

Sample Seismic Regulations

This packet contains excerpts from seismic regulations from the following codes:

1. COGCC Permitting Process 300-Series
- 2 BLM 3150 – Onshore Oil and Gas Geophysical Exploration Surface Management Requirements
3. Routt County Zoning Regulations, 1972-2011
4. Boulder County Land Use Code, 2021

312. SUBSEQUENT OPERATIONS ON EXISTING WELLS

- a. The Operator will submit and obtain the Director's approval of a Form 4 before conducting any subsequent Well operations involving heavy equipment, except for routine Well maintenance.
- b. **Verbal Approval.** If during the course of the subsequent operations or routine Well maintenance the Operator determines that additional subsequent operations involving heavy equipment that are not routine maintenance are necessary, the Operator may obtain verbal approval from the Director to conduct the subsequent operations. If the Operator obtains verbal approval from the Director, the Operator will submit a Form 4 to obtain written approval from the Director within 7 days.
- c. **Information Requirements.** The Form 4 will describe the details of the proposed work.
- d. **Approval of Subsequent Well Operations.** The Director may approve a Form 4 that complies with all requirements of the Commission's Rules, and protects and minimizes adverse impacts to public health, safety, welfare, the environment, and wildlife resources.
 - (1) The Director may add any conditions of the approval to a Form 4 that are necessary and reasonable to ensure compliance with all requirements of the Commission's Rules, or to protect and minimize adverse impacts to public health, safety, welfare, the environment, and wildlife resources.
 - (2) The Director will review the Oil and Gas Location where the Well is located to ensure that necessary and reasonable conditions of approval are applied to protect and minimize adverse impacts to public health, safety, welfare, the environment, and wildlife resources.
- e. **Notice Requirements.** An Operator will provide notice of operations covered by Rule 312.a to the Surface Owner pursuant to Rule 412.a.(4).

313. FORM 20, PERMIT TO CONDUCT SEISMIC OPERATIONS

- a. **Submitting Form 20.** Operators, or, if applicable, seismic survey contractors, will submit and obtain approval of a Form 20, Permit to Conduct Seismic Operations prior to commencement of seismic operations, including shothole drilling and recording operations.
- b. **Information Requirements.** The Form 20 will include the following:
 - (1) A map in a suitable size and scale to show the proposed project boundary, energy source locations, and receiver locations with sections, townships and ranges, county and municipal boundaries, and High Priority Habitat.
 - (2) GIS data for the proposed project boundary, energy source points, and receiver locations in a format approved by the Director.
 - (3) Any Relevant Local Government permits, as required in Rule 313.c.
 - (4) Any traffic control plan, as required in Rule 313.d.
 - (5) Any plan or measures to protect and minimize impacts to Wildlife Resources developed in coordination with CPW.
 - (6) Reclamation plan.

- c. Local Government Permits.** Operators will obtain all required Relevant Local Government permits prior to commencing seismic operations. Operators will submit copies of the Relevant Local Government permits with their Form 20 applications.
- d. Traffic Control and Load Limits.** If the Relevant Local Government approval fails to address traffic control and load limits then Operators will include the following information in traffic control plans submitted with their Form 20 applications:

 - (1) If the seismic operations will utilize vibroseis units, confirmation that the Relevant Local Government allows vibroseis units to travel and operate on the public roadways identified in the survey area;
 - (2) The load limits of all public roads within the survey area; and
 - (3) A detailed traffic control plan for any activity in a public right-of-way.
- e. Director's Decision.**

 - (1) The Director may approve the Form 20 if it complies with the Commission's Rules and protects and minimizes adverse impacts to public health, safety, welfare, the environment, and wildlife resources.
 - (2) The Director may deny the Form 20 if it does not comply with the Commission's Rules or if it does not adequately protect and minimize adverse impacts to public health, safety, welfare, the environment, and wildlife resources.
- f. Changes to a Form 20.** Operators or seismic survey contractors will file any proposed change to an approved Permit to Conduct Seismic Operations on a Form 20.
- g. Form 20 Expiration.** An approved Form 20 will expire 6 months from the date of approval.
- h. Refile Form 20.** Operators or seismic survey contractors may submit a Refile Form 20 for approval of a previously permitted seismic project that was not conducted during the valid term of the previously approved Form 20. The Refile Form 20 will comply with Rule 314.
- i.** Operators will provide a copy of the approved Form 20 to the Relevant Local Government.

314. COMPREHENSIVE AREA PLANS

- a. Purpose of Comprehensive Area Plans.**

 - (1) The Commission intends for Comprehensive Area Plans ("CAPs") to facilitate evaluating and addressing cumulative impacts from oil and gas development in a broad geographic area by identifying plans for one or more Operators to develop Oil and Gas Locations within a region while avoiding, minimizing, and mitigating impacts to public health, safety, welfare, the environment, and wildlife resources in the region through systematic planning of infrastructure location, Best Management Practices, and centralizing facilities.
 - (2) The Commission intends to create incentives for Operators to develop CAPs by conveying an exclusive right to operate in the area covered by the CAP for an appropriate duration of time.
 - (3) The Commission encourages Operators to develop CAPs. The Commission may direct the Director to meet with an Operator to discuss whether submission of a CAP is appropriate.

**3150 - ONSHORE OIL AND GAS GEOPHYSICAL EXPLORATION
SURFACE MANAGEMENT REQUIREMENTS**

.01 Purpose. This Manual establishes procedures for processing Notices of Intent to Conduct Oil and Gas Geophysical Exploration Operations (NOI) and conducting oil and gas geophysical exploration on Federal lands administered by the Bureau of Land Management (BLM) in the lower 48 States. It describes the functions and responsibilities of the BLM as they pertain to authorization of oil and gas geophysical exploration. (See 43 CFR 3152 for geophysical exploration in Alaska.)

