “an educational facility, assembly building, hospital, nursing home, board and care facility, or jail[.]”
 - The rulemaking could consider changes to definition of “public use facility.”
- Current high density setback distances (350 ft) are presumed adequate for non-residential structures– subject to public safety requirements depending on the amount of use or fire danger.
- Operators must make a “**good faith effort**” to locate wells and production equipment away from homes and residential areas.

2) Enhanced Planning Process through a new form 2A process and Residential Drilling Plan

Rule(s) affected: CDP, Rule 216; Form 2A, Rule 303(d), COGCC onsite inspection policy

- **Required new Form 2A process** for all proposed oil and gas locations in designated residential areas, or within 1,000 feet of a residence
 - Local jurisdiction can determine what is considered “residential” for the purposes of this rule.
 - The additional *information required* in the new 2A review process includes:
 - Planned route of gathering pipeline from well pad to connection with larger gathering system
 - Transportation plan – approved by local government
 - Emergency response plan – approved by local government and coordinated with first responders
 - Description of efforts to locate facilities at least 1,000ft from a home or residential area
 - Description of efforts to aggregate facilities and minimize impacts
 - Description of efforts to coordinate with other operators in residential areas
 - Distance to nearest public water supply and water well
 - Other information that would be helpful to local governments, CDPHE, and emergency responders
 - Public notification of 2A application to all landowners and residents within 2,000ft
 - Increase public comment period for permit considerations to 30 days
 - On-site inspection, with all residents within 2,000 feet invited to attend.
 - Application will require the assessment of an impact fee to fund additional COGCC inspectors and other needed personnel.

- **Residential Drilling Plan (RDP)** is an enhanced planning tool used to minimize impacts to public health safety and welfare, pertaining specifically but not exclusively to air quality, well water quality, noise and visual impacts and traffic.
 - RDPs can be used to consider overall development plans within a larger area, incorporating several operators.
 - RDPs will provide area-specific planning in an effort to minimize cumulative impacts, increase efficiencies, and provide for meaningful local input.
 - RDPs could require additional BMPs and BACTs as mandatory for operations close to residences
 - The COGCC, the CDPHE, or the local government can trigger the requirement of an RDP
 - The use or non-use of RDPs do not preclude local government from performing their own permitting or planning process
 - RDPs could be accomplished as part of a CDP (Rule 216)

- **Other local permits** as required by the jurisdiction

- **Allow for standing for aggrieved parties** to require a hearing on an APD. Any "protestant," as defined in the COGCC rules, has standing to require a hearing on an APD.

3) Mitigation of Impacts through best practices and best available control technologies

Rule(s) affected:

- New facilities within 1,000ft of residence, or within designated residential areas, require mandatory use of Best Available Technologies and Best Management Practices to conserve public health, safety and welfare.
 - Air quality (VOCs, methane, ozone precursors, particulate matters)
 - Emission control devices and blowout preventers
 - Low-sulfur diesel for ancillary generators
 - Closed-loop or pitless drilling
 - Well water quality (hydrocarbons, heavy metals, electro-conductivity, toxics)
 - Full cement casing if/when within 1,000ft of residence, water well, public water source or when drilling under a public water source.
 - Closed loop or pitless drilling
 - Suggestions taken from “MODEL REGULATORY FRAMEWORK FOR HYDRAULICALLY FRACTURED ONSHORE HYDROCARBON EXPLORATION AND PRODUCTION WELLS”¹
 - Create database of “quality water” sources and oil and gas wells.
 - New Permit conditions to protect quality water sources threatened by “close proximity wells”
 - Water quality baseline testing for methane, BTEX, disclosed fracking chemicals
 - Annual water quality testing as requested by residents
 - Enhanced well construction (drilling) standards
 - Enhanced well completion standards
 - Enhanced production and well monitoring requirements
 - Enhanced plugging and abandoning practices
 - Development, implementation and mandatory use of chemical assessment tool²
 - Traffic
 - Shared traffic management plans
 - No long-term idling within 1,000ft of residence or 1,500 from public use building
 - Noise
 - “Quiet” drilling rigs using electric generators
 - Sound barriers
 - Light: Additional light mitigations must be put in place to reduce light pollution while still addressing worker safety concerns.

¹ Developed by Southwestern Energy and Environmental Defense Fund. Authors surveyed all U.S. state standards (Texas was foundational in many respects), incorporated BMPs from the American Petroleum Institute, Underground Injection Control Rules, and received ideas from numerous conversations with petroleum engineering consultants. The Model Regulatory Framework is being used as a “foundational” document for regulations by State of Ohio. Document is due to be publicly released the fall of 2012.

² Encana Inc. developed a chemical assessment tool that uses the information found on Frac Focus to categorize the risk drilling products pose to human or environmental health. The assessment tool is meant to increase awareness and understanding of potential product hazards so that appropriate measures can be taken to reduce the likelihood of adverse health and/or environmental impacts. General information available at: <http://iogcc.org/Websites/iogcc/images/2012Vancouver/International-Davies.pdf>

- Existing wells that have nearby homes, public use buildings or residential areas merit review:
 - When an application for work-over, re-entry, or re-stimulation occurs.
 - Operators may be required to take appropriate steps to better protect public health and safety of residents.
 - COGCC & CDPHE staff jointly, where appropriate, review applications, inspect facilities and perform enforcement activities.
 - CDPHE bolsters air monitoring and emergency response protocol.
 - Public notification to neighbors within 2,000ft for work-over, re-entry, re-stimulation, or Form 2A reapplication

4) **Increased Monitoring and Enforcement**

- One inspection during hydraulic fracturing flowback and annual inspections thereafter. (Funding for inspections covered by an increase in APD fees)
- Increased air quality monitoring, equipment inspection and enforcement
- CDPHE invited to participate in COGCC inspections
- Raise the fees for violations within 2,000ft of building units

Further Recommendations:

- Identify additional studies for Colorado to better protect public health. Seek stakeholder input to highlight priority topics for study, establish criteria for designing independent studies with scientific integrity, provide for peer review, and obtain funding to enter agreements for conducting such studies
 - The recently proposed CSU air quality study in Garfield County appears to be a positive step.
- Consider STRONGER recommendations, the Battlement Mesa Health Impact Assessment, the Garfield County Health Risk Assessment and other studies within setback process.
- COGCC could develop a fact sheet on target mineral formations and proven/potential directional drilling technologies by geologic formation and surface geography.
- Analyze whether unitization and pooling can help further the goals of aggregated oil & gas facilities, safe development of resources, and equitable treatment of surface owners.
- Strive to base policy and rules on public health information, and err on the side of public health protection when necessary.
- COGCC is encouraged to include both citizens and Medical/Health professionals such as Colorado School of Public Health, Colorado Medical Association and/or other Colorado-based organizations in future processes.
- Create written public comment period, and one or more field hearing, during COGCC setback processes.