

Chapter 17-54 - Oil and Gas Land Use Regulations

I. General Provisions

17-54-005 - Short title.

This chapter is known and may be cited as the "Broomfield Oil and Gas Regulations."

(Ord. 1986 §1, 2013)

17-54-010 - Purpose.

This chapter is enacted to protect and promote the health, safety, morals, convenience, order, prosperity, or general welfare of the present and future residents of the city. It is the intent of the city council by enacting these regulations to facilitate the development of oil and gas resources within the city while mitigating potential land use conflicts between such development and existing, as well as planned, land uses. It is recognized that under state law the surface and mineral estates are separate and distinct interests in land and that one may be severed from the other. Owners of subsurface mineral interests have certain legal rights and privileges, including the right to use that part of the surface estate reasonably required to extract and develop their subsurface mineral rights. The State has a recognized interest in fostering the efficient development, production, and utilization of oil and gas resources, and particularly in the prevention of waste and protection of correlative rights of common source owners and producers to a fair and equitable share of production profits. Similarly, owners of the surface estate have certain legal rights and privileges, including the right to have the mineral estate developed in a reasonable manner. Municipal governments have a recognized, traditional authority and responsibility to regulate land use within their jurisdiction. These regulations are intended to be an exercise of the land use authority of the city. Nothing in this chapter shall be construed as giving the city authority to enforce state or federal laws, rules, or regulations.

(Ord. 1986 §1, 2013)

17-54-020 - Definitions.

All terms used in this chapter that are defined in the Act or in the Commission regulations and are not otherwise defined in this section, are defined as provided in the Act or in such regulations as of the effective date of this chapter. All other words used in this chapter are given their usual customary and accepted meaning, and all words of a technical nature, or peculiar to the oil and gas industry, shall be given that meaning which is generally accepted in said oil and gas industry. When not otherwise clearly indicated by the context, the following words and phrases used in this chapter, whether capitalized or not, have the following meanings:

- (A) *Act* means the Oil and Gas Conservation Act of the State of Colorado at Section 34-60-101, et seq., C.R.S.
- (B) *Commission* or *COGCC* means the Colorado Oil and Gas Conservation Commission of the State of Colorado.
- (C) *Day* means a period of twenty-four consecutive hours.
- (D) *Director* means the Director of the Oil and Gas Conservation Commission of the State of Colorado or any member of the Director's staff authorized to represent the Director.
- (E) *Injection well* means any hole drilled into the earth into which fluids are injected for the purposes of secondary recovery, storage, or disposal, pursuant to authorizations granted by the Commission.

- (F) *Inspector* means any person designated by the chief building official, or designee thereof, who shall have the authority to inspect a well site to determine compliance with this chapter and other applicable ordinances of the city.
- (G) *Oil and gas facility* or *facilities* means and includes oil and gas well sites, flowlines, tank batteries, compressor stations, pits/ponds, below-grade tanks, dehydration units, associated air pollution control equipment (including flare units and vapor recovery units [VRUs]), and associated roads. Pipelines and gathering systems, other than flowlines, as well as salt water disposal wells and injection wells, are excluded. Locations with more than one of the above-mentioned types of equipment will be considered to be one facility.
- (H) *Oil and gas well* means any hole drilled into the earth for the purpose of exploring for or extracting oil, gas, or other hydrocarbon substances.
- (I) *Operating plan* means a general description of a facility identifying purpose, use, typical staffing pattern, seasonal or periodic considerations, routine hours of operating, source of services, infrastructure, and any other information related to regular functioning of such facility.
- (J) *Operator* means any person who exercises the right to control the conduct of oil and gas operations.
- (K) *Owner* means the person who has the right to drill into and produce from a pool and to appropriate the oil or gas produced therefrom either for such owner or others, including owners of a well capable of producing oil or gas, or both.
- (L) *Production site* means the area surrounding proposed or existing production pits or other accessory equipment required for oil and gas production, at which may also be located tanks and tank batteries, exclusive of transmission and gathering pipelines.
- (M) *Reentering* means accessing an existing well bore for either the original or amended purpose, provided that such well has not been abandoned.
- (N) Reserved.
- (O) Reserved.
- (P) *Use tax* means the tax paid by a consumer for using, storing, distributing, or otherwise consuming tangible personal property or taxable services inside the city.
- (Q) *Well* means, when used alone in this chapter, an oil or gas well, a hole drilled for the purpose of producing oil or gas, a well into which fluids are injected, a stratigraphic well, a gas storage well, or a well used for the purpose of monitoring or observing a reservoir.
- (R) *Wellhead* means aboveground surface equipment attached to the downhole wellbore equipment of a well.
- (S) *Well site* means that area surrounding a proposed or existing well or wells and accessory structures and equipment necessary for drilling, completion, recompletion, workover, development, and production activities.

(Ord. 1986 §1, 2013)

17-54-030 - Inspections.

In recognition of the potential impacts associated with oil and gas drilling and well operation in an urban setting, all wells and accessory equipment and structures may be inspected by the inspectors of the city at reasonable times to determine compliance with applicable provisions of this chapter, the International Fire Code, the International Building Code, and all other applicable standards in this title. For the purpose of implementing and enforcing the provisions of this chapter, the city personnel have the right to enter upon private property after reasonable notification to the operator, which provides the operator an opportunity to be present. The city may use the information collected on the inspections to enforce the

requirements of this chapter. The city may also report this information to appropriate state officials, including but not limited to information regarding alleged violations of state rules.

(Ord. 1986 §1, 2013)

17-54-040 - Review required.

Within all zoning districts, including a PUD (planned unit development) district, when an applicant wishes to drill a well that has not been previously permitted under this chapter, it is unlawful for any person to perform any such operation, unless a use permitted by special review has first been approved by the city council pursuant to chapter 17-30, B.M.C., or administrative approval by memorandum of understanding by the city manager in accordance with section 17-54-200. When a use permitted by special review or administrative approval by memorandum of understanding has been approved for a well, the reentering of such well for the purposes of deepening, recompleting, or reworking shall not require a subsequent approval under this chapter unless such work requires a new or modified permit from COGCC. The approval of such use by special review or administrative approval by memorandum of understanding does not relieve the operator from otherwise complying with all applicable regulatory requirements of the city, state, and federal governments.

(Ord. 1986 §1, 2013)

II. Use by Special Review

17-54-050 - Use by special review application requirements.

All applications for use permitted by special review approved by the city council pursuant to chapter 17-30, B.M.C., for an oil and gas facility shall include the following information:

- (A) The operator's and surface owner's names and addresses, COGCC Form 2, and designation of agent, if applicable.
- (B) A list of all permits or approvals obtained or to be obtained from local, state, or federal agencies other than COGCC.
- (C) A detailed site plan for all well sites that includes submittal to the city of all documents required to be submitted with COGCC Form 2A, a depiction of all visible improvements within 500 feet of the proposed location, to include buildings/residences, public roads and trails, major aboveground utilities, railroads, pipelines, mines, oil/gas/injection/water/plugged wells, etc. as required by COGCC Rule 303.d(3)(C), and the site plan requirements of this code, as amended.
- (D) A summary of planned operations, including identified access points and operational timeline for posting to a local community information web page.
- (E) A site plan for site preparation, mobilization and demobilization.
- (F) A plan for interim reclamation and revegetation of the well pad and final reclamation of the well pad.
- (G) A plan for noise, light, and dust mitigation.
- (H) A traffic management plan, and proposed form and issuer of a reasonable bond to cover any damage to public infrastructure during active drilling and completion.
- (I) A preliminary visual mitigation plan in compliance with COGCC Rule 804, including but not limited to a list of the proposed colors for the production facilities, regardless of construction date, which are observable from any public highway, providing for paint that is uniform, noncontrasting, nonreflective color tones (similar to the Munsell Soil Color Coding System), and with colors matched to but slightly

darker than the surrounding landscape, a listing of operations' equipment, proposed fencing, and screening.