.02 Objectives. The BLM's objectives are to facilitate the evaluation, exploration, development, and utilization of oil and gas resources while assuring adequate protection of other resource values. In order to accomplish these objectives, the BLM is adopting policies and procedures that will encourage multiple uses, including the evaluation of Federal lands for mineral potential.

.03 Authority.

A. Mineral Leasing Act of 1920, as amended and supplemented (30 U.S.C. 181 et seq.).

B. Mineral Leasing Act for Acquired Lands of 1947, as amended (30 U.S.C. 351-359).

C. Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.).

D. The General Mining Law of 1872 Section 2319 of the Revised Statutes (30 U.S.C. 22 et seq.).

E. 43 CFR 3150—Onshore Oil and Gas Geophysical Exploration.

F. See Appendix 1 for a list of other applicable laws, regulations, executive orders, agreements and memoranda of understanding, and Solicitor's Opinions relating to geophysical exploration.

.04 Responsibility.

A. The Director is responsible for providing overall guidance on administration of geophysical activities in the BLM. The Director is also responsible for developing new forms, maintaining the current regulations, and issuing appropriate Manual instructions.

B. The State Director is responsible for implementing Washington Office directives and developing statewide guidance for geophysical activities in the State. The State Director shall ensure that current policy and guidance are applied consistently across the State. The State Director is also responsible for holding and administering the statewide and nationwide bonds.

**3150 - ONSHORE OIL AND GAS GEOPHYSICAL EXPLORATION
SURFACE MANAGEMENT REQUIREMENTS**

.1 Land Use Planning. Where applicable, Management Framework Plans (MFP), Resource Management Plans (RMP), programmatic Environmental Assessments (EA), etc., shall address the likelihood of future geophysical exploration activities. These documents shall address the potential for geophysical exploration activities in relation to other resource values in the area. Recognition shall be given to the limited impact and transient nature of these activities. Typical methods for reducing or avoiding resource conflicts should be addressed in such a way as to foster multiple use and sustained yield objectives. Documentation should discuss historic and projected geophysical use areas but should recognize that new areas may be proposed for survey during the useful life of the planning document. The planning and environmental analysis documents shall be used to develop the terms and conditions for geophysical exploration approval.

.11 Exploration in Closed Areas. Geophysical data collected from areas closed for oil and gas development may provide additional insights into the interpretation of data collected in other areas that are open to development. Consequently, geophysical research is often conducted in areas closed to oil and gas leasing by decisions made in land use plans (RMP's and MFP's). Such closure in those plans should not be the only factor used in determining the appropriateness of geophysical work. Where geophysical exploration is not specifically addressed in the land use plan, the decision and rationale to allow or disallow geophysical exploration shall be documented briefly in the case file. If it is determined that the area is open to geophysical exploration, appropriate terms and conditions must be applied to comply with the intent of the planning decisions.

.12 No Surface Occupancy. Geophysical operations may be appropriate in areas subject to No Surface Occupancy (NSO) stipulations. A determination shall be made regarding the intent of the land use or activity for individual exploration proposals. If it is determined that an NSO area is open to geophysical exploration, appropriate terms and conditions shall be applied to comply with the intent of the planning decisions.

.13 Off-highway Vehicles. Off-highway vehicles (OHV) use designations, developed through the land use planning process, identify areas having limitations or closures that apply to all OHV, including those used during geophysical exploration. It is BLM policy that OHV use is an acceptable use of the public lands wherever it is compatible with established resource management objectives (see 43 CFR 8340). Minor modifications to the land use plan can be made when the proposed actions do not change the management prescription and impacts to the resource values of concern will be mitigated. The appropriate plan maintenance documentation should be completed by the authorized officer.

Section 9 Regulations and Standards for Mining and Related Uses

9.6.2. Standards

The following standards for oil, gas and coal bed methane exploration and development and accessory uses are in addition to the applicable Standards and Mitigation Techniques of Section 5, Section 6, and Section 9.2 of these Zoning Regulations:

- A. Trash and excess drilling fluids and water from on-site pits shall be transported to an approved disposal site. The Routt County Road and Bridge Director shall have approved the hauling of such materials if on a County Road. If waste materials are hazardous according to state and federal definitions, the wastes must be disposed of in an approved hazardous waste disposal site. On-site reserve pits shall comply with the requirements in Section 9.8.
- B. During an application review process, the Routt County Road and Bridge Director shall review all proposed and potential hauling routes on county roads and submit conditions of approval, if appropriate.
- C. Permittee shall begin reclamation on all flowlines as soon as practical but in no case later than the next growing season. Flowlines shall be monitored for weeds and continued establishment of revegetation.
- D. All interim restoration and revegetation and final reclamation shall occur in accordance with the applicable COGCC Rules. Permit holders are encouraged to work with the applicable local conservation agencies and County Extension Services and the landowners where appropriate.

9.7. Seismic Testing and Accessory Uses

9.7.1. Applicability

Project includes vibroseis, surface shooting or underground blasting designed to identify mineral resources.

9.7.2. Permit Term

Permits shall be valid for six (6) months, unless otherwise approved.

