

RULES AND REGULATIONS

DEFINITIONS (100 Series)

ACT shall mean the Oil and Gas Conservation Act of the State of Colorado.

APPLICANT shall mean the person who institutes a proceeding before the Commission, which it has standing to institute under these rules.

AQUIFER shall mean a geologic formation, group of formations or part of a formation that can both store and transmit ground water. It includes both the saturated and unsaturated zone but does not include the confining layer, which separates two (2) adjacent aquifers.

ASSEMBLY BUILDING shall mean any building or portion of building or structure used for the regular gathering of fifty (50) or more persons for such purposes as deliberation, education, instruction, worship, entertainment, amusement, drinking or dining, or awaiting transport.

AUTHORIZED DEPUTY shall mean a representative of the Director as authorized by the Commission.

BATTERY shall mean the point of collection (tanks) and disbursement (tank, meter, lease automated custody transfer [LACT] unit) of oil or gas from producing well(s).

BARREL shall mean forty-two (42) gallons (U.S.) at sixty degrees fahrenheit (60o F) at atmospheric pressure.

BRADENHEAD TEST AREA shall mean any area designated as a bradenhead test area by the Commission under Rule 207.b.

BUILDING UNIT shall mean a building or structure intended for human occupancy. A dwelling unit is equal to one (1) building unit, every guest room in a hotel/motel is equal to one (1) building unit, and every five thousand (5,000) square feet of building floor area in commercial facilities, and every fifteen thousand (15,000) square feet of building floor area in warehouses, or other similar storage facilities, is equal to one (1) building unit.

CEASE AND DESIST ORDER shall mean an order issued by the Commission pursuant to §34-60-121(5), C.R.S.

CENTRALIZED E&P WASTE MANAGEMENT FACILITY shall mean a facility, other than a commercial disposal facility exclusively regulated by the Colorado Department of Public Health and Environment, that is: (1) used exclusively by one owner or operator; or (2) used by more than one operator under an operating agreement and which receives for collection, treatment, temporary storage, and/or disposal of produced water, drilling fluids, drill cuttings, completion fluids, and any other exempt E&P wastes that are generated from two or more production units or areas or from a set of commonly owned or operated leases. This definition includes the surface storage and disposal facilities that are present at Class II disposal well sites. This definition also includes oil-field naturally occurring radioactive materials (NORM) related storage, decontamination, treatment, or disposal.

COMMERCIAL DISPOSAL WELL FACILITY shall mean a facility whose primary objective is disposal of Class II waste from a third party for financial profit.

COMMISSION shall mean the Oil and Gas Conservation Commission of the State of Colorado.

COMPLETION. An oil well shall be considered completed when the first new oil is produced through wellhead equipment into lease tanks from the ultimate producing interval after the production string has been run. A gas well shall be considered completed when the well is capable of producing gas through wellhead equipment from the ultimate producing zone after the production string has been run. A dry hole shall be considered completed when all provisions of plugging are complied with as set out in these rules. Any well not previously defined as an oil or gas well, shall be considered completed ninety (90) days after reaching total depth. If approved by the Director, a well that requires extensive testing shall be considered completed when the drilling rig is released or six (6) months after reaching total depth, whichever is later.

CORNERING AND CONTIGUOUS UNITS when used in reference to an exception location shall mean those lands which make up the unit(s) immediately adjacent to and toward which a well is encroaching upon established setbacks.

CROP LAND shall mean lands which are cultivated, mechanically or manually harvested, or irrigated for vegetative agricultural production.

CUBIC FOOT of gas shall mean the volume of gas contained in one (1) cubic foot of space at a standard pressure base and a standard temperature base. The standard pressure base shall be fourteen point seventy three (14.73) psia, and the standard temperature base shall be sixty degrees fahrenheit (60°F).

D-J BASIN FOX HILLS PROTECTION AREA shall mean that area of the state consisting of Townships 5 South through Townships 5 North, Ranges 58 West through 70 West, and Township 6 South, Ranges 65 West through 70 West.

DAY shall mean a period of twenty-four (24) consecutive hours.

DEDICATED INJECTION WELL shall mean any well as defined under 40 C.F.R. §144.5 B, 1992 Edition, (adopted by the U.S. Environmental Protection Agency) used for the exclusive purpose of injecting fluids or gas from the surface. The definition of a dedicated injection well does not include gas storage wells.

DESIGNATED AGENT when used herein shall mean the designated representative of any producer, operator, transporter, refiner, gasoline or other extraction plant operator, or initial purchaser.

DESIGNATED OUTSIDE ACTIVITY AREAS shall mean a well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by twenty (20) or more persons on at least forty (40) days in any twelve (12) month period or by at least five hundred (500) or more people on at least three (3) days in any twelve (12) month period.

DIRECTOR shall mean 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.

DOMESTIC GAS WELL shall mean a gas well that produces solely for the use of the surface owner. The gas produced cannot be sold, traded or bartered.

DRILLING PITS shall mean those pits used during drilling operations and initial completion of a well, and include:

ANCILLARY PITS used to contain fluids during drilling operations and initial completion procedures, such as circulation pits and water storage pits.

COMPLETION PITS used to contain fluid during initial completion procedures, and not originally constructed for use in drilling operations.

RESERVE PITS used to store drilling fluids for use in drilling operations or to contain E&P waste generated during drilling operations and initial completion procedures.

EDUCATIONAL FACILITY shall mean any building used for legally allowed educational purposes for more than twelve (12) hours per week for more than six (6) persons. This includes any building or portion of building used for licensed day-care purposes for more than six (6) persons.

EMERGENCY ORDER shall mean an order issued by the Commission pursuant to §34-60-108(3), C.R.S.

EMERGENCY SITUATION for purposes of §34-60-121(5), C.R.S., and the rules promulgated thereunder shall mean a fact situation which presents an immediate danger to public health, safety or welfare.

EXPLORATION AND PRODUCTION WASTE (E&P WASTE) shall mean those wastes associated with operations to locate or remove oil or gas from the ground or to remove impurities from such substances, and which are uniquely associated with and intrinsic to oil and gas exploration, development or production operations of which are exempt from regulation under Subtitle C of the Resource Conservation and Recovery Act (RCRA), 42 USC Sections 6921, et. seq. For a waste to be considered an E&P waste, it shall be associated with operations to locate or remove oil or gas from the ground or to remove impurities from such substances and it shall be intrinsic to and uniquely associated with oil and gas exploration, development or production. For natural gas, primary field operations include those production-related activities at or near the wellhead and at the gas plant (regardless of whether or not the gas plant is at or near the wellhead), but prior to transport of the natural gas from the gas plant to market. In addition, uniquely associated wastes derived from the production stream along the gas plant feeder pipelines are considered E&P wastes, even if a change of custody in the natural gas has occurred between the wellhead and the gas plant. In addition, wastes uniquely associated with the operations to recover natural gas from underground storage fields are considered to be E&P waste.

FIELD shall mean the general area which is underlaid or appears to be underlaid by at least one (1) pool; and "field" shall include the underground reservoir or reservoirs containing oil or gas or both. The words "field" and "pool" mean the same thing when only one (1) underground reservoir is involved; however, "field", unlike "pool", may relate to two (2) or more pools.

FINANCIAL ASSURANCE shall mean a surety bond, cash collateral, certificate of deposit, letter of credit, sinking fund, escrow account, lien on property, security interest, guarantee, or other instrument or method in favor of and acceptable to the Commission. With regard to third party liability concerns related to public health, safety and welfare, the term encompasses general liability insurance.

FLOWLINES shall mean those segments of pipe from the wellhead downstream through the production facilities ending at:

- In the case of gas lines, the gas metering equipment; or
- In the case of oil lines, the oil loading point or LACT unit; or
- In the case of water lines, the water loading point, the point of discharge to a pit, or the injection wellhead.

GAS FACILITY shall mean those facilities that process or compress natural gas after production-related activities which are conducted at or near the wellhead and prior to a point where the gas is transferred to a carrier for transport.

GAS STORAGE WELL means any well drilled for the injection, withdrawal, production, observation, and/or monitoring of natural gas stored in underground formations. The fact that any such well is used incidentally for the production of native gas or the enhanced recovery of native hydrocarbons shall not affect its status as a gas storage well.

GAS WELL shall mean a well, the principal production of which at the mouth of the well is gas, as defined by the Act.

GROUND WATER means subsurface waters in a zone of saturation.

HIGH DENSITY AREA shall mean any tract of land determined to be a high density area in accordance with Rule 603.b.

HOSPITAL, NURSING HOME, BOARD AND CARE FACILITIES shall mean buildings used for the licensed care of more than five (5) in-patients or residents.

INACTIVE WELL shall mean any shut-in well from which no production has been sold for a period of twelve (12) consecutive months; any well which has been temporarily abandoned for a period of six (6) consecutive months; or, any injection well which has not been utilized for a period of twelve (12) consecutive months.

INDIAN LANDS shall mean those lands located within the exterior boundaries of a defined Indian reservation, including allotted Indian lands, in which the legal, beneficial, or restricted ownership of the underlying oil, gas, or coal bed methane or of the right to explore for and develop the oil, gas, or coal bed methane belongs to or is leased from an Indian tribe.

INTERVENOR shall mean a local government intervening solely to raise environmental or public health, safety and welfare concerns in which case the intervention shall be granted of right, or a person who has timely filed an intervention in a relevant proceeding and has demonstrated to the satisfaction of the commission that the intervention will serve the public interest, in which case the person may be recognized as a permissive intervenor at the Commission's discretion.

JAIL shall mean those structures where the personal liberties of occupants are restrained, including but not limited to, mental hospitals, mental sanitariums, prisons, reformatories.

LAND APPLICATION shall mean the disposal method by which E&P waste is spread upon or sometimes mixed into soils.

LAND TREATMENT shall mean the treatment method by which E&P waste is applied to soils and treated to result in a reduction of hydrocarbon concentration by biodegradation and other natural attenuation processes. Land treatment may be enhanced by tilling, disking, aerating, composting and the addition of nutrients or microbes.

LOCAL GOVERNMENT means a county, home rule or statutory city, town, territorial charter city or city and county, or any special district established pursuant to the Special District Act, §32-1-101, C.R.S. to §32-1-1505, C.R.S.

LOCAL GOVERNMENTAL DESIGNEE means the office designated to receive, on behalf of the local government, copies of all documents required to be filed with the local governmental designee pursuant to these rules.

LOG or WELL LOG shall mean a systematic detailed record of formations encountered in the drilling of a well.

MULTI-WELL PITS shall mean pits used for treatment or disposal of E&P wastes generated from more than one (1) well.

MULTI-WELL SITE shall mean a common well pad from which multiple wells may be drilled to various bottomhole locations.

NON-CROP LAND shall mean all lands which are not defined as crop land, including range land.

OIL AND GAS OPERATIONS means exploration for oil and gas, including the conduct of seismic operations and the drilling of test bores; the siting, drilling, deepening, recompletion, reworking, or abandonment of an oil and gas well, underground injection well, or gas storage well; production operations related to any such well including the installation of flowlines and gathering systems; the generation, transportation, storage, treatment, or disposal of exploration and production wastes; and any construction, site preparation, or reclamation activities associated with such operations.

OIL WELL shall mean a well, the principal production of which at the mouth of the well is oil, as defined by the Act.

ORPHANED SITE shall mean a site, where a significant adverse environmental impact may be or has been caused by oil and gas operations for which no responsible party can be found, or where such responsible party is unwilling or unable to mitigate such impact.

ORPHAN WELL shall mean a well for which no owner or operator can be found, or where such owner or operator is unwilling or unable to plug and abandon such well.

OWNER shall mean 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 or for such owner and others, including owners of a well capable of producing oil or gas, or both.

PIT shall mean any natural or man-made depression in the ground used for oil or gas exploration or production purposes. Pit does not include steel, fiberglass, concrete or other similar vessels which do not release their contents to surrounding soils.

PLUGGING AND ABANDONMENT shall mean the cementing of a well, the removal of its associated production facilities, the removal or abandonment in-place of its flowline, and the remediation and reclamation of the wellsite.

POINT OF COMPLIANCE means one (1) or more points or locations at which compliance with applicable ground water standards established under Water Quality Control Commission Basic Standards for Ground Water, §3.11.4, must be achieved.

POLLUTION means man-made or man-induced contamination or other degradation of the physical, chemical, biological, or radiological integrity of air, water, soil, or biological resource.

The words **POOL, PERSON, OWNER, PRODUCER, OIL, GAS, WASTE, CORRELATIVE RIGHTS and COMMON SOURCE OF SUPPLY** are defined by the Act, and said definitions are hereby adopted in these rules and Regulations. The word "operator" is used in these rules and regulations and accompanying forms interchangeably with the same meaning as the term "owner" except in Rules 301., 325., and 401. where the word "operator" is used to identify the persons designated by the owner or owners to perform the functions covered by those rules.

PRODUCED AND MARKETED as used in the Act, shall mean, when oil shall have left the lease tank battery or when natural gas shall have passed the metering point and entered into the stream of commerce as its first step toward the ultimate consumer.

PRODUCTION FACILITIES shall mean all storage, separation, treating, dehydration, artificial lift, power supply, compression, pumping, metering, monitoring, flowline, and other equipment directly associated with oil wells, gas wells, or injection wells.

PRODUCTION PITS shall mean those pits used after drilling operations and initial completion of a well, including natural gas gathering, processing and storage facility pits, multi-well pits and:

SKIMMING/SETTLING PITS used to provide retention time for settling of solids and separation of residual oil.

PRODUCED WATER PITS used to temporarily store produced water prior to injection for enhanced recovery or disposal, off-site transport, or surface-water discharge.

PERCOLATION PITS used to dispose of produced water by percolation and evaporation through the bottom and/or sides of the pits into surrounding soils.

EVAPORATION PITS used to contain produced waters which evaporate into the atmosphere by natural thermal forces.

PROTESTANT shall mean a person who has timely filed a protest in a relevant proceeding and has demonstrated to the Commission's satisfaction that the person filing the protest would be directly and adversely affected or aggrieved by the Commission's ruling in the proceeding, and that any injury or threat of injury sustained would be entitled to legal protection under the Act.

RELEASE shall mean any unauthorized discharge of E&P waste to the environment over time.

REMEDIATION shall mean the process of reducing the concentration of a contaminant or contaminants in water or soil to the extent necessary to ensure compliance with the allowable concentrations and levels in Table 910-1 and other applicable ground water standards and classifications.

RESERVE PITS shall mean those pits used to store drilling fluids for use in drilling operations or to contain E&P waste generated during drilling operations.

RESPONDENT shall mean a party against whom a proceeding is instituted, or a PROTESTANT who protests the granting of the relief sought in the application as provided in Rule 509.

RESPONSIBLE PARTY shall mean a person who conducts an oil and gas operation in a manner which is in contravention of any then-applicable provision of the Act, or of any rule, regulation, or order of the Commission, or of any permit, that threatens to cause, or actually causes, a significant adverse environmental impact to any air, water, soil, or biological resource. RESPONSIBLE PARTY includes any person who disposes of any other waste by mixing it with exploration and production waste so as to threaten to cause, or actually cause, a significant adverse environmental impact to any air, water, soil, or biological resource.

SEISMIC OPERATIONS shall mean all activities associated with acquisition of seismic data including but not limited to surveying, shothole drilling, recording, shothole plugging and reclamation.

SENSITIVE AREA is an area vulnerable to potential significant adverse ground water impacts, due to factors such as the presence of shallow economically usable ground water or pathways for communication with deeper economically usable ground water; proximity to surface water, including lakes, rivers, perennial or intermittent streams, creeks, irrigation canals, and wetlands. The procedure for identifying Sensitive Areas is set forth in the Sensitive Area Identification Decision Tree and Guidance Document.

SHUT-IN WELL shall mean a well which is capable of production or injection by opening valves, activating existing equipment or supplying a power source.

SIMULTANEOUS INJECTION WELL shall mean any well in which water produced from oil and gas producing zones is injected into a lower injection zone and such water production is not brought to the surface.

SPECIAL FIELD RULES shall mean those rules promulgated for and which are limited in their application to individual pools or fields within the State of Colorado.

SPECIAL PURPOSE PITS shall mean those pits used in oil and gas operations, including natural gas gathering, processing and storage facility pits, multi-well pits, and:

BLOWDOWN PITS used to collect material resulting from, including but not limited to, the emptying or depressurizing of wells, vessels, or gas gathering systems.

FLARE PITS used exclusively for flaring gas.

EMERGENCY PITS used to contain liquids on a temporary basis due to process upset conditions.

BASIC SEDIMENT/TANK BOTTOM PITS used to temporarily store or treat the extraneous materials in crude oil which may settle to the bottoms of tanks or production vessels and which may contain residual oil.

WORKOVER PITS used to contain liquids during the performance of remedial operations on a producing well in an effort to increase production.

PLUGGING PITS used for containment of fluids encountered during the plugging process.

SPILL shall mean any unauthorized sudden discharge of E&P waste to the environment.

STRATIGRAPHIC WELL means a well drilled for stratigraphic information only. Wells drilled in a delineated field to known productive horizons shall not be classified as "stratigraphic". Neither the term "well" nor "stratigraphic well" shall include seismic holes drilled for the purpose of obtaining geophysical information only.

SUBSURFACE DISPOSAL FACILITY means a facility or system for disposing of water or other oil field wastes into a subsurface reservoir or reservoirs.

TEMPORARILY ABANDONED WELL shall mean a well which is incapable of production or injection without the addition of one or more pieces of wellhead or other equipment, including valves, tubing, rods, pumps, heater-treaters, separators, dehydrators, compressors, piping or tanks.

VOLUNTARY SELF-EVALUATION shall mean a self-initiated assessment, audit, or review, not otherwise expressly required by environmental law, that is performed by any person or entity, for itself, either by an employee or employees employed by such person or entity who are assigned the responsibility of performing such assessment, audit, or review or by a consultant engaged by such person or entity expressly and specifically for the purpose of performing such assessment, audit, or review to determine whether such person or entity is in compliance with environmental laws.

WATERS OF THE STATE mean any and all surface and subsurface waters which are contained in or flow in or through this state, but does not include waters in sewage systems, waters in treatment works of disposal systems, water in potable water distribution systems, and all water withdrawn for use until use and treatment have been completed. Waters of the state include, but are not limited to, all streams, lakes, ponds, impounding reservoirs, wetlands, watercourses, waterways, wells, springs, irrigation ditches or canals, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, situated wholly or partly within or bordering upon the state.

WELL when used alone in these Rules and Regulations, shall mean 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.

WELL SITE shall mean the areas which are directly disturbed during the drilling and subsequent operation of, or affected by production facilities directly associated with, any oil well, gas well, or injection well.

WILDCAT (Exploratory) WELL means any well drilled beyond the known producing limits of a pool.

ZONE OF INCORPORATION shall mean the soil layer from the soil surface to a depth of twelve (12) inches below the surface.

ALL OTHER WORDS used herein shall be 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.

GENERAL RULES

201. EFFECTIVE SCOPE OF RULES AND REGULATIONS

All rules and regulations of a general nature herein promulgated to prevent waste and to conserve oil and gas in the State of Colorado shall be effective throughout the State of Colorado and be in force in all pools and fields except as may be amended, modified, altered or enlarged generally or in specific individual pools or fields by orders heretofore or hereafter issued by the Commission, and except where special field rules apply, in which case the special field rules shall govern to the extent of any conflict.

202. OFFICE AND DUTIES OF DIRECTOR

The office of Director of the Commission is hereby created. It shall be the duty of the Director to aid the Commission in the administration of the Act, as may be required of the Director from time to time and to act as Hearing Officer when so directed by the Commission.

203. OFFICE AND DUTIES OF SECRETARY

The office of Secretary to the Commission is hereby created. The duties of the Secretary shall be as determined from time to time by the Commission.

204. GENERAL FUNCTIONS OF DIRECTOR

The Director and the authorized deputies shall also have the right at all reasonable times to go upon and inspect any oil and/or gas properties, disposal facilities, or transporters facilities and wells for the purpose of making any investigation or tests to ascertain whether the provisions of the Act or these rules or any special field rules are being complied with, and shall report any violation thereof to the Commission.

205. ACCESS TO RECORDS

All producers, operators, transporters, refiners, gasoline or other extraction plant operators and initial purchasers of oil and gas within this state, shall make and keep appropriate books and records covering their operations in the state from which they may be able to make and substantiate the reports required by the Commission. Such books, records and copies of said reports required by the Commission shall be kept on file and available for inspection by the Commission for a period of at least five (5) years. The Director and the authorized deputies shall have access to all well records wherever located. All owners, drilling contractors, drillers, service companies, or other persons engaged in drilling or servicing wells, shall permit the Director, or authorized deputy, at the Director's or their risk, in the absence of negligence on the part of the owner, to come upon any lease, property or well operated or controlled by them, and to inspect the record and operation of such wells and to have access at all times to any and all records of wells; provided, that information so obtained shall be kept confidential and shall be reported only to the Commission or its authorized agents.

206. REPORTS

All producers, operators, transporters, refiners, gasoline and other extraction plant operators and initial purchasers of oil and gas within the state shall from time to time file accurate and complete reports containing such information and covering such periods as the Commission shall require.

207. TESTS AND SURVEYS

a. **Tests and surveys.** When deemed necessary or advisable, the Commission is authorized to require that tests or surveys be made to determine the presence of waste or occurrence of pollution. The Commission, in calling for reports under Rule 206. and tests or surveys to be made as provided in this rule, shall designate the time allowed the operator for compliance, which provisions as to time shall prevail over any other time provisions in these rules.

b. **Bradenhead monitoring.**

(1) The Director shall have authority to designate specific fields or portions of fields as bradenhead test areas within which, on any well, the bradenhead access to the annulus between the production and surface casing, as well as any intermediate casing, shall be equipped with fittings to allow safe and convenient determinations of pressure and fluid flow. Any such proposed designation shall occur by notice describing the proposed bradenhead test area. Such notice shall be given to all operators of record within such area and by publication. The proposed designation, if no protests are timely filed, shall be placed upon the Commission consent agenda for the regular monthly meeting of the Commission following the month in which such notice is given, and shall be approved or heard by the Commission in accordance with Rule 520. Such designation shall be effective immediately, upon approval by the Commission.

(2) All operators within any bradenhead test area shall have thirty (30) days after the effective date of the designation to commence the taking of bradenhead pressure readings in all wells located therein which are equipped for such readings. The operator shall equip any well which is not so equipped within ninety (90)

days of the effective date, and within thirty (30) days thereafter the operator shall take the required reading. Such readings shall include the date, time and pressure of each reading, and the type of fluid reported. Such readings shall be taken in bradenhead test areas annually, maintained at the operator's office for a period of five (5) years, and shall be reported to the Director upon written request.

208. CORRECTIVE ACTION

The Commission shall require correction, in a manner to be prescribed or approved by it, of any condition which is causing or is likely to cause waste or pollution; and require the proper plugging and abandonment of any well or wells no longer used or useful in accordance with such reasonable plan as may be prescribed by it.

209. PROTECTION OF COAL SEAMS AND WATER-BEARING FORMATIONS

In the conduct of oil and gas operations each owner shall exercise due care in the protection of coal seams and water-bearing formations as required by the applicable statutes of the State of Colorado.

Special precautions shall be taken in drilling and abandoning wells to guard against any loss of artesian water from the stratum in which it occurs and the contamination of fresh water by objectionable water, oil, or gas. Before any oil or gas well is completed as a producer, all oil, gas and water strata above and below the producing horizon shall be sealed or separated in order to prevent the intermingling of their contents.

210. SIGNS AND MARKERS

The operator shall mark each and every well in a conspicuous place, from the time of initial drilling until final abandonment, as follows:

a. **Drilling and Recompletion Operations.** Directional signs, no less than three (3) and no more than six (6) square feet in size, shall be provided during any drilling or recompletion operation, by the operator or drilling contractor. Such signs shall be at locations sufficient to advise emergency crews where drilling is taking place; at a minimum, such locations shall include (i) the first point of intersection of a public road and the rig access road and (ii) thereafter at each intersection of the rig access route, except where the route to the rig is clearly obvious to uninformed third parties. Signs not necessary to meet other obligations under these rules shall be removed as soon as practicable after the operation is complete.

b. **Permanent Designations.**

(1) **Wells.** Within sixty (60) days after the completion of a well, a permanent sign shall be located at the wellhead, which shall identify the well and provide its legal location, including the quarter quarter section. When no associated battery is present, the additional information required under Rule 210.b.(2) shall be required on the sign.