- (J) A list of permits that shall be submitted in conjunction with the APD and any exceptions proposed to be requested.
- (K) An air emissions mitigation plan that includes operator's written certification to the following minimum requirements:
 - (1) During normal production operations, all continuously operated equipment, including but not limited to storage vessels and tanks, separators, pneumatic pumps, dehydrators, and compressors, shall route all natural gas and VOC vapors to a capture or control device with at least a 98% VOC destruction or control efficiency. In the case of temporary tanks located onsite for thirty days or less, operator shall use best efforts to achieve this requirement for such tanks. Operator shall submit manufacture test or other data demonstrating a 98% VOC destruction or control efficiency. *Normal operations* means all periods of operation, excluding malfunction. For storage tanks, normal operation includes, but is not limited to, liquid dumps from the separator or wellhead. A *malfunction* is defined as any sudden or unavoidable failure of air pollution control equipment or process equipment, or unintended failure of a process to operate in a normal or usual manner. Failures that are primarily caused by poor maintenance, careless operation, or any preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.
 - (2) To comply with the applicable emissions regulations promulgated by the Colorado Department of Public Health and Environment (CDPHE), Air Quality Control Commission (AQCC), COGCC, and US Environmental Protection Agency (EPA).
 - (3) Air and odor emissions from wells and associated equipment shall be in compliance with the permit and control provisions of the Colorado Air Quality Control Program, Title 25, Section 7, C.R.S., COGCC Rule 805, and all other applicable state, local, and federal regulations.
 - (4) No venting of gas during production operations except as permitted by applicable COGCC, EPA, and AQCC regulations.
 - (5) The operator shall develop and maintain a Leak Detection and Repair (LDAR) program that is comparable to EPA Method 21 for equipment used in permanent operations. LDAR shall be performed on newly installed equipment within thirty days of start-up of the equipment, and then on a quarterly basis. At least once per year, the operator shall notify the city five business days prior to an LDAR inspection of its facilities to provide the city the opportunity to observe the inspection. Detailed recordkeeping of the inspections for leaking components shall include: the date and time of inspections, identification of components for which leaks are detected and repaired, and justification for lack of immediate repair of any components for which repairs were not done or otherwise were deferred. If an IR camera is used, operators must retain an infrared image or video of all leaking components before and after repair. Such records must be maintained for two years and must be made available to the city upon request. The operator shall submit a proposed LDAR program to the city for review and approval with its use by special review application, for review and approval by the city.
 - (6) The operator shall operate and maintain all air pollution control equipment pursuant to manufacturer specifications consistent with technological limitations and good engineering and maintenance practices.
 - (7) The operator must submit an annual report to the city certifying: (a) compliance with these air quality requirements and documenting any periods of noncompliance, including the date and duration of each deviation and a compliance plan and schedule to achieve compliance; and (b) that the equipment at the well sites continues to operate within its design parameters, and if not, what steps will be taken to modify the equipment to enable the equipment to operate within its design parameters. The annual report must contain a certification as to the truth, accuracy and completeness of the reports, by a responsible corporate official. The operator may satisfy this reporting obligation in whole or in part by submitting its AQCC Regulations No. 7 semi-annual

reports for the prior calendar year to the city, and supplementing them as needed to meet these reporting requirements for covered facilities within the city.

- (L) The operator is required to develop an emergency preparedness plan for each specific facility site, which is in compliance with the applicable fire code. The plan shall be filed with the city and the North Metro Fire Rescue District and updated on an annual basis in January of each year or as conditions change (responsible field personnel change, ownership changes, etc.). The emergency preparedness plan shall consist of at least the following information to be submitted to the city for review and approval:
- (1) Name, address and phone number, including twenty-four hour emergency numbers for at least two persons responsible for emergency field operations.
 - (2) A diagram depicting the planned site design. Following construction of the facilities, the operator shall submit an as-built facilities map in a format suitable for input into the city's GIS system depicting the locations and type of above and below ground facilities, including sizes and depths below grade of all oil and gas gathering and transmission lines and associated equipment, isolation valves, surface operations and their functions, as well as transportation routes to and from exploration and development sites, for emergency response and management purposes. The information concerning pipelines and isolation valves shall be held confidentially by the city and shall only be disclosed in the event of an emergency or to emergency responders. The city shall deny the right of inspection of the as-built facilities maps to the public or for the training of emergency responders pursuant to Section 24-72-204, C.R.S.
 - (3) Detailed information addressing each reasonable potential emergency that may be associated with the operation. This may include any or all of the following: explosions, fires, gas, oil or water pipeline leaks or ruptures, hydrogen sulfide or other toxic gas emissions, or hazardous material vehicle accidents or spills. A provision that any spill outside of the containment area, that has the potential to leave the facility or to threaten waters of the State, or as required by the city-approved emergency preparedness plan, shall be reported to the local emergency dispatch and COGCC Director in accordance with COGCC regulations.
 - (4) Detailed information identifying access or evacuation routes, and health care facilities anticipated to be used.
 - (5) A project-specific emergency preparedness plan for any project that involves drilling or penetrating through known zones of hydrogen sulfide gas.
 - (6) A fire protection plan that is mutually acceptable to the operator and the appropriate fire district that includes planned actions for possible emergency events and other pertinent information. Prior to application to the city, a proposed fire protection and emergency response plan shall be submitted to and reviewed by the North Metro Fire Rescue District.
 - (7) Detailed information showing that the operator has adequate personnel, supplies, and training to implement the emergency response plan immediately at all times during construction and operations.
 - (8) A program to ensure that the operator maintains on site all current Safety Data Sheets (SDS) for all chemicals used or stored on a site. The SDS shall be provided immediately upon request to city officials, a public safety officer, or a health professional, as required by COGCC Rule 205.
 - (9) A process by which the operator notifies the surrounding neighbors to inform them about the on-site operations and provide sufficient information for surrounding neighbors to communicate with the operator.
 - (10) All training associated with the emergency preparedness plan shall be coordinated with the city and the North Metro Fire Rescue District.
 - (11) A provision obligating the operator to reimburse the appropriate emergency agencies for expenses and damages resulting from the operator's operations, to the extent required by state statutes.

- (12) A list of chemicals anticipated to be disclosed through the "Frac Focus" uploading mechanism and regulated through COGCC Rule 205.
- (M) A weed control plan.
- (N) The vicinity maps for a well site submitted with an application for a use permitted by special review shall be submitted on one or more plats or maps showing the following information:
 - (1) Location of all existing water bodies and watercourses, including direction of water flow. This information shall be submitted on USGS 7.5 minute series or assessor base maps which indicate topographic detail and show all existing water bodies and watercourses with a physically defined channel within a 500-foot radius of the proposed well for applications for use by special review or a one-half mile radius of the proposed well for applications for administrative approval by memorandum of understanding.
 - (2) Location of existing oil and gas wells or injection wells as reflected in COGCC records. This information shall be submitted on a map and shall include any and all wells within a 1,000-foot radius of the proposed location for the well.
 - (3) Location of drill site. The information to be submitted shall be on Commission Form 2 and shall include the parcel tax identification number.

(Ord. 1986 §1, 2013)

17-54-060 - Use by special review criteria.

In considering an application for a use permitted by special review pursuant to chapter 17-30, B.M.C., for an oil and gas facility, the city council shall consider the following requirements to determine if an application for a use permitted by special review for a well site meets the requirements of this chapter:

- (A) The site plans for a well site application comply with the requirements of section 17-54-050;
- (B) The vicinity maps for a well site application comply with the requirements of section 17-54-050;
- (C) The narrative for a well site application complies with the requirements of section 17-54-050;
- (D) The well location and setbacks comply with the setback requirements of COGCC;
- (E) All plans have been submitted in compliance with section 17-54-050;
- (F) When applicable, compliance with the provisions for special mitigation of noise required in sections 17-54-080 and 17-54-090;
- (G) When applicable, compliance with the provisions for visual special mitigation required in sections 17-54-110 and 17-54-120;
- (H) When applicable, compliance with the provisions for geologic hazards, floodplains, or floodway required in section 17-54-150;
- (I) When applicable, compliance with the provisions for wildlife mitigation procedures required in section 17-54-170;
- (J) The application complies with all applicable COGCC, AQCC, EPA, and local laws and regulations, including sections 17-54-030 through 17-54-170;
- (K) The application complies with all other site-specific requirements as determined necessary by city council that are not in operational conflict, and are otherwise consistent with applicable law.

(Ord. 1986 §1, 2013)

17-54-070 - Documents submitted prior to drilling; use by special review.

All drilling activities for use permitted by special review approved by the city council pursuant to chapter 17-30, B.M.C., for an oil and gas facility shall require compliance with the final plans listed below. Such final plans must be approved by the city manager prior to the commencement of drilling. The city manager has the discretion to refer any revised plan to city council for its consideration and decision. If the city did not require modification or supplementation of a draft plan submitted with the application under section 17-54-040, and the operator has not otherwise updated the plan, the version of the plan submitted with the application under section 17-54-050, shall be deemed to be the final plan. In such a case, the plan need not be resubmitted to the city for approval.

- (A) A response letter that outlines how the permit requirements have been met;
- (B) A summary of planned operations, including identified access points and operational timeline for posting to a local community information web page;
- (C) A site plan for site preparation, mobilization, and demobilization;
- (D) A plan for interim reclamation and revegetation of the well pad and final reclamation of the well pad;
- (E) Copies of all permits requested, including any exceptions;
- (F) A final air emissions mitigation plan;
- (G) A final emergency response preparedness plan;
- (H) An updated list of chemicals anticipated to be disclosed using the "Frac Focus" uploading mechanism and chemical inventory per COGCC Rule 205A;
- (I) A final plan for noise, light, and dust mitigation;
- (J) A final traffic management plan and a reasonable bond to cover any damage to public infrastructure during active drilling and completion;
- (K) A final visual mitigation plan; and
- (L) A final weed control plan.

(Ord. 1986 §1, 2013)

17-54-080 - Noise regulation and special mitigation measures.

An application for a use permitted by special review pursuant to chapter 17-30, B.M.C., for an oil and gas facility shall require compliance with the following provision:

Any equipment used in drilling, completion, maintenance, stimulation, or production of a well shall comply with COGCC Rule 802 and Section 25-12-103, C.R.S. (For maximum permissible noise levels, the city may grant relief from these noise level requirements to the extent granted by COGCC.) To the extent practicable, exhaust from all engines, motors, coolers, and other mechanized equipment shall be vented in a direction away from occupied buildings.

(Ord. 1986 §1, 2013)

17-54-090 - Special mitigation measures; noise.