9.7.3. Standards

The following standards for seismic testing and accessory uses are in addition to the applicable Standards and Mitigation Techniques of Section 5, Section 6, and Section 9.2 of these Zoning Regulations:

- A. Exploration permits shall not be construed to grant access onto any private lands.
- B. During seismic testing operations, areas of geologic hazards shall be avoided during times of snowmelt, spring runoff or heavy rainfall.
- C. If Routt County road rights-of-way are proposed to be used for any vibroseis testing, the following shall apply:
 - 1) No testing shall be permitted on any paved Routt County road.
 - 2) The operator may be required to pay a fee for testing along Routt County roads. Such fee shall be established by the Board of County Commissioners in coordination with the Routt County Road Supervisor and the Routt County Engineer, and shall be payable to Routt County.

Section 9 Regulations and Standards for Mining and Related Uses

- 3) The County Road and Bridge Director shall be notified of county roads to be used to access test areas.
- D. No blasting will be permitted in any Routt County Road right-of-way.
- E. Blasting shall be kept a safe distance from Protected Structures, water wells, and springs according to the minimum setback distances described in Appendix A.
- F. Any undetonated charges shall be reported to the Sheriff's Department immediately.
- G. Shot-holes shall be plugged and compacted and any surface disturbance shall be regraded and seeded. Drilling and plugging shall meet or exceed COGCC requirements.
- H. Sinkholes or other subsidence created by seismic testing operations shall be immediately filled and graded. The permittee is responsible for sinkholes that may form for up to one (1) year after the operation has terminated.
- I. All explosives shall be legally and safely stored in magazines when not in use as per federal regulations. The permittee shall comply with all federal, state, and local regulations regarding the use of explosives.
- J. Helicopters shall be operated in compliance with applicable regulations. A map of flight corridors shall be submitted to Planning Department.
- K. Any residents and businesses within one (1) mile of any blasting shall be notified at least 24 hours in advance of blasting.
- L. Seismic vibroseis testing shall maintain distances of a minimum of 440 feet from homes and other buildings, wells, springs and underground mines, unless otherwise approved.
- M. Planning Department shall be notified of dates of commencement and termination of testing on each line.
- N. All flagging, pins, stakes and other debris shall be removed immediately after termination of the operation.
- O. Test lines shall not vary from those mapped by more than one-fourth (1/4) mile without review by Planning Department.

9.8. Injection Wells and Commercial Wastewater Disposal Sites

9.8.1. Applicability

All projects that have one or more of the following characteristics are subject to this section:

- A. Project serves as wastewater disposal site for one or more oil, gas, or coal bed methane well.
- B. Project will involve traffic from other areas and wells for wastewater disposal purposes.

9.8.2. Standards

The following standards for injection wells and commercial wastewater disposal sites and accessory uses are in addition to the applicable Standards and Mitigation Techniques of Section 5, Section 6, and Section 9.2 of these Zoning Regulations:

Section 9 Regulations and Standards for Mining and Related Uses

- A. Disturbed areas not needed for the operation, and stockpiles of topsoil and overburden shall be stabilized by revegetation after construction, as per Natural Resources Conservation Service guidelines.
- B. The evaporation ponds shall be impervious to leaching pursuant to the Colorado Department of Public Health and the Environment regulations, and shall be fenced and flagged overhead.
- C. Any spills at the site shall be cleaned immediately by scraping or other methods acceptable to the Colorado Department of Public Health and the Environment.
- D. The permit for wastewater disposal is contingent upon a Certificate of Designation being issued by the Board of County Commissioners after review and approval by the Colorado Department of Public Health and the Environment.
- E. The use of aeration to increase evaporation from commercial wastewater ponds will be reviewed to determine if odors will create an impact to adjacent properties, or if airborne materials may be transported off the property on which such use is located.
- F. Prior to approval the applicant shall provide evidence and certification by a professional soils and water engineer to assure that water placed in an injection well will not cause pollution to underground or surface water, nor cause seismic effects to nearby land and structures.
- G. All domestic water wells/springs within the project area and outside of the project area to a distance of two (2) miles beyond the furthest necessary well shall be located and, with the consent of the owner, sampled and tested by a qualified, independent water sampling firm for inorganic and organic contaminants, including but not limited to methane, BTEX, hydrogen sulfide, ammonia chloride, nitrates, and sulphates. Such wells/springs shall be tested prior to the start of the project to establish baseline data, and monthly thereafter with results submitted to the Planning Department quarterly throughout the life of the project to ensure domestic water wells/springs are not contaminated as a result of the project. The Planning Director in consultation with the Environmental Health Department may authorize changes in the testing regimen including: location, frequency, and required tests.
- H. No discharge into streams or rivers is allowed unless permitted by the County. County reserves the right to require independent sampling and testing by a qualified, independent water sampling firm of Sodium Absorption Rates (SAR) and to limit discharge or impose other conditions as necessary to maintain existing surface and/or groundwater quality.

- C. **Pipeline Abandonment.** Flowlines or fresh, produced or associated wastewater pipelines proposed to be abandoned or decommissioned must be removed unless otherwise authorized in writing by the Director after consultation with the landowner. If the Director approves of abandonment in place of the line, all COGCC rules will be strictly complied with.
- D. **Conditions of Approval of Well and Flowline Abandonment.**
 - 1. With any approval for work to go forward, the Director will provide the Operator with County requirements for surface activities for plugging and abandoning wells and pipelines. These requirements may include but are not limited to:
 - a. Timing Constraints;
 - b. With respect to pipelines abandoned in place, a tracer in any nonmetal line; and
 - c. Specific reclamation and revegetation requirements.