(2) **Batteries.** Within sixty (60) days after the installation of a battery, a permanent sign shall be located at the battery. At the option of the operator, or at the request of local emergency response authorities, the sign may be placed at the intersection of the lease access road with a public, farm or ranch road if the referenced battery is readily apparent from such location. Such sign, which shall be no less than three (3) square feet and no more than six (6) square feet, shall provide: the name of the operator; a phone number at which the operator can be reached at all times; a phone number for local emergency services (911 where available); the lease name or well name(s) associated with the battery; the public road used to access the site; and, the legal location, including the quarter-quarter section. In lieu of providing the legal location on the permanent sign, it may be stenciled on a tank in characters visible from one hundred (100) feet.

c. **Centralized E&P Waste Management Facilities.** The main point of access to a centralized E&P waste management facility shall be marked by a sign captioned "(operator name) E&P Waste Management Facility". Such sign, which shall be no less than three (3) square feet and no more than six (6) square feet shall provide: a phone number at which the operator can be reached at all times; a phone number for local emergency services (911 where available); the public road used to access the facility; and the legal location, including quarter quarter section, of the facility.

d. **General sign requirements.** No sign required under this Rule 210. shall be installed at a height exceeding six (6) feet. Operators shall maintain signs in a legible condition, and shall replace damaged or vandalized signs within sixty (60) days. New operators shall update signs within sixty (60) days after change of operator approval is received from the Commission.

211. NAMING OF FIELDS

All oil and gas fields discovered in the state subsequent to the adoption of these rules and regulations shall be named by the Director or at the Director's direction.

212. SAFETY

For safety regulations regarding industry personnel, contact the U.S. Department of Labor, Occupational Safety and Health Administration, Regional Administrator, Colorado Region VIII, 1999 Broadway, Suite 1690, Denver, Colorado 80202, telephone (303) 391-5858. For State Safety regulations regarding public safety see Rules 601-607.

213. FORMS UPON REQUEST

Forms required by the Commission will be furnished upon request. (Please see Procedures and Forms Guidelines)

214. LOCAL GOVERNMENTAL DESIGNEE

Each local government which designates an office for the purposes set forth in the 100 Series shall provide the Commission written notice of such designation, including the name, address and telephone number, facsimile number, electronic mail address, local emergency dispatch and other emergency numbers of the local governmental designee. It shall be the responsibility of such local governmental designee to ensure that all documents provided to the local governmental designee by oil and gas operators and the Commission or the Director are distributed to the appropriate persons and offices.

215. GLOBAL POSITIONING SYSTEMS

Global Positioning Systems (GPS) may be used to locate facilities used in oil and gas operations provided they meet the following minimum standards of the Commission:

- a. Instruments rated as Differential Global Positioning System (DGPS) shall be used.
- b. Instrument precision shall be no less than one (1) meter.
- c. All GPS data shall be differentially corrected by post processing prior to data submission.
- d. Position dilution of precision (PDOP) values shall not be higher than six (6) and shall be included with location data.
- e. Elevation mask (lowest acceptable height above the horizon) shall be no less than fifteen degrees (15°).
- f. Latitude and longitude coordinates shall be provided in decimal degrees with an accuracy and precision of five (5) decimals of a degree using the North American Datum (NAD) of 1983 (e.g.; latitude 37.12345 N, longitude 104.45632 W).
- g. Raw and corrected data files shall be held for a period of three (3) years.
- h. Measurements shall be made by a trained GPS operator familiar with the theory of GPS, the use of GPS instrumentation, and typical constraints encountered during field activities.

DRILLING, DEVELOPMENT, PRODUCING AND ABANDONMENT

301. RECORDS, REPORTS, NOTICES-GENERAL

Any written notice of intention to do work or to change plans previously approved must be filed with the Director, and must reach the Director and receive approval before the work is begun, or such approval may be given orally and, if so given, shall thereafter be confirmed to the Director in writing.

In case of emergency, or any situation where operations might be unduly delayed, any notice or information required by these rules and regulations to be given to the Director may be given orally or by wire, and if approval is obtained the transaction shall be promptly confirmed in writing to the Director, as a matter of record.

Immediate notice shall be given to the Director when public health or safety is in jeopardy. Notice shall also be given to the Director of any other significant downhole problem or mechanical failure in any well within ten (10) days.

The owner shall keep on the leased premises, or at the owner's headquarters in the field, or otherwise conveniently available to the Director, accurate and complete records of the drilling, redrilling, deepening, repairing, plugging or abandoning of all wells, and of all other well operations, and of all alterations to casing. These records shall show all the formations penetrated, the content and quality of oil, gas or water in each formation tested, and the grade, weight and size, and landed depth of casing used in drilling each well on the leased premises, and any other information obtained in the course of well operation. Such records on each well shall be maintained by any subsequent owner.

Whenever a person has been designated as an operator by an owner or owners of the lease or well, such an operator may submit the reports as herein required by the Commission.

302. COGCC Form 1. REGISTRATION FOR OIL AND GAS OPERATION

a. Prior to the commencement of its operations, all producers, operators, transporters, refiners, gasoline or other extraction plant operators, and initial purchasers who are conducting operations subject to this Act in the State of Colorado, shall, for purposes of the Act, file a Registration For Oil and Gas Operations, Form 1, with the Director in the manner and form approved by the Commission. Any producer, operator, transporter, refiner, gasoline or other extraction plant operator, and initial purchaser conducting operations subject to the Act who has not previously filed a Registration For Oil and Gas Operations, Form 1 shall do so. Any person providing financial assurance for oil and gas operators in Colorado shall file a Form 1 with the Director. All changes of address of the parties required to file a Form 1 shall be immediately reported by submitting a new Form 1.

b. Any party may act on or for the behalf of the owner/operator provided the owner/operator has filed a Designation of Agent, Form 1A. This agent shall remain in effect until it is terminated in writing by the owner/operator. All changes of address of the agent shall be immediately reported by submitting a new Form 1A.

303. REQUIREMENTS FOR APPLICATION FOR PERMIT-TO-DRILL, DEEPEN, RE-ENTER, OR RECOMPLETE, AND OPERATE.

a. FORM 2. APPLICATION FOR PERMIT-TO-DRILL, DEEPEN, RE-ENTER, OR RECOMPLETE, AND OPERATE.

(1) **Approval by Director.** Before any person shall commence operations for the drilling or re-entry of any well, such person shall file with the Director an application on Form 2 for a Permit-to-Drill, pay a filing and service fee established by the Commission (see Appendix III), and obtain the Director's approval before commencement of operations with heavy equipment.

(2) **Final agency action.** The Director's approval of a Permit-to-Drill shall be considered final agency action for purpose of judicial review.

(3) **Operational conflicts.** The Permit-to-Drill shall be binding with respect to any operationally conflicting local governmental permit or land use approval process.

(4) **Exemptions.** Wells drilled for stratigraphic information only shall be exempt from paying the filing and service fee. The re-entry of a well in a unitized, storage, or secondary recovery operation shall be exempt from the filing of Form 2 and from paying the filing and service fee. The notice of such intent to re-enter a well shall be filed on a Sundry Notice, Form 4.

b. A request to recomplete or deepen a well to a different reservoir shall be filed on an Application for Permit-to-Drill, Form 2, with a filing and service fee established by the Commission (see Appendix III), along with a Sundry Notice, Form 4, detailing the work, and a wellbore diagram.

c. Attached to and part of the Permit-to-Drill, Form 2, as filed shall be a current 8½" by 11" scaled drawing of the entire section(s) containing the proposed well location with the following minimum information:

(1) Dimensions on adjacent exterior section lines sufficient to completely describe the quarter section containing the proposed well shall be indicated. If dimensions are not field measured, state how the dimensions were determined.

(2) The latitude and longitude of the proposed well location shall be provided on the drawing with a minimum of five (5) decimal places of accuracy and precision using the North American Datum (NAD) of 1983 (e.g.; latitude 37.12345 N, longitude 104.45632 W). If GPS technology is utilized to determine the latitude and longitude, all GPS data shall meet the requirements set forth in Rule 215. a. through h.

(3) For directional drilling into an adjacent section, that section shall also be shown on the location plat and dimensions on exterior section lines sufficient to completely describe the quarter section containing the proposed productive interval and bottom hole location shall be indicated. (Additional requirements related to directional drilling are found in Rule 321.)

(4) For irregular, partial or truncated sections, dimensions will be furnished to completely describe the entire section containing the proposed well.

(5) The field-measured distances from the nearer north/south and nearer east/west section lines shall be measured at ninety (90) degrees from said section lines to the well location and referenced on the plat. For unsurveyed land grants and other areas where an official public land survey system does not exist, the well locations shall be spotted as footages on a protracted section plat using Global Positioning System (GPS) technology and reported as latitude and longitude in accordance with Rule 215.

(6) A map legend.

(7) A north arrow.

(8) A scale expressed as an equivalent (e.g. - 1" = 1000').

(9) A bar scale.

(10) The ground elevation.

(11) The basis of the elevation (how it was calculated or its source).

(12) The basis of bearing or interior angles used.

(13) Complete description of monuments and/or collateral evidence found; all aliquot corners used shall be described.

(14) The legal land description by section, township, range, principal meridian, baseline and county.

(15) Operator name.

(16) Well name and well number.

(17) Date of completion of scaled drawing.

(18) All visible improvements within two hundred (200) feet of a wellhead (or, in a high density area within four hundred (400) feet of a wellhead) shall be physically tied in and plotted on the well location plat or on an addendum, with a horizontal distance and approximate bearing from the well location. Visible improvements shall include, but not be limited to, all buildings, publicly maintained roads and trails, major above-ground utility lines, railroads, pipelines, mines, oil wells, gas wells, injection wells, water wells, visible plugged wells, sewers with manholes, standing bodies of water, and natural channels including permanent canals and ditches through which water may flow. If there are no visible improvements within two hundred (200) feet of a wellhead (or in a high density area within four hundred (400) feet of a wellhead), it shall be so noted on the Permit-to-Drill, Form 2.

(19) Surface use shall be described within the two hundred (200) foot radius of a wellhead (or in a high density area within the four hundred (400) foot radius of a wellhead).

(20) In addition to the scaled drawing, the applicant shall attach to the Permit-to-Drill, Form 2, an 8½" by 11" vicinity or U.S.G.S. topographic map of at least a three (3) mile radius around the proposed well which clearly shows access from one (1) or more public roads.

d. **Form 2/2A application and copies to local governmental designees.**

(1) **Drill Site/Access Road Reclamation Form, Form 2A.** In addition to the above, an applicant filing a Permit-to-Drill, Form 2, shall also attach a completed Form 2A, except that the Form 2A shall not be required on federal or Indian owned surface lands when a Federal 13 Point Surface Use Plan is included. The Form 2A requires the attachment of a minimum of two (2) color photographs; one (1) of the staked location and one (1) of the existing or proposed access road. Each photograph shall be identified by: date taken, well name, location and direction of view. Permit-to-Drill, Form 2, shall be filed with the Director in duplicate for wells on all private, state and federal surface lands.

(2) **Form 2/2A to local governmental designee.** A single, informational copy of the Permit-to-Drill, Form 2 and Form 2A and all attachments shall be delivered by the applicant to the local governmental designee(s) of the county or municipal corporation within whose jurisdiction the activity is occurring or is proposed to occur at or before the time of filing with the Director. It shall be the responsibility of the Director to promptly provide the local governmental designee(s) with formal notification of the filing of the Permit-to-Drill, Form 2, by posting the Permit-to-Drill, Form 2, and the posting date on the COGCC website.

(3) **Comment period for local governmental designee.** Any comments from the local governmental designee concerning the Permit-to-Drill, Form 2, and Form 2A as filed shall be provided to the Director and to the applicant in writing within ten (10) days after the date on which the Permit-to-Drill, Form 2 was posted on the COGCC website by the Director. The Director shall take no action with respect to the Permit-to-Drill, Form 2, prior to the expiration of the ten (10) day comment period, except under the circumstances provided for in Rule 303.j.(1) and (2), or when the Director has received notice from the local governmental designee(s) waiving the ten (10) day comment period. Upon written request by the local governmental designee to the Director received prior to the expiration of the ten (10) day comment period, the local governmental designee shall be granted an extension of up to twenty (20) additional days to consider the application.

(4) **Application for hearing by Local Governmental Designee.** If, prior to the expiration of the comment period provided herein, including any extension, and after participation in an onsite consultation under Rule 306.a.(3), the local governmental designee files an application for hearing on the Permit-to-Drill, Form 2, under Rule 503.b.(6), alleging significant impacts on public health, safety and welfare, including the environment, the Director shall withhold approval of such permit except that the provisions of Rule 303.k. shall apply.

e. **Well sites and access roads in wetlands.** In the event that an operator acquires an Army Corps of Engineers permit pursuant to 33 U.S.C.A. §1342 and 1344 of the Water Pollution and Control Act (Section 404 of the federal Clean Water Act) for construction of a wellsite, access road, or production facility, the operator shall so indicate on the Form 2A.

f. **Revisions to Form 2/2A.** Prior to approval of the Form 2/2A, minor revisions or requested information may be provided by contacting the COGCC staff. After approval, any substantive changes shall be submitted for approval on a Form 2/2A. A Sundry Notice, Form 4, shall be submitted when non-substantive revisions are made after approval, and no additional fee shall be imposed.

g. **Incomplete applications.** Applications for Permit-to-Drill which are submitted without the necessary attachments, the proper signature or the required information shall be considered incomplete and shall not be approved. The COGCC staff shall notify the applicant in not more than thirty (30) days of permit application receipt of such inadequacies. The applicant shall then have thirty (30) days from the date which they were contacted to correct and/or provide requested information for that well, otherwise the permit application shall be considered withdrawn and the fee shall not be refunded.

h. **Permit expiration.** If operations are not commenced on the permitted well within one (1) year after date of approval, the permit shall become null and void. The Director shall not approve extensions to applications for Permit-to-Drill, Form 2.

i. **Permits in areas pending Commission hearing.** The Director may withhold the issuance of a permit and the granting of approval of any Permit-to-Drill, Form 2, for any well or proposed well that is located in an area for which an application has been filed, or which the Commission has sought, by its own motion, to establish drilling units or to designate any tract of land as a high density area, in which case the hearing thereon shall be held at the next meeting of the Commission at which time the matter can be legally heard.

j. **Special circumstances for permit issuance without notice or consultation.** The Director may issue a permit at any time in the event that an operator files a sworn statement and demonstrates therein to the Director's satisfaction that:

(1) The operator had the right or obligation under the terms of an existing contract to drill a well; and the owner or operator has a leasehold estate or a right to acquire a leasehold estate under said contract which will be terminated unless the operator is permitted to immediately commence the drilling of said well; or

(2) Due to exigent circumstances (including a recent change in geological interpretation), significant economic hardship to a drilling contractor will result or significant economic hardship to an operator in the form of drilling standby charges will result.

In the event the Director issues a permit under this rule, the operator shall not be required to meet obligations to surface owners and local governmental designees under Rules 303.d., 305.b.(1) & (3), and 306.a. The Director shall report permits granted in such manner to the Commission at regularly scheduled monthly hearings.

k. **Withholding approval of Application for Permit-to-Drill, Form 2.**

(1) The Director may withhold approval of any Application for Permit-to-Drill, Form 2, for any proposed well when, based on information supplied in a written complaint submitted by any party with standing under Rule 522.a.(1), other than a local governmental designee, or by staff analysis, the Director has reasonable cause to believe the proposed well is in material violation of the Commission's rules, regulations, orders or statutes, or otherwise presents an imminent threat to public health, safety and welfare, including the environment. Any such withholding of approval shall be limited to the minimum period of time necessary to investigate and dismiss the complaint, or to resolve the alleged violation. If the complaint is dismissed or the matter resolved to the dissatisfaction of the complainant, such person may consult with the local governmental designee pursuant to Rule 303.d.(4).

(2) The Director shall withhold approval of any Application for Permit-to-Drill, Form 2, for any proposed well, when a request for a hearing is made by a local governmental designee in accordance with Rules 303.d.(4) and 503.b.(6), unless the local government has been disqualified from making such request under Rule 501.b.

(3) In the event the Director withholds approval of any Application for Permit-To-Drill, Form 2, under this Rule 303.k., an operator may ask the Commission to issue an emergency order rescinding the Director's decision.

(4) Any hearing granted pursuant to this Rule 303.k. shall be expedited and the matter shall be heard at the next scheduled Commission hearing, and all parties shall be deemed to have waived any notice requirements to the contrary. The Director shall use best efforts to notify the parties of any such hearing.

l. **Suspending approved Permit-To-Drill, Form 2.** Prior to the spudding of the well, the Director shall suspend an approved Permit-to-Drill, Form 2, if the Director has reasonable cause to believe that information submitted on the Permit-to-Drill, Form 2 was materially incorrect. Under the circumstances described in Rule 303.j.(1) or (2), an operator may ask the Commission to issue an emergency order rescinding the Director's decision.

m. **Reclassification of stratigraphic well.** If a test for productivity is made in a stratigraphic well, the well must be reclassified as a well drilled for oil or gas and is subject to all of the rules and regulations for a well drilled for oil or gas, including filing of reports and mechanical logs.

n. **Provisions for avoiding mine sites.** Any person holding, or who has applied for, a permit issued or to be issued under §34-33-101 to 137, C.R.S., may at their election, notify the Director of such permit or application. Such notice shall include the name, mailing address and facsimile number of such person and designate by legal description the life-of-mine area permitted, or applied for, with the Division of Minerals and Geology. As soon as practicable after receiving such notice and designation, the Director shall inform the party designated therein each time that a Permit-to-Drill, Form 2, is filed with the Director which pertains to a well or wells located or to be located within said life-of-mine area as designated. The provisions of Rule 303.j. (1) and (2) will not be applicable to this rule.

304. FINANCIAL ASSURANCE REQUIREMENTS

Prior to drilling or assuming the operations for a well an operator shall provide financial assurance in accordance with the 700 Series rules. When an operator's existing wells are not in compliance with the 700 Series, the Director may withhold action on an Application for Permit-to-Drill, Form 2, until such time as a hearing on the permit application is held by the Commission. Such hearing shall be held at the next regularly scheduled Commission hearing at which time the matter can be legally heard.

305. NOTICES OF OIL AND GAS OPERATIONS

- a. The provisions of this Rule 305. shall not be applicable on federal or Indian owned surface lands.
- b. **Notices.**

(1) **Notice of drilling.** Before an operator shall commence operations for the drilling of any well, such operator shall evidence its intention to conduct such operations by giving the surface owner and local governmental designee written notice thereof as provided in subparagraph c. below. Such notice of drilling shall be mailed or hand delivered to the surface owner not less than thirty (30) days prior to the date of estimated commencement of operations with heavy equipment as set forth in the notice and shall be mailed to the local governmental designee not less than thirty (30) days prior to the date of estimated commencement of operations with heavy equipment as set forth in the notice. Operators shall retain a record of such notice of drilling for a minimum of one (1) year. Such written notice also shall be posted on or near the proposed drillsite at least thirty (30) days prior to commencement of operations with heavy equipment. If notice for the commencement of operations is waived by the surface owner under this rule, the local governmental designee notice under this Rule 305.b. shall be received no later than the business day preceding commencement of operations with heavy equipment. The operator shall confirm that the surface owner notice requirements of this Rule 305.b. have been completed or waived before the Director approves an Application for Permit-to-Drill, Form 2.

(2) **Notice of subsequent well operations.** Before an operator shall commence subsequent well operations, such operator shall evidence its intention to conduct such operations by giving the surface owner written notice thereof in accordance with paragraph c. below. Subsequent well operations shall mean those operations that will materially impact surface areas beyond the existing access road or well site for any well, including operations such as fracturing or recompletion of the well but shall not include routine service and maintenance operations including but not limited to the changing of pumps. The notice of subsequent operations shall be mailed or hand delivered not less than seven (7) days prior to the date of estimated commencement of operations with heavy equipment as set forth in the notice.

(3) **Notice during irrigation season.** If a well is to be drilled on irrigated crop lands between March 1 and October 31, the operator, in addition to meeting the consultation requirements of Rule 306., shall contact the surface owner, or at the request of the surface owner, the tenant at least fourteen (14) days prior to the commencement of surface activities by the operator and arrange to coordinate drilling operations to avoid unreasonable interference with irrigation plans and activities.

(4) **Final reclamation notice.** The following notice requirements shall apply only to final reclamation operations commenced more than thirty (30) days after the completion of a well.

A. Not less than thirty (30) days before any final reclamation operations are to take place pursuant to Rule 1004., the operator shall notify the surface owner in accordance with paragraph c. below. Final reclamation operations shall mean those reclamation operations to be undertaken when a well is to be plugged and abandoned or when production facilities are to be permanently removed.

c. **Notice requirements.** As to notices to be given pursuant to this Rule 305., included with each such notice shall be the following:

- (1) The estimated date that the operations for which notice is being given are to commence.
- (2) The name of the operator and the name, address and phone number of the individual representing the operator who can be contacted concerning the proposed operations.
- (3) The legal description (or plat) indicating the quarter quarter section upon which the operations will be conducted.
- (4) A statement that the surface owner has responsibility for notifying any affected tenant of the proposed operations.

(5) With respect to the notices of drilling, the notice mailed or hand delivered to the surface owner shall also include a return addressed, postage prepaid postcard upon which surface owners may request their preference with respect to the consultation requirement under Rule 306., including the preference to appoint a tenant for consultation. If the surface owner appoints a tenant for consultation, that person's name, address, and telephone number must be provided to the operator by the surface owner on the postcard.

(6) A copy of the Commission's informational brochure for surface owners, containing the rules pertaining to notice of oil and gas operations and opportunities for consultation thereon, as well as the rules of procedure for filing complaints and making applications for hearing. The brochure shall provide contact information for the Commission's main office, field offices and website, and shall describe the services and information available to the public, including access to a listing of local governmental designees. The brochure shall contain a prominent disclaimer advising surface owners to obtain legal advice as may be appropriate to their particular circumstances.

d. **Identifying surface owner.** In determining the identity and address of a surface owner for the purpose of giving all notices under this Rule 305., the records of the assessor for the county in which the lands are situated may be relied upon.

e. **Tenants.** With respect to notices given under this Rule 305., it shall be the responsibility of the notified surface owner to give notice of the proposed operation to the tenant farmer, lessee or other party that may own or have an interest in any crops or surface improvements that could be affected by such proposed operation.

f. **Waiver.** Any and all of the surface owner notice requirements set forth in this Rule 305. may be waived by the affected surface owner at any time. Any and all local governmental designee notice requirements set forth in this Rule 305. may be waived by the affected local governmental designee(s) at any time.

306. CONSULTATION.

In locating roads, production facilities and well sites, and in preparation for reclamation and final abandonment, the operator shall use its best efforts to consult in good faith with the affected surface owner, or the surface owner's appointed tenant as provided for in Rule 305. Consultation with local governmental designees is addressed in Rule 306.a. (3) below. The following shall apply to each such consultation:

a. **Drilling consultation.** The good faith effort to consult shall occur at a time mutually agreed to by the parties prior to the commencement of operations with heavy equipment upon the lands of the surface owner. The operator shall confirm that the surface owner consultation requirements of this Rule 306. have been completed or waived before the Director approves an Application for Permit-to-Drill, Form 2.

(1) **Information provided by operator.** When consulting with the surface owner or appointed tenant, the operator shall furnish a description or diagram of the proposed drilling location; dimensions of the well site; and, if known, the location of associated production or injection facilities, pipelines, roads and any other areas to be used for oil and gas operations (if not previously furnished to such surface owner or if different from what was previously furnished).

(2) **Good faith consultation.** Such good faith consultation shall allow the surface owner or appointed tenant the opportunity to provide comments to the operator regarding preferences for the timing of oil and gas operations and preferred locations for wells and associated facilities.