- (A) Where a well and well site do not comply with the required setback or other requirements of this chapter, or where the well and well site are in an area of particular noise sensitivity, additional noise mitigation may be required. An area of particular noise sensitivity includes, but is not limited to, the following: hospitals, dwelling units, nursing homes, hotels, churches, and designated wildlife preserves. In determining noise mitigation, specific site characteristics shall be considered, including but not limited to the following:
 - (1) Nature and proximity of adjacent development, location, and type;

- (2) Prevailing weather patterns, including wind directions;
 - (3) Vegetative cover on or adjacent to the site; or
 - (4) Topography.
- (B) Based upon the specific site characteristics set forth above, nature of the proposed activity, its proximity to surrounding development, and type and intensity of the noise emitted, additional noise abatement measures may be required. The level of required mitigation may increase with the proximity of the well and well site to areas of particular noise sensitivity or the level of noise emitted by the well and well site. One or more of the following additional noise abatement measures may be required:
- (1) Acoustically insulated housing or cover enclosing the motor or engine;
 - (2) Noise management plan identifying hours of maximum noise emissions, type, frequency, and level of noise to be emitted, and proposed mitigation measures; or
 - (3) Any abatement measures required by COGCC for high-density areas, if applicable.

(Ord. 1986 §1, 2013)

17-54-100 - Visual impacts and aesthetics.

- (A) To the maximum extent practicable, oil and gas facilities shall be located away from prominent natural features such as distinctive rock and land forms, vegetative patterns, ditch crossings, city-approved open space areas, and other approved landmarks.
- (B) To the maximum extent practicable, oil and gas facilities shall be located to avoid crossing hills and ridges or silhouetting.
- (C) To the maximum extent practicable, the applicant shall use structures of a minimal size to satisfy present and future functional requirements;
- (D) To the maximum extent practicable, when clearing trees and vegetation for construction of oil and gas facilities, the applicant shall feather and thin edges of vegetation.
- (E) To the maximum extent practicable, the applicant shall locate facilities at the base of slopes to provide a background of topography or natural cover.
- (F) The applicant shall replace earth adjacent to water crossings at slopes less than the normal angle of repose with the soil type of the site.
- (G) To the maximum extent practicable, the applicant shall align access roads to follow existing grades and minimize cuts and fills.
- (H) Facilities shall be painted as follows:
 - (1) Uniform, noncontrasting, nonreflective color tones;
 - (2) Color matched to land, not sky, slightly darker than the adjacent landscape.
 - (3) Exposed concrete colored to match soil color.

(Ord. 1986 §1, 2013)

17-54-110 - Special mitigation measures; visual.

Where a well or well site does not comply with the required setback or other requirements of this chapter, or in areas of increased visual sensitivity, such as a location near occupied buildings, the applicant shall submit a visual mitigation plan including one or more of the following standards, as appropriate:

- (A) To the maximum extent practicable, exterior lighting shall be directed away from residential areas and shielded from said areas to eliminate glare.
- (B) One or more of the following landscaping practices may be required where applicable, on a site-specific basis:
 - (1) Establishment and proper maintenance of ground covers, shrubs, trees;
 - (2) Shaping cuts and fills to appear as natural forms;
 - (3) Cutting rock areas to create irregular forms;
 - (4) Designing the facility to utilize natural screens; or
 - (5) Construction of fences for use with or instead of landscaping.

(Ord. 1986 §1, 2013)

17-54-120 - Seismic operations.

The approval of a use permitted by special review shall not relieve the operator from complying with all COGCC rules with respect to seismic operations. All notices which an operator is required to file with the Commission with respect to the seismic operations shall be filed with the city on a timely basis. The city shall comply with the same confidentiality requirements which bind COGCC.

(Ord. 1986 §1, 2013)

17-54-130 - Signs.

The approval of an oil and gas permit shall not relieve the operator from complying with all COGCC rules with respect to signs. In addition, the owner or operator shall maintain in good, readable condition all signs required by such COGCC regulations.

(Ord. 1986 §1, 2013)

17-54-140 - Reclamation.

The approval of an oil and gas permit shall not relieve the operator from complying with all COGCC rules with respect to site reclamation.

(Ord. 1986 §1, 2013)

17-54-150 - Geologic hazard, floodplain, floodway restrictions.

All equipment at drilling and production sites in geological hazard and floodplain areas shall be anchored to the extent necessary to resist flotation, collapse, lateral movement, or subsidence and to the extent necessary to comply with the Federal Emergency Management Act. As applicable and as otherwise provided herein, all oil and gas operations shall comply with chapter 17-40, B.M.C.

(Ord. 1986 §1, 2013)

17-54-160 - Access roads.

All private roads used to access the tank batteries and the wellhead shall be improved and maintained according to the following standards:

- (A) Access roads to tank batteries shall be subject to review by the city engineer in accordance with the following minimum standards:
 - (1) A graded gravel roadway having a prepared subgrade and an aggregate base course surface a minimum of six inches thick compacted to a minimum density of 95% of the maximum density determined in accordance with generally accepted engineering sampling and testing procedures. The aggregate material, at a minimum, shall meet the requirements for Class 3, Aggregate Base Course, as specified for aggregate base course materials in the Colorado Department of Transportation's "Standard Specifications for Road and Bridge Construction," latest edition.
 - (2) Graded so as to provide drainage from the roadway surface and constructed to allow for cross-drainage of waterways (such as roadside swales, gulches, rivers, creeks, and the like) by means of an adequate culvert pipe. Adequacy of the pipe is subject to approval of the city engineer.
 - (3) Maintained so as to provide a passable roadway reasonably free of ruts at all times.
- (B) Access roads to the wellhead shall be subject to review by the city engineer in accordance with the following minimum standards:
 - (1) A graded roadway approved by the city engineer.
 - (2) Graded so as to provide drainage from the roadway surface and constructed to allow for cross-drainage of waterways by means of an adequate culvert pipe. Adequacy of the pipe shall be subject to approval of the city engineer.
 - (3) Maintained so as to provide a passable roadway generally free of ruts.

(Ord. 1986 §1, 2013)

17-54-170 - Wildlife.

The applicant shall not engage in activities which, in the opinion of the Division of Wildlife, threaten endangered species. The operator shall comply with the city's prairie dog policies.

(Ord. 1986 §1, 2013)

III. - Administrative Approval by Memorandum of Understanding

17-54-200 - Enhanced standards.

All applications considered in the administrative review process and all oil and gas operations approved under this process shall be subject to and comply with the following standards and requirements, as applicable, in addition to the requirements of sections 17-54-050 through 17-54-170, except that such administrative review shall not include compliance with the use by special review requirements of chapter 17-30, B.M.C. The operator shall designate these standards and requirements, to the extent applicable, as agreed upon best management practices on any application the operator files with the Commission.

- (A) *Administrative review criteria* . In order to obtain an administrative approval by memorandum of understanding, an applicant, to operate an oil and gas facility, shall first satisfy the following criteria, except to the extent waived by the city as provided herein:

- (1) A memorandum of understanding (MOU), in a form approved by the city, shall be executed by the applicant and the city manager and currently be in full force and effect, and the oil and gas facility as proposed must be in compliance with the provisions of the MOU.
- (2) The application for administrative approval by memorandum of understanding and submittals to the city shall include the following:
 - a. Those submittal requirements set forth in section 17-54-050.
 - b. The following documents shall be submitted by the operator after the well completion:
 1. Water quality data collected at 1-, 3-, and 6-year post-completion intervals, as described in subparagraph 17-54-200(A)(3)u.18. below;
 2. Air quality and other data collected through the post-completion phase, as described in subparagraph 17-54-200(A)(3)u. below; and
 3. A comprehensive gas development plan as described in subparagraph 17-54-200(A)(3)u.41. below.
- (3) The MOU shall contain the following best management practices at a minimum, unless waived or modified by the city manager in accordance with section 17-54-220:
 - a. The requirements of sections 17-54-060 and 17-54-070;
 - b. The operator shall include as conditions of approval the best management practices requirements set forth in this paragraph (A)(3) (and related submitted plans) on all applications for Permit-to-Drill, Form 2, and Oil and Gas Location Assessments, Form 2A, submitted to the Commission for new wells after the effective date of this chapter, except to the extent the city in its sole discretion determines that such requirements do not need to be so included.
 - c. The operator shall comply with all applicable state and federal regulations in addition to the terms of this agreement and the best management practices listed below. Any exploration or drilling activity conducted by the operator must comply with the revised rules adopted by COGCC on January 9, 2013, and as may be amended thereafter. Which regulation or best management practice is most stringent shall apply.
 - d. The operator shall maximize equipment and wellhead setbacks from occupied buildings and residences beyond the setbacks required by COGCC to the extent commercially feasible and practicable.
 - e. Any new wells drilled shall conform to COGCC setback rules as established effective August 1, 2013, and as such rules may be amended thereafter. Notwithstanding the previous sentence, the operator agrees (a) that the center of the wellhead for a new well shall not be located closer than 1,000 feet from an existing building unit or an existing high occupancy building (as such terms are defined by COGCC) and (b) that the associated pumping units, tanks, treaters and processing equipment shall not be located closer than 1,000 feet from an existing building unit or an existing high occupancy building.
 - f. Containment berms. The operator shall utilize steel-rim berms around tanks and separators at well sites with sufficient capacity to contain 1.5 times the volume of the largest tank enclosed by the berm plus sufficient freeboard to prevent overflow. All berm and containment devices shall be inspected by the operator at regular intervals and maintained in good condition. No potential ignition sources shall be installed inside the secondary containment area unless the containment area encloses a fired vessel. For purposes of this subparagraph, "regular intervals" shall mean daily, unless remote sensing equipment approved by the city is utilized.
 - g. Containment berms shall be constructed of steel rings, designed and installed to prevent leakage and resist degradation from erosion or routine operation.