12-700 Geophysical Exploration for Oil and Gas ("Seismic Testing")

To protect the public health, safety, and welfare, and the environment and wildlife, the County will permit only those geophysical exploration activities ("seismic testing") that comply with the following requirements:

- A. Prior to conducting any seismic testing, a geophysical exploration permit issued by the Director is required under this section. If the Operator submits information that is inadequate, the Director may deny a permit.
- B. To apply for a permit, the Applicant must provide:
 - 1. **Vibration Monitoring and Control Plan Map.** A map of the exploration area that identifies all of the following within 800 feet of all source points in the testing area:
 - a. Water supplies for domestic, public, or agricultural use;
 - b. Domestic, commercial, and industrial structures;
 - c. Areas affected by previous mining activities or public works;
 - d. Geologic hazards;
 - e. Mapped floodplain and floodway;
 - f. Identification of wildlife resources; and
 - g. Water, sewer, oil, gas, and chemical facilities and pipelines in the testing area.
 - 2. A map showing the proposed travel routes of all vibration-generating seismic testing equipment;
 - 3. A traffic control plan for any operations that will occur on or impede traffic on a public right-of-way;
 - 4. **Insurance Coverage.** A copy of the following insurance coverage, including the required Additional Insured Language:
 - a. **Commercial General Liability.** This coverage should be provided on an Occurrence Form, ISO CG001 or equivalent, with Minimum limits of \$1,000,000 Each Occurrence, \$2,000,000 General Aggregate and \$2,000,000 Products Completed Operations Aggregate.
 - b. **Automobile Liability.** Bodily Injury and Property Damage for any owned, hired, and non-owned vehicles used in the performance of the Contract. Minimum limits \$1,000,000 Each Accident.
 - c. **Workers' Compensation and Employer's Liability.** Workers' Compensation must be maintained with the statutory limits. Employer's Liability is required for minimum limits of \$100,000 Each Accident/\$500,000 Disease-Policy Limit/\$100,000 Disease-Each Employee.
 - d. **Umbrella/Excess Insurance.** Umbrella/Excess Liability insurance in the amount \$25,000,000.00, following form.
 - e. **Professional Liability (Errors and Omissions).** Professional liability coverage with minimum limits of \$10,000,000 Per Loss and \$10,000,000 Aggregate. Professional Liability provisions indemnifying for loss and expense resulting from errors, omission, mistakes or malpractice is acceptable and may be written on a claims-made basis. The contractor warrants that any retroactive date under the policy shall precede the effective date of this Contract; and that either continuous coverage will be maintained or an extended discovery period will be exercised for a period of 2 years beginning at the time work under this Contract is completed.
 - f. **Pollution Liability.** Coverage pay for those sums the Contractor becomes legally obligated to pay as damages because of Bodily Injury, Property Damage or environmental Damage arising out of a pollution incident caused by the Contractor's work including Completed Operations. Coverage shall include emergency response expenses, pollution liability during transportation (if applicable) and at Non-Owned Waste Disposal Site (if applicable). The Minimum limits required are \$15,000,000 Per Occurrence/Loss and \$15,000,000 Policy Aggregate. If the coverage is written on a claims-made basis, the Contractor warrants that any retroactive date applicable to coverage under the policy precedes the effective date of this Contract; and that continuous coverage will be maintained or an extended discovery period will be exercised for a period of 3 years beginning from the time that work under this contract is completed. County shall be named as an additional insured for ongoing operations and completed operations.

- g. **Additional Insured.** Boulder County must be named as an additional insured for the General Liability, Umbrella/Excess Coverage and Pollution Liability policies listed above. Additional insured shall be endorsed to the policy. Additional Insured wording shall be as follows: *County of Boulder, State of Colorado, a body corporate and politic, is named as an Additional Insured.*
- h. **Contractors.** Operator shall require adequate insurance of its contractors and subcontractors. Operators will be responsible for any and all damage or loss suffered by the county as a result of the work being performed by Operator or any subcontractor as described in this Article.
- 5. Financial assurances in a form and amount satisfactory to the Director sufficient to guarantee Applicant's obligation to restore all property damaged by seismic testing to its pre-testing condition;
- 6. Copies of written permission from every landowner of property where the Operator is going to use or place equipment for geophysical exploration;
- 7. A Vibration Monitoring and Control Plan prepared by a Vibration Monitoring Specialist (VMS). The VMS must be an independent, registered Professional Engineer or Geologist. This Vibration Monitoring and Control Plan must include:
 - a. The name of the Firm providing the vibration monitoring services;
 - b. Specifications of the monitoring equipment to be used;
 - c. Specifications of the energy source to be utilized for the source points;
 - d. If vibroseis trucks will be utilized, the plan should discuss:
 - (i) The number of vibroseis trucks;
 - (ii) The distance between the vibroseis trucks;
 - (iii) The drive level to be used;
 - (iv) The sweep duration; and
 - (v) The sweep frequency range.
 - e. Measurement locations and field procedures for setting up vibration monitors;
 - f. Procedures for data collection and analysis which include examples of vibration monitoring field sheets and vibration event analysis;
 - g. Results of on-site vibration attenuation study (walk away test) with prediction of maximum expected particle velocity at each monitoring location;
 - h. Means and methods of providing warning when the Response Values are reached;
 - i. Generalized plans of action to be implemented in the event any Response Value is reached. This plan must include positive measures by the Operator to control vibrations (e.g. reducing drive level, increasing stand-off distances, dropping source points); and
 - j. Procedures for addressing complaints and claims of damage.
- C. The following requirements will apply to all permits to conduct geophysical exploration:
 - 1. Implementation of a Vibration Monitoring and Control Plan approved by the Director; the Director may require modifications to the plan submitted by the Applicant.
 - 2. Methods involving explosive material ("shotholes") are prohibited.
 - 3. All geophysical activities will be strictly limited to the areas, methodologies, and routes indicated in the maps and plans approved by the permit.
 - 4. All geophysical activities will be strictly limited to the hours of operation noted in the approved permit. In no case will the Director permit geophysical activities between 6 p.m. and 8 a.m.;
 - 5. The Applicant's VMS will be on site throughout all geophysical activities to ensure County permit conditions are met and will report whether the testing complies with the approved permit.
 - 6. If any utility line(s) or other above or below ground features must be removed or altered during geophysical operations, the Applicant will provide a letter from the utility owner authorizing the removal or alteration and notify the County at least 3 days prior to any such removal or modification and comply with any additional permitting requirements imposed by the County.
 - 7. Applicant must obtain any permits for use of County roads required by the County Public Works Department.
 - 8. No seismic testing activities will be permitted in a mapped floodway. Activities in a mapped floodplain may require a County Floodplain Development Permit.
 - 9. Any violation of the terms of a seismic testing permit are subject to the penalties and enforcement mechanisms of Article 12-1400 and 12-1500, in addition to all remedies available at law.
 - 10. Ground vibration monitoring will be required for any source points located within 400 feet of any structures identified in the map of the exploration area. The VMS must conduct the analysis and interpretation of the collected vibration monitoring data for comparison to appropriate vibration limits and must prepare weekly reports for submittal to the County.
 - 11. Ground vibration amplitudes will be limited to the following Response Values:

- a. The Response Values for ground vibration include a Threshold Value of 0.2 inches per second and a Limiting Value of 0.3 inches per second. Higher values may be acceptable based on the feature of concern, but the Applicant must submit an engineering report for review and approval by the County.
 - (i) If a Threshold Value is reached, the Applicant must:
 - (A) Immediately notify the County;
 - (B) Meet with the County to discuss the need for response action(s);
 - (C) If directed by the County during the above meeting that a response action is needed, submit within 24 hours a detailed specific plan of action based as appropriate on the generalized plan of action submitted previously as part of the vibration-monitoring plan. Seismic testing cannot resume until the detailed specific plan of action is approved by the County; and
 - (D) If directed by the County, implement response action(s) within 24 hours of submitting a detailed plan of action.
 - (ii) If a Limiting Value is reached, the Applicant must:
 - (A) Immediately notify the County and suspend vibration producing activities in the affected area, except for those actions necessary to avoid exceeding the Limiting Value;
 - (B) Meet with the County to discuss the need for response action(s); and
 - (C) If directed by the County during the above meeting that a response action is needed, submit within 24 hours a detailed specific plan of action based as appropriate on the generalized plan of action submitted previously as part of the vibration-monitoring plan. Seismic testing cannot resume until the detailed specific plan of action is approved by the County.
 - (D) If directed by the County, implement response action(s) within 24 hours of submitting a detailed specific plan of action, so that the Limiting Value is not exceeded.
 12. Ten days prior to vibration monitoring pursuant to the Vibration Monitoring and Control Plan, the Applicant will submit a certificate of calibration for any vibration monitoring equipment that will be used on site. The certificate must certify that the instruments are calibrated and maintained in accordance with the equipment manufacturer's calibration requirements and that calibrations are traceable to the U.S. National Institute of Standards and Technology. All instrumentation must have been calibrated by the manufacturer or a certified calibration laboratory within 1 year of their use on site.
 13. During the exploration activity, the Applicant must provide weekly reports summarizing any vibration monitoring data collected. The reports must be prepared and signed by the VMS. The County reserves the right to request a different reporting schedule where appropriate.
 14. In addition to the above, the Director may impose additional conditions on the conduct of seismic testing that are necessary and reasonable to protect the public health, safety, and welfare, the environment or wildlife resources.
- D. Notice and Property Inspection.**
1. After a permit is issued by the Director, the Applicant will provide notice of the seismic testing to each property located within 800 feet of any source point as depicted in the approved Vibration Monitoring and Control Plan Map at least 10 days before the testing is to occur.
 - a. The notice will include:
 - (i) A description of the project including the duration, physical effects, precautions Applicant is taking, and precautions the property owner should take;
 - (ii) Complaint procedures for property owners and residents;
 - (iii) An offer of property and water well baseline condition inspections at Applicant's expense, which, upon property owner's request, will be completed at least 3 days prior to seismic testing. Results of such testing will be provided to the property owner and maintained by Applicant for at least 3 years. All baseline condition testing must be completed by a qualified technician who will report: the date of inspection, name of property owner, address of property owner, property owner contact information, description of the property, age of structure(s), material of structure(s) and foundation(s). High resolution photographs and video must be taken documenting the present state of all structures on the property, including roads, bridges, and sidewalks. The technician should note any chemical and physical weathering or any other structural defects. All water well samples must be collected by a qualified technician and include the date and time of sample, property owner name, address, contact information and water type and conditions, well type, depth, age, casing type and length, drilling contractor, whether it is conditioned or filtered, sample point type, and any other useful information; and
 - (iv) The notice will further include an offer of property and water well condition inspections at Applicant's expense after the testing is complete, the results of which will be provided to the property owner and maintained by Applicant for at least 3 years.
- E. Appeals.** The Applicant may appeal the Director's decision to deny a permit or place particular conditions on the permit to the Board of County Commissioners within 30 days of the Director's decision.