(3) **Local government consultation.** Local governments which have appointed a local governmental designee and have indicated to the Director a desire for onsite consultation shall be given an opportunity to engage in such consultation concerning the location of roads, production facilities and well sites prior to the commencing of operations with heavy equipment.

b. **Final reclamation consultation.** In preparing for final reclamation and plugging and abandonment, the operator shall use its best efforts to consult in good faith with the affected surface owner (or the tenant when the surface owner has requested that such consultation be made with the tenant). Such good faith consultation shall allow the surface owner (or appointed tenant) the opportunity to provide comments concerning preference for timing of such operations and all aspects of final reclamation.

c. **Tenants.** Operators shall have no obligation to consult with tenant farmers, lessees, or any other party ("tenant") that may own or have an interest in any crops or surface improvements that could be affected by the proposed operation unless the surface owner appoints such tenant for such purposes. Nothing shall prevent the surface owner from including the tenant during the consultation.

d. **Waiver.** The requirement to consult with the surface owner under this Rule 306. may be waived by the affected surface owner or the surface owner's appointed tenant at any time.

307. COGCC Form 4. SUNDRY NOTICES AND REPORTS ON WELLS

The Sundry Notice, Form 4, is a multipurpose form which shall be used by an operator to request approval from or provide notice to the Director as required by rule or when no other specific form exists, i.e., well name or number change. The rules requiring the use of the Sundry Notice, Form 4, are listed in Appendix I.

308A. COGCC Form 5. DRILLING COMPLETION REPORT

Within thirty (30) days of the setting of production casing, the plugging of a dry hole, the deepening or sidetracking of a well, or any time the wellbore configuration is changed, the operator shall transmit to the Director the Drilling Completion Report, Form 5, and two (2) copies of all logs run, be they mechanical, mud, or other, submitted as one (1) paper copy and, as available, one (1) digital LAS (log ASCII) formatted copy, or a format approved by the Director. Additionally, if drill stem tests, core analyses, or directional surveys are run, they shall be submitted at the same time and together with this completion report. All Sections 1 - 22 (if applicable) and the attachment checklist shall be completely filled out. The latitude and longitude coordinates in decimal degrees to an accuracy and precision of five (5) decimals of a degree using the North American Datum (NAD) of 1983 (e.g.; latitude 37.12345 N, longitude 104.45632 W), Position Dilution of Precision (PDOP) reading, instrument operator's name and the date of the measurement of the "as drilled" well location shall be reported on the Form 5. If GPS technology is utilized to determine the latitude and longitude, all GPS data shall meet the requirements set forth in Rule 215. a. through h.

Within thirty (30) days of the suspension of commenced drilling activities prior to reaching total depth, the operator shall file a Drilling Completion Report, Form 5, notifying the Director of the date of such suspension of drilling activity stating the reason for suspension and the anticipated date and method of resumption of drilling, showing the details of all work performed to date. In cases of an uncompleted well, the initial Drilling Completion Report, Form 5, shall state "preliminary" at the top of the form. A supplementary Form 5 shall be submitted within thirty (30) days of reaching total depth.

308B. COGCC Form 5A. COMPLETED INTERVAL REPORT

The Completed Interval Report, Form 5A, shall be submitted within thirty (30) days of completing a formation (successful or not), when a formation is temporarily abandoned or permanently abandoned, for a recompletion, reperforation or restimulation, or when a formation is commingled.

In order to resolve completed interval information uncertainties, the Director may require an operator to submit a Completed Interval Report, Form 5A.

308C. CONFIDENTIALITY

Upon submittal of a Sundry Notice, Form 4, request by the operator, completion reports, including Drilling Completion Reports, Form 5 and Completed Interval Reports, Form 5A, and mechanical logs of exploratory or wildcat wells shall be marked "confidential" by the Director and kept confidential for six (6) months after the date of completion, unless the operator gives written permission to release such logs at an earlier date.

309. COGCC Form 7. OPERATOR'S MONTHLY PRODUCTION REPORT

Each producer or operator of an oil or gas well shall file with the Commission, within forty-five (45) days after the month in which production occurs, a report on Operator's Monthly Production Report, Form 7, containing all information required by said form. In addition, all fluids produced during the initial testing and completion shall be reported on Operator's Monthly Production Report, Form 7 within forty-five (45) days after the month in which testing and completion occurs.

310. COGCC Form 8. MILL LEVY

On or before March 1, June 1, September 1 and December 1 of each year, every producer or purchaser, whichever disburses funds directly to each and every person owning a working interest, a royalty interest, an overriding royalty interest, a production payment and other similar interests from the sale of oil or natural gas subject to the charge imposed by §34-60-122 (1) (a) C.R.S., 1973, as amended, shall file a return with the Director showing by operator, the volume of oil, gas or condensate produced or purchased during the preceding calendar quarter, including the total consideration due or received at the point of delivery. No filing shall be required when the charge imposed is zero mill (\$0.0000) per dollar value.

The levy shall be an amount fixed by order of the Commission. The levy amount may, from time to time, be reduced or increased to meet the expenses chargeable against the oil and gas conservation and environmental response fund. The present charge imposed, as of July 1, 2007, is seven tenths of a mill (\$0.0007) per dollar value.

311. COGCC Form 6. WELL ABANDONMENT REPORT

Notice shall be given to the Director, and approval obtained in advance of the time the operator expects to abandon a well on Form 6. When filing an intent to abandon, the form shall be completed and attachments included to fully describe the proposed operations. This includes the proposed depths of mechanical plugs and casing cuts, the proposed depths and volumes of all cement plugs, the amount, size and depth of casing and junk to be left in the well, the volume and weight of fluid to be left in the wellbore and the nature and quantities of any other materials to be used in the plugging. If the well is not plugged within six (6) months of intent approval a new intent shall be filed.

Within thirty (30) days after abandonment, the Well Abandonment Report, Form 6, shall be filed with the Director. The abandonment details shall include an account of the manner in which the abandonment or plugging work was performed. Additionally, plugging verification reports detailing all procedures are required. A Plugging Verification Report shall be submitted for each person or contractor actually setting the plugs. The Well Abandonment Report, Form 6, and the Plugging Verification Reports shall detail the depths of mechanical plugs and casing cuts, the depths and volumes of all cement plugs, the amount, size and depth of casing and junk left in the well, the volume and weight of fluid left in the wellbore and the nature and quantities of any other materials used in the plugging. Plugging Verification Reports shall conform with the operator's report and both shall show that plugging procedures are at least as extensive as those approved by the Director. When filing a subsequent report of abandonment, the entire form shall be completed except for the second block, background information. (See Rule 319 for well abandonment requirements and procedures.)

312. COGCC Form 10. CERTIFICATE OF CLEARANCE AND/OR CHANGE OF OPERATOR

a. Each operator of any oil or gas well completed after April 30, 1956, shall file with the Director, within thirty (30) days after initial sale of oil or gas a Certificate of Clearance and/or Change of Operator, Form 10, in accordance with the instructions appearing on such form, for each well producing oil or gas or both oil and gas. A Certificate of Clearance shall be filed for any well from which oil, gas or other hydrocarbon is being produced.

A Certificate of Clearance shall be filed within thirty (30) days should the oil transporter (first purchaser) and/or the gas gatherer (first purchaser) change. In addition, within fifteen (15) days of an operator change for any well, a Change of Operator, Form 10, shall be filed with a filing and service fee as set by the Commission. (See Appendix III)

b. Each operator of a Class II injection well shall file a new Certificate of Clearance and/or Change of Operator, Form 10 with the Director within fifteen (15) days of the transfer of ownership.

c. Whenever there shall occur a change in the producer or operator filing the certificate under Rule 312.a. hereof, or whenever there shall occur a change of transporter from any well within the state, a new Certificate of Clearance and/or Change of Operator, Form 10 shall be executed and filed within fifteen (15) days in accordance with the instructions appearing on such form. In the case of temporary use of oil for well treating or stimulating purposes, no new form need be executed. In the case of other temporary change in transporter involving the production of less than one (1) month, the producer or operator may, in lieu of filing a new certificate, notify the Commission and the transporter authorized by the certificate on file with the Commission by letter of the estimated amount to be moved by the temporary transporter and the name of such temporary transporter. A copy of such notice shall also be furnished such temporary transporter.

d. In no instance shall the temporary transporter move any quantity greater than the estimated amount shown in said notice.

e. The certificate, when properly executed and approved by the Commission, shall constitute authorization to the pipeline or other transporter to transport the authorized volume from the well named therein; provided that this section shall not prevent the production or transportation in order to prevent waste, pending execution and approval of said certificate. Permission for the transportation of such production shall be granted in writing to the producer and transporter.

- f. The certificate shall remain in force and effect until:
- (1) The producer or operator filing the certificate is changed; or
 - (2) The transporter is changed; or
 - (3) The certificate is canceled by the Commission.

g. It is the operator's responsibility to mail approved copies of the Certificate of Clearance and/or Change of Operator, Form 10, to the transporter and/or gatherer for each well listed.

313. COGCC Form 11. MONTHLY REPORT OF GASOLINE OR OTHER EXTRACTION PLANTS

All operators of gasoline or other extraction plants shall make monthly reports to the Director on Form 11. Such forms shall contain all information required thereon and shall be filed with the Director on or before the twenty-fifth (25th) day of each month covering the preceding month.

314. COGCC Form 17. BRADENHEAD TEST REPORT

Results of bradenhead tests, as required by Rule 207.b., shall be submitted to the Director within ten (10) days of completion. A wellbore diagram shall be submitted if not previously submitted or if the wellbore configuration has changed. If sampled, then the results of any gas and liquid analysis shall be submitted.

315. REPORT OF RESERVOIR PRESSURE TEST

Where the Director believes it is necessary to prevent waste, protect correlative rights, or prevent a significant adverse impact, the Director may require subsurface pressure measurements. Whenever such measurements are made, results shall be reported on Sundry Notice, Form 4, within twenty (20) days after completion of tests, or submitted on any company form approved by the Director containing the same information.

316A. COGCC Form 14. MONTHLY REPORT OF FLUIDS INJECTED

Except for fluids involved with fracturing, acidizing or other similar treatment elsewhere required to be reported on a Completed Interval Report, Form 5A, all operators engaged in the injection of fluids into any formation in dedicated injection wells shall file monthly with the Commission a detailed account of such operation on Form 14, or any company form containing the same information previously approved by the Director. Types of chemicals used to treat injection water, as well as the date of initial fluid injection for new injection wells, are to be reported on said form under Remarks. The type and amount of fluids received from transporters shall be included on the report. Operators of simultaneous injection wells shall, by March 1 of each year, report to the Director the calculated injected volume for the previous year by month on Form 14. Operators of gas storage projects shall, by March 1 of each year, report to the Director the amount of gas injected and withdrawn for the previous year and the amount of gas remaining in the reservoir as of December 31 of that year.

316B. COGCC Form 21. MECHANICAL INTEGRITY TEST

Results of mechanical integrity tests of injection wells or shut-in wells shall be submitted on Form 21, within thirty (30) days after the test. A pressure chart shall accompany this report. Not less than ten (10) days prior to the performance of any mechanical integrity test, the Director shall be notified, in writing, of the scheduled date on which the test will be performed. The form shall be completely filled out except for Part II, which is required only if the well is a permitted or pending injection well.

317. GENERAL DRILLING RULES

Unless altered, modified, or changed for a particular field or formation upon hearing before the Commission the following shall apply to the drilling or deepening of all wells.

a. **Blowout preventer equipment ("BOPE").** The operator shall take all necessary precautions for keeping a well under control while being drilled or deepened. BOPE, if any, shall be indicated on the Application for Permit-to-Drill, Form 2, as well as any known subsurface conditions (e.g. under or over-pressured formations). The working pressure of any BOPE shall exceed the anticipated surface pressure to which it may be subjected, assuming a partially evacuated hole with a pressure gradient of 0.22 psi/ft. (For BOPE requirements in high density areas see Rule 603.b(4)B. For statewide BOPE specification, inspection, operation and testing requirements see Rule 603.f.)

(1) The Director shall have the authority to designate specific areas, fields or formations as requiring certain BOPE. Any such proposed designation shall occur by notice describing the area, field or formation in question and shall be given to all operators of record within such area or field and by publication. The proposed designation, if no protest is timely filed, shall be placed on the Commission consent agenda for its next regularly scheduled meeting following the month in which such notice was given. The matter shall be approved or heard by the Commission in accordance with Rule 520. Such designation shall be effective immediately upon approval by the Commission, except as to any previously approved Permit-to-Drill, Form 2.

(2) The Director shall have the authority, outside areas designated pursuant to Rule 317.a.(1), to condition approval of any Application for Permit-to-Drill by requiring BOPE which the Director determines to be necessary for keeping the well under control. Should the operator object to such condition of approval, the matter shall be heard at the next regularly scheduled meeting of the Commission, subject to the notice requirements of Rule 507.

b. **Bottom hole location.** Unless authorized by the provisions of Rule 321., all wells shall be so drilled that the horizontal distance between the bottom of the hole and the location at the top of the hole shall be at all times a practical minimum.

c. **Requirement to post permit at the rig and provide spud notice.** A copy of the approved Application for Permit-to-Drill, Deepen, Re-enter, or Recomplete and Operate, Form 2, shall be posted in a conspicuous place on the drilling rig or workover rig. A notice shall be provided to the Director on a Sundry Notice, Form 4, no later than five (5) days following the spudding of a well. The Director may apply a condition of approval for Application for Permit-to-Drill, Deepen, Re-enter, or Recomplete and Operate, Form 2 requiring not less than twenty-four (24) hours nor more than seventy-two (72) hours verbal or written notice prior to spud.

d. **Casing program to protect hydrocarbon horizons and ground water.** The casing program adopted for each well must be so planned and maintained as to protect any potential oil or gas bearing horizons penetrated during drilling from infiltration of injurious waters from other sources, and to prevent the migration of oil, gas or water from one (1) horizon to another, that may result in the degradation of ground water. A Sundry Notice, Form 4, including a detailed work plan and a wellbore diagram, shall be submitted and approved by the Director prior to any routine or planned casing repair operations. During well operations, prior verbal approval for unforeseen casing repairs followed by the filing of a Sundry Notice, Form 4, after completion of operations shall be acceptable.

e. **Surface casing where subsurface conditions are unknown.** In areas where pressure and formations are unknown, sufficient surface casing shall be run to reach a depth below all known or reasonably estimated utilizable domestic fresh water levels and to prevent blowouts or uncontrolled flows and shall be of sufficient size to permit the use of an intermediate string or strings of casings. Surface casing shall be set in or through an impervious formation and shall be cemented by pump and plug or displacement or other approved method with sufficient cement to fill the annulus to the top of the hole, all in accordance with reasonable requirements of the Director. In the D-J Basin Fox Hills Protection Area surface casing will be set in accordance with Rule 317A. (See also subparagraph g.).

f. **Surface casing where subsurface conditions are known.** In wells drilled in areas where subsurface conditions have been established by drilling experience, surface casing size, at the owner's option, shall be set and cemented to the surface by the pump and plug or displacement or other approved method at a depth and in a manner sufficient to protect all fresh water and to ensure against blowouts or uncontrolled flows. In the D-J Basin Fox Hills Protection Area surface casing will be set in accordance with Rule 317A. (See also subparagraph g.).

g. **Alternate aquifer protection by stage cementing.** In areas where fresh water aquifers are of such depth as to make it impractical or uneconomical to set the full amount of surface casing necessary to comply fully with the requirement to cover or isolate all fresh water aquifers as required in subparagraph e. and f., the owner may, at its option, comply with this requirement by stage cementing the intermediate and/or production string so as to accomplish the required result. If unanticipated fresh water aquifers are encountered after setting the surface pipe they shall be protected or isolated by stage cementing the intermediate and/or production string with a solid cement plug extending from fifty (50) feet below each fresh water aquifer to fifty (50) feet above said fresh water aquifer or by other methods approved by the Director in each case. In the D-J Basin Fox Hills Protection Area any stage cementing shall occur only in accordance with Rule 317A. If the stage cement is not circulated to surface, a temperature log or cement bond log shall be run to determine the top of the stage cement to ensure aquifers are protected.

h. **Surface and intermediate casing cementing.** The operator shall ensure that all surface and intermediate casing cement required under this rule shall be of adequate quality to achieve a minimum compressive strength of three hundred (300) psi after twenty-four (24) hours and eight hundred (800) psi after seventy-two (72) hours measured at ninety-five degrees fahrenheit (95°F) and at eight hundred (800) psi. All surface casing shall be cemented with a continuous column from the bottom of the casing to the surface. After thorough circulation of the wellbore, cement shall be pumped behind the intermediate casing to at least two hundred (200) feet above the top of the shallowest known production horizon and as required in 317.g. Cement placed behind the surface and intermediate casing shall be allowed to set a minimum of eight (8) hours, or until three hundred (300) psi calculated compressive strength is developed, whichever occurs first, prior to commencing drilling operations. If the surface casing cement level falls below the surface, to the extent safety or aquifer protection is compromised, remedial cementing operations shall be performed.

i. **Production casing cementing.** The operator shall ensure that all cement required under this rule placed behind production casing shall be of adequate quality to achieve a minimum compressive strength of at least three hundred (300) psi after twenty-four (24) hours and eight hundred (800) psi after seventy-two (72) hours measured at ninety-five degrees fahrenheit (95°F) and at eight hundred (800) psi. After thorough circulation of a wellbore, cement shall be pumped behind the production casing two hundred (200) feet above the top of the shallowest known producing horizon. All fresh water aquifers which are exposed below the surface casing shall be cemented behind the production casing. All such cementing around an aquifer shall consist of a continuous cement column extending from at least fifty (50) feet below the bottom of the fresh water aquifer which is being protected to at least fifty (50) feet above the top of said fresh water aquifer. Cement placed behind the production casing shall be allowed to set seventy-two (72) hours, or until eight hundred (800) psi calculated compressive strength is developed, whichever occurs first, prior to the undertaking of any completion operation.

j. **Production casing pressure testing.** The installed production casing shall be adequately pressure tested for the conditions anticipated to be encountered during completion and production operations.

k. **Protection of aquifers and production stratum and suspension of drilling operations before running production casing.** In the event drilling operations are suspended before production string is run, the Commission shall be notified immediately and the owner shall take adequate and proper precautions to assure that no alien water enters oil or gas strata, nor potential fresh water aquifers during such suspension period or periods. If alien water is found to be entering the production stratum or to be causing significant adverse environmental impact to fresh water aquifers during completion testing or after the well has been put on production, the condition shall be promptly remedied.

l. **Flaring of gas during drilling and notice to local emergency dispatch.** Any gas escaping from the well during drilling operations shall be, so far as practicable, conducted to a safe distance from the well site and burned. The operator shall notify the local emergency dispatch as provided by the local governmental designee of any such flaring. Such notice shall be given prior to the flaring if the flaring can be reasonably anticipated, and in all other cases as soon as possible but in no event more than two (2) hours after the flaring occurs.

m. **Protection of productive strata during deepening operations.** If a well is deepened for the purpose of producing oil and gas from a lower stratum, such deepening to and completion in the lower stratum shall be conducted in such a manner as to protect all upper productive strata.

n. **Requirement to evaluate disposal zones for hydrocarbon potential.** If a well is drilled as a disposal well then the disposal zone shall be evaluated for hydrocarbon potential. The proposed hydrocarbon evaluation method shall be submitted in writing and approved by the Director prior to implementation. The productivity results shall be submitted to the Director upon completion of the well.

o. **Requirement to log well.** For all new drilling operations, the operator shall be required to run a minimum of a resistivity log with gamma-ray or other petrophysical log(s) approved by the Director that adequately describe the stratigraphy of the wellbore. This log and all other logs run shall be submitted with the Well Completion or Recompletion Report and Log, Form 5. Open hole logs shall be run to adequately verify setting depth of surface casing and aquifer coverage. These requirements shall not apply to the unlogged open hole completion intervals, or to wells in which no open hole logs are run.

p. **Remedial cementing during recompletion.** The Director may apply a condition of approval for Application for Permit-to-Drill, Deepen, Re-enter, or Recomplete and Operate, Form 2, to require remedial cementing during recompletion operations consistent with the provisions for protecting aquifers and hydrocarbon bearing zones in this Rule 317.

317A. SPECIAL DRILLING RULES - D-J BASIN FOX HILLS PROTECTION AREA

The following special drilling rules shall apply to wells in the D-J Basin Fox Hills Protection Area:

a. **Surface Casing - Minimum Requirements for Well Control.** In all wells drilled within the D-J Basin Fox Hills Protection Area, surface casing shall be run to a minimum depth of five percent (5%) of the projected total depth to which the well is to be drilled, provided that in no event shall the surface casing be run to a depth less than two hundred (200) feet. The Director may, on a case-by-case basis, grant variances in this five percent (5%) requirement where the Director finds that the well is a development well in which pressures can be accurately predicted and finds that, based upon those predictions, the five percent (5%) requirement should be varied to achieve effective well control. In all cases, however, the actual depth at which the surface casing is set shall be calculated to position the casing seat to a depth within a competent formation (preferably shale) which will contain the maximum pressure to which the casing will be exposed during normal drilling operations.

b. **Surface Casing - Aquifer Protection.** For purposes of aquifer protection, surface casing must be set as follows in wells which are not exploratory wells:

(1) Surface casing shall be run to a depth at least fifty (50) feet below the Fox Hills transition zone in wells drilled within Townships 5 South through 5 North, Ranges 65 West through 70 West or within Townships 3 North through 5 North, Range 64 West.

(2) With respect to Townships 5 South through 5 North, Ranges 58 West through 63 West, Townships 5 South through 2 North, Range 64 West; and Township 6 South, Ranges 65 West through 70 West, in all wells located within one (1) mile of a permitted producing water well, surface casing shall be set to a depth sufficient to protect the deepest permitted producing water well within such one (1) mile area. Said depth shall be at least fifty (50) feet below the depth of the base of the aquifer from which said deepest water well is

producing, or fifty (50) feet below the base of the Fox Hills Transition Zone if such deepest water well produces from the Fox Hills Aquifer.

Upon the request of the operator, the Director (or the Commission upon appeal) may grant a variance to the requirements of this subparagraph b. upon a showing to the Director, or the Commission upon appeal, that the variance does not violate the basic intent of said requirements. For such variance purpose, the basic intent of said requirements is stated to be to provide reasonable aquifer protection for the water well(s) which are permitted by the State of Colorado Division of Water Resources and are currently producing in the area potentially affected by the oil or gas well to be drilled.

c. **Exploratory Wells.** For purposes of the D-J Basin Fox Hills Protection Area only, the term exploratory well means any well:

(1) Which targets the classically demonstrated zones with limited geographic extent such as channel, bar, valley fill and levee type sandstones that were deposited prior to the x-bentonite time stratigraphic event; or

(2) Which can be demonstrated to be separated from a known producing horizon by a dry hole; or

(3) Which can be demonstrated to be targeted to a horizon which is geologically separate from the producing horizon in an offsetting producing well, or

(4) Which the Director, or the Commission upon appeal, may define as an exploratory well by variance, it being the basic intent of this definition that the requirements of subparagraph b. not operate to discourage the drilling of high risk wells.

318. LOCATION OF WELLS

All wells drilled for oil or gas to a common source of supply shall have the following setbacks:

a. **Wells deeper than 2,500 feet in depth.** A well to be drilled in excess of two thousand five hundred (2,500) feet in depth shall be located not less than six hundred (600) feet from any lease line, and shall be located not less than one thousand two hundred (1,200) feet from any other producible or drilling oil or gas well when drilling to the same common source of supply, unless authorized by order of the Commission upon hearing.

b. **Wells less than 2,500 feet in depth.** A well to be drilled to less than a depth of two thousand five hundred (2,500) feet below the surface shall be located not less than two hundred (200) feet from any lease line, and not less than three hundred (300) feet from any other producible oil or gas well, or drilling well, in said source of supply, except that only one producible oil or gas well in each such source of supply shall be allowed in each governmental quarter-quarter section unless an exception under Rule 318.c. is obtained.

c. **Exception locations.** The Director may grant an operator's request for a well location exception to the requirements of this rule or any order because of geologic, environmental, topographic or archaeological conditions, irregular sections, a surface owner request, or for other good cause shown, provided that a waiver or consent signed by the lease owner toward whom the well location is proposed to be moved, agreeing that said well may be located at the point at which the operator proposes to drill the well and where correlative rights are protected. If the operator of the proposed well is also the operator of the drilling unit or unspaced offset lease toward which the well is proposed to be moved, waivers shall be obtained from the mineral interest owners under such lands. If waivers cannot be obtained from all parties and no party objects to the location, the operator may apply for a variance under Rule 502.b. If a party or parties object to a location and cannot reach an agreement, the operator may apply for a Commission hearing on the exception location.

d. **Exemptions to Rule 318.**

(1) This rule shall not apply to authorized secondary recovery projects.