- h. Secondary containment for tanks shall be constructed with a synthetic or engineered liner that contains all primary containment vessels and flowlines and is mechanically connected to the steel ring to prevent leakage.
- i. For locations within 500 feet and upgradient of a surface water body, tertiary containment, such as an earthen berm, is required around production facilities. Such tertiary containment berm shall have a capacity of two times the largest individual tank.
- j. No more than two storage tanks shall be located within a single berm.
- k. Closed loop pitless system for the containment or recycling of drilling and completion fluids. Wells shall be drilled, completed, and operated using closed loop pitless systems for containment or recycling of all drilling, completion, flowback, and produced liquids. Flowback and produced water shall be recycled to the maximum extent practicable. Such recycling shall occur on pad site of generation, if technically feasible. If the operator does not plan to recycle at least 90% of the flowback and produced water, the operator shall submit documentation to the city demonstrating that such recycling is not technically feasible.
- l. Anchoring. All equipment at drilling and production sites shall be anchored to the extent necessary to resist flotation, collapse, lateral movement, or subsidence. All guy line anchors left buried for future use shall be identified by a marker of bright color not less than four feet in height and not greater than one foot east of the guy line anchor. The first sentence of this subparagraph shall also apply to existing wells.
- m. Burning. No open burning shall occur on the site of any oil and gas operation.
- n. Chains. Traction chains from heavy equipment shall be removed before entering a city street.
- o. Chemical disclosure and storage. Prior to the bringing of such chemicals onto the property, the operator shall provide to the city, in table format, the name, Chemical Abstracts Service (CAS) number, volume, storage, containment and disposal method for all drilling and completion chemicals (solids, fluids, and gases, including but not limited to chemicals used for fracturing) to be used on the well pad, notwithstanding any claims of business confidentiality for such chemicals, which the city may make available to the public as public records. Fracture chemicals shall be uploaded onto the "Frac Focus" website within sixty days of the completion of fracturing operations. The operator shall not permanently store hydraulic fracturing chemicals, flowback from hydraulic fracturing, or produced water in the city limits. The operator shall remove hydraulic fracturing chemicals, flowback from hydraulic fracturing, and produced water from the well sites within thirty days of completion of fracturing operations.
- p. Color. Facilities shall be painted in a uniform, noncontrasting, nonreflective color, to blend with the surrounding landscape, and with colors that match the land rather than the sky. The color should be slightly darker than the surrounding landscape. This subparagraph shall also apply to existing wells when such wells are repainted for general maintenance purposes.
- q. Cultural and historical resource protection. If a significant surface or sub-surface archaeological site is discovered during construction, the operator shall be responsible for immediately contacting the city to report the discovery. If any disturbance of the resource occurs, the operator shall be responsible for mitigating the disturbance to the cultural or historical property through a data recovery plan approved by the city.
- r. Discharge valves. Open-ended discharge valves on all storage tanks, pipelines, and other containers shall be secured where the operation site is unattended or is accessible to the general public. Open-ended discharge valves shall be placed within the interior of the tank secondary containment. As used in this subparagraph, the term *secured* means locked or otherwise secured such that the public cannot operate the valve. If possible, such valves shall contain remote alarms to alert the operator that a valve has been opened.

- s. Fugitive dust suppression. Dust associated with on-site activities and traffic on access roads shall be minimized throughout construction, drilling and operational activities such that there are no visible dust emissions from access roads or the site to the extent practical given wind conditions. No untreated or unrecycled produced water or other process fluids shall be used for dust suppression. The operator will avoid dust suppression activities within 300 feet of the ordinary high water mark of any water body, unless the dust suppressant is water. Safety Data Sheets (SDS) for any chemical-based dust suppressant shall be submitted to the city for approval prior to use.
- t. Electric equipment. The operator shall only use electric-powered engines for motors, compressors, and drilling and production equipment and for pumping systems in order to mitigate noise and to reduce emissions, unless the operator demonstrates to the city that the use of such equipment in a particular situation is not economically feasible. If electricity from the grid is not available, the operator shall use propane or natural gas to power pumps and motors, if feasible.
- u. Air quality. The following apply at the well sites, including new and existing wells and equipment, except as noted:
 1. Compliance with state and federal law, as amended over time.
 - a) Operator shall comply with emissions regulations promulgated by COGCC and US EPA.
 - b) Air and odor emissions from wells and associated equipment shall be in compliance with the permit and control provisions of the Colorado Air Quality Control Program, Title 25, Section 7, C.R.S., COGCC Rule 805, and all applicable state, local, and federal regulations.
 - c) The operator must comply with 40 CFR Subpart OOOO as published on August 16, 2012 (Quad O) or revised.
 2. General duty to minimize emissions. The operator shall incorporate in the development plan: operations, procedures, and field design features that minimize air pollutant emissions, including but not limited to:
 - a) Consolidation of product treatment and storage facilities;
 - b) Centralization of compression facilities;
 - c) Liquids gathering and water delivery systems;
 - d) Telemetric control and monitoring systems;
 - e) Systems, designs and equipment to minimize or, if feasible, eliminate venting during maintenance activities; and
 - f) Pipeline infrastructure prior to well completion.
 3. Capture of gas. During normal production operations, all continuously operated equipment, including but not limited to storage vessels and tanks, separators, pneumatic pumps, dehydrators, and compressors, shall route all natural gas and VOC vapors to a capture or control device with at least a 98% VOC destruction or control efficiency. In the case of temporary tanks located on site for thirty days or less, operators shall use best efforts to achieve this requirement for such tanks. The operator shall submit a manufacture test or other data demonstrating a 98% VOC destruction or control efficiency. *Normal operations* means all periods of operation, excluding malfunction. For storage tanks, normal operation includes, but is not limited to, liquid dumps from the separator or wellhead. A *malfunction* is defined as any sudden and unavoidable failure of air pollution control equipment or process equipment or unintended failure of a process to operate in a normal or usual manner. Failures that are primarily caused by poor maintenance, careless operation, or any

other preventable upset condition or preventable equipment breakdown shall not be considered to be malfunctions.

4. Plunger lifts and manual well blowdowns. Operator shall install and operate plunger lifts or other technology that minimizes and controls emissions during well maintenance.
5. Well, tank, and pipeline maintenance. The operator shall employ technologies and practices in the design, construction, operation and maintenance of wells, tanks and pipelines that minimize or, if feasible, eliminate emissions and spills during maintenance of wells, tanks and pipelines, including the use of equipment to capture vapors and liquids. If any maintenance activity will involve the intentional venting of gas from a well tank or pipeline, the operator shall provide forty-eight hours' advance written notice to the city of such proposed venting. Such notice shall identify the duration and nature of the venting event, a description as to why venting was necessary, a description of the vapors that were vented and that its duration was minimized, and what steps the operator proposes to undertake to minimize similar events in the future. If emergency venting is required, or if accidental venting occurs, the operator shall provide such notice to the city of such event as soon as possible, but in no event longer than twenty-four hours from the time of the event, with the information listed above and with an explanation as to the cause and how the event will be avoided in the future.
6. No bleed pneumatic controllers. Operator shall use no bleed pneumatic controllers, wherever 3-phase electricity is available.
7. Flaring of gas. Where flaring is allowed by state COGCC or AQCC regulations, the flaring shall be conducted in the following manner:
 - a) The flare shall be fired with natural gas and shall be operated with a 98% or higher VOC destruction efficiency.
 - b) The flare shall be designed and operated in a manner that shall ensure no visible emissions, pursuant to the provisions of 40 CFR 60.18(f), except for periods not to exceed a total of five minutes during any two consecutive hours. Where applicable, flares shall also be in compliance with 5 CCR 1001-9 Regulation 7 Section XVIIIB for non-condensate oil.
 - c) The flare shall be operated with a flame present at all times when emissions may be vented to it, pursuant to the methods specified in 40 CFR 60.18(f).
 - d) An automatic pilot system or continuous ignition system shall be used. In addition, operators must use a telemetry alarm system or an on-site visible indicator showing proper function.
8. Leak detection and repair (LDAR). The operator shall develop and maintain an LDAR program that is comparable to EPA Method 21 for equipment used in permanent operations. LDAR shall be performed on newly installed equipment within thirty days of start-up of the equipment, and then on a quarterly basis. At least once per year, the operator shall notify the city at least five business days prior to the LDAR inspection of its facilities to provide the city with the opportunity to observe the inspection. Detailed recordkeeping of the inspections for leaking components shall include: the date and time of inspections; identification of components for which leaks are detected and repaired; and justification for lack of immediate repair for any components for which repairs were not done or otherwise were deferred. In an IR camera or FLIR is used, operators must retain an infrared image or video of all leaking components before and after repair. Such records must be maintained for two years and must be made available to the city upon request. The operator shall submit a proposed LDAR program to the city for review and approval with its use by special review application, for review and approval by the city.