12-800 Application Process

- A. **Special Review Required.** Except as provided in 12-500, all oil and gas facilities and oil and gas operations on public and private land within the unincorporated areas of Boulder County must comply with this Article. Prior to the commencement of any new oil and gas operations in the unincorporated county, an Applicant must submit an application which must receive approval according to this Article. Special Review approval is required prior to the issuance of County permits necessary for the oil and gas facility and operation.
- B. **Community Engagement.** Boulder County requires Applicants to engage with local communities, residents, and other stakeholders. The purpose of this engagement is to provide sufficient opportunity for public and stakeholder comment on plans, operations, and performance, to listen to concerns of the community, and to address all reasonable concerns related to the proposed oil and gas facility and operation.
- C. **Surface Use Agreements, Rights of Way, Easements.** Operators commonly enter into surface use agreements, right of way agreements, easements and other types of access agreements with landowners. To avoid inconsistency, the County recommends that agreements with landowners related to the proposed oil and gas facility or oil and gas operation not be finalized until the Applicant has completed Special Review under this Article, at which time the impacts related to the proposed siting will be analyzed.
- D. **COGCC approval.** COGCC approval of any application does not constitute local approval, and compliance with all terms and conditions of this Article is required prior to the commencement of any new oil and gas facility and operations in the County. Wherever the Oil and Gas Conservation Act, §§ 34-60-101 et seq., C.R.S., requires local government approval prior to COGCC approval, Special Review under this Article must be completed before applications are submitted to the COGCC.
- E. **Pre-Application Conference.**
1. **Timing.** A pre-application conference as defined in Article 3-201 of this Code must be held prior to the Applicant submitting an Application for Special Review. An Applicant must complete registration as defined in 12-400 prior to scheduling a pre-application conference.
 2. **Pre-Application Conference.** At the pre-application conference, the County and the Applicant will discuss the points contained in Article 3-201 of this Code and review the County's Special Review process.
 3. **Six-month Duration for filing Application.** Completion of the pre-application conference qualifies the Applicant to submit an Application for a Special Review provided the Application is filed within 6 months after the pre-application conference.
 4. **Site Visit.** At the discretion of the Director, a site visit of the parcels involved in the Application may be required as part of the pre-application conference with the Applicant. To the extent necessary, the Applicant will be responsible for securing permission or coordinating with the landowner(s) to conduct the site visit.
- F. **Application Submission.** The Application must include documentation listed in Section 12-900. The Applicant must submit the Application, the application fee, and supporting documentation in electronic format with a minimum of two additional copies of the Application materials in paper format. The Director may require additional paper copies of the Application, or a portion of the Application materials, if needed for review purposes. The Application must contain a certification from the Applicant that the information in the Application, as well as in any accompanying documentation, is true and accurate. The Application must be signed by a person authorized to sign on behalf of the Applicant and identify who will be the primary contact during processing of the Application. The point of contact information in the Application must be amended to specify the new point of contact if the Applicant's point of contact changes during the Application process.
- G. **Completeness Determination.** Upon acceptance of the Application, the Director will determine if the Application satisfactorily meets the requirements of this Article. If County staff needs consultants or staff outside the County to assist the Director with the completeness determination, the County may hire such assistance at the Applicant's expense. Upon review of the Application materials by the Director and any necessary outside consultants, the Director will determine whether a Special Review Application is complete.
1. **Application Deemed Incomplete.** If the Director finds that the Application is incomplete, the Director will inform the Applicant of the deficiencies. No further action will be taken on an incomplete Application. Should the Applicant fail to correct deficiencies within 12 months, the Application will expire, and the Applicant may submit a new Application and fee as specified in Section (F) above. The twelve-month timeframe may be extended by the Director according to the standards in Article 4-604(D). Should the Applicant dispute the Director's completeness determination, the Applicant may appeal the Director's determination to the Boulder County Board of County Commissioners within 30 days of the Director's decision. During any Board of County Commissioners proceeding or subsequent appeal, the Application will not be processed.
 2. **Application Deemed Complete.** If the Director finds that the Application is complete, the Director will process the Application.
- H. **Notice.**
1. Upon receipt of an application and before conducting its completeness review, the Director will publicize receipt, including the name of the Applicant, the location and size of the proposed Oil and Gas Facilities or Operations, and a summary of the review procedures.