(2) This rule shall apply to fracture or crevice production found in shale, except from fields previously exempted from this rule.

(3) In a unit operation, approved by federal or state authorities, the rules herein set forth shall not apply except that no well in excess of two thousand five hundred (2,500) feet in depth shall be located less than six hundred (600) feet from the exterior or interior (if there be one) boundary of the unit area and no well less than two thousand five hundred (2,500) feet in depth below the surface shall be located less than two hundred (200) feet from the exterior or interior (if there be one) boundary of the unit area unless otherwise authorized by the order of the Commission after proper notice to owners outside the unit area.

e. **Wells located near a mine.** No well drilled for oil or gas shall be located within two hundred (200) feet of a shaft or entrance to a coal mine not definitely abandoned or sealed, nor shall such well be located within one hundred (100) feet of any mine shaft house, mine boiler house, mine engine house, or mine fan; and the location of any proposed well shall insure that when drilled it will be at least fifteen (15) feet from any mine haulage or airway.

318A. GREATER WATTENBERG AREA SPECIAL WELL LOCATION, SPACING AND UNIT DESIGNATION RULE

a. **GWA, GWA wells, GWA windows and unit designations.** The Greater Wattenberg Area ("GWA") is defined to include those lands from and including Townships 2 South to 7 North and Ranges 61 West to 69 West, 6th P.M. In the GWA, operators may utilize the following described surface drilling locations ("GWA windows") to drill, twin, deepen, or recomplate a well ("GWA well") and to commingle any or all of the Cretaceous Age formations from the base of the Dakota Formation to the surface:

(1) A square with sides four hundred (400) feet in length, the center of which is the center of any governmental quarter-quarter section ("400' window"); and,

(2) A square with sides eight hundred (800) feet in length, the center of which is the center of any governmental quarter section ("800' window").

(3) Absent a showing of good cause, which shall include the existence of a surface use or other agreement with the surface owner authorizing a surface well location outside of a GWA window, all surface wellsites shall be located within a GWA window.

(4) Unit designations.

A. **400' window.** When completing a GWA well in a 400' window to a spaced formation, the operator shall designate drilling and spacing units in accordance with existing spacing orders.

B. **800' window.** When completing a GWA well in an 800' window, whether in spaced or unspaced formations, the operator shall: (i) designate drilling and spacing units in accordance with existing spacing orders where units are not smaller than a governmental quarter section; or (ii) form a voluntary drilling and spacing unit consisting of a governmental quarter section; or (iii) where designating a drilling and spacing unit smaller than a governmental quarter section, secure waiver(s) from the operator or from the mineral owners (if the operator is also the holder of the mineral lease) of the lands in the governmental quarter section that are not to be included in the spacing unit; or (iv) apply to the Commission to form an alternate unit or to respace the area.

C. **Unspaced areas and wellbore spacing units.** When completing a GWA well to an unspaced formation, the operator shall designate a drilling and spacing unit not smaller than a governmental quarter-quarter section if such well is proposed to be located greater than four hundred sixty (460) feet from the quarter-quarter section boundary in which it is located. If a well is proposed to be located less than four hundred sixty (460) feet from the governmental quarter-quarter section boundary, a wellbore spacing unit ("wellbore spacing unit") for such well shall be comprised of the four (4) governmental quarter-quarter sections nearest to the wellbore regardless of section or quarter section lines.

b. **Recompletion/commingling of existing wells.** Any GWA well in existence prior to the effective date of this rule, which is not located as described above, may also be utilized for deepening to or recompletion in any Cretaceous Age formation and for the commingling of production therefrom.

c. **Surface locations.** Prior to the approval of any Application for Permit-to-Drill submitted for a GWA well, the proposed surface well location shall be reviewed in accordance with the following criteria:

(1) A new surface well location shall be approved in accordance with Commission rules when it is less than fifty (50) feet from an existing surface well location.

(2) When the operator is requesting a surface well location greater than fifty (50) feet from a well (unless safety or mechanical considerations of the well to be twinned or topographical or surface constraints justify a location greater than fifty (50) feet), the operator shall provide a consent to the exception signed by the surface owner on which the well is proposed to be located in order for the Director to approve the well location administratively.

(3) If there is no well located within a GWA window but there is an approved exception location well located outside of a GWA window that is attributed to such window, the provisions of subsections (1) and (2) of this subsection c. shall be applicable to such location.

d. **Prior wells excepted.** This rule does not alter the size or configuration of drilling units for GWA wells in existence prior to the effective date of this rule. Where deemed necessary by an operator for purposes of allocating production, such operator may allocate production to any drilling and spacing unit with respect to a particular Cretaceous Age formation consistent with the provisions of this rule.

e. **GWA infill.** This subsection applies to the following area of the GWA: Township 1 North, Ranges 66 West through 68 West; Township 1 North, Range 69 West: E½; Township 2 North, Ranges 64 West through 68 West; Township 2 North, Range 69 West: E½; Township 3 North, Ranges 64 West through 67 West; Township 4 North, Ranges 63 through 67 West; Township 5 North, Ranges 63 West through 67 West; Township 6 North, Ranges 63 West through 66 West, 6th P.M.

(1) **Interior infill wells.** Additional bottom hole locations for the “J” Sand, Codell and Niobrara Formations are hereby established greater than four hundred sixty (460) feet from the outer boundary of any existing 320-acre drilling and spacing unit (“interior infill wells”). Pursuant to the well location provisions of subsection a., above, interior infill well locations shall be reached by utilizing directional drilling techniques from the GWA windows

A. If a bottom hole location for an interior infill well is proposed to be located less than four hundred sixty (460) feet from the outer boundary of an existing drilling and spacing unit, a wellbore spacing unit as defined in a.(4)C., above, shall be designated by the operator for such well.

B. If a bottom hole location for an interior infill well is proposed to be located greater than four hundred sixty (460) feet from an existing 80-acre or existing 320-acre drilling and spacing unit, the spacing unit for such well shall conform to the existing 80-acre or existing 320-acre drilling and spacing unit.

(2) **Boundary wells.** Additional bottom hole locations for the “J” Sand, Codell and Niobrara Formations are hereby established less than four hundred sixty (460) feet from the outer boundary of a 320-acre governmental half section or from the outer boundary of any existing 320-acre drilling and spacing unit (“boundary wells”). A wellbore spacing unit as defined in a.(4)C., above, shall be designated by the operator for such well.

(3) **Additional producing formations.** An operator wanting to complete an interior infill well or boundary well in a formation other than the “J” Sand, Codell, or Niobrara Formations (“additional producing formation”) must request an exception location prior to completing the additional producing formation. The spacing unit dedicated to the exception location shall comply with subsections (1) or (2), above, as appropriate.

(4) **Water well sampling.** The Director shall require initial baseline testing prior to the first interior infill well or boundary well (“proposed GWA infill well”) drilled within a governmental section. The following shall be used as guidance for the Director in establishing initial baseline testing:

A. Within the governmental quarter section of the proposed GWA infill well, the closest water well (“water quality testing well”) completed in the Laramie/Fox Hills Aquifer shall be sampled.

B. If no Laramie/Fox Hills water wells are located within the governmental quarter section, then the deepest representative water quality testing well within the governmental quarter section of the proposed GWA infill well shall be sampled.

C. If no water wells are located within the governmental quarter section, a water quality testing well (preferably completed in the Laramie/Fox Hills Aquifer) within one-half (½) mile of the proposed GWA infill well shall be selected.

D. If there are no water quality testing wells that meet the foregoing criteria, then initial baseline testing shall not be required.

E. Initial baseline testing shall include laboratory analysis of all major cations and anions, total dissolved solids, iron and manganese, nutrients (nitrates, nitrites, selenium), dissolved methane, pH, and specific conductance.

F. If free gas or a methane concentration level greater than 2 mg/l is detected in a water quality testing well, compositional analysis shall be performed to determine gas type (thermogenic, biogenic or an intermediate mix of both). If the testing results reveal biogenic gas, no further isotopic testing shall be required. If the testing results reveal thermogenic gas, carbon isotopic analyses of methane carbon shall

be conducted. The Director may require further water well sampling at any time as a result of the laboratory results or in response to complaints from water well owners.

G. Copies of all test results described above shall be provided to the Director and the landowner where the water quality testing well is located within three (3) months of collecting the samples used for the test. Laboratory results shall also be submitted to the Director in an electronic format.

(5) **Existing production facilities.** To the extent reasonably practicable, operators shall utilize existing roads, pipelines, tank batteries and related surface facilities for all interior infill wells and boundary wells.

(6) **Notice and hearing procedures.** For proposed boundary wells, wellbore spacing units, and additional producing formations provided by this subsection e., the following process shall apply:

A. Notice shall be given by certified mail by the operator of a proposed boundary well or wellbore spacing unit to all owners in the proposed wellbore spacing unit. Notice shall be given by certified mail by the operator of a proposed additional producing formation to all owners in cornering and contiguous spacing units of the requested completion and the proposed spacing unit; if the additional producing formation is unspaced only the owner in the proposed spacing unit needs to be notified.

B. Each owner shall have a twenty (20) day period after receipt of such notice to object in writing to the operator to such well location, proposed spacing unit, or additional producing formation. If a timely objection is received, the matter shall be set on the docket at the next available Commission hearing. Absent receipt of an objection by the operator from an owner within such twenty (20) day period, the Director may administratively approve the boundary well, wellbore spacing unit, or additional producing formation, provided that it does not exceed eight (8) producing completions in the "J" Sand, Codell or Niobrara Formations in the 160-acre governmental quarter section as set forth in subsection f. below. A location plat evidencing the well location, wellbore spacing unit, or additional producing formation and applicable spacing unit shall be submitted to the Director together with copies of any surface waivers and a certification that no timely objections were received. An Application for Permit-to-Drill, Form 2, specifically identifying that a boundary well, a wellbore spacing unit, or an additional producing formation is proposed, shall also be filed with the Director in accordance with Rule 303.

(7) The Commission shall review the effectiveness of this subsection e. no later than March 1, 2008 and may require operators to submit data related to infill drilling performed under this subsection.

f. **Limit on locations.** This rule does not limit the number of formations that may be completed in any GWA drilling and spacing unit nor, subject to subsection c., above, does it limit the number of wells that may be located within the GWA windows. However, absent Commission order otherwise, there shall be no more than eight (8) producing completions in the "J" Sand, Codell or Niobrara Formations in any 160-acre governmental quarter section.

g. **GWA water sampling.** The Director may apply appropriate drilling permit conditions to require water well sampling near any proposed GWA wells in accordance with the guidelines set forth in subsection e.(4), above.

h. **Exception locations.** The provisions of Rule 318.c. respecting exception locations shall be applicable to GWA wells, however, absent timely objection, boundary wells, wellbore spacing units, and additional producing formations shall be administratively approved as provided in subsection e.(6) above.

i. **Correlative rights.** This rule shall not serve to bar the granting of relief to owners who file an application alleging abuse of their correlative rights to the extent that such owners can demonstrate that their opportunity to produce Cretaceous Age formations from the drilling locations herein authorized does not provide an equal opportunity to obtain their just and equitable share of oil and gas from such formations.

j. **Supersedes orders and policy.** Subject to paragraph d. above, this rule supersedes all prior Commission drilling and spacing orders affecting well location and density requirements of GWA wells and supersedes and replaces the "Policy on Staff Administrative Application of the Greater Wattenberg Area Well Location Rule 318A.," dated April 26, 1999.

318B. YUMA/PHILLIPS COUNTY SPECIAL WELL LOCATION RULE

a. This Special Well Location Rule ("WLR") governs wells drilled to and completed in the Niobrara Formation for the following lands:

Township 1 North
Range 44 West: Sections 7, 18, 19, 30 through 33
Range 45 West: Sections 7 through 36

Range 46 West: Sections 4 through 9
Range 47 West: All
Range 48 West: All

Township 2 North
Range 46 West: All
Range 47 West: All
Range 48 West: All

Township 3 North
Range 45 West: Sections 1 through 18
Range 46 West: All
Range 47 West: All
Range 48 West: All

Township 4 North
Range 45 West: All
Range 46 West: All
Range 47 West: All
Range 48 West: All

Township 5 North
Range 45 West: All
Range 46 West: All
Range 47 West: All
Range 48 West: All

Township 6 North
Range 45 West: All
Range 46 West: All
Range 47 West: All
Range 48 West: All

Township 7 North
Range 45 West: All
Range 46 West: All
Range 47 West: All

Township 8 North
Range 45 West: All
Range 46 West: All
Range 47 West: All

Township 9 North
Range 45 West: Sections 19 through 36
Range 46 West: Sections 19 through 36
Range 47 West: Sections 19 through 36

Township 1 South
Range 44 West: Sections 3 through 10, 16 through 21, 27 through 34
Range 45 West: Sections 3 through 5
Range 46 West: Sections 4 through 9, 16 through 36
Range 47 West: All
Range 48 West: All

Township 2 South
Range 44 West: Sections 3 through 6
Range 45 West: Section 7: W½, Section 18: W½, Section 19: All
Range 46 West: Sections 1 through 24
Range 47 West: All
Range 48 West: All

Township 3 South
Range 48 West: All

Within the WLR Area, operators may conduct drilling operations to the Niobrara Formation as follows:

- (1) Four (4) Niobrara Formation wells may be drilled in any quarter section.
- (2) No more than one (1) well may be located in any quarter quarter section.
- (3) No minimum distance shall be required between wells producing from the Niobrara Formation in any quarter section.
- (4) Wells shall be located at least three hundred (300) feet from the outer boundary of said quarter section, and wells located outside any drilling units already established by the Commission in the WLR Area prior to this WLR's effective date (July 30, 2006) shall, in addition, be located at least three hundred (300) feet from any lease line. Further, wells shall be located not less than nine hundred (900) feet from any producible well drilled to the Niobrara Formation prior to this WLR's effective date (July 30, 2006) located in a contiguous or cornering quarter section unless exception is approved by the Director.

b. Any well drilled to the Niobrara Formation in the WLR Area prior to the effective date (July 30, 2006) of this WLR which is legally located when this WLR becomes effective but is not located as listed above shall be treated as properly located for purposes of this WLR.

c. This WLR does not alter the size or configuration of any drilling units already established by the Commission in the WLR Area prior to this WLR's effective date (July 30, 2006).

d. This WLR shall not serve to bar the granting of relief to owners who file an application alleging abuse of their correlative rights to the extent that such owners can demonstrate that their opportunity to produce from the Niobrara Formation at locations herein authorized does not provide an equal opportunity to obtain their just and equitable share of oil and gas from such formation.

e. Well exception locations to this WLR shall be subject to the provisions of Rule 318.c.

f. This WLR is a well location rule and supersedes existing Commission orders in effect at the time of its adoption only to the extent that the existing orders relate to permissible well locations and the number of wells that may be drilled in a quarter section. Commission orders in effect when this Rule 318B. is adopted nonetheless apply with respect to the size of drilling units already established by the Commission in the WLR Area. This WLR is not intended to establish well spacing. Accordingly, when an area subject to Rule 318B. is otherwise unspaced, it does not act to space the area but instead provides the permissible locations for any new Niobrara Formation wells. Similarly, Rule 318B. does not affect production allocation for existing or future wells. An operator may allocate production in accordance with the applicable lease, contract terms or established drilling and spacing units recognizing the owner's right to apply to the COGCC to resolve any outstanding correlative rights issues.

319. ABANDONMENT

The requirements for abandoning a well shall be as follows:

a. Plugging

- (1) A dry or abandoned well, seismic, core, or other exploratory hole, must be plugged in such a manner that oil, gas, water, or other substance shall be confined to the reservoir in which it originally occurred. Any cement plug shall be a minimum of fifty (50) feet in length and shall extend a minimum of fifty (50) feet above each zone to be protected. The material used in plugging, whether cement, mechanical plug, or some other equivalent method approved in writing by the Director, must be placed in the well in a manner to permanently prevent migration of oil, gas, water, or other substance from the formation or horizon in which it originally occurred. The preferred plugging cement slurry is that recommended by the American Petroleum Institute (API) Environmental Guidance Document: Well Abandonment and Inactive Well Practices for U.S. Exploration and Production Operations, i.e., a neat cement slurry mixed to API standards. However, pozzolan, gel and other approved extenders may be used if the operator can document, to the Director's satisfaction, that the slurry design will achieve a minimum compressive strength of three hundred (300) psi after twenty-four (24) hours and eight hundred (800) psi after seventy-two (72) hours measured at ninety-five (95) degrees fahrenheit and at eight hundred (800) psi.

(2) The operator shall have the option as to the method of placing cement in the hole by (a) dump bailer, (b) pumping a balanced cement plug through tubing or drill pipe, (c) pump and plug, or (d) equivalent method approved by the Director prior to plugging. Unless prior approval is given, all wellbores will have water, mud or other approved fluid between all plugs.

(3) No substance of any nature or description other than normally used in plugging operations shall be placed in any well at any time during plugging operations. All final reports of plugging and abandonment shall be submitted on a Well Abandonment Report, Form 6, and accompanied by a job log or cement verification report from the plugging contractor specifying the type of fluid used to fill the wellbore, type and slurry volume of API Class cement used, date of work, and depth the plugs were placed.

(4) In order to protect the fresh water strata, no surface casing shall be pulled from any well unless authorized by the Director.

(5) All abandoned wells shall have a plug or seal placed at the surface of the ground or the bottom of the cellar in the hole in such manner as not to interfere with soil cultivation or other surface use. The top of the pipe must be sealed with either a cement plug and a screw cap, or cement plug and a steel plate welded in place or by other approved method, or in the alternative be marked with a permanent monument which shall consist of a piece of pipe not less than four (4) inches in diameter and not less than ten (10) feet in length, of which four (4) feet shall be above the general ground level, the remainder to be embedded in cement or to be welded to the surface casing.

(6) The operator must obtain approval from the Director of the plugging method prior to plugging, and shall notify the Director of the estimated time and date the plugging operation of any well is to commence, and identify the depth and thickness of all known sources of ground water. For good cause shown, the Director may require that a cement plug be tagged if a cement retainer or bridge plug is not used. If requested by the operator, the Director shall furnish written follow-up documentation for a requirement to tag cement plugs.

(7) **Wells Used for Fresh Water.** When the well, seismic, core, or other exploratory hole to be plugged may safely be used as a fresh water well, and such utilization is desired by the landowner, the well need not be filled above the required sealing plug set below fresh water; provided that written authority for such use is secured from the landowner and, in such written authority, the landowner assumes the responsibility to plug the well upon its abandonment as a water well in accordance with these rules. Such written authority and assumption of responsibility shall be filed with the Commission, provided further that the landowner furnish a copy of the permit for a water well approved by the Division of Water Resources.

b. Shut-in and Temporary Abandonment.

(1) A well may be shut-in or temporarily abandoned when completed, upon approval of the Director, for a period not to exceed six (6) months provided the hole is cased or left in such a manner as to prevent migration of oil, gas, water or other substance from the formation or horizon in which it originally occurred. All shut-in or temporarily abandoned wells shall be closed to the atmosphere with a swedge and valve or packer, or other approved method. The well sign shall remain in place. If an operator requests shut-in or temporary abandonment status in excess of six (6) months the operator shall state the reason for requesting such extension and state plans for future operation. A Sundry Notice, Form 4, or other form approved by the Director, shall be submitted annually stating the status of the well and plans for future operation.

(2) The manner in which the well is to be maintained should be reported to the Commission, and bonding requirements, as provided for in Rule 304., kept in force until such time as the well is permanently abandoned.

(3) A well which has ceased production or injection or is incapable of production or injection shall be abandoned within six (6) months thereafter unless the time is extended by the Director upon application by the owner. The application shall indicate why the well is shut-in and future plans for utilization. In the event the well is covered by a blanket bond, the Director may require an individual plugging bond on the shut-in or temporarily abandoned well. Gas storage wells are to be considered active at all times unless physically plugged.

(4) In addition to the requirements of Rule 325., an injection well that is shut-in or temporarily abandoned shall have a mechanical integrity test performed within two (2) years after the shut-in date in order to be retained in shut-in or temporarily abandoned status.

(5) If an injection well which has been shut-in or temporarily abandoned is determined not to have mechanical integrity as a result of any test required by the Commission rules and regulations, it must, within

six (6) months following such a test, be either repaired and pass a mechanical integrity test or be plugged and abandoned.

320. LIABILITY

The owner and operator of any well drilled for oil or gas production or injection purposes, or any seismic, core, or other exploratory holes, whether cased or uncased, shall be liable and responsible for the plugging thereof in accordance with the rules and regulations of the Commission regardless of whether the cost of such plugging and abandonment exceeds the amount of security as set forth in Rule 304.

321. DIRECTIONAL DRILLING

If an operator intends to drill a horizontal or deviated wellbore utilizing controlled directional drilling methods, other than whipstocking due to hole conditions, the plans shall accompany an application for Permit-to-Drill, Form 2. In addition to the information required on the plat in Rule 303.c., the plat shall also show the surface and bottom hole location. If the surface location is in a different section than the bottom hole location, a plat depicting each section is required. Additionally, the proposed directional survey including two (2) wellbore deviation plots, one depicting the plan view and one depicting the side view, shall accompany the application.

Within thirty (30) days of completion the operator shall submit a Drilling Completion Report, Form 5, according to Rule 308., with a copy of the directional survey coordinate listing and the wellbore deviation plots (plan and side views). The survey data shall be provided in a single analysis report with sufficient detail to determine the location of the wellbore from the base of the surface casing to the kick off point and from that point to total depth.

322. COMMINGLING

The commingling of production from multiple formations or wells is encouraged in order to maximize the efficient use of wellbores and to minimize the surface disturbance from oil and gas operations. Commingling may be conducted at the discretion of an operator, unless the Commission has issued an order or promulgated a rule excluding specific wells, geologic formations, geographic areas, or field from commingling in response to an application filed by a directly and adversely affected or aggrieved party or on the Commission's own motion.

This rule supercedes the procedural requirements to establish commingling and allocation contained in any Commission order as of the effective date of this rule, but does not supersede any allocation made under such order.

323. OPEN PIT STORAGE OF OIL OR HYDROCARBON SUBSTANCES

Storage of oil or any other produced liquid hydrocarbon substance in earthen pits or reservoirs is considered to constitute waste, except in emergencies where such substances cannot be otherwise contained. In such cases, these substances must be reclaimed and such storage eliminated as soon as practicable after the emergency is controlled, unless special permission to delay or continue is obtained from the Director.

324A. POLLUTION

a. The operator shall take precautions to prevent significant adverse environmental impacts to air, water, soil, or biological resources to the extent necessary to protect public health, safety and welfare, by using cost-effective and technically feasible measures to protect environmental quality and to prevent the unauthorized discharge or disposal of oil, gas, E&P waste, chemical substances, trash, discarded equipment or other oil field waste.

b. No operator, in the conduct of any oil or gas operation shall perform any act or practice which shall constitute a violation of water quality standards or classifications established by the Water Quality Control Commission for waters of the state, or any point of compliance established by the Director pursuant to Rule 324D. The Director may establish one (1) or more points of compliance for any event of pollution, which shall be complied with by all parties determined to be a responsible party for such pollution.

c. No owner, in the conduct of any oil or gas operation, shall perform any act or practice which shall constitute a violation of any comprehensive plan adopted by the Air Quality Control Commission for the prevention, control and abatement of pollution of the air of the state.

d. No injection shall be authorized pursuant to Rule 325. or Rule 401. unless the person applying for authorization to conduct the injection activities demonstrates that those activities will not result in the presence in an underground source of drinking water of any physical, chemical, biological or radiological substance or matter which may cause a violation of any primary drinking water regulation in effect as of July 12, 1982 and found at 40 C.F.R. Part 142, as amended, or may otherwise adversely affect the health of persons. An underground source of drinking water is an aquifer or its portion:

(1) A. Which supplies any public water system; or

B. Which contains a sufficient quantity of ground water to supply a public water system; and

- i. Currently supplies drinking water for human consumption; or
- ii. Contains fewer than ten thousand (10,000) milligrams per liter total dissolved solids; and

(2) Which is not an exempted aquifer.

e. No person shall accept water produced from oil and gas operations, or other oil field waste for disposal in a commercial disposal facility, without first obtaining a Certificate of Designation from the County in which such facility is located, in accord with the regulations pertaining to solid waste disposal sites and facilities as promulgated by the Colorado Department of Public Health and Environment.