9. Ambient air sampling program. The operator agrees to either develop and implement an ambient air sampling program as approved by the city, or fund and cooperate with an ambient air sampling program to be completed by the city, at the city's discretion, as follows, with any amounts owed by the operator hereunder for one-time sampling to be paid to the city prior to the issuance of a notice to proceed by the city:
 - a) One-time baseline sampling program to be completed prior to additional drilling. Operator shall provide \$5,000 towards this sampling program per well pad;
 - b) One-time air sampling during drilling operations. Operator shall provide \$5,000 towards this sampling at a rate of one program per well pad;
 - c) Ongoing air quality monitoring. Operator shall provide \$5,000 towards this sampling program per well pad per year. The city may use these funds for sampling within its discretion;
 - d) Access and cooperation. Operator shall provide access to the city or its contractors to permit air sampling to occur;
 - e) Additional air sampling. If ambient air testing indicates that the drill sites are causing an unacceptable risk to air quality, then the operator shall conduct additional testing and analysis to identify the source of the emissions and the appropriate remedial steps to address those emissions. Such sampling frequency and analysis shall be based on the risks associated with the type and concentration of the contaminants identified; and
 - f) Emergency response sampling. The city may require the operator to conduct additional air monitoring as needed to respond to emergency events such as spill, process upsets, or accidental releases, or in response to odor complaints in city limits.
10. Air quality action days. Operator shall respond to air quality action day advisories posted by the Colorado Department of Public Health and Environment for the Front Range area by implementing suggested air emission reduction measures as feasible. Emission reduction measures shall be implemented for the duration of an air quality action day advisory and may include measures such as:
 - a) Minimize vehicle and engine idling;
 - b) Reduce truck traffic and worker traffic;
 - c) Delay vehicle refueling;
 - d) Suspend or delay use of fossil fuel-powered ancillary equipment; and
 - e) Postpone construction activities, if feasible.
11. Technical impracticability variance. If achieving a requirement of this paragraph 17-54-200(A)(3) is not technically practicable, the operator may seek a variance of the requirement from the city in accordance with section 17-54-220, provided that the requirement is not otherwise required by state or federal law. The city may in its discretion issue a variance for the requirement in accordance with section 17-54-220, if it determines that the requirement is not technically practicable given the specific facts applicable to the operations at a particular well site.
12. Certification of compliance. The operator must submit an annual report each year to the city certifying (a) compliance with these air quality requirements and documenting any periods of noncompliance, including the date and duration of each deviation and a compliance plan and schedule to achieve compliance, and (b) that the equipment at the well sites continues to operate within its design parameters, and if not, what steps will be taken to modify the equipment to enable to equipment to operate within its design parameters. The annual report must contain a certification as to the truth, accuracy, and completeness of the reports, by a responsible corporate official. The

operator may satisfy this reporting obligation in whole or in part by submitting its AQCC Regulations No. 7 semi-annual reports for the prior calendar year to the city, and supplementing them as needed to meet these reporting requirements for covered facilities within the city.

13. Green completions. Gas gathering lines, separators, and sand traps capable of supporting green completions as described in COGCC Rule 805 shall be installed per the provisions of COGCC Rule 805. Operator shall comply with 40 CFR 60.5375(a)(1), (2) for green completions for both gas wells and oil wells. Venting is prohibited, except as required for safety to avoid explosion or fire. Temporary flowback flaring and oxidizing equipment shall include the following:
 - a) Adequately sized equipment to handle 1.5 times the largest flowback volume of gas experienced in a one-mile radius;
 - b) Valves and porting available to divert gas to flaring and oxidizing equipment;
 - c) Auxiliary fueled with sufficient supply and heat to combust or oxidize noncombustible gases in order to control odors and hazardous gases. The flowback combustion device shall be equipped with a reliable continuous ignition source over the duration of flowback, except in conditions that may result in a fire hazard or explosion; and
 - d) The operator has a general duty to safely maximize resource recovery and minimize releases to the atmosphere during flowback and subsequent recovery/operation.
14. Exhaust. The exhaust from all engines, motors, coolers, and other mechanized equipment shall be vented up or in a direction away from the closest existing residences.
15. Fencing. Permanent perimeter fencing shall be installed around production equipment and shall be secured, unless such fencing is not required by the visual mitigation plan approved by the city. The main purpose of the fencing is to deter entrance by unauthorized people. The operator shall use visually interesting fencing, when feasible, but the parties recognize that there is a need for air circulation and for the field personnel who regularly inspect the facilities to be able to identify visual operational deficiencies when driving by. Landscaping may be used for screening. If a chain link fence is required to achieve safety requirements set by COGCC, then landscaping and other screening mechanisms shall be required that comply with the city's Land Use Code regulations and the operator's safety requirements.
16. Flammable material. All ground within twenty-five feet of any tank or other structure containing flammable or combustible materials shall be kept free of dry weeds, grass or rubbish, and shall conform to COGCC 600 Series Safety Regulations and the applicable fire code.
17. Floodplains. All oil and gas operations shall comply with chapter 17-40, B.M.C.
18. Water quality monitoring plan. The operator shall comply with COGCC Rule 609 and the steps identified in this paragraph that go beyond that rule. In summary, this requires pre- and post-drilling testing. The rules requires the operator to sample "all available water sources" (if owner has given consent for testing and sampling and has consented to having the sample data obtained made available to the public), with a cap of four water sources, within a one-half-mile radius of a proposed well, multi-well site, or dedicated injection well. Water sources include registered water wells, permitted or adjudicated springs, and certain monitoring wells. The operator agrees to the following requirements above and beyond COGCC requirements: follow sampling procedures and analysis as set forth in COGCC Rule 609; operator shall test for dissolved metals, including arsenic, mercury, uranium, radium, and other dissolved metals as determined by the city; and sampling intervals shall include baseline (before

drilling), post-drilling at one, three, and six years. Analytical results shall be shared with COGCC, the city, and the landowner. All spills occurring in connection with new and existing wells shall be managed in accordance with COGCC regulations.

19. Landscaping. All landscaping shall be in compliance with the city requirements and in compliance with the safety requirements of the operator. Existing vegetation shall be minimally impacted. Motorized equipment shall be restricted to the well sites and access roads to the well sites. A visual mitigation plan, subject to city approval, on a site-specific basis shall include the type and location of fencing and landscaping.
20. Lighting. Except during drilling, completion, or other operational activities requiring additional lighting, downlighting is required, meaning that all bulbs must be fully shielded to prevent light emissions above a horizontal plane drawn from the bottom of the fixture. Prior to installation of permanent lighting on any facility, the operator agrees to submit to the city for review and approval a lighting plan to establish compliance with this provision. The lighting plan shall indicate the location of all outdoor lighting on the site and any structures, and include cut sheets (manufacturer's specifications with picture or diagram) of all proposed fixtures.
21. Maintenance of machinery. Routine field maintenance of vehicles or mobile machinery shall not be performed within 300 feet of any water body.
22. Mud tracking. The operator shall take all practicable measures to ensure that vehicles do not track mud or debris onto city streets. If mud or debris is nonetheless deposited on city streets, in excess of de minimus levels, the streets shall be cleaned immediately by the operator. If for some reason this cannot be done or needs to be postponed, the city shall be notified of the operator's plan for mud removal.
23. Noise mitigation. Noise mitigation measures shall be constructed along any edge of any oil and gas operation site if such edge is adjacent to the oil and gas operation and existing residential development or land which is zoned for future residential development. The noise mitigation measures shall, to the maximum extent feasible, decrease noise from the oil and gas operations to comply with the sound limitation regulations set forth in COGCC 800 Series Aesthetic and Noise Control Regulations for residential/agricultural/rural uses. A noise mitigation study shall be submitted with the application to demonstrate that noise will be decreased to the maximum extent feasible.
24. Pipelines/flowlines. Any newly constructed or substantially modified flowlines on site shall be constructed and operated under the provisions of COGCC 1100 Series Flowline Regulations and any applicable surface use agreements with the surface owners. Any newly constructed or substantially modified pipelines on site shall meet the following requirements:
 - a) To the maximum extent feasible, all flowlines, gathering lines, and transmission lines shall be sited a minimum of fifty feet away from general residential, commercial, and industrial buildings, as well as the high-water mark of any surface water body. This distance shall be measured from the nearest edge of the pipeline. Pipelines and gathering lines that pass within 150 feet of general residential, commercial, and industrial buildings or the high-water mark of any surface water body shall incorporate leak detection, secondary containment, or other mitigation, as appropriate. The mitigation plan for such pipelines and gathering lines shall be submitted to the city for review and approval.
 - b) To the maximum extent feasible, pipelines shall be aligned with established roads in order to minimize surface impacts and reduce habitat fragmentation and disturbance.