2. The Applicant must deliver notice to surface owners, to surrounding land owners and lessees, the Local Governmental Designees (LGDs) of any local government within one mile of the proposed oil and gas facilities, and to water source owners as identified in this section no more than 10 days after the Application is deemed complete by the Department. If approved by the Director, the Applicant may deliver the notice defined in this section using secure methods other than mail. Notice of the Application must be made as follows:
 - a. To the surface owners of the parcels of land on which the oil and gas operation is proposed to be located;
 - b. To the owners and identifiable lessees of the parcels of land within one mile of the parcel on which the oil and gas operation is proposed to be located;
 - c. To the physical address of all parcels within one mile of the parcel on which the oil and gas operation is proposed to be located if Boulder County Assessor's records indicate a mailing address for the parcel owner that is different than the physical address; and
 - d. To owners of wells registered with the Colorado Division of Water Resources, owners of municipal/public water bodies, and owners/managers of irrigation ditches and reservoirs within one mile of the parcel on which the oil and gas operation is proposed to be located and within one-half mile of either side of the full length of the planned wellbore and bottom location. The Applicant is responsible for determining the addresses of such water source owners and providing a list of such owners to the Director.
 - e. The Department will provide the list of addresses of record for property owners within one mile of the parcel on which the oil and gas operation is proposed to be located to the Applicant at the pre-application conference so the Applicant can provide notice as required by subsection (a), (b), and (c) of this section.
 - f. If other sites come into consideration during Application processing, the Director may require the Applicant to provide supplemental notice as described here with reference to the new sites.
3. The notice must contain the following:
 - a. A message in bolded 14-point or larger font on the front page of the notice that states as follows: "Attention: An oil and gas operation consisting of up to [number of wells] and [description of other facilities] is being proposed in your area. Please read this notice carefully." Slight variations in this notice language may be approved by the Director at the Applicant's request;
 - b. A description of the proposed oil and gas facility, including the legal description; parcel number; a street address for the site, if available from the County's addressing system; the company name of the Operator; the name of an Applicant contact; the current business address, telephone number, and email address for the Applicant contact; a vicinity map; and a brief description and overview of the proposed oil and gas operation (e.g., a detailed description of the timeframe for facility construction and estimated duration of drilling and any proposed hydraulic fracturing);
 - c. Information concerning the facilities and equipment proposed at the site when operational, and proposed access roads and gathering lines;
 - d. The docket number of the Application and the date of its completeness determination;
 - e. An attachment provided by the Director explaining the applicable review process and explaining that the public may review the full Application file at Department offices and that public comments on the Application may be submitted to the Department;
 - f. A statement concerning the County's right to enter property that is the subject of the Application as follows: "For the purpose of implementing and enforcing the County's Special Review process, County staff may from time to time need to enter onto the property that is the subject of a Special Review Application."; and
 - g. The current mailing address, website address, email, and telephone number for both the Department and the COGCC, as well as a statement that additional information on the Application will be available from the Department.
4. **Notice Review.** Prior to sending the notice, the Applicant must submit a copy of the proposed notice for review by the Director. If the Director determines that the notice does not comply with the requirements of this Article, the Director may require the Applicant to modify the notice.
5. **Posting of Application Materials.** Upon a determination that an application is deemed complete, all application materials not deemed confidential will be made available to the public in electronic form on the Department's website.
- I. **Posting Public Notice Signage Onsite.** Within 5 days after the Director has deemed an Application complete, the Applicant must post a public notice sign or signs on the subject parcels, including parcels where flowlines or other pipelines will be constructed, that meet the following requirements:
 1. The sign must be posted in a location visible to the public (i.e., visible from a public road) and approved by the Director. If the Director determines that a single sign or signs on the subject parcel will not provide adequate public notice, multiple signs or signs in additional locations meeting the requirements of this section may be required.
 2. In lettering clearly visible from a passing car and proportionate to the size of the sign, the sign must contain the following:

- a. "Attention: An oil and gas operation consisting of up to [number of wells] and [description of facilities] is being proposed in your area. Please read this notice carefully;"
 - b. "The Applicant has applied for Special Review, [docket number]"; and
 - c. "Information regarding this Application may be obtained from Boulder County Community Planning & Permitting at [phone number / email]".
3. Within 5 days of the posting of the sign, the Applicant must submit a photograph of the sign or signs as posted for review by the Director. If the Director determines that the sign does not comply with the requirements of this Article, the Director may require the Applicant to post a sign or signs complying with this Article.
4. The sign or signs must be posted on the sites until the Special Review process is complete. The Applicant must repair or replace signs that are damaged or defaced within 5 days of learning of damage or defacement.
- J. **Neighborhood Meeting.** The Applicant must conduct a neighborhood meeting with adjacent and surrounding landowner(s) and other interested parties at a convenient date, time, and public location. The meeting must occur at least 20 days after the notice is sent and the signs are posted pursuant to Section 12-800(H) and (I). The neighborhood meeting must be noticed to the County and to all individuals entitled to notice pursuant to Section 12-800(H)(1) at least 14 days prior to the meeting. In addition to those parties entitled to notice under 12-800(H)(1), the meeting will be made open to all the public. The meeting must be held at an accessible and adequate location. If requested by members of the public or the Director determines remote attendance is necessary for public health reasons, accommodation must be made for remote attendance. At the neighborhood meeting, the Applicant must provide an overview of its proposed oil and gas operation, distribute a handout provided by the Director with an explanation of the Article 12 Special Review process, and allow those in attendance to provide input as to the proposed operation, including, but not limited to, facility locations, issues that arise from Application of this Article to the proposed operation, and suggested mitigation to adequately ensure compliance with this Article. The Applicant must provide a video recording of the meeting and a report of all of attendee comments and any proposals from the Applicant for addressing neighborhood concerns to the Director within 20 days after the meeting.
- K. **Referral Requirements and Agency Review.** Following the determination that an Application is complete, the Director will refer the Application materials to the Boulder County Public Works and Parks & Open Space Departments, Boulder County Public Health, the appropriate fire district, the Boulder County Sheriff, the Boulder County Office of Emergency Management, the COGCC and CDPHE, and any appropriate municipality, special district, and school district for review and comment. As deemed necessary in the Director's sole discretion, the Director may also refer the Application to other government agencies or entities for review and comment. Referral comments on the proposal must be returned to the Director within 75 days of date of referral, unless the Director determines additional time is necessary.
 1. Following the determination that an Application is complete the Director will send a referral notice to all individuals entitled to notice pursuant to Section 12-800(H)(1). The notice will include information on where to access Application materials on the County's website. The complete Application referral packet will be available for public review online and in hard copy at the Department during business hours. Referral responses must be received by the Director within 75 days of transmittal to ensure that comments are considered.
 2. If the proposed oil and gas facility or oil and gas operation is on or within 1,500 feet of Boulder County Parks & Open Space property or property over which Boulder County owns a conservation easement, the Parks & Open Space Director may refer the Application to the Parks & Open Space Advisory Committee ("POSAC") for a public hearing. After the public hearing, the POSAC may forward recommendations for assuring the protection of environmental, ecological, wildlife, recreational, historical, archeological, and agricultural resources of the open space, which may include recommendations to deny the Application or to modify the location or density of the oil and gas facility.
 3. The Applicant is responsible for preparing the referral packets in the manner prescribed by the Director. Any errors made by the Applicant in the preparation of referral packets may result in a delay in processing of the Application.
- L. **Consultant Review.** The Director may submit all or parts of the Application for review and recommendation by consultants retained by the County with the necessary expertise to review technical or other aspects of the Application. Among other consultant reviews, third party consultant review may be required to evaluate the risks and impacts of oil and gas development. The Applicant will be notified if the Director decides to retain consultants, and the Applicant will escrow funds sufficient to cover the anticipated cost of the consultants' review. The Applicant will be responsible for the actual costs associated with this consultant review and will be refunded any excess escrowed funds.
- M. **Supplemental Information.** If, during the Special Review process, the Director determines that additional information is required to conduct adequate review of the Application in light of the standards and criteria, the Director may suspend the Application review until the additional information is received.
- N. **Site Visit.** The Department will conduct a site visit to evaluate the Application and the site-specific circumstances on and near the parcel and surrounding parcels on which the facility and operations are located. The Department may coordinate a site visit with other County departments and governmental agencies.