324B. EXEMPT AQUIFERS

a. **Criteria for aquifer exemption.** An aquifer or a portion thereof may be designated by the Director or the Commission as an exempted aquifer, in connection with the filing of an application pursuant to Rule 325. or Rule 401. if it meets the following criteria:

(1) It does not currently serve as a source of drinking water; and either subparagraph (2) or (3) below apply:

(2) It cannot now and will not in the future serve as a source of drinking water because:

A. It is mineral, hydrocarbon or geothermal energy producing, or can be demonstrated by a person filing an application pursuant to Rule 324. or Rule 401. to contain minerals or hydrocarbons that considering their quantity and location are expected to be commercially producible; or

B. It is situated at a depth or location which makes recovery of water for drinking water purposes economically or technologically impractical; or

C. It is so contaminated that it would be economically or technologically impractical to render the water fit for human consumption;

(3) The total dissolved solids content of the ground water is more than three thousand (3,000) and less than ten thousand (10,000) milligrams per liter and it is not reasonably expected to supply a public water system.

b. **Aquifer exemption public notice.** If an aquifer exemption is required as part of an injection permit process, the injection well applicant shall apply for an aquifer exemption. This application shall contain data and information which show that applicable aquifer exemption criteria set forth in Rule 324B.a. are met. After evaluation of the application and prior to designating an aquifer or a portion thereof as an exempted aquifer, the Director shall publish a notice of proposed designation in a newspaper of general circulation serving the area where the aquifer is located. The notice shall identify such aquifer or portion thereof which the Director proposes to designate as exempted, and shall state that any person who can make a showing to the Director that the requested designation does not meet the criteria set forth in Rule 324B.a.

c. **Evaluation of written requests for public hearing.** Written requests for a public hearing before the Commission shall be reviewed and evaluated by the Director in consultation with the applicant to determine if the criteria set forth in Rule 324B.a. have been met. If, within thirty (30) days after publication of the notice, the Commission receives a hearing request for which the Director determines the criteria set forth in Rule 324B.a. have not been met, the Commission shall hold such a hearing in accordance with the provisions of §34-60-108, C.R.S., 1973, as amended, and shall make a final determination regarding designation.

d. **Aquifer exemption designation.** If, within thirty (30) days after publication of the notice described in subparagraph b. above, the Commission does not receive a hearing request or receives a hearing request for which the Director determines the criteria set forth in Rule 324B.a. have been met, said aquifer or portion thereof shall be considered exempted thirty (30) days after publication of the notice.

324C. QUALITY ASSURANCE FOR CHEMICAL ANALYSIS

For the purpose of application for a permit for all wells authorized under Rule 325. and Rule 401., collection and analysis of water samples must comply with the Commission's approved quality assurance project plan.

324D. CRITERIA TO ESTABLISH POINTS OF COMPLIANCE

In determining a point of compliance, the Director shall take into consideration recommendations of the operator or any responsible party or parties, if applicable, including technical and economic feasibility, together with the following factors:

- a. The classified use established by the Water Quality Control Commission, for any ground water or surface water which will be impacted by contamination. If not so classified, the Director shall consider the quality, quantity, potential economic use and accessibility of such water;
- b. The geologic and hydrologic characteristics of the site, such as depth to ground water, ground water flow, direction and velocity, soil types, surface water impacts, and climate;
- c. The toxicity, mobility, and persistence in the environment of contaminants released or discharged from the site;
- d. Established wellhead protection areas;
- e. The potential of the site as an aquifer recharge area; and
- f. The distance to the nearest permitted domestic water well or public water supply well completed in the same aquifer affected by the event.
- g. The distance to the nearest permitted livestock or irrigation water well completed in the same aquifer affected by the event.

325. UNDERGROUND DISPOSAL OF WATER

a. No person shall commence operations for the underground disposal of water, or any other fluids, into a Class II well, or any well regulated by the Commission, nor shall any person commence construction of such a well, without having first obtained written authorization for such operations from the Director. Persons wishing to obtain authorization to conduct underground disposal activities shall file with the Director an Underground Injection Formation Permit Application, Form 31 and an Injection Well Permit Application, Form 33. If the disposal well is to be drilled, this application shall be submitted concurrently with the Application for Permit-to-Drill, Form 2, along with a service and filing fee to be determined by the Commission. (See Appendix III)

b. **Withholding approval of underground disposal of water.** The Director may withhold the issuance of a permit and the granting of approval of any Underground Injection Formation Permit Application, Form 31 and any Injection Well Permit Application, Form 33 for any proposed disposal well when the Director has reasonable cause to believe that the proposed disposal well could result in a significant adverse impact on the environment or public health, safety and welfare. In the event such approval is not granted, the Director shall immediately advise the operator and bring the matter to the Commission at its next regularly scheduled hearing.

c. The application for a dedicated injection well shall include the following information:

(1) The name, description and depth of the formation into which water is to be injected, and all underground sources of drinking water which may be affected by the proposed operation. A water analysis of the injection formation (if the total dissolved solids of the injection formation is determined to be less than ten thousand (10,000) milligrams per liter, the aquifer must be exempted in accordance with Rule 324B.). The fracture pressure or fracture gradient of the injection formation.

(2) A base plat covering the area within one-quarter (1/4) mile of the proposed disposal well showing location of the proposed disposal well or wells and the location of all oil and gas wells, domestic and irrigation wells of public record and the identification of all oil and gas wells currently producing from the proposed injection zone within one-half (1/2) mile of the disposal zone. The names, addresses and holdings of all surface and mineral owners as defined in §34-60-103 (7), C.R.S., within one-quarter (1/4) mile of the proposed disposal well or wells, or all owners of record in the field if a field-wide system is proposed. These owners shall be specifically outlined and identified on the base plat. A list of all domestic and irrigation wells of public record, within one-quarter mile of the proposed disposal well or wells, including their location and depth. (This information may be obtained at the Colorado Division of Water Resources.) Remedial action shall be required for any well within one-quarter (1/4) mile of the proposed disposal well or wells, which the applicant may or may not operate and a plan for the performance of any such remedial work. A copy of all plans and specifications for the system and its appurtenances.

(3) A resistivity log, run from the bottom of the surface casing to total depth of the disposal well or wells or any well within one (1) mile together with a log from that well that can be correlated with the injection well. If the disposal well is to be drilled, a description of the typical stratigraphic level of the disposal formation in the disposal well or wells, and any other available logging or testing data, on the disposal well or wells.

(4) A full description of the casing in the disposal well or wells. This shall include any information available on any remedial cement work performed to any casing string. This shall also include a schematic drawing

showing all casing strings with cement volumes and tops, existing or as proposed, plug back total depth, depth of any existing open or squeezed perforations, setting depths of any bridge plugs existing or proposed, planned perforations in the injection zone, tubing and packer size and setting depth. A diagram of the surface facility showing all pipelines and tanks associated with the system. A listing of all leases connected directly by pipelines to the system.

(5) A listing of all sources of water, by lease and well, to be injected shall be submitted on a Source of Produced Water for Disposal, Form 26.

(6) Any proposed stimulation program.

(7) The estimated minimum and maximum amount of water to be injected daily with anticipated injection pressures. Maximum injection pressure will be set by the Director upon approval.

(8) The names and addresses of those persons notified by the applicant, as required by subparagraph i of this rule.

d. The application for a simultaneous injection well shall include the following:

(1) The name, description and depth of the formation into which water is to be injected, and all underground sources of drinking water which may be affected by the proposed operation. A water analysis of the injection formation (if the total dissolved solids of the injection formation is determined to be less than ten thousand (10,000) milligrams per liter, the aquifer must be exempted in accordance with Rule 324B.); a water analysis from the producing formation; and the fracture pressure or fracture gradient of the injection formation.

(2) A base plat covering the area within one-quarter (1/4) mile of the proposed well showing the location of the proposed well or wells and the location of all oil and gas wells, domestic and irrigation wells of public record and the identification of all oil and gas wells currently producing from the proposed injection zone within one-half (1/2) mile of the disposal zone and the names, addresses and holdings of all mineral owners as defined in §34-60-103 (7), C.R.S., within one-quarter (1/4) mile of the proposed disposal well or wells, or all owners of record in the field if a field-wide system is proposed. These owners shall be specifically outlined and identified on the base plat. Remedial action shall be required for any well within one-quarter (1/4) mile of the proposed well or wells in which the injection zone is not adequately confined. The applicant shall include information regarding the need for remedial action on any well(s) penetrating the injection zone within one-quarter (1/4) mile of the proposed disposal well or wells, which the applicant may or may not operate and a plan for the performance of any such remedial work and a copy of all plans and specifications for the system and its appurtenances.

(3) A resistivity log, run from the bottom of the surface casing to total depth of the disposal zone or such log from a well within one (1) mile together with a log from that well that can be correlated with the simultaneous injection well. If the simultaneous injection well is to be drilled, a description of the typical stratigraphic level of the injection formation in the simultaneous injection well or wells, and any other available logging or testing data, on the simultaneous injection well or wells.

(4) A full description of the casing in the simultaneous injection well or wells. This shall include any information available on any remedial cement work performed to any casing string. This shall also include a schematic drawing showing all casing strings with cement volumes and tops, existing or as proposed, plug back total depth, depth of any existing open or squeezed perforations, setting depths of any bridge plugs existing or proposed, planned perforations in the injection zone, downhole pump setting depth and any tubing and or packer size and setting depth.

(5) Any proposed stimulation program.

(6) The estimated amount of water to be injected daily.

(7) Downhole pump specifications, together with a calculation of maximum discharge pressure created under proposed wellbore configuration. Downhole pump configurations shall be designed to inject below the injection zone fracture gradient.

(8) The names and addresses of those persons notified by the applicant, as required by subparagraph j. of this rule.

The following rules shall apply to both dedicated injection well and simultaneous injection well applications.

e. **Mechanical integrity testing requirement.** Prior to application approval, the proposed disposal well must satisfactorily pass a mechanical integrity test in accordance with Rule 326.

f. **Centralized and commercial disposal well requirements.** Prior to application approval, the appurtenant centralized and commercial disposal well operations shall comply with the requirements of Rules 704. and 908.

g. **Multiple well applications.** Application may be made to include the use of more than one (1) disposal well on the same lease, or on more than one (1) lease. Wherever feasible and applicable, the application shall contemplate a coordinated plan for the entire field.

h. The designated operator of a unitized or cooperative project shall execute the application.

i. Notice of the application for a dedicated injection well shall be given by the applicant by registered or certified mail or by personal delivery, to each surface owner and owner as defined in §34-60-103(7), C.R.S., within one-quarter (1/4) mile of the proposed well or wells and to owners and operators of oil and gas wells producing from the injection zone within one-half (1/2) mile of the disposal well or to owners of cornering and contiguous units where injection will occur into the producing zones, whichever is the greater distance.

j. Notice of the application for a simultaneous injection well shall be given by the applicant by registered or certified mail or by personal delivery, to each owner as defined in §34-60-103(7), C.R.S., within one-quarter (1/4) mile of the proposed well or wells and to owners and operators of oil and gas wells producing from the injection zone within one-half (1/2) mile of the disposal well or to owners of cornering and contiguous units where injection will occur into the producing zones, whichever is the greater distance.

k. A copy of the notice of application shall be included with the disposal application filed with the Commission, and the applicant shall certify that notice by registered or certified mail or by personal delivery, to each of the owners specified in subparagraphs i. and j., has been accomplished.

l. **Notice of application requirements.** The notice shall describe the proposed operation and shall state that any person who would be directly and adversely affected or aggrieved by the authorization of the underground disposal into the proposed injection zone may file, within fifteen (15) days of notification, a written request for a public hearing before the Commission, provided such request meets the protest requirements specified in subparagraph m. of this rule. The notice shall also state that additional information on the operation of the proposed disposal well may be obtained at the Commission office.

m. **Evaluation of written requests for public hearing.** Written requests for public hearing before the Commission by a person, notified in accordance with subparagraphs i. and j. of this rule, who may be directly and adversely affected or aggrieved by the authorization of the underground disposal into the proposed injection zone, shall be reviewed and evaluated by the Director in consultation with the applicant. Written protests shall specifically provide information on:

(1) Possible conflicts between the injection zone's proposed disposal use and present or future use as a source of drinking water or present or future use as a source of hydrocarbons, or

(2) Operations at the well site which may affect potential and current sources of drinking water.

n. **Dedicated injection well public notice.** The Director shall publish a notice of the proposed disposal permit for dedicated injection wells in a newspaper of general circulation serving the area where the well(s) is (are) located. The notice shall briefly describe the disposal application and include legal location, proposed injection zone, depth of injection and other relevant information. Comment period on the proposed disposal application shall end thirty (30) days after date of publication. If any data, information, or arguments submitted during the public comment period appear to raise substantial questions concerning potential impacts to the environment, public health, safety and welfare raised by the proposed disposal well permit the Director may request that the Commission hold a hearing.

o. **Injection application deadlines.** If all of the data or information necessary to approve the disposal application has not been received within six (6) months of the date of receipt, the application will be withdrawn from consideration. However, for good cause shown, a ninety (90) day extension may be granted, if requested prior to the date of expiration.

326. MECHANICAL INTEGRITY TESTING

For the purpose of this rule, a mechanical integrity test of a well is a test designed to determine if: there is a significant leak in the casing, tubing, or packer of the well, and there is significant fluid movement into an underground source of drinking water through vertical channels adjacent to the wellbore.

a. **Injection Wells** -A mechanical integrity test shall be performed on all injection wells.

(1) The mechanical integrity test shall include one (1) of the following tests to determine whether significant leaks are present in the casing, tubing, or packer;

A. A pressure test with liquid or gas at a pressure of not less than three hundred (300) psi or the minimum injection pressure, whichever is greater, and not more than the maximum injection pressure; or

B. The monitoring and reporting to the Director, on a monthly basis for sixty (60) consecutive months, of the average casing-tubing annulus pressure, following an initial pressure test; or

C. In lieu of A. and B. any equivalent test or combinations of tests approved by the Director.

(2) The mechanical integrity test shall include one (1) of the following tests to determine whether there are significant fluid movements in vertical channels adjacent to the well bore:

A. Cementing records which shall only be valid for injection wells in existence prior to July 1, 1986;

B. Tracer surveys;

C. Cement bond log or other acceptable cement evaluation log;

D. Temperature surveys; or

E. In lieu of A.-D., any other equivalent test or combination of tests approved by the Director.

(3) No person shall inject fluids into a new injection well unless a mechanical integrity test on the well has been performed and supporting documents including Mechanical Integrity Test, Form 14B, submitted and approved by the Director. Verbal approval may be granted for continuous injection following the test.

(4) Following the performance of the initial mechanical integrity test required by subparagraph (3), additional mechanical integrity tests shall be performed on each type of injection well as follows:

A. **Dedicated injection well.** As long as it is used for the injection of fluids, mechanical integrity tests shall be performed at the rate of not less than one (1) test every five (5) years. The first five (5) year period shall commence on the date the initial mechanical integrity test is performed.

B. **Simultaneous injection well.** No additional tests will be required after the initial mechanical integrity test.

(5) Following the performance of the initial mechanical integrity test required by subparagraph (3), additional mechanical integrity tests shall be performed on each well, as long as it is used for the injection of fluids, at the rate of not less than one (1) test every five (5) years. The first five (5) year period shall commence on the date the initial mechanical integrity test is performed.

b. **Shut-in Wells**- All shut-in wells shall pass a mechanical integrity test.

(1) A mechanical integrity test shall be performed on each shut-in well within two (2) years of the initial shut-in date. A mechanical integrity test shall be performed on each shut-in well on five (5) year intervals from the date the initial mechanical integrity test was performed. If, at any time, surface equipment is removed or the well becomes incapable of production, a mechanical integrity test must be performed within thirty (30) days. The mechanical integrity test for a shut-in well shall be:

A. Isolation of the wellbore with a bridge plug or similar approved isolating device set one hundred (100) feet or less above the highest perforations and a pressure test with liquid or gas at a pressure of not less than three hundred (300) psi surface pressure or any equivalent test or combination of tests approved by the Director.

B. Following the performance of the initial mechanical integrity test for shut-in wells, additional tests, other than the five (5) year interval test, may be required.

c. Not less than ten (10) days prior to the performance of any mechanical integrity test required by this rule, any person required to perform the test shall notify the Director, in writing, of the scheduled date on which the test will be performed.

d. All wells shall maintain mechanical integrity. All wells which lack mechanical integrity shall be repaired or plugged and abandoned within six (6) months of failing a mechanical integrity test or of a determination through any other means that the well lacks mechanical integrity, and the well site reclaimed in accordance with Rule 1004.a. All injection wells which fail a mechanical integrity test, or which are determined through any other means to lack mechanical integrity, shall be shut-in immediately.

327. LOSS OF WELL CONTROL

The operator shall take all reasonable precautions, in addition to fully complying with Rule 317. to prevent any oil, gas or water well from blowing uncontrolled and shall take immediate steps and exercise due diligence to bring under control any such well, and shall report such occurrence to the Director as soon as practicable, but no later than twenty four (24) hours following the incident. Within fifteen (15) days after all occurrences the operator shall submit a written report giving all details. The Director shall maintain these written reports in a central file.

328. MEASUREMENT OF OIL

The volume of all oil produced from a lease or a production unit shall be measured and recorded prior to removal from the lease or production unit. The volume of production of oil shall be computed in terms of barrels of clean oil on the basis of properly calibrated meter measurements or tank measurements of oil-level differences, made and recorded to the nearest one-quarter ($\frac{1}{4}$) inch of one hundred percent (100%) capacity tables, subject to the following corrections in items a., b., and c. below. This rule shall be used consistently with standards established by the American Society for Testing and Materials (ASTM), the American Petroleum Institute (API) Manual of Petroleum Measurement Standards, the American Gas Association (AGA), the Gas Processors Association (GPA), or other applicable standards-setting organizations, and pursuant to contractual rights or obligations. Only those editions of standards cited within this rule shall apply to this rule; later amendments do not apply. The material cited in this rule is available for public inspection during normal business hours from the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado, 80203. In addition, these materials may be examined at any state publication depository library.

a. **Correction for Impurities.** The percentage of impurities (water, sand and other foreign substances not constituting a natural component part of the oil) shall be determined to the satisfaction of the Director, and the observed gross volume of oil shall be corrected to exclude the entire volume of such impurities.

b. **Temperature Correction.** The observed volume of oil corrected for impurities shall be further corrected to the standard volume of sixty degrees fahrenheit (60°F) in accordance with ASTM D-1250 Table 7, or any revisions thereof and any supplements thereto or any close approximation thereof approved by the Director.

c. **Gravity Determination.** The gravity of oil at sixty degrees fahrenheit (60°F) shall be determined in accordance with ASTM D-1250 Table 5, or any revisions thereof and any supplements thereto or any close approximation thereof approved by the Director.

d. **Tank Gauging.** Measurement by tank gauging shall be completed in accordance with industry standards as specified in API CH. 3 Gauging of Tanks (Section 3.1a Second Edition August 2005 and Section 3.1b Second Edition June 2001) and the API CH. 18.1, Measure Procedures for Crude Oil Gathered from Small Tanks by Truck (Second Edition April 1997).

e. **Metering Station.** Measurement shall be completed in accordance with industry standards as specified in API CH. 4 Proving Systems (Section 2, Third Edition September 2003 and Section 8, First Edition November 1995), API CH. 5 Metering (CH. 5.1 Fourth Edition October 2005, CH. 5.2 Third Edition October 2005, CH. 5.3 Fifth Edition September 2005, CH. 5.4 Second Edition July 2005, CH. 5.5 Second Edition July 2005, and CH. 5.6 First Edition October 2002), API CH. 7 Temperature Determination (First Edition June 2001), API CH. 8 Sampling (CH. 8.1 Third Edition October 1995 and CH. 8.2 Second Edition October 1995), and the API CH. 12, Calculation Of Quantities (CH. 12.1 Part 1 Second Edition November 2001).

f. **Lact Meters.** Measurement utilizing lact units shall be in accordance with industry specifications or standards as specified in API SPEC. 6.1, Lease Automatic Custody Transfer Systems (Second Edition May 1991).

g. **Sales Reconciliation. RESERVED**

329. MEASUREMENT OF GAS

The volume of all gas produced from a lease or a production unit shall be measured and recorded prior to removal from the lease or production unit. Production of gas of all kinds shall be measured by meter unless otherwise agreed to by the Director. For computing volume of gas to be reported to the Commission, the standard pressure base shall be fourteen point seventy-three (14.73) psia, regardless of atmospheric pressure at the point of measurement, and the standard temperature base shall be sixty degrees fahrenheit (60°F). All volumes of gas to be reported to the Commission shall be adjusted by computation to these standards, regardless of pressures and temperatures at which the gas was actually measured, unless otherwise authorized by the Director. This rule shall be used consistently with standards established by the American Society for Testing and Materials (ASTM), the American Petroleum Institute (API) Manual of Petroleum Measurement Standards, the American Gas Association (AGA), the Gas Processors Association (GPA), or other applicable standards-setting organizations, and pursuant to contractual rights or obligations. Only those editions of standards cited within this rule shall apply to this rule; later amendments do not apply. The material cited in this rule is available for public inspection during normal business hours from the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado, 80203. In addition, these materials may be examined at any state publication depository library.

a. **Metering Station.** Installation and operation of gas measurement stations shall be in accordance with industry standards as specified in API CH. 14.3, Orifice Measurement (Part 2, Fourth Edition April 2000 and Part 3, Third Edition August 1992 and Part 4, Third Edition November 1992); API CH. 21.1, Electronic Measurement (gas) (First Edition September 1993); AGA Report #7, Turbine Measurement (January 2006); AGA Report #9, Ultrasonic Measurement (April 2007); and AGA Report #11, Coriolis Measurement (January 2003).

b. **Metering Equipment.** The devices used to measure the differential, line pressure, and temperature shall have accepted accuracy ratings established in industry standards as specified in API CH. 22, Testing Protocol Standards (CH. 22.1 First Edition November 2006 and CH. 22.2 First Edition August 2005).

c. **Meter Calibration.** Meters shall be calibrated annually unless more frequent calibration is required by contractual obligations or by the Director. All calibration reports shall be created, maintained, and made available as operation records pursuant to Rule 205. In the event two consecutive meter calibrations exceed a 2% error, the operator shall report the test results to the Director who may require the operator to show cause why the meter should not be replaced.

d. **Gas Quality.** The heating value of produced natural gas shall be representative of the flowing gas stream at the lease or unit boundary, as determined by chromatographic analysis of a sample obtained in close proximity to the volume measurement device and shall be reported on an Operator's Monthly Production Report, Form 7. Gas sampling and analysis shall occur annually unless more frequent sampling is required by contractual obligations or by the Director. Gas sampling, gas chromatography, and the resulting analysis data shall be in accordance with industry standards as specified in API CH. 14.1, Gas Sampling (Fifth Edition February 2006); GPA 2166, Gas Sampling (Revised 2005); GPA 2261, Gas Analysis (Revised 2000); GPA 2286, Extended Analysis; GPA 2145, Gas Physical Properties (Revised 2003); and GPA 2172, Gas Heating Value (Revised 1996).

e. **Sales Reconciliation. RESERVED**

330. MEASUREMENT OF PRODUCED AND INJECTED WATER

a. The volume of produced water shall be computed and reported in terms of barrels on the basis of properly calibrated meter measurements or tank measurements of water-level differences, made and recorded to the nearest one-quarter (1/4) inch of one hundred percent (100%) capacity tables. If measurements are based on oil/water ratios, the oil/water ratio must be based on a production test performed during the last calendar year. Other equivalent methods for measurement of produced water may be approved by the Director.

b. The volume of water injected into a Class II dedicated injection well shall be computed and reported in terms of barrels on the basis of properly calibrated meter measurements or tank measurements of water-level differences, made and recorded to the nearest one-quarter (1/4) inch of one hundred percent (100%) capacity tables. If water is transported to an injection facility by means other than direct pipeline, measurement of water is required by a properly calibrated meter.

c. The volume of water injected and produced in simultaneous injection wells shall be computed and reported in terms of barrels on the basis of calculated pump volumes, on the basis of properly calibrated meter measurements, or on the basis of a produced gas to water ratio based on an annual production test.