- c) To the maximum extent feasible, operators shall share existing pipeline rights-of-way and consolidate new corridors for pipeline rights-of-way to minimize surface impacts.
 - d) To the maximum extent feasible, operators shall use boring technology when crossing streams, rivers, or irrigation ditches with a pipeline to minimize negative impacts on the channel, bank, and riparian areas.
25. Recordation of flowlines. All new flowlines, including transmission and gathering systems, shall have the legal description of the location recorded with the clerk and recorder of the city within thirty days of completion of construction. Abandonment of any recorded flowlines shall be recorded with the clerk and recorder of the city within thirty days after abandonment.
 26. Removal of debris. When an oil and gas operation becomes operational, all construction-related debris shall be removed from the site for proper disposal. The site shall be maintained free of debris and excess materials at all times during operation. Materials shall not be buried or burned on site.
 27. Removal of equipment. All equipment used for drilling, recompletion and maintenance of the facility shall be removed from the site within thirty days of completion of the work, unless otherwise agreed to by the surface owner. Permanent storage of removal equipment on well pad sites shall not be allowed.
 28. Soil gas monitoring. The city, at its discretion, and provided that it does not interfere with an operator's ongoing production operations, may conduct soil gas monitoring to assess well casing integrity. If the city elects to conduct such testing, the city shall endeavor to complete this testing within ninety days of new well completion. The city shall notify the operator prior to entering the site for soil gas monitoring. The operator agrees to contribute \$5,000 towards this soil gas testing, pre-drilling event. If soil gas testing indicates that contamination may impact water quality cross and down gradient, then the operator shall conduct additional post-completion testing to identify any impacts to groundwater and surface water. Sampling frequency and contaminants analyzed shall be based on the risks associated with the type and concentration of the contaminants identified and the beneficial use of the water body or groundwater, in accordance with the approved water quality monitoring plan.
 29. Spills. The operator shall report chemical spills and releases in accordance with applicable state and federal laws, including the Emergency Planning and Community Right to Know Act, the Comprehensive Environmental Response, Compensation and Liability Act, the Oil and Pollution Act, the Clean Water Act, the Resource Conservation and Recovery Act, and the Spill Control Prevention and Countermeasure Plan, as applicable and as amended over time. If a spill or release impacts or threatens to impact surface water or a water well, the operator shall notify the affected or potentially affected owner and the city immediately following discovery of the release, and the spill or release shall be reported to the city and the surface water or well water owner within twenty-four hours of becoming aware of the spill or release. The operator may be required by the city to test soil and surface water or water wells as determined by the city, including but not limited to tests for dissolved metals, including arsenic, mercury, uranium, radium, and other dissolved metals.
 30. Stormwater control plan. All oil and gas operations shall comply and conform to the city's regulations, including submission of an erosion control report and plan.
 31. Temporary access roads. Temporary access roads associated with oil and gas operations shall be reclaimed and revegetated to the original state. Erosion should be controlled and damage to environmentally sensitive areas should be avoided.
 32. Trailers. A construction trailer is permitted as an accessory use during active drilling and well completion only.

33. Transportation and circulation. The operator shall include in each application for drilling and completion operations (new wells) detailed descriptions of all proposed access routes for equipment, water, sand, waste fluids, waste solids, mixed waste, and all other material to be hauled on the public streets and roads of the city. The submittal shall also include the estimated weights of vehicles when loaded, a description of the vehicles, including the number of wheels and axles of such vehicles, trips per day and any other information required by the traffic engineer. Information is required for this item for the plan review meeting. The operator shall comply with all Transportation and Circulation requirements as contained in the Land Use Code as may be reasonably required by the city's traffic engineer.
34. Wastewater and waste management. All fluids shall be contained and there shall be no discharge of fluids. Waste shall be stored in tanks, transported by tanker trucks or pipelines, and disposed of at licensed disposal or recycling sites. New secondary containment shall be constructed of steel, with sufficient perimeter and height to hold one and one-half times the volume of the largest tank plus sufficient freeboard to prevent overflow. No potential ignition sources shall be installed inside the secondary containment area unless the containment enclosed a fired vessel. The requirements for secondary containment will meet the city's stormwater criteria. No land treatment of oil impacted or contaminated drill cuttings are permitted. Drill pads must be underlain with a synthetic liner with a maximum permeability of 10⁻⁷ centimeters per second, and the liner must be protected by decking material. Spills on the pad must be cleaned up as soon as practicable and the waste material properly disposed of in accordance with law. In addition, the design must allow for the transfer of stormwater and other liquids that collect on the pad to storage tanks on the pad or to trucks that can safely transport the liquid for proper disposal. The collection of stormwater and other liquids may cease only when all potential pollutants have been removed from the pad and appropriate, approved stormwater management can be implemented. The use of a closed loop drilling system precludes discharge of produced water or flowback to the ground or the use of pits. Produced water or flowback will not be used for dust suppression. A copy of the operator's Spill Prevention, Control, and Countermeasure Plan (SPCC), which describes spill prevention and mitigation practices, will be given to the city. The operator will provide the city documentation of waste disposal and its final disposition.
35. Water supply. The operator agrees to comply with applicable State of Colorado, Department of Natural Resources and other applicable state regulations concerning the source of water used in drilling and completion operations. The operator shall identify in the site plan its source for water used in both the drilling and production phases of operations. The operator shall document and report to the city the sources and amount of water used in the city annually or sooner, if requested by the city. The disposal of water used on site shall also be documented in detail by the operator, including anticipated haul routes, approximate number of vehicles needed to supply and dispose of water, and the final destination for water used in operation.
36. Weed control. The operator shall be responsible for ongoing weed control at oil and gas operations, pipelines, and along access roads during construction and operation, until abandonment and final reclamation is completed per city or other applicable agency regulations.
37. Plugged and abandoned wells. Operator shall comply with COGCC DJ Basin Horizontal Offsite Policy, dated June 20, 2013, as amended from time to time. The operator shall provide documentation submitted to COGCC per that policy to the city, and permit the city an opportunity to comment to COGCC.
38. Insurance. The operator shall, with respect to the initial drilling and completion of a new well, provide liability insurance that covers pollution, cleanup, and general liability in the amount at \$1,000,000 per occurrence and \$2,000,000 in the aggregate, and in

addition shall provide general liability umbrella coverage in the amount of \$5,000,000. Following completion, the operator shall provide ongoing pollution, cleanup, and general liability coverage in the amount of \$1,000,000 per occurrence and \$2,000,000 in the aggregate, and general liability umbrella coverage in the amount of \$5,000,000 per well pad. The operator shall identify the city as an additional insured under these policies. Upon request, operator shall provide certificates from the insurance company demonstrating its compliance with this paragraph.

39. Natural Gas STAR Program. Operator agrees to participate in good faith in the Natural Gas STAR Program, to encourage innovation in pollution controls at drill sites.
40. Statutory references. References to statutes or regulations include references to statutes and regulations as amended over time. Nothing in this chapter is intended to relieve the operator from compliance with then-current applicable state or federal law.
41. Comprehensive Gas Development Plan (CGDP). Within ninety days of its planned submittal of a permit to COGCC, the operator agrees to submit a Comprehensive Gas Development Plan (CGDP) to the city for the area affected by its planned operations for the next ten years, to maximize planning and minimize the impacts of the planned operations. The affected area includes the well sites and other locations within the city where the operator may conduct gas exploration or production activities and install supporting infrastructure (compressor stations, wastewater treatment facilities, roads, pipelines, etc.) for a period of ten years. The operator is encouraged to coordinate with other operators whose geographic planning units overlap to develop integrated plans to improve the use of existing and new infrastructure, to share or co-locate infrastructure, and to minimize cumulative impacts. The operator is not obligated to develop all the pads, wells or supporting infrastructure identified in the plan. The operator is encouraged to utilize COGCC Rules 216 and 513 as appropriate. The following planning principles will be utilized in the plan:
 - a) Use multi-well, clustered drilling pads to minimize surface disturbance;
 - b) Comply with location restrictions, setbacks and other environmental requirements of state and local law and regulations and this chapter;
 - c) Avoid, minimize, and mitigate impact on sensitive resources;
 - d) Preferentially locate operations on disturbed, open lands or lands zoned for industrial activity;
 - e) Co-locate linear infrastructure with existing roads, pipelines and power lines;
 - f) Consider impacts from other gas development projects and land use conversion activities and plan to minimize cumulative surface impacts; and
 - g) Minimize fragmentation of intact open space.
 - h) Additional planning elements include:
 - 1) Identification of travel routes;
 - 2) Sequence of well drilling over the lifetime of the plan that places priority on locating the first well pads in areas removed from sensitive natural resource values; and
 - 3) Consistency with local zoning ordinances and comprehensive planning elements.
42. General maintenance. Operator shall operate and maintain all equipment pursuant to manufacturer specifications consistent with technological limitations and good engineering maintenance practices.

(B) *Administrative process* .