- O. Staff Recommendation.** After its review of the Application, staff will make a recommendation for approval with conditions or denial of the Application, based on its analysis of the Special Review Standards, the referral comments and the Applicant's responses to the referral comments, and all public comment including comments submitted at the Applicant's neighborhood meeting. When the staff recommendation is complete, the Application will be scheduled for a public hearing in front of the Planning Commission. The staff recommendation will be made available to the public once it is complete.
- P. Notice of Planning Commission Hearing.** Not less than 14 days prior to the Planning Commission's public hearing on the Application, the County will publish a legal notice of the public hearing in a newspaper of general circulation in the County and mail written notice to the people and entities entitled to notice under Section 12-800(H)(1) of the time and place of the Planning Commission's public hearing.
- Q. Planning Commission Hearing and Recommendation.** The Planning Commission will hold a public hearing on the Application and will make a recommendation of approval with conditions necessary to ensure compliance with this Article, or denial, which will be forwarded to the Board of County Commissioners.
- R. Notice of Board of County Commissioners' Hearing.** Not less than 14 days prior to the Board's public hearing on the Application, the County will publish a legal notice of the public hearing in a newspaper of general circulation within the County, and written notice to the surface owner and surrounding property owners of the time and place of the Board's public hearing will be provided pursuant to Section 12-800(H)(1).
- S. Board of County Commissioners Hearing and Decision.** The Board will hold a public hearing on the Application. Any action taken by the Board will be based on the entire record of proceedings on the matter, as that record is maintained by the Director and/or the Clerk of the Board, including but not limited to: recordings or transcripts of public hearings; all written comments of referral agencies; the review and recommendations of the Department, POSAC if applicable, and Planning Commission; and all written commitments, statements, or evidence made or submitted by or in behalf of the Applicant, landowners or interest holders or their agents, and interested members of the public. The Applicant will have the burden of proof to show that the applicable standards for approval have been met. Based on the evidence received at such public hearing(s), the Board will make its determination to approve the Application with conditions necessary to ensure compliance with this Article or deny the Application. The Board may designate its determination as final or preliminary and subject to review by a technical review board under Sections 29-20-104(3) and 34-60-104.5(3), C.R.S. The Board's action will contain appropriate findings or reasons in support of its decision. The Board will render its decision on the Application in writing following the conclusion of the public hearing.

12-900 Application Submittal Requirements

Unless a submittal requirement is waived or modified by the Director after the Applicant's request, the Applicant must submit the information and documents specified in this section with the Special Review Application for oil and gas facilities and operations. If the contents or relevant information in any required submittal materially changes, the Applicant must promptly update those materials with the Department. The Director may waive or modify the submission requirements in this section if, because of the nature of the Application, the requested information is unlikely to be useful to the Board in applying the Special Review standards. Each of the following will form the basis for full and independent review by the County and all reviewing bodies. All materials submitted under this section are subject to Section 12-1400(E).

- A. General Information**
 - 1. Application Form.**
 - 2. Operator Registration.** Operator registration materials submitted under 12-400 are incorporated into the Application materials. The Director, POSAC, Planning Commission, or Board, may consider such materials in reviewing any Article 12 Application.
 - 3. Proof of Pre-Application Conference.** Date the Applicant conducted the pre-application conference with the Department.
 - 4. Verification of Legal Rights.**
 - a. Mineral Rights and Surface Access Rights.** Proof of ownership of, or lease rights to, the mineral rights and accompanying surface lands where oil and gas facilities are proposed, including copies of all easements, licenses or right-of-way agreements necessary to lay any pipelines associated with the Application. Identification of all persons with a real property interest in the lands where the proposed oil and gas facilities will be located. A title report supporting the asserted mineral interests and surface access. A map of the mineral interests Applicant will produce with the proposed oil and gas operation.
 - b. Surface Use Agreements.** The County strongly recommends that surface agreements not be finalized until after the Applicant has completed Special Review. Nonetheless, if the Applicant has entered any surface use agreements for any proposed oil and gas facilities subject to the Application, Applicant will provide a copy.