331. VACUUM PUMPS ON WELLS

The installation of vacuum pumps or other devices for the purpose of imposing a vacuum at the wellhead or on any oil or gas bearing reservoir may be approved by the Director upon application therefore, except as herein provided. The application shall be accompanied by an exhibit showing the location of all wells on adjacent premises and all offset wells on adjacent lands, and shall set forth all material facts involved and the manner and method of installation proposed. Notice of the application shall be given by the applicant by registered or certified mail, or by delivering a copy of the application to each producer within one-half (1/2) mile of the installation.

In the event no producer within one-half (1/2) mile of the installation or the Commission itself files written objection or complaint to the application within fifteen (15) days of the date of application, then the application shall be approved, but if any producer within one-half (1/2) mile of said installation or the Commission itself files written objection within fifteen (15) days of the date of application, then a hearing shall be held as soon as practicable.

332. USE OF GAS FOR ARTIFICIAL GAS LIFTING

Gas may be used for artificial gas lifting of oil where all such gas returned to the surface with the oil is used without waste. Where the returned gas is not to be so used, the use of gas for artificial gas lifting of oil is prohibited unless otherwise specifically ordered and authorized by the Commission upon hearing.

333. SEISMIC OPERATIONS

a. **COGCC Form 20, Notice of Intent to Conduct Seismic Operations.** Seismic operations require an approved Form 20 which shall be submitted to the Director prior to commencement of shothole drilling or recording operations. An informational copy of the Form 20 shall be filed by the operator with the local governmental designee at or before the time of filing with the Director. Any change of plans or line locations may be implemented without Director approval provided that after such change is performed, the Director shall receive written notice of the change within five (5) days.

A map shall be included with the notice. This map shall be at a scale of at least 1:48,000 showing sections, townships and ranges and providing the location of the proposed seismic lines, including source and receiver line locations.

The Notice of Intent to Conduct Seismic Operations, Form 20, shall be in effect for six (6) months from the date of approval. An extension of time may be granted upon written request submitted prior to the expiration date.

b. **Surface owner consultation.** Prior to the commencement of any seismic operations, a good faith effort shall be made to consult with all surface owners of the lands included in the seismic project area.

c. **Exploration requiring the drilling of shotholes:**

(1) **Explosive storage.** All explosives shall be legally and safely stored and accounted for in magazines when not in use in accordance with relevant regulations of the Alcohol, Tobacco and Firearms Division of the Federal Department of the Treasury.

(2) **Blasting safety setbacks.** Blasting shall be kept a safe distance from occupied buildings, water wells or springs, unless by special written permission of the surface owner or lessee, according to the following minimum setback distances:

CHARGES IN LBS. GREATER THAN	CHARGES IN LBS. UP TO AND INCLUDING	MINIMUM SETBACK DISTANCE IN FEET
0	2	200
2	5	300
5	6	360
6	7	420
7	8	480
8	9	540
9	10	600
10	11	649
11	12	696
12	13	741
13	14	784
14	15	825
15	16	864
16	17	901
17	18	936

18	19	969
19	20	1000
20		1320

(3) Prior to any shothole drilling, the operator shall contact the Utility Notification Center of Colorado at 1-800-922-1987.

(4) **Drilling and plugging.** The following guidelines shall be used to plug shotholes unless the operator can demonstrate that another method will provide adequate protection to ground water quality and movement and long-term land stability:

A. Any slurry, drilling fluids, or cuttings which are deposited on the surface around the seismic hole shall be raked or otherwise spread out to at least within one (1) inch of the surface, such that the growth of the natural grasses or foliage shall not be impaired.

B. All shotholes shall be preplugged or anchored to prevent public access if not immediately shot. In the event the preplug does not hold, seismic holes shall be properly plugged and abandoned as soon as practical after the shot has been fired. However, a fired hole shall not be left unplugged for more than thirty (30) days without approval of the Director. In no event shall shotholes be left open, but shall be covered with a tin hat or other similar cover until they are properly plugged. The hats shall be imprinted with the seismic contractor's name or identification number or mark.

C. The hole shall be filled to a depth of approximately three (3) feet below ground level by returning the cuttings to the hole and tamping the returned cuttings to ensure the hole is not bridged. A non-metallic perma-plug either imprinted or tagged with the operator name or the identification number or mark described in the notice of intent shall be set at a depth of three (3) feet, and the remaining hole shall be filled and tamped to the surface with cuttings and native soil. A sufficient mound of native soil shall be left over the hole to allow for settling.

D. When non-artesian water is encountered while drilling seismic shotholes, the holes shall be filled from the bottom up with a high grade coarse ground bentonite to ten (10) feet above the static water level or to a depth of three (3) feet from the surface; the remaining hole shall be filled and tamped to the surface with cuttings and native soil, unless the operator otherwise demonstrates that use of another suitable plugging material may be substituted for bentonite without harm to ground water resources.

E. If artesian flow (water rising above the depth at which encountered) is encountered in the drilling of any seismic hole, cement or high grade coarse ground bentonite shall be used to seal off the water flow with the selected material placed from the bottom of the hole to the surface or at least fifty (50) feet above the top of the water-bearing material, thereby preventing cross-flow between aquifers, erosion or contamination of fresh water supplies. Said holes shall be plugged immediately.

d. **COGCC Form 20A, Completion Report for Seismic Operations.** A Form 20A shall be submitted to the Director within sixty (60) days after completion of the project. The report shall include: maps (with a scale not less than 1:48,000) showing the location of all receiver lines, energy source lines and any shotholes. Shotholes encountering artesian flow shall be indicated on the map. If the program included any shotholes, then the completion report shall be accompanied by the following:

(1) a certification by the party responsible for plugging the holes that all shotholes are plugged as prescribed by these rules and approved by the Director, and

(2) the latitude and longitude of each shothole location. The latitude and longitude coordinates shall be referenced in decimal degrees to an accuracy and precision of five decimals of a degree using the North American Datum (NAD) of 1983 (e.g.; latitude 37.12345 N, longitude 104.45632 W) or reported in other form as approved by the Director. If GPS technology is utilized to determine the latitude and longitude, all GPS data shall meet the requirements set forth in Rule 215. a. through h.

e. **Bonding Requirements.** The company submitting the Notice of Intent to Conduct Seismic Operations, Form 20, shall file financial assurance in accordance with Rule 705. prior to the commencement of operations. The bond shall remain in effect until a request is made by the company to release the bond for the following reasons:

(1) The shotholes have been properly plugged and abandoned, and source and receiver lines have been reclaimed in accordance with this Rule 333., and

(2) There are no outstanding complaints received from surface owners that have not been investigated by the Director and addressed as provided for in Rule 522.

f. **Reclamation requirements.** Upon completion of seismic operations the surface of the land shall be restored as nearly as practicable to its original condition at the commencement of seismic operations. Appropriate reclamation of disturbed areas will vary depending upon site specific conditions and may include compaction alleviation and revegetation. All flagging, stakes, cables, cement, mud sacks or other materials associated with seismic operations shall be removed.

334. PUBLIC HIGHWAYS AND ROADS

All persons subject to the Act and these rules and regulations while using public highways or roads shall be subject to the State Vehicles and Traffic Laws pursuant to Title 42, C.R.S. and the State Highway and Roads Laws, Title 43, C.R.S., pertaining to the use of public highways or roads within the state.

335. COGCC Form 15. EARTHEN PIT REPORT/PERMIT

A Pit Construction Report/Permit, Form 15, shall be submitted for approval by the Director in accordance with Rule 903.

336. COGCC Form 18. COMPLAINT FORM

Any party who wishes to file a complaint regarding oil and gas operations is encouraged to submit a Form 18. The Director shall investigate any complaint and determine what, if any, action shall be taken in accordance with Rule 522.

337. COGCC Form 19. SPILL/RELEASE REPORT

All spills and releases of E&P waste exceeding five (5) barrels shall be reported on a Spill/Release Report, Form 19. Form 19 shall be filed with the Director pursuant to the reporting requirements in Rule 906.

338. COGCC Form 24. SOIL ANALYSIS REPORT

Soil Analysis Report, Form 24, shall be submitted where soil composition data is required, in accordance with Rule 910.

339. COGCC Form 25. WATER ANALYSIS REPORT

Water Analysis Report, Form 25, shall be submitted where water quality data is required, in accordance with Rule 910.

340. COGCC Form 27. SITE INVESTIGATION AND REMEDIATION WORKPLAN

Site Investigation and Remediation Workplan, Form 27, shall be submitted when required in accordance with Rule 909.

**UNIT OPERATIONS, ENHANCED RECOVERY PROJECTS,
AND STORAGE OF LIQUID HYDROCARBONS**

401. AUTHORIZATION

a. No person shall perform any enhanced recovery operations, cycling or recycling operations including the extraction and separation of liquid hydrocarbons from natural gas in connection therewith, or operations for the storage of gaseous or liquid hydrocarbons, nor shall any person carry on any other method of unit or cooperative development or operation of a field or a part of either, without having first obtained written authorization from the Commission to perform the aforementioned activities or operations. No person shall commence construction of a well for use in either enhanced recovery operations or for storage of gaseous or liquid hydrocarbons without having first obtained written authorization from the Commission to do so. These provisions shall not apply to existing gas storage projects or to projects that have received approval of the Federal Energy Regulatory Commission; provided however, that a copy of such application and approval shall be submitted to the Commission and made a part of their records.

b. Persons wishing to obtain such authorization shall file an application for authorization with the Commission. The application may be filed by any one (1) or more of the parties involved, or by the operator of the project for which authorization is sought. The application shall include the following:

(1) A plat showing the area involved, together with the well or wells, including drilling wells, dry and abandoned wells located thereon, all properly designated. If the plan of operation involves injection of fluids for enhanced recovery operations, or storage of liquid hydrocarbons, such plat shall show the names of owners of record within one-quarter (1/4) mile of the injection well or wells indicating whether they are surface owners, mineral interest owners, or working interest owners. The application shall also include information regarding the need for remedial action on wells penetrating the injection zone within one-quarter (1/4) mile of each injection well and a plan for the performance of any such remedial work.

(2) A full description of the particular operation for which authorization is required.

(3) Copies of the unit or co-operative agreement and operating agreement, unless these agreements have already been provided to the Commission.

(4) Where injection of fluids for enhanced recovery operations or storage of liquid hydrocarbons is proposed, the application shall also contain:

A. The name, description, thickness and depth of the following formations: those from which wells are producing or having produced; those which will receive any fluids to be injected; those capable of limiting the movement of any fluids to be injected;

B. The name and the depth to the bottom of all underground sources of drinking water which may be affected by the proposed activity or operation;

C. A resistivity log, run from the bottom of the surface casing to total depth of the injection well or wells, or a resistivity log of any well within one (1) mile together with a log from that well that can be correlated with a similar log of the injection well. If the injection well is to be drilled, a description of the typical stratigraphic level of the injection formation and any other available logging or testing data;

D. A description of the casing of the injection well or wells or the proposed casing program, including a schematic drawing of the surface and subsurface construction details of the system and a full description of cement jobs already in place or proposed;

E. A statement specifying the type of fluid to be injected, chemical analysis of the fluid to be injected, the source of the fluid, the estimated amounts to be injected daily, the anticipated injection pressures, water analysis of receiving formation, any available data on the compatibility of the fluid with the receiving formations and known or calculated fracture gradient (maximum authorized surface injection pressure will be set by the Director);

F. A description of any proposed stimulation program;

G. The name and address of the operator or operators of the project and those persons notified by the applicant.

(5) This rule does not apply to gas storage projects in existence on August 18, 1986.

402. NOTICE AND DATE OF HEARING

Upon the filing of any application, the Commission shall issue notice thereof, as provided by the Act and these regulations. Said application shall be set for public hearing at such time as the Commission may fix.

403. ADDITIONAL NOTICE

If injection of fluids is proposed by said application, in addition to the notice required by the Act, a copy of such application shall be given in person or by first class mail to each owner of record of the reservoir involved within one-quarter (1/4) mile of the proposed intake well or wells. Such delivery, whether in person or by mail, shall take place on or before the date the application is filed. An affidavit shall be attached to the application showing the parties to whom the notice has been given and their addresses.

404. CASING AND CEMENTING OF INJECTION WELLS

Wells used for injection of fluids into the producing formation shall be cased with safe and adequate casing or tubing so as to prevent leakage, and shall be so set or cemented that damage will not be caused to oil, gas or fresh water resources. (Each injection well must satisfactorily pass a mechanical integrity test in accord with Rule 326. prior to injection.)

405. NOTICE OF COMMENCEMENT AND DISCONTINUANCE OF INJECTION OPERATIONS

The following provisions shall apply to all injection projects whether or not they are approved by the Commission:

a. Immediately upon the commencement of injection operations, the operator shall notify the Commission of the injection date.

b. Within ten (10) days after the discontinuance of injection operations the operator shall notify the Commission of the date of such discontinuance and the reasons therefore.

c. When any well in an approved enhanced recovery unit operation is converted to or from an injection status, notice shall be given on a Sundry Notice, Form 4, within thirty (30) days.

d. Before any intake well shall be plugged, notice shall be given to the Commission by the owner of said well, and the same procedure shall be followed in the plugging of such well as is provided for the plugging of oil and gas wells.

RULES OF PRACTICE AND PROCEDURE

501. APPLICABILITY OF RULES OF PRACTICE AND PROCEDURE

a. These rules shall be known and designated as "Rules of Practice and Procedure before the Oil and Gas Conservation Commission of the State of Colorado," and shall apply to all proceedings before the Commission. These rules shall be liberally construed to secure just, speedy, and inexpensive determination of all issues presented to the Commission.

b. Notwithstanding any provision of these rules, the Commission shall, upon its own motion or upon the motion of a party to a proceeding, act to prohibit or terminate any abuse of process by an applicant, protestant, intervenor, witness or party offering a statement pursuant to Rule 510. in a proceeding. Such action may include, but is not limited to, summary dismissal of an application, protest, intervention or other pleading; limitation or prohibition of harassing or abusive testimony; and finding a party in contempt. Grounds for such action include, but are not limited to, the use of the Commission's procedures for reasons of obstruction and delay; misrepresentation in pleadings or testimony; or, other inappropriate or outrageous conduct.

c. Any rule, regulation, or final order of the Commission shall be subject to judicial review in accordance with the provisions of the Administrative Procedure Act, §§24-4-101 to 108, C.R.S., and any other applicable provisions of law.

502. PROCEEDINGS NOT REQUIRING THE FILING OF AN APPLICATION

a. **Commission's own motion.** The Commission may, on its own motion, initiate proceedings upon any questions relating to conservation of oil and gas or the conduct of oil and gas operations in the State of Colorado, or to the administration of the Act, by notice of hearing or by issuance of an emergency order without notice of hearing. Such emergency order shall be effective upon issuance and shall remain effective for a period not to exceed fifteen (15) days. Notice of an emergency order shall be given as soon as possible after issuance.

b. **Variances.**

(1) Variances to any Commission rules, regulations, or orders may be granted in writing by the Director without a hearing upon written request by an operator to the Director, or by the Commission after hearing upon application. The operator or the applicant requesting the variance shall make a showing that it has made a good faith effort to comply, or is unable to comply with the specific requirements contained in these rules to secure a waiver or an exception, if any, and that the requested variance will not violate the basic intent of the Oil and Gas Conservation Act.

(2) No variance to the rules and regulations applicable to the Underground Injection Control Program shall be granted by the Director without consultation with the U.S. Environmental Protection Agency, Region VIII, Waste Water Management Division Director.

(3) The Director shall report any variances granted at the monthly Commission hearing following the date on which such variance was granted.

503. ALL OTHER PROCEEDINGS COMMENCED BY FILING AN APPLICATION

a. All proceedings other than those initiated by the Commission or variance requests submitted for Director approval shall be commenced by filing with the Commission the original and nine (9) copies of a typewritten or printed petition which shall be titled "application." Whenever possible, the application shall also be submitted on compatible electronic media. The application shall set forth in reasonable detail the relief requested and the legal and factual grounds for such relief. The original of the application shall be executed by a person with authority to do so on behalf of the applicant and the contents thereof shall be verified by a party with sufficient knowledge to confirm the facts contained therein. Each application shall be accompanied by a docket fee established by the Commission (See Appendix III), except applications seeking an order finding violation or an emergency order.

b. Applications to the Commission may be filed by the following applicants:

(1) For purposes of applications for the creation of drilling units, applications for additional wells within existing drilling units, other applications for modifications to existing drilling unit orders, or applications for exceptions to Rule 318., only those owners within the proposed drilling unit, or within the existing drilling unit to be affected by the application, may be applicants.

(2) For purposes of applications for involuntary pooling orders made pursuant to §34-60-116, C.R.S., only those persons who own an interest in the mineral estate of the tracts to be pooled may be applicants.

(3) For purposes of applications for unitization made pursuant to §34-60-118, C.R.S., only those persons who own an interest in the mineral estate underlying the tract or tracts to be unitized may be applicants.

(4) For purposes of seeking an order finding violation, only the Director or a party who made a complaint under Rule 522. may be an applicant.

(5) For purposes of seeking a variance from the Commission, only the operator, mineral owner, surface owner or tenant of the lands which will be affected by such variance, other state agencies, any local government within whose jurisdiction the affected operation is located, or any person who may be directly and adversely affected or aggrieved if such variance is not granted, may be an applicant.

(6) For purposes of seeking a hearing on a Permit-to-Drill, Form 2, under Rules 303.d. and 303.k.(2), the relevant local government shall be the applicant, and the hearing shall be conducted in similar fashion as is specified in Rule 508.j., k. and l. with respect to a public issues hearing. It shall be the burden of the local government applicant to bring forward evidence sufficient for the Commission to make the preliminary findings specified in subsection j. of Rule 508. at the outset of such hearing.

(7) For purposes of seeking relief or a ruling from the Commission on any other matter not described in (1) through (6) above, only persons who can demonstrate that they are directly and adversely affected or aggrieved by the conduct of oil and gas operations or an order of the Commission and that their interest is entitled to legal protection under the act may be an applicant.

c. Applications subject to the requirements for local public forums under Rule 508.a. shall be accompanied by a proposed plan (the "Proposed Plan") to address protection of the environment, public health, safety, and welfare and a description of the current surface occupancy/use. The Proposed Plan shall include the rules and regulations of the Commission as they are applied to oil and gas operations in the application lands along with any procedures or conditions the applicant will voluntarily follow to address the protection of the environment, public health, safety, and welfare.

d. No later than seven (7) days after the application is filed, the applicant shall submit to the Commission a certificate of service demonstrating that the applicant served a copy of the application on all persons entitled to notice pursuant to these rules by mailing a copy thereof, first-class postage prepaid, to the last known mailing address of the person to be served, or by personal delivery. The applicant shall at the same time submit to the Commission a list of all persons entitled to notice pursuant to these rules on compatible electronic media. If the applicant is unable to submit an electronic media list of persons noticed the applicant shall submit a written list of persons noticed no later than seven (7) days after the application is filed.

e. The applicant shall enjoy a rebuttable presumption that it has properly served notice on persons entitled to notice of the proceedings by demonstrating through certification or testimony that notice was provided pursuant to Rules 507. and 508.

f. In order to continue to receive copies of the pleadings filed in a specific proceeding a party who receives notice of the application shall file with the Secretary a protest or intervention in accordance with these rules.

g. Subsequent to the initiation of a proceeding, all pleadings filed by any party shall be offered by filing with the Secretary the original and nine (9) copies bearing the cause number assigned to such proceeding. Each pleading shall include the certificate of the party filing the pleading that the pleading has been served on all persons who have filed a protest or intervention in accordance with these rules, by mailing a copy thereof, first-class postage prepaid, to the last known mailing address of the person to be served, or by personal delivery.

504. DOCKET NUMBER OF PROCEEDINGS

When a proceeding is initiated the Secretary of the Commission shall assign it a new docket number and enter on a separate page of a docket provided for such purpose, the proceeding with the date of the filing of the application, or the date of the entry of the Commission order, initiating such proceeding. All subsequent pleadings shall be assigned the same docket number and shall be noted with the date of filing upon the docket page or continued docket page, for such proceeding, as the case may be.

505. REQUIREMENT OF PUBLIC HEARING

Before the Commission adopts any rule, regulation, or enters any order, or amendment thereof, or grants any variance pursuant to Rule 502., the Commission shall hold a public hearing, scheduled in accordance with Rule 506., at such time and place as may be prescribed by the Commission. Any party shall be entitled to be heard as provided in these rules and regulations. The foregoing shall not apply to the issuance of an emergency order, notice of alleged violation, or cease and desist order.

506. HEARING DATE/CONTINUANCE

a. All applications shall be filed no later than fifty (50) days in advance of the hearing date for which the applicant proposes the matter be docketed provided the docket has not been filled by the Secretary. The Secretary shall have the discretion to accept applications later than fifty (50) days prior to the hearing date, subject to docket availability and the notice requirements of Rules 507. and 508. The Secretary shall grant the first request by an applicant for a continuance of any matter three (3) business days before the scheduled hearing, provided that a protest has not been filed. For contested matters the Secretary shall have the discretion to grant any motion for continuance stipulated to by the applicant and any protestants or intervenors. The Secretary shall notify the Commission of any continuances granted at the next regularly scheduled Commission meeting. The Commission may at any time direct the Secretary to discontinue granting continuances in any matter. In all other cases, requests for continuance shall be reviewed by the Commission before approval or denial. When a continuance request is heard by the Commission the moving party shall demonstrate good cause in order for the Commission to grant the continuance.

b. In all rulemaking proceedings, hearings shall be held in accordance with Rule 529.

c. The Commission may for good cause cancel or continue any hearing to another date by issuing written notice at any time prior to the close of the record, or by announcement at hearing. Good cause shall include, but shall not be limited to, the Commission's acknowledgment that it will not have sufficient time at any regularly scheduled meeting to hear any matter. Any continuance of a hearing shall not extend the filing deadline for the filing of protests or interventions in accordance with Rule 509., unless the application is amended, or as otherwise allowed by the Commission.

d. When a Commission hearing is scheduled for multiple days the Secretary may estimate the time and date that a given matter may be heard by the Commission. The Commission may change, at its discretion, the proposed hearing docket, including the time or date of any scheduled hearing. It shall be the responsibility of the participating party and its attorney to be present when the Commission hears the matter.

507. NOTICE FOR HEARING

a. General notice provisions.

(1) When any proceeding has been initiated, the Commission shall cause notice of such proceeding to be given to all persons specified in the relevant sections of Rules 507.b. and 507.c. at least twenty (20) days in advance of any Commission hearing at which the matter will first be heard. Notice shall be provided in accordance with the requirements of §34-60-108(4), C.R.S.

(2) The applicant shall assume the cost for publication, and if the number of notices exceeds one hundred (100), responsibility for mailing the notices.

(3) The Secretary shall give notice to any person who has filed a request to be placed on the Commission hearing notice list, and paid the annual fee therefor. Notice by publication or notice provided pursuant to the hearing notice list shall not confer interested party status on any person.

b. Notice for specific applications.

(1) **Applications affecting drilling units.** For purposes of applications for the creation of drilling units, applications for additional wells within existing drilling units or other applications for modifications of or exceptions to existing drilling unit orders (except for applications for well exception locations to existing orders which are addressed in subsection 4 of this rule) notice of the application shall be served on the owners within the proposed drilling unit or within the existing drilling unit to be affected by the applications.

(2) **Applications for involuntary pooling.** For purposes of applications for involuntary pooling orders made pursuant to §34-60-116, C.R.S., notice of the application shall be served on those persons who own any interest in the mineral estate of the tracts to be pooled, except owners of an overriding royalty interest.

(3) **Applications for unitization.** For purposes of applications for unitization made pursuant to §34-60-118, C.R.S., notice of the application shall be served on those persons who own any interest in the mineral estate underlying the tract or tracts to be unitized and the owners within one-half (1/2) mile of the tract or tracts to be unitized.

(4) **Applications changing certain well location setbacks.** For purposes of applications that change the permitted minimum setbacks for established drilling and spacing units, notice of the application shall be served on those owners of contiguous or cornering tracts who may be affected by such change.

(5) **Applications for well location exception.** For purposes of applications made for exceptions to Rule 318., exceptions to legal locations within drilling and spacing units, or for an exception location to an existing order, notice of the application shall be served on the owners of any contiguous or cornering tract toward which the well location is proposed to be moved, provided that when the applicant owns any interest covering such tract, the person who owns the mineral estate underlying the tract covered by such lease shall also be notified. If there is more than one owner within a single drilling unit and the owners have designated a party as the operator on their behalf, notice shall be presumed sufficient if served upon the designated operator of the affected formation.