- (1) Pre-submittal meeting. Prior to the submission of an application for an administrative approval by memorandum of understanding, the operator is encouraged to schedule a meeting with the city to review the proposed new well or drilling activity. The goal of this meeting shall be for the city staff and the operator to review the proposed oil and gas operation in a manner that ensures compliance with the operator agreement and applicable state and federal regulations. The pre-submittal meeting shall also allow the operator and city staff to explore, to the extent commercially reasonable, site-specific concerns, discuss project impacts and potential mitigation methods, including field design and infrastructure construction to minimize impacts, to discuss coordination of field design with other existing or potential development and operators, to identify sampling and monitoring plans for air and water quality, and other elements of an MOU as required by this section 17-54-200. Based upon the foregoing, the operator is encouraged to conduct the pre-submittal meeting with the city prior to completing well siting decisions, to the extent reasonably feasible.
- (2) Notification regarding application and neighborhood meeting.
 - a. The city shall mail notice of the application for an administrative approval by memorandum of understanding no more than ten working days after an application has been submitted to the city. Owners of record shall be ascertained by the city according to the records of the Broomfield Assessor's Office. Notice of the application shall include reference to the neighborhood meeting, if applicable, and be made as follows:
 1. To the surface owners of the parcels of land on which the oil and gas operation is proposed to be located;
 2. To the surface owners of the parcels of land in the City and County of Broomfield within 2,640 feet of the parcel on which the oil and gas operation is proposed to be located; and
 3. To persons registered in writing with the city as representing bona fide neighborhood groups and organizations and homeowners' associations within the area of notification.
 - b. Posted notice. The real property proposed to be developed shall also be posted with a sign, giving notice to the general public of the proposed development. For parcels of land exceeding fifteen acres in size, two signs shall be posted. The size of the sign required to be posted shall be as established in the supplemental notice requirements of chapter 17-52 of the city's Land Use Code. Such signs shall be provided by the city and shall be posted on the subject property by the applicant in a manner and at a location or locations reasonably calculated by the city to afford the best notice to the public, which posting shall occur a minimum of ten calendar days prior to the neighborhood meeting.
 - c. Neighborhood meetings. Before submitting an application to COGCC, but after submitting an application to the city, a neighborhood meeting shall be required on any oil and gas facilities, even on existing well pads, that require an application for an administrative approval by memorandum of understanding. The operator shall attend and conduct the neighborhood meeting. The city shall be responsible for scheduling and coordinating the neighborhood meeting. A written summary of the neighborhood meeting shall be prepared by the city.
 - d. Notification to the city and the public regarding commencement of operations. At least two weeks prior to the commencement of any new drilling operations, the operator shall provide to the city for posting on the website the information outlined in section 17-54-050, regarding commencement of operations, which the operator may revise from time to time during operations, with prior approval from the city.
- (3) Review for completeness. Upon receipt of an application for administrative approval by memorandum of understanding and fees, the planning director of the city or his or her designee shall review the application for completeness within three working days of the application submittal. Staff will refer the application, when determined to be complete by the city, for a

twenty-day-calendar review as deemed appropriate by the city. An application may require review by outside agencies such as the U.S. Army Corps of Engineers, if the project impacts a floodplain, and may also be referred to any life-safety providers, adjacent jurisdictions, local public health department, and other as may be deemed appropriate by the city.

- (4) Review process for application for administrative approval by memorandum of understanding. The applicant will be notified of any outstanding issues in connection with application materials upon completion of this review and will be required to address any issues or deficiencies in connection with the application materials. If necessary, a meeting will be held to discuss any issues that need to be resolved. If necessary, the applicant will then submit an amended application, plan or other submittals, as appropriate, to the city for verification that deficiencies have been addressed by the applicant. If the above-described outstanding issues cannot be resolved, the city manager may refer the application for consideration as a use by special review.
- (5) Revision of application for administrative approval by memorandum of understanding. If revisions were necessary, the city shall be provided ten working days to review the revised application. Upon determination by the city that all issues have been resolved, the plans shall be considered the final copy of the application and exhibits. The city's planning director shall forward the final copy of the application materials for final review by the city manager.
- (6) Action to approve, conditionally approve, or deny. Unless there are any issues that have not been resolved by the applicant, the city will exercise its best efforts to process the administrative approval by memorandum of understanding for an oil and gas facility within thirty working days from the date the application is considered complete by the city. The administrative approval by memorandum of understanding can be administratively approved, approved with conditions, or denied by the city manager. Written notice of the decision shall promptly be provided to the applicant, and, if denied, the notice shall include a statement of the reason for denial. The thirty-working-day timeframe counts only as the city's processing time and does not include the applicant's response time.
- (7) In lieu of the city manager making a decision on an application, the city manager has the discretion to refer any application for administrative approval by memorandum of understanding or amendment thereto to the city council for its consideration and decision at a public hearing. In such event, the city council shall make its determination based upon the requirements of this section. At such public hearing, the city council may approve, approve with conditions, or deny the application.
- (8) An approval of the application for administrative approval by memorandum of understanding shall only be valid for five years unless the oil and gas facility is substantially commenced prior to the expiration of such timeframe.
- (9) An applicant may appeal the city manager's denial of an application for administrative approval by memorandum of understanding, or any conditions of approval, to the city council for a de novo hearing. The applicant must file the appeal within fourteen calendar days of the date of the city manager's decision by submitting a letter of appeal to the city manager. Thereafter, the matter will be scheduled on the next available agenda of the city council. At such hearing, the city council may affirm, reverse or modify the decision of the city manager, based upon the criteria set forth in this section 17-54-200.
- (10) An approval of an application for administrative approval by memorandum of understanding shall automatically include as conditions of approval all provisions of the MOU executed by the applicant and the city.
- (11) If the applicant or operator proposes changes from the plans approved through the administrative approval by memorandum of understanding, the applicant or operator is required to submit an amendment to the application showing the changes. The proposed amendment will be reviewed by the city and, if applicable, the city may require additional information. The amended application will need to meet all requirements of this section 17-54-200, and be approved by the city manager prior to implementation.

(Ord. 1986 §1, 2013)

17-54-210 - Approval required.

Development of an oil and gas facility shall not commence until and unless any required permits from COGCC, and a use by special review permit or an administrative approval by memorandum of understanding from the city, have both been approved.

(Ord. 1986 §1, 2013)

IV. Variances

17-54-220 - Variances generally.

- (A) *Variance request* . In both the use by special review permit and administrative approval by memorandum of understanding processes, an applicant may request a variance from any provision of this chapter. A request for a variance under this subsection may be included in the applicant's application and shall be processed, reviewed and granted, granted with conditions or denied in accordance with and as part of the use by special review permit or administrative approval by memorandum of understanding processes, as applicable. The variance provisions of chapter 16-36, B.M.C. shall not be applicable to a variance request under this chapter.
- (B) *Operational conflicts variance for use by special review permit*. In the case of an application for a use by special review permit, a variance from the application of any provision of this chapter shall be granted if the provision is in operational conflict with the Act or COGCC regulations, meaning the application of the provision have the effect of materially impeding or destroying a state interest as expressed in the Act or COGCC regulations. This subsection does not apply in the case of an application for administrative approval by memorandum of understanding.
- (C) *Other variances grounds for variance* . A variance from the application of any provision of this chapter shall be granted on the basis of one or more of the following grounds. A variance may be in the form of a waiver or modification, as applicable:
 - (1) There is no technology commercially available at a reasonable cost to conduct the proposed oil and gas operations in compliance with the provision, and granting a variance from the operation of the provision will not have an adverse effect on the public health, safety, or welfare, or on the environment.
 - (2) An alternative approach not contemplated by the provision is demonstrated to provide a level of protection of the public health, safety, and welfare, and of the environment, that would be at least equivalent to the applicable provision.
 - (3) Application of the provision is impractical or would create an undue or unnecessary hardship because of unique physical circumstances or conditions existing on or near the site of the oil and gas facility, which may include, without limitation, topographical conditions, shape or dimension of the operation site, inadequate public infrastructure to the site, or close proximity of occupied buildings.

(Ord. 1986 §1, 2013)

V. Miscellaneous Provisions

17-54-230 - Transfer of permits or MOUs.

Use by special review permits or memorandums of understanding may be assigned to another operator only with the prior written consent of the city manager and upon a showing to the city that the new operator can and will comply with all conditions of the transferred use by special review permit or memorandum of understanding and with all of the applicable provisions of this chapter. The existing operator shall assign the use by special review permit or memorandum of understanding to the new operator on a form provided by the city and the new operator shall also sign the form agreeing to comply with all of the conditions of the permit and all applicable provisions of this chapter.

(Ord. 1986 §1, 2013)

17-54-240 - Conflicting provisions; enforceability.

In the event of a conflict between the provisions of this chapter and any other provision of this title, the provisions of this chapter shall control.

(Ord. 1986 §1, 2013)

17-54-250 - Unlawful acts.

Except as otherwise provided in this chapter, it is unlawful to construct, install, or cause to be constructed or installed, any oil and gas facility within the city unless approval has been granted by the city either by a use of special review permit or administrative approval by memorandum of understanding. The unlawful drilling or redrilling of any well or the production therefrom is a violation of this chapter.

(Ord. 1986 §1, 2013)

17-54-260 - Revocation of use by special review permit or MOU.

If the city believes the operator has failed to conduct its operation in accordance with the terms and conditions of the use by special review permit or memorandum of understanding, then as a condition precedent to terminating the use by special review permit or memorandum of understanding, the city must provide written notice to operator specifying, in reasonable detail, the failure and the remedy required. The operator shall then have a period of forty-five days in which to remedy the failure, or if the failure is of a nature that cannot be remedied within that forty-five-day period, the operator shall have commenced to remedy the failure and will diligently complete the remedy. If operator fails to remedy a material default in the manner set forth above, upon written notice, the city may terminate the use by special review permit or memorandum of understanding and revoke any or all approvals for operations of the subject oil and gas facilities. Upon such revocation, operator shall cease operating such oil and gas facilities until it obtains approval for such wells under the then-applicable city code.

(Ord. 1986 §1, 2013)

17-54-270 - Penalty.

Subject to other applicable provisions of law, any person who constructs, installs, or uses, or who causes to be constructed, installed, or used, any oil, gas, or injection well, production site, or well site in violation of any provision of this chapter or of the conditions and requirements of the oil and gas special use permit or administrative approval by memorandum of understanding, may be punished as provided in chapter 1-12, B.M.C. Each day of such unlawful operation constitutes a separate violation.

(Ord. 1986 §1, 2013)

17-54-280 - Civil action; enforcement.