(6) **Orders related to violations.** With respect to the resolution of a Notice of Alleged Violation (NOAV) through an Administrative Order by Consent (AOC), and to applications for an Order Finding Violation (OFV), notice shall be provided to the complainant and by publication in accordance with §34-60-108(4), C.R.S.

c. **Notice to local government.** For purposes of intervention pursuant to Rule 509. notice shall also be given to the local governmental designee of applications made under sections (1), (3) and (4) of this Rule at the same time that notice is provided to the Commission.

508. LOCAL PUBLIC FORUMS, HEARINGS ON APPLICATIONS FOR INCREASED WELL DENSITY AND PUBLIC ISSUES HEARINGS.

a. **Applicability of rule.** Applications that would result in more than one (1) well site or multi-well site per forty (40) acre nominal governmental quarter-quarter section or that request approval for additional wells that would result in more than one (1) well site or multi-well site per forty (40) acre nominal governmental quarter-quarter section, within existing drilling units, not previously authorized by Commission order (together an “application for increased well density”) shall be subject to the provisions of this Rule 508.

b. Local public forum.

(1) The rules and regulations of the Oil and Gas Conservation Commission as they are applied to oil and gas operations are expected to adequately address impacts to the environment and public health, safety and welfare which may be raised by an application for increased well density.

(2) A local public forum may however be convened to consider potential issues related to the environment or public health, safety, and welfare that may be raised by an application for increased well density that may not be completely addressed by these rules or the Proposed Plan submitted with the application to address protection of the environment, public health, safety, and welfare as described in Rule 503.c.

A. A local public forum shall be convened on the Commission’s own motion, or upon request from a local governmental designee or the applicant.

B. A local public forum may be convened at the Director’s discretion, or upon receipt of a request for a local public forum from a citizen of the county(ies) in which the application area is situated, after the Director’s consideration of the following factors:

- (i) The size of the application area and the number and density of surface locations requested;
- (ii) The population density of the application area;
- (iii) The distribution of Indian, federal and fee lands within the application area;
- (iv) The level of current or past public interest in increased well density in the vicinity of the application area;
- (v) Whether the application is limited to the deepening or recompletion of existing wells, or directional drilling from existing surface locations, or;
- (vi) Whether the application is limited to an exploratory unit formed for involuntary pooling purposes.

(3) The Director shall notify the local governmental designee of any application for increased well density no later than five (5) days after receipt of such application. If the local governmental designee elects to require a local public forum it shall notify the Director of its decision within five (5) days of receipt of notice of the application.

(4) The Director shall notify the applicant of any decision to convene a local public forum no later than ten (10) days after receipt of the application.

c. Local public forums on federal and Indian lands.

(1) If the surface and the minerals of the application area are comprised in their entirety of federal or Indian lands no local public forum shall be convened because potential impacts to the environment or public health, safety, and welfare on such lands are subject to federal or tribal requirements. All proceedings on any application for increased well density on federal or Indian lands shall be conducted to comply with the obligations contained in any intergovernmental or tribal memoranda of understanding governing the conduct of oil and gas operations on federal or Indian lands.

(2) If the application area is comprised in part of federal or Indian lands, the Director shall consult with the appropriate federal or Indian authorities before scheduling any public forum on the application. Insofar as the application includes federal or Indian lands, proceedings thereon shall be conducted in accordance with this rule and any obligations contained in any intergovernmental or tribal memoranda of understanding governing the conduct of oil and gas operations on federal or Indian lands.

(3) The Director shall notify the appropriate federal and Indian authorities of any local public forum to be convened to evaluate an application area that includes federal or Indian lands. Federal or Indian participation in the local public forum may include without limitation presentation of the most recent applicable resource management plan(s) and any environmental assessment(s) or environmental impact statement(s) that cover or include all or any portion of the application area.

d. Notice of the local public forum.

(1) Within five (5) days from the date the applicant receives notice from the Director that a local public forum shall be convened, the applicant shall submit to the Director a list of the surface owners within the application area. In determining the identity and address of a surface owner for the purpose of giving all notices under this rule the records of the assessor for the county in which the lands are situated may be relied upon.

(2) At least twenty (20) days before the date of the local public forum the Director shall mail to the listed surface owners notice thereof.

(3) Within ten (10) days of receipt of an application for increased well density the Director shall, by regular or electronic mail or by facsimile copy, provide to the local governmental designee(s) notice of the local public forum or notice that based on the factors in Rule 508.b.(2).B. above the Director will not conduct a local public forum.

(4) At least ten (10) days before the date of the local public forum the Director shall publish notice thereof in a newspaper of general circulation in the count(ies) where the application lands are located.

(5) The notice for the local public forum shall state that the forum is being conducted to consider any issues raised by the application that may affect the environment or public health, safety, and welfare that are not addressed by the rules or the Proposed Plan.

(6) Within five (5) days of receipt of an application for increased well density, the Director shall post a description of such application on the COGCC Internet web page.

e. Timing and location of the local public forum.

(1) As soon as practicable after publication of notice, but at least ten (10) days prior to the scheduled Commission hearing on the application, the Director shall conduct the local public forum at a location reasonably proximate to the lands affected by the application. In the alternative, if the hearing is to be held at a location reasonably proximate to the lands affected by the application, the local public forum shall be replaced by the presentation of statements in accordance with Rule 510 during the hearing on the application.

(2) The Director shall immediately notify the applicant of the scheduled time and location of the local public forum.

(3) To the extent practicable, the local public forum shall be scheduled to accommodate the Director or the Director's designee, the participants and the applicant.

(4) If the application area is comprised of lands located in more than one jurisdiction the Director shall coordinate the local public forum to provide for a single forum at a reasonable location proximate to the lands affected by the application.

f. **Conduct of the local public forum.**

(1) A COGCC Hearing Officer shall preside over the local public forum. The COGCC Hearing Officer shall provide to the participants an explanation of the purpose of the local public forum and how the Commission may use the information obtained from the local public forum. The purpose of the local public forum is to address the sufficiency of the rules or the Proposed Plan with respect to protection of the environment or public health, safety, and welfare.

(2) The conduct of the local public forum shall be informal, and participants shall not be required to be sworn, represented by attorneys, or subjected to cross examination.

(3) Attendance or participation at the local public forum by a Commissioner shall not constitute a violation of Rule 515.

(4) The applicant shall participate in the local public forum and present information related to the application.

(5) The Director shall create a record of the local public forum by video-tape, audio-tape or by court reporter. Such record shall be made available to all Commissioners for review prior to the hearing on the application, and may be relied upon in making a decision to convene a public issues hearing.

g. The local public forum shall be conducted to allow elected officials, local government personnel and citizens to express concerns not completely addressed by the rules or the Proposed Plan or make statements regarding the potential impacts from increased well density that relate to the environment or public health, safety, and welfare. Issues raised in the local public forum may include the following:

(1) Impact to local infrastructure;

(2) Impact to the environment;

(3) Impact to wildlife;

(4) Impact to ground water resources;

(5) Potential reclamation impact; and

(6) Other impact to public health, safety and welfare.

The local public forum shall be limited to matters that are within the jurisdiction of the Commission.

h. **Report to the Commission.** At the conclusion of the local public forum the presiding officer shall prepare and submit to the Commission a report of the proceedings. A copy of the report shall be made available, no later than five (5) days prior to the hearing on the application, to the Commissioners, the applicant, any affected local government and the public and shall be posted to the COGCC Internet web page. The report on the local public forum presented to the Commission shall be included in the administrative record for the application taking into consideration the nature of the local public forum process.

i. **Conduct of the hearing on the application.**

(1) The hearing on the application shall be conducted in accordance with Rule 528.

(2) The Commission shall approve or deny the application based solely on the application's technical merits in accordance with §34-60-116, C.R.S.

(3) The presiding officer for any local public forum shall present to the Commission the report of the local public forum.

(4) At the conclusion of the hearing on the application the Commission shall consider and decide whether to convene a public issues hearing based on the local public forum or statements made under Rule 510., and any motions to intervene, and the Commission may:

A. Approve the application without condition;

B. Approve the application with conditions based on the technical testimony presented at the hearing on the application;

C. Approve the application, and with the applicant's consent, attach to the order on the application conditions the Commission determines are necessary to address issues related to the environment or public health, safety or welfare;

D. Approve the application and stay its effective date to convene a public issues hearing in accordance with Rule 508.j.

E. Deny the Application.

(5) If the Commission orders a public issues hearing it shall set the public issues hearing for the next regularly scheduled Commission meeting, unless the applicant requests at a prehearing conference, and the Commission agrees, to convene the public issues hearing immediately following the hearing on the application.

(6) If the Commission orders a public issues hearing it shall set the public issues hearing for the next regularly scheduled Commission meeting.

j. Public issues hearing.

Upon a request by an applicant, protestant, or intervener, or on the Commission's own motion, a public issues hearing shall be convened provided the Commission makes the following preliminary findings:

(1) That the public issues raised by the application reasonably relate to potential significant adverse impacts to the environment or public health, safety and welfare that are within the Commission's jurisdiction to remedy; and

(2) That the potential impacts were not adequately addressed by:

A. In the case of an application for increased well density, the application or the Proposed Plan; or

B. In the case of an application for permit-to-drill, by such permit.

(3) That the potential impacts are not adequately addressed by the rules and regulations of the Commission.

k. Conduct of the public issues hearing:

(1) The rules and regulations of the Commission shall apply to all participants in the public issues hearing.

(2) The public issues hearing shall be conducted, to the extent practicable, in accordance with Rule 528.

(3) After the public issues hearing the Commission may attach conditions to its order to protect the environment from significant adverse impacts or to protect public health safety and welfare as are warranted by the relevant testimony, and that are not otherwise addressed by these rules and regulations and the Proposed Plan. In addition, the Commission may without limitation:

A. Direct the applicant to amend its Proposed Plan for Commission review and approval for all or a portion of the application area to address specific issues related to the environment or public health, safety and welfare, including any identified impacts of increased well density within all or a portion of the application area, rather than on a single well basis.

B. Include in any order a provision to allow the Director discretion to attach specific conditions to individual well permits as the Commission determines are reasonable and necessary to protect the environment or public health, safety, and welfare.

(4) Any plan or conditions imposed by Commission order that would affect federal or Indian lands shall take into account conditions imposed by the federal or Indian authorities and any federal environmental analysis in order to facilitate regulatory consistency and minimize duplicative regulatory efforts.

(5) Any plan or conditions imposed shall take into account cost effectiveness and technical feasibility, and shall not be applied to prevent the drilling of new wells per se.

I. The Director and the commission shall use best efforts to comply with the provisions of this Rule 508., however, any deviation from this rule shall not give rise to a challenge to Commission action on the local public forum, the application for increased well density, or the public issues hearing.

509. PARTICIPATION IN ADJUDICATORY PROCEEDINGS

a. The applicant and persons that have filed with the Commission a timely and proper protest or intervention pursuant to this rule shall have the right to participate formally in any adjudicatory proceeding. In the case of a local government, intervention shall be granted by right and without fee solely to raise environmental or public health, safety, and welfare concerns.

(1) The protest or intervention shall be filed with the Secretary, and served on the applicant and its counsel at least ten (10) business days prior to the first hearing date on the matter.

(2) Description of affected interest:

A. A protest shall include information to demonstrate that the person is a protestant under these rules in order for the protest to be accepted by the Commission.

B. A local government intervening as a matter of right shall include in the intervention information describing the environmental or public health, safety and welfare concerns raised by the application. When an intervention is filed by any local government or person on an application subject to Rule 508.a., information on the following shall be included:

i. That the public issues raised by the application reasonably relate to potential significant adverse impacts to the environment or public health, safety and welfare that are within the Commission's jurisdiction to remedy; and

ii. That the potential impacts were not adequately addressed by the application or by the Proposed Plan; and

iii. That the potential impacts are not adequately addressed by the rules and regulations of the Commission.

C. A party desiring to intervene by permission of the Commission shall include in the intervention information to demonstrate why the intervention will serve the public interest, in which case granting the intervention shall be at the Commission's sole discretion. The Commission, at its discretion, may limit the scope of the permissive intervenor's participation at the hearing.

(3) The pleading shall include:

A. A general statement of the factual or legal basis for the protest or intervention,

B. The relief requested;

C. A description of the intended presentation including a list of proposed witnesses;

D. A time estimate to hear the protest or intervention; and

E. A certificate of service attesting that the pleading has been served, at least ten (10) business days prior to the first hearing date on the matter, on the applicant and any other party which has filed a protest or intervention in the proceeding. If the pleading is served by mail the party filing the pleading shall provide a facsimile copy of the pleading to the applicant and other persons who have filed a proper protest or intervention in the matter on or before the final date for protest or intervention. If for any reason the party filing the pleading is not able to furnish a copy of the pleading to the applicant and the other persons who have filed a proper protest or intervention on or before the final date for protest or intervention, the party filing the pleading shall so notify the Secretary, the applicant and the other parties to the proceeding.

b. The Secretary or the Director may require any additional information necessary pursuant to these rules to ensure the application, protest or intervention is complete on its face.

c. Any person shall have the right to participate in an adjudicatory proceeding by making a 510. statement in accordance with these rules.

d. All pleadings filed pursuant to this rule shall be submitted with an original and nine (9) copies, and shall be accompanied by a docket fee established by the Commission (see Appendix III). The docket fee shall be refunded if an intervention is denied. In cases of extreme hardship, the docket fee may be refunded at the discretion of the Commission.

e. **Participation at the hearing:**

(1) Adjudicatory hearings shall be conducted in accordance with Rule 528. and any applicable prehearing orders of the Commission, or its designated Hearing Officer.

(2) Testimony and cross-examination by a protestant or intervenor shall be limited to those issues that reasonably relate to the interests that the protestant or intervenor seeks to protect, and which may be adversely affected by an order of the Commission.

510. STATEMENTS AT HEARING

a. Any person may make an oral statement or submit a written statement at any hearing that relates to the proceeding before the Commission. The Commission, at its discretion, may limit the length of any oral statement or restrict repetitive statements. In an adjudicatory hearing, an oral statement shall not be accepted into the record unless:

(1) The statement is made under oath, and

(2) The parties to the hearing are allowed to cross-examine the maker of the statement.

b. The Commission, at its discretion, may accept a sworn written statement into the record with due regard to the fact the statement was not subject to cross-examination.

c. The parties to the hearing shall have the right to object to inclusion of any statement under this Rule 510. into the record. The Commission shall note the objection for the record. If the Commission accepts the basis for excluding the 510. statement from the record the substance of the statement shall not be considered by the Commission in making a decision on the matter at issue.

511. APPLICATION PROCEDURE

a. Upon the filing of an application, the Secretary shall set the matter for hearing and ensure that notice is given.

b. If the matter is uncontested, the applicant may request, and the Director may recommend approval on the basis of the merits of the verified application and the supporting exhibits. If the Director does not recommend approval of the application without hearing, the applicant may request an administrative hearing on the application. For purposes of this rule an uncontested matter shall mean any application that is not subject to a protest or an intervention objecting to the relief requested in the application.

c. If the application is contested, the Commission or the Director, at their discretion, may direct the parties to engage in a prehearing conference in accordance with Rule 527. A prehearing conference may result in a continuance of the hearing, or bifurcation of hearing issues as determined by the Director, Hearing Officer or Hearing Commissioner.

512. COMMISSION MEMBERS REQUIRED FOR HEARINGS AND/OR DECISIONS

Four (4) members of the Commission constitute a quorum for the transaction of business. Testimony may be taken and oath or affirmation administered by any member of the Commission.

513. RESERVED

514. JUDICIAL REVIEW

Any Commission order constitutes final agency action for the purpose of judicial review, except as may otherwise be specified under these rules. The statutory time period for filing a notice of appeal from any Commission decision shall commence on the date the order is mailed or served.

515. EX PARTE COMMUNICATIONS

a. The following provisions shall be applied in any adjudicatory proceeding before the Commission or a Hearing Officer.

(1) No person shall make or knowingly cause to be made to any member of the Commission or a Hearing Officer, an ex parte communication concerning the merits of a proceeding which has been noticed for hearing.

(2) No Commissioner or Hearing Officer shall make or knowingly cause to be made to any interested person an ex parte communication concerning the merits of a proceeding which has been noticed for hearing.

(3) A Commissioner or Hearing Officer who receives, or who makes or knowingly causes to be made, a communication prohibited by this rule shall place on the public record of a proceeding:

A. All such written communications and any responses thereto;

B. Memoranda stating the substance of any such oral communications and any responses thereto.

(4) Upon receipt of a communication knowingly made or knowingly caused to be made by a person in violation of this Rule, the Commission or a Hearing Officer may require the person to show cause why their claim or interest in the proceeding should not be dismissed, denied, or otherwise adversely affected on account of such violation.

b. Oral or written communication with individual Commission members is permissible in a rulemaking proceeding. If such information is relied upon in final decision making it shall be made part of the record by the Commission. After the rulemaking record is closed new information that is intended for the rulemaking record shall be presented to the Commission as a whole upon approval of a request to reopen the rulemaking record.

c. This rule shall not limit the right to challenge a decision of the Commission or a Hearing Officer on the grounds of bias or prejudice due to any ex parte communication.

516. STANDARDS OF CONDUCT

a. The purpose of this rule is to ensure that the Commission's decisions are free from personal bias and that its decision making processes are consistent with the concept of fundamental fairness. The provisions of this rule are in addition to the requirements for Commission members set forth in Title 24, Article 18, Section 108.5 of the Colorado Revised Statutes. This rule should be construed and applied to further the objectives of fair and impartial decision making. To achieve these standards Commissioners and Hearing Officers should:

(1) Discharge their responsibilities with high integrity.

(2) Respect and comply with the law. Their conduct, at all times, should promote public confidence in the integrity and impartiality of the Commission.

(3) Not lend the prestige of the office to advance their own private interests, or the private interests of others, nor should they convey, or permit others to convey, the impression that special influence can be brought to bear on them.

b. **Conflicts of interest.** A conflict of interest exists in circumstances where a Commissioner or Hearing Officer has a personal or financial interest that prejudices that Commissioner's or Hearing Officer's ability to participate objectively in an official act.

(1) A Commissioner or a Hearing Officer shall disclose the basis for a potential conflict of interest to the Commission and others in attendance at the hearing before any discussion begins or as soon thereafter as the conflict is perceived. A conflict of interest may also be raised by other Commissioners, the applicant, any protestant or intervenor, or any member of the public.

(2) In response to an assertion of a conflict of interest, a Commissioner may withdraw or the Director may designate an alternate Hearing Officer. If the Commissioner does not agree to withdraw, the other Commissioners, after discussion and comments from any member of the public, shall vote on whether a conflict of interest exists. Such vote shall be binding on the Commissioner disclosing the conflict.

(3) In determining whether there is a conflict of interest that warrants withdrawal the Commission members or Hearing Officer shall take the following into consideration:

A. Whether the official act will have a direct economic benefit on a business or other undertaking in which the Commissioner or Hearing Officer has a direct or substantial financial interest.

B. Whether the potential conflict will result in the Commissioner or Hearing Officer not being capable of judging a particular controversy fairly on the basis of its own circumstances.

C. Whether the potential conflict will result in the Commissioner or Hearing Officer having an unalterable closed mind on matters critical to the disposition of the proceeding.

c. **Discharge of duties.** In the performance of their official duties, the Commission shall apply the following standards:

- (1) To be faithful to and constantly strive to improve their competence in regulatory principles, and to be unswayed by partisan interests, public clamor or fear of criticism.
- (2) To maintain order and decorum in the proceedings before them.
- (3) To be patient, dignified and courteous to litigants, witnesses, lawyers and others with whom the Commission deals in an official capacity, and to require similar conduct of attorneys, staff and others subject to their direction and control.
- (4) To afford to every person who is legally interested in a proceeding, or their attorney, full right to be heard according to law.
- (5) To diligently discharge their administrative responsibilities, maintain professional confidence in Commission administration and facilitate the performance of the administrative responsibilities of other staff officials.

517. REPRESENTATION AT ADMINISTRATIVE AND COMMISSION HEARINGS

a. Natural persons may appear on their own behalf and represent themselves at hearings before the Commission and persons allowed to make oral or written statements may do so without counsel. Pro se participants shall be subject to these rules and regulations.

b. Except as provided in a. and c. of this rule, representation at hearings before the Commission shall be by attorneys licensed to practice law in the State of Colorado, and provided that any attorney duly admitted to practice law in a court of record of any state or territory of the United States or in the District of Columbia, but not admitted to practice in Colorado, who appears at a hearing before the Commission may, upon motion, be admitted for the purpose of that hearing only, if that attorney has associated for purposes of that hearing with any attorney who:

- (1) Is admitted to practice law in Colorado;
- (2) Is a resident or maintains a law office within Colorado; and
- (3) Is personally appearing with the applicant in the matter and in all proceedings connected with it.

The resident attorney shall continue in the case unless other resident counsel is submitted. Any notice, pleading, or other paper may be served upon the resident attorney with the same effect as if personally served on the non-resident attorney within this state. Resident counsel shall be present before the Commission unless otherwise ordered by the Commission.

c. The Commission has the discretion to allow representation by a corporate officer or director of a community organization, a closely held corporation, a citizens' group duly authorized under Colorado law, or if a limited liability corporation, the member/manager in the following circumstances:

- (1) Where the agency is adopting a rule of future effect;
- (2) Local public forums;
- (3) When an individual is appearing on behalf of a closely held corporation as provided in §13-1-127, C.R.S.;

d. Unless a non-attorney is appearing pro se or pursuant to §13-1-127, C.R.S., or the Director is participating pursuant to Rule 528.c., a non-attorney shall not be permitted to examine or cross-examine witnesses, make objections or resist objections to the introduction of testimony, or make legal arguments.

e. At administrative hearings before the Director, attorneys shall not be required.

518. SUBPOENAS

The Commission may, through the Secretary, issue subpoenas requiring attendance of witnesses and the production of books, papers, and other instruments to the same extent and in the same manner and in accordance with the procedure provided in the Colorado Rules of Civil Procedure which authorize issuance of subpoenas by

Clerks of District Courts. A party seeking a subpoena shall submit the form of the subpoena to the Secretary for execution. Upon execution, the party requesting the subpoena has the responsibility to serve the subpoena in accordance with the Rules of Civil Procedure. Upon receipt of an objection to any subpoena issued by the Commission, the Commission has the discretion to limit the scope of the subpoena to matters that are within the scope of the Commission's jurisdiction under the Act.

519. APPLICABILITY OF COLORADO COURT RULES AND ADMINISTRATIVE NOTICE.

a. The Commission adopts the rules of practice and procedure contained in the Colorado Rules of Civil Procedure insofar as the same may be applicable and not inconsistent with the rules herein set forth.

b. In general, the rules of evidence applicable before a trial court without a jury shall be applicable, providing that such rules may be relaxed, where, by so doing, the ends of justice will be better served.

(1) To promote uniformity in the admission of evidence, the Commission, to the extent practical, shall observe and conform to the Colorado rules of evidence applicable in civil non-jury cases in the district courts of Colorado.

(2) When necessary to ascertain facts affecting substantial rights of the parties to a proceeding, the Commission may receive and consider evidence not admissible under the rules of evidence, if the evidence possesses probative value commonly accepted by reasonable and prudent persons in the conduct of their affairs.

(3) Informality in any proceeding or in the manner of taking testimony shall not invalidate any Commission order, decision, rule or regulation.

c. **Administrative notice.** The Commission may take administrative notice of:

(1) Constitutions and statutes of any state and of the United States;

(2) Rules, regulations, official reports, decisions, and orders of state and federal administrative agencies;

(3) Decisions and orders of federal and state courts;

(4) Reports and other documents in the files of the Commission;

(5) Matters of common knowledge and undisputed technical or scientific fact;

(6) Matters that may be judicially noticed by a Colorado district court in a civil non-jury case; and

(7) Matters within the expertise of the Commission.

520. TIME OF HEARINGS AND HEARING AGENDA

a. Regular hearings will be held before the Commission on such days as may be set by the Commission.

b. The Secretary shall place on the consent agenda those matters recommended by a Hearing Officer for approval, those matters in which an Administrative Order by Consent (AOC) has been negotiated, and those uncontested matters for which a decision has been requested based on the verified application.

(1) The consent agenda shall be voted on without deliberation and without the necessity of reading the individual items, except any Commissioner may request clarification from the Director for any matter on the consent agenda.