In case of any violation of this chapter, including but not limited to (a) nonconformance with a memorandum of understanding or special review permit, (b) nonconformance with plans submitted and approved by the city pursuant to this chapter, or (c) a building or structure is or is proposed to be erected, constructed, reconstructed, altered, or used, or any land is or is proposed to be used, in violation of any provision of this article or the conditions and requirements of the oil and gas special use permit or memorandum of understanding, the city attorney, in addition to the other remedies provided by law, ordinance, or resolution, may institute an injunction, mandamus, abatement, or other appropriate action or proceeding to prevent, enjoin, abate, or remove such unlawful erection, construction, reconstruction, alteration, or use. The enforcement provisions of this chapter shall apply to all special review permits or memorandums of understanding adopted pursuant to this chapter and all operator agreements adopted on or after August 1, 2013.

(Ord. 1986 §1, 2013)

17-54-290 - False or inaccurate information.

The city manager may revoke approval of a facility if it is determined after an administrative hearing, held on at least ten days' notice to the applicant, that the applicant provided information or documentation upon which approval was based, which the applicant, its agents, servants, and employees, knew, or reasonably should have known, was materially false, misleading, deceptive, or inaccurate.

(Ord. 1986 §1, 2013)

17-54-300 - Severability.

If any provision of this chapter is found by a court of competent jurisdiction to be invalid, the remaining provisions of this chapter will remain valid, it being the intent of the city council that the provisions of this chapter are severable.

(Ord. 1986 §1, 2013)

17-54-310 - Prospective application.

Unless specifically provided otherwise, this chapter shall apply only to wells which are drilled in the city on and after the date this chapter is adopted. The reentering of a well in existence prior to the date of adoption of this chapter, for purposes of deepening, recompleting or reworking, shall not require approval of a use permitted by special review as required by this chapter, unless such work requires a new or modified permit from COGCC.

(Ord. 1986 §1, 2013)

17-54-320 - Abandonment and plugging of wells.

The approval of a use by special review or an administrative approval by memorandum of understanding shall not relieve the operator from complying with all Commission rules with respect to abandonment and plugging of wells. The operator shall provide the city with Commission Form 4 at the time that it is filed with the Commission.

(Ord. 1986 §1, 2013)

17-54-330 - Application and well site fees.

When an application is submitted to the city for a use by special review or an administrative approval by memorandum of understanding under this chapter, the applicant shall pay to the city a \$400 oil and gas application review fee for each well site shown on the site plan. In addition, the applicant shall be required to pay either a use by special review fee and public notice and publication fees as required for a use by special review or a neighborhood meeting fee of \$100 for an administrative approval by memorandum of understanding. These fees are in addition to any other fees charged by the city.

(Ord. 1986 §1, 2013)

17-54-340 - Coordination with Air Quality Control Commission.

Pursuant to Section 25-7-128(4), C.R.S., upon the issuance of any enforcement order or granting of any permit, the city shall transmit to the AQCC a copy of the order or permit. Pursuant to Section 25-7-128(6), C.R.S., the city shall confer and coordinate its activities regarding efforts to control or abate air pollution consistent with that provision.

(Ord. 1986 §1, 2013)

17-54-350 - Appeal of decisions.

Any appeal of a decision by the city council under this chapter, to the extent allowed by law, shall be filed in the district court of this county within thirty days of the final decision on any such matter.

(Ord. 1986 §1, 2013)

17-54-005 - Short title.

This chapter is known and may be cited as the "Broomfield Oil and Gas Regulations."

(Ord. 1986 §1, 2013)

17-54-010 - Purpose.

This chapter is enacted to protect and promote the health, safety, morals, convenience, order, prosperity, or general welfare of the present and future residents of the city. It is the intent of the city council by enacting these regulations to facilitate the development of oil and gas resources within the city while mitigating potential land use conflicts between such development and existing, as well as planned, land uses. It is recognized that under state law the surface and mineral estates are separate and distinct interests in land and that one may be severed from the other. Owners of subsurface mineral interests have certain legal rights and privileges, including the right to use that part of the surface estate reasonably required to extract and develop their subsurface mineral rights. The State has a recognized interest in fostering the efficient development, production, and utilization of oil and gas resources, and particularly in the prevention of waste and protection of correlative rights of common source owners and producers to a fair and equitable share of production profits. Similarly, owners of the surface estate have certain legal rights and privileges, including the right to have the mineral estate developed in a reasonable manner. Municipal governments have a recognized, traditional authority and responsibility to regulate land use within their jurisdiction. These regulations are intended to be an exercise of the land use

authority of the city. Nothing in this chapter shall be construed as giving the city authority to enforce state or federal laws, rules, or regulations.

(Ord. 1986 §1, 2013)

17-54-020 - Definitions.

All terms used in this chapter that are defined in the Act or in the Commission regulations and are not otherwise defined in this section, are defined as provided in the Act or in such regulations as of the effective date of this chapter. All other words used in this chapter are given their usual customary and accepted meaning, and all words of a technical nature, or peculiar to the oil and gas industry, shall be given that meaning which is generally accepted in said oil and gas industry. When not otherwise clearly indicated by the context, the following words and phrases used in this chapter, whether capitalized or not, have the following meanings:

- (A) *Act* means the Oil and Gas Conservation Act of the State of Colorado at Section 34-60-101, et seq., C.R.S.
- (B) *Commission* or *COGCC* means the Colorado Oil and Gas Conservation Commission of the State of Colorado.
- (C) *Day* means a period of twenty-four consecutive hours.
- (D) *Director* means the Director of the Oil and Gas Conservation Commission of the State of Colorado or any member of the Director's staff authorized to represent the Director.
- (E) *Injection well* means any hole drilled into the earth into which fluids are injected for the purposes of secondary recovery, storage, or disposal, pursuant to authorizations granted by the Commission.
- (F) *Inspector* means any person designated by the chief building official, or designee thereof, who shall have the authority to inspect a well site to determine compliance with this chapter and other applicable ordinances of the city.
- (G) *Oil and gas facility* or *facilities* means and includes oil and gas well sites, flowlines, tank batteries, compressor stations, pits/ponds, below-grade tanks, dehydration units, associated air pollution control equipment (including flare units and vapor recovery units [VRUs]), and associated roads. Pipelines and gathering systems, other than flowlines, as well as salt water disposal wells and injection wells, are excluded. Locations with more than one of the above-mentioned types of equipment will be considered to be one facility.
- (H) *Oil and gas well* means any hole drilled into the earth for the purpose of exploring for or extracting oil, gas, or other hydrocarbon substances.
- (I) *Operating plan* means a general description of a facility identifying purpose, use, typical staffing pattern, seasonal or periodic considerations, routine hours of operating, source of services, infrastructure, and any other information related to regular functioning of such facility.
- (J) *Operator* means any person who exercises the right to control the conduct of oil and gas operations.
- (K) *Owner* means the person who has the right to drill into and produce from a pool and to appropriate the oil or gas produced therefrom either for such owner or others, including owners of a well capable of producing oil or gas, or both.
- (L) *Production site* means the area surrounding proposed or existing production pits or other accessory equipment required for oil and gas production, at which may also be located tanks and tank batteries, exclusive of transmission and gathering pipelines.
- (M) *Reentering* means accessing an existing well bore for either the original or amended purpose, provided that such well has not been abandoned.
- (N) Reserved.

- (O) Reserved.
- (P) *Use tax* means the tax paid by a consumer for using, storing, distributing, or otherwise consuming tangible personal property or taxable services inside the city.
- (Q) *Well* means, when used alone in this chapter, an oil or gas well, a hole drilled for the purpose of producing oil or gas, a well into which fluids are injected, a stratigraphic well, a gas storage well, or a well used for the purpose of monitoring or observing a reservoir.
- (R) *Wellhead* means aboveground surface equipment attached to the downhole wellbore equipment of a well.
- (S) *Well site* means that area surrounding a proposed or existing well or wells and accessory structures and equipment necessary for drilling, completion, recompletion, workover, development, and production activities.

(Ord. 1986 §1, 2013)

17-54-030 - Inspections.

In recognition of the potential impacts associated with oil and gas drilling and well operation in an urban setting, all wells and accessory equipment and structures may be inspected by the inspectors of the city at reasonable times to determine compliance with applicable provisions of this chapter, the International Fire Code, the International Building Code, and all other applicable standards in this title. For the purpose of implementing and enforcing the provisions of this chapter, the city personnel have the right to enter upon private property after reasonable notification to the operator, which provides the operator an opportunity to be present. The city may use the information collected on the inspections to enforce the requirements of this chapter. The city may also report this information to appropriate state officials, including but not limited to information regarding alleged violations of state rules.

(Ord. 1986 §1, 2013)

17-54-040 - Review required.

Within all zoning districts, including a PUD (planned unit development) district, when an applicant wishes to drill a well that has not been previously permitted under this chapter, it is unlawful for any person to perform any such operation, unless a use permitted by special review has first been approved by the city council pursuant to chapter 17-30, B.M.C., or administrative approval by memorandum of understanding by the city manager in accordance with section 17-54-200. When a use permitted by special review or administrative approval by memorandum of understanding has been approved for a well, the reentering of such well for the purposes of deepening, recompleting, or reworking shall not require a subsequent approval under this chapter unless such work requires a new or modified permit from COGCC. The approval of such use by special review or administrative approval by memorandum of understanding does not relieve the operator from otherwise complying with all applicable regulatory requirements of the city, state, and federal governments.

(Ord. 1986 §1, 2013)