(2) Any Commissioner may remove a matter from the consent agenda prior to voting thereon.

(3) Any matter removed from the consent agenda shall be heard at the end of the remaining agenda, if practicable and agreeable to the applicant, or, if not, scheduled for hearing at the next regularly scheduled meeting of the Commission.

521. RESERVED

522. PROCEDURE TO BE FOLLOWED REGARDING ALLEGED VIOLATIONS

a. **Notice of Alleged Violation.**

(1) A complaint requesting that the Director issue a Notice of Alleged Violation (NOAV) may be made by the

mineral owner, surface owner or tenant of the lands upon which the alleged violation took place, by other state agencies, by the local government within whose boundaries the lands are located upon which the alleged violation took place, or by any other person who may be directly and adversely affected or aggrieved as a result of the alleged violation.

(2) Oral complaints shall be confirmed in writing. Persons making a complaint are encouraged to submit a Complaint Form, Form 18.

(3) If the Director, on the Director's own initiative or based on a complaint, has reasonable cause to believe that a violation of the Act, or of any rule, regulation, or order of the Commission, or of any permit issued by the Director, has occurred, the Director shall cause the operator to voluntarily remedy the violation, or shall issue a NOAV to the operator. Reasonable cause requires, at least, physical evidence of the alleged violation, as verified by the Director.

(4) If the Director, after investigating a complaint made in accordance with this Rule 522.a.(1), decides not to issue a NOAV, the complainant may file an application to the Commission pursuant to Rule 503.b.(4), requesting the Commission enter an Order Finding Violation (OFV) in accordance with this rule.

(5) NOAV process

A. A NOAV issued by the Director shall be served on the operator's designated agent, or on the operator if no agent has been designated, by personal delivery or by certified mail, return receipt requested.

B. The NOAV shall not be placed on the Commission docket, except as part of an application filed pursuant to subparagraph c. of this rule.

C. The NOAV does not constitute final agency action for purposes of judicial appeal.

D. The NOAV shall identify the statute, rule, regulation, order, permit or permit condition subject to Commission jurisdiction allegedly violated and the facts alleged to constitute the violation. The NOAV may propose appropriate corrective action and an abatement schedule, if any, that the Director elects to require. The NOAV shall also describe the penalty, if any, which the Director may propose, to be recommended in accordance with Rule 523.

b. Resolution of a Notice of Alleged Violation.

(1) Informal procedures to resolve issues raised by a NOAV with the Director are encouraged. Such procedures may include, but are not limited to, meetings, phone conferences and the exchange of information. If, as a result of such procedures, the Director determines that no violation has occurred, the Director shall revoke the NOAV in writing and shall provide a copy of the written notification to the complainant, if any.

(2) NOAVs may be resolved by written agreement of the operator and the Director as to the appropriate corrective action and abatement schedule, a copy of which shall be provided by the Director to the complainant, if any. Such agreements do not require Commission approval and shall not be placed on the Commission docket, except at the request of the operator.

(3) NOAVs which are not resolved by written agreement for correction and abatement or which recommend the imposition of a penalty may be provisionally resolved by negotiation between the operator and the Director. If such negotiations result in a proposed agreement, an Administrative Order By Consent (AOC) containing such agreement shall be prepared and noticed for review and approval by the Commission. The Director may propose the terms for an AOC directly to the alleged violator. Upon Commission approval, the AOC shall become a final order, and the agreed penalty imposed. The AOC shall be placed on the consent agenda and Commission approval may be granted without hearing, unless a protest thereto is filed. Unless the operator so agrees, such AOC shall not constitute an admission of the alleged violation.

(4) The Director shall advise the complainant of any informal procedures used to facilitate resolution of the NOAV. A complainant may object to the proposed resolution by AOC. At the Director's discretion the AOC may be reviewed and modified based on the complainant's concerns, with the consent of the operator. If the complainant objects to the Director's final decision to revoke or settle the NOAV, the complainant shall have the right to file with the Commission an application for an Order Finding Violation (OFV). Such application shall be filed within forty-five (45) days of the Director's decision and shall be served on the Director and the operator.

c. Order Finding Violation.

- (1) If the operator contests the NOAV, as to the existence of the violation, the appropriate corrective action and abatement schedule, or as to any proposed penalty, the Director shall make application to the Commission for an OFV and shall place the matter on the next available Commission docket, providing that at least twenty (20) days notice of such application is provided to the operator.
- (2) If the Director decides not to issue a NOAV, the Commission may conduct a hearing to consider whether to issue an OFV upon twenty (20) days notice to the affected operator under the following circumstances:
 - A. On the Commission's own initiative if it believes that the Director has failed to enforce a provision of statute, rule, regulation, order, permit or permit condition subject to Commission jurisdiction.
 - B. On the application of a complainant pursuant to Rule 503.b.(4), provided that such complainant has first made a written request to the Director to issue an NOAV and the Director has determined in writing not to do so. An application for hearing by a complainant shall be filed within forty-five (45) days of the receipt of the Director's written determination. For purposes of this rule, the Director's written determination shall be deemed to be received three (3) business days after mailing a copy thereof, first-class postage prepaid, to the last known address of the complainant.
- (3) Upon an operator's request a settlement conference shall be held with the Director no less than five (5) days before the hearing on an OFV. If an agreement is reached, an AOC containing such agreement shall be prepared and noticed for review and approval by the Commission, at its discretion. Upon such approval, the AOC shall become a final order, and the agreed penalty shall be imposed. Such approval may be granted without hearing, unless a hearing thereon is requested by a complainant. Unless the operator so agrees, such AOC shall not constitute an admission of the alleged violation.
- (4) A hearing to consider whether to issue an OFV shall be a de novo proceeding, unless the parties stipulate as to the facts, or as to the appropriate corrective action and abatement schedule, in which case the hearing may be accordingly limited.
- (5) The Director is always a necessary party to a hearing on an OFV. The operator against which an OFV is sought is always a necessary party but need not present a case. Any person, which is not the applicant for an OFV, but whose complaint initiated the enforcement proceeding, shall be granted intervenor status if so requested, pursuant to Rule 509., except that the filing fee shall be waived.

d. Cease and Desist Orders.

- (1) The Commission or the Director may issue a cease and desist order whenever an operator fails to take corrective action required by final AOC or OFV.
- (2) Whenever the Commission has evidence that a violation of any provision of the Act, any rule, permit, or order of the Commission has occurred under circumstances deemed to constitute an emergency situation, the Commission or the Director may issue a cease and desist order. If the order is entered by the Director it shall be immediately reported to the Commission for review and approval. Such order shall be considered a final order for purposes of judicial review.
- (3) The order shall be served by personal delivery or by certified mail, return receipt requested, or by confirmed facsimile copy followed by a copy provided by certified mail, return receipt requested, to the operator's designated agent, or on the operator if no agent has been designated, for service of process and shall state the provision alleged to have been violated, the facts alleged to constitute the violation, the time by which the acts or practices cited are required to cease, and any corrective action the Commission or the Director elects to require of the operator. Any protest by an operator to a cease and desist order issued by the Director shall automatically stay the effective date of the order, in which case the order shall not be considered final for purposes of judicial review until such protest is heard.
- (4) In the event an operator fails to comply with a cease and desist order, the Commission may request the attorney general to bring suit pursuant to §34-60-109, C.R.S.

523. PROCEDURE FOR ASSESSING FINES

- a. **Fines.** An operator who violates any provision of the Act or any rule, permit, or order issued by the Commission shall be subject to a fine which shall be imposed only by order of the Commission, after hearing, or by an

AOC approved by the Commission. All fines shall be calculated using the base fine amount for the particular violation as set forth in the fine schedule in subparagraph c. of this Rule 523., subject to the following:

- (1) The Commission may in its discretion find that each day a violation exists constitutes a separate violation; however, no fine for any single violation shall exceed one thousand dollars (\$1,000) per day.
- (2) All fines shall be subject to adjustment based upon the factors listed in subparagraph d. of this Rule 523.
- (3) For a violation which does not result in significant waste of oil and gas resources, damage to correlative rights, or a significant adverse impact on public health, safety or welfare, the maximum penalty for any single violation shall not exceed ten thousand dollars (\$10,000) regardless of the number of days of such violation.
- (4) Fines for violations for which no base fine is listed shall be determined by the Commission at its discretion subject to subparagraphs (1), (2), and (3) of this Rule 523.a.

b. **Voluntary disclosure.** Any operator who conducts a voluntary self-evaluation as defined in the 100 Series of the rules and makes a voluntary disclosure to the Director of a significant adverse impact on the environment or of a failure to obtain or comply with any necessary permits, shall enjoy a rebuttable presumption against the imposition of a fine for any violation relating to such impact or failure, under the following conditions:

- (1) The disclosure is made promptly after the operator learns of the violation as a result of the voluntary self-evaluation;
- (2) The operator making the disclosure cooperates with the Director regarding investigation of the issue identified in the disclosure; and
- (3) The operator making the disclosure has achieved or commits to achieve compliance within a reasonable time and pursues compliance with due diligence.

The Commission shall deny the presumption against the imposition of fines only, if, after hearing, it finds that any of the preceding conditions have not been met, or that the use of this process was engaged in for fraudulent purposes.

c. **Base fine schedule.** The following table sets forth the base fine for violation of the rules listed.

RULE NUMBER	BASE FINE
205	\$500
206	\$500
207	\$500
208	\$500
209	\$1000
210	\$250

RULE NUMBER	BASE FINE
401	\$500
403	\$250
404	\$1000
405	\$250

RULE NUMBER	BASE FINE
602	\$1000
603	\$1000
604	\$1000
605	\$750
606A	\$750
606B	\$750
607	\$750

RULE NUMBER	BASE FINE
703	\$1000

RULE NUMBER	BASE FINE
301	\$1000
302	\$500
303	\$1000
305	\$1000
306	\$1000
307	\$250
308	\$500
309	\$500
310	\$500
311	\$250
312	\$250
313	\$250
314A	\$250
315	\$250
316A	\$500
316B	\$1000
317	\$1000
317A	\$1000
318	\$1000
319	\$1000
320	\$1000
321	\$500
322	\$500
323	\$1000
324	\$1000

704	\$1000
705	\$1000
706	\$1000
707	\$1000
708	\$1000
709	\$1000
711	\$1000

325	\$1000
326	\$1000
327	\$1000
328	\$500
329	\$500
330	\$500
331	\$500

RULE NUMBER	BASE FINE
802	\$1000
803	\$250
804	\$250

RULE NUMBER	BASE FINE
332	\$500
333	\$1000

RULE NUMBER	BASE FINE
1002	\$1000
1003	\$1000
1004	\$1000

RULE NUMBER	BASE FINE
901	\$1000
902	\$1000
903	\$1000
904	\$1000
905	\$1000
906	\$1000
907	\$1000
908	\$1000
909	\$1000
910	\$1000
911	\$1000
912	\$1000

RULE NUMBER	BASE FINE
1101	\$1000
1102	\$1000
1103	\$1000

d. **Adjustment.** The fine may be increased or decreased by application of the aggravating and mitigating factors set forth below.

Aggravating factors.

- (1) The violation was intentional or reckless.
- (2) The violation had a significant negative impact, or threat of significant negative impact on the environment or on public health, safety, or welfare.
- (3) The violation resulted in significant waste of oil and gas resources.
- (4) The violation had a significant negative impact on correlative rights of other parties.
- (5) The violation resulted in or threatened to result in significant loss or damage to public or private property.
- (6) The violation involved recalcitrance or recidivism upon the part of the violator.
- (7) The violation involved intentional false reporting or recordkeeping.
- (8) The violation resulted in economic benefit to the violator, including the economic benefit associated with noncompliance with the applicable rule, in which case the amount of such benefit may be taken into consideration.

Mitigating factors.

- (1) The violator self-reported the violation.
- (2) The violator demonstrated prompt, effective and prudent response to the violation, including assistance to any impacted parties.
- (3) The violator cooperated with the Commission, or other agencies with respect to the violation.
- (4) The cause(s) of the violation was outside of the violator's reasonable control and responsibility, or is customarily considered to be force majeure.

- (5) The violator made a good faith effort to comply with applicable requirements prior to the Commission learning of the violation.
- (6) The cost of correcting the violation reduced or eliminated any economic benefit to the operator.
- (7) The operator has demonstrated a history of compliance with Commission rules, regulations and orders.

e. **Public projects.** In lieu of or in reduction of fine amounts, an AOC may provide for the initiation of or participation in operator projects which are beneficial to the environment or public health, safety and welfare, and the Commission encourages AOCs which so provide.

f. **Payment of fines.** An operator against whom the Commission enters an order to pay a fine must pay the amount due within thirty (30) days of the effective date of the order, unless the Commission grants a longer period or unless the operator files for judicial appeal, in which event payment of the penalty shall be stayed pending resolution of such appeal. An operator's obligations to comply with the provisions of a Commission order requiring compliance with the Act, a permit condition or these rules and regulations shall not be stayed pending resolution of an appeal unless the stay is ordered by the court.

524. DETERMINATION OF RESPONSIBLE PARTY

In all cases it shall be the burden of the Director to present sufficient evidence to the Commission to determine responsible party status.

a. A hearing may be initiated on the Commission's own motion, upon application, or at the request of the Director to decide responsible party status upon at least twenty (20) days notice to the potentially responsible parties.

b. Operators shall provide to the Director such information as the Director may reasonably require in making such determination.

c. The Commission shall make the determination under this section without regard to any contractual assignments of liability or other legal defenses between parties.

d. An operator shall enjoy a rebuttable presumption against mitigation liability under §34-60-124 (7), C.R.S., for ongoing significant adverse environmental impacts where the violation which led to such impacts was committed by a predecessor operator and where the operator has conducted an environmental investigation, with reasonable due diligence, of the environmental condition of the particular asset or activity and such investigation did not reveal such significant adverse environmental impacts. The failure to report any condition which is causing such impacts, upon subsequent knowledge by the operator, shall negate the rebuttable presumption against mitigation liability.

e. Where multiple persons are determined to be responsible parties, they shall share in the mitigation liability in proportion to their respective shares of production, respective periods of ownership or respective contributions to the problem, or any other factors as may serve the interests of fairness.

f. The determination of responsible party status and mitigation liability shall require a showing that the responsible party conducted operations that have resulted in or have threatened to cause a significant adverse environmental impact to any air, water, soil or biological resource based on the conduct of oil or gas operations in contravention of any then applicable historic provisions of the Act or rules, whether or not the Commission has entered an order finding violation.

525. PERMIT-RELATED PENALTIES

a. If the Commission determines, after a hearing, that an operator failed to perform any required corrective action/abatement or failed to comply with a cease and desist order issued by the Director or the Commission with regard to violation of a permit provision, the Commission may issue an order suspending, modifying or revoking the permit authorizing the operation. The order shall provide the condition(s) which must be met by the operator for reinstatement of the permit. An operator which is subject to an order that suspends, modifies or revokes a permit shall continue the affected operations only for the purpose of bringing them into compliance with the permit or modified permit and shall do so under the supervision of the Director. Once the condition for reinstatement has been met to the satisfaction of the Director and any fine not subject to judicial review or appeal has been paid, the Director shall inform the Commission, and the Commission, if in agreement, shall reinstate the permit.

b. Whenever the Commission or the Director has evidence that an operator is responsible for a pattern of violation of any provision of the Act, or of any rule, permit, or order of the Commission, the Commission or the Director shall issue a notice to such operator to appear for a hearing before the Commission. If the Commission finds, after such hearing, that a knowing and willful pattern of violation exists, it may issue an order which shall prohibit the

issuance of any new permits to such operator. When such operator demonstrates to the satisfaction of the Commission that it has brought each of the violations into compliance and that any fine not subject to judicial review or appeal has been paid, such order denying new permits shall be vacated.

526. ADMINISTRATIVE HEARINGS IN UNCONTESTED MATTERS

a. As to applications where there has been no protest or intervention filed with the Commission in accordance with Rule 509., and where the Director has not recommended approval based on the content of the verified application and supporting exhibits, the application may be heard administratively prior to or on the date of the scheduled Commission hearing. The date and time of the administrative hearing shall be scheduled for the mutual convenience of the applicant and the Hearing Officer. The administrative hearing may be conducted prior to the protest or intervention date but no order shall be entered by the Commission until it has fully considered any timely and properly filed protest or intervention.

b. One or more duly appointed Hearing Officers may hear the application at the administrative hearing. Administrative hearings shall proceed informally in a meeting format. The applicant may present its case using exhibits and witnesses. All witnesses shall be sworn. At the conclusion of the administrative hearing, the Hearing Officer shall make a decision concerning approval or denial of the application and so inform the applicant. The Hearing Officer shall put such decision in a written report to the Commission containing findings of fact, conclusions of law, if any, and a recommended order. If the Hearing Officer recommends denial or qualified approval of the application, the applicant shall be entitled to a hearing de novo at the next scheduled hearing of the Commission.

c. The Commission may appoint Hearing Officers from the Commission staff for the purpose of hearing uncontested matters, presiding at local public forums or otherwise representing the Commission. The service of the Hearing Officers shall be at the Director's discretion.

527. PREHEARING PROCEDURES FOR CONTESTED ADJUDICATORY PROCEEDINGS BEFORE THE COMMISSION

a. The Commission encourages the use of prehearing conferences between parties to a contested matter in order to facilitate settlement, narrow the issues, identify any stipulated facts, resolve any other pertinent issues, and reduce the hearing time before the Commission. A prehearing conference shall be conducted at the direction of the Commission or the Director upon receipt of a protest or an intervention, or upon the request of the applicant or any person who has filed a protest or intervention. For matters in which a staff analysis has been prepared, the Director shall participate in the prehearing conference to advise the parties of the content of the preliminary staff analysis. The prehearing conference shall be conducted under the following general guidelines.

b. The Director, a Hearing Officer or Hearing Commissioner shall preside over any prehearing conference and rule on preliminary matters in any proceeding pending before the Commission.

c. The Secretary shall notify the applicant and any person who has filed a protest or intervention of the prehearing conference, and shall direct the attorneys for the parties, and pro se parties, to appear in order to expedite the hearing or settle issues, or both.

d. All parties shall be prepared to discuss all procedural and substantive issues, and shall be authorized to make binding commitments on all procedural matters.

e. Preparation should include advance study of all materials filed and materials obtained through discovery.

f. Failure of any person to attend the prehearing conference, after being notified of the date, time and place, shall be a waiver of any objection and shall be deemed to be a concurrence to any agreement reached, or to any order or ruling made at the prehearing conference.

g. A prehearing statement may be required of any party.

h. At any prehearing conference, the following matters may be considered:

- (1) Offers of settlement or designation of issues;
- (2) Simplification of and establishment of a list or summary of the issues;
- (3) Bifurcation of issues for hearing purposes;
- (4) Admissions as to, or stipulations of, facts not remaining in dispute or the authenticity of documents;
- (5) Limitation of the number of fact and expert witnesses;

- (6) Limitation on methods and extent of discovery, and a discovery schedule;
- (7) Disposition of procedural motions; and
- (8) Other matters raised by the parties, the Commission, or presiding officer.

i. At any prehearing conference, the following information may be required:

- (1) An exchange and acceptance of service of exhibits proposed to be offered in evidence, and establishment of a list of exhibits to be offered;
- (2) Establishment of a list of witnesses to be called and anticipated testimony times; and
- (3) A timetable for the completion of discovery, if discovery is allowed.

j. The parties shall reduce to writing any agreement reached or orders issued at a prehearing conference which shall be filed with the presiding officer, who shall enter a decision approving or disapproving it, or recommend modification as a condition for approval. An agreement which is disapproved shall be privileged and inadmissible as evidence in any Commission proceeding.

k. It is the intent of this rule that a prehearing order shall be binding upon the participating parties.

l. Subsequent to the prehearing conference and prior to the hearing on a contested matter, the parties shall each prepare and submit to the Hearing Officer a recommended order for the Commission to consider for adoption at the time of hearing.

528. CONDUCT OF ADJUDICATORY HEARINGS.

a. **Contested applications.** Every party shall have the right to present its case by oral and/or documentary evidence. The following shall be the order of presentation unless otherwise established by the Commission at the hearing:

- (1) Determination of whether any Commission members have a conflict of interest;
- (2) Presentation of any prehearing order;
- (3) Presentation of any motions and disposition of procedural matters;
- (4) Presentation of the stipulation, if any;
- (5) Opening statement by the applicant;
- (6) Opening statements by the respondent (and intervener, if any);
- (7) Presentation of the case-in-chief by the applicant;
- (8) Presentations by respondent (and intervener, if any);
- (9) Presentation of statements under Rule 510., if any;
- (10) Presentation of staff analysis, if requested by the Commission.
- (11) Rebuttal by the applicant;
- (12) Rebuttal by the respondent (and intervenor, if any);
- (13) Closing statement by the applicant;
- (14) Closing statements by the respondent (and intervenor, if any).
- (15) Rebuttal closing statement by the applicant.
- (16) Upon motion and for good cause shown, the Commission may permit surrebuttal.

(17) Closing of the record.

b. **Uncontested applications not approved administratively.** For uncontested applications not approved administratively pursuant to Rule 526., the applicant may present evidence in support of its application to the Commission. The order of presentation shall be as follows, unless otherwise established by the Commission at the hearing:

- (1) Determination of whether any Commission members have a conflict of interest;
- (2) Presentation of staff analysis, if requested by the Commission. The Commission, at its discretion, or upon request of the Director may defer staff testimony until all of the evidence has been presented.
- (3) Presentation of the case-in-chief by the applicant;
- (4) Closing statement by the applicant.
- (5) Closing of the record.

c. **Enforcement hearings.** In order to assure that all parties against whom a fine or penalty may be imposed are afforded due process of law, the Commission shall, at any hearing, permit the Director or the complainant pursuant to Rule 522.b.(4) to present evidence and argument and to conduct cross-examination required for a full disclosure of the facts. The enforcement matter shall be heard by the Commission de novo unless the operator waives its right to a de novo hearing prior to or at the Commission hearing. The order of presentation in a hearing for an enforcement matter shall be as follows, unless otherwise established by the Commission at the hearing:

- (1) Determination of whether any Commission members have a conflict of interest;
- (2) Opening statements by all parties;
- (3) Presentation by the Director;
- (4) Presentation by any complainant under Rule 522.b.(4).;
- (5) Presentation by the operator;
- (6) Rebuttal by the Director;
- (7) Rebuttal by the respondent;
- (8) Closing statements by the parties;
- (9) Finding regarding existence of violation;
- (10) If the Commission first determines by a preponderance of the evidence that a violation or violations exist, presentation by the Director of any recommended fine or permit-related penalty, and/or recommended corrective action/abatement to be taken by the operator;
- (11) Response by any complainant under Rule 522.b.(4).;
- (12) Presentation of statements under Rule 510., if any;
- (13) Response by the operator;
- (14) Rebuttal by the Director; and
- (15) Closing statements by all parties;
- (16) Closing of the record.

d. **Closing of record.** At the conclusion of closing statements, the record shall be closed to the presentation of any further evidence, testimony, or statements, except as such may occur in response to questions from the Commission.

e. **Witnesses.** Each witness shall take an oath or affirmation before testifying. After a witness has testified, the applicant, the protestant or participating intervenors and any Commissioner may cross-examine that witness in the order established by the chairperson of the Commission.

f. Where two or more protestants or intervenors have substantially similar interests and positions, the Commission may limit cross-examination or argument on motions and objections to fewer than all the intervenors. The Commission may also limit testimony to avoid undue delay, waste of time or needless presentation of cumulative evidence.

g. **Commission findings and order.** After due consideration of written and oral statements, the testimony, and the arguments presented at hearing, the Commission shall make its findings and order, based upon evidence in the record and, as appropriate, consistent with the Act and any rule, permit, or order made pursuant thereto.

529. PROCEDURES FOR RULEMAKING PROCEEDINGS

a. **Institution of rulemaking.** The Commission may institute rulemaking on its motion or in response to an application filed by any person.

b. **Applications for rulemaking.** Any person may petition the Commission to initiate rulemaking. All applications for rulemaking shall contain the following information:

- (1) The name, address, and telephone number of the person requesting the rulemaking;
- (2) A copy of the rule proposed in the application and a general statement of the reasons for the requested rule; and
- (3) A proposed statement of the basis and purpose for the rule.

c. **Notice of proposed rulemaking.** All rulemaking hearings of the Commission shall be noticed by publication in the Colorado Register not less than twenty (20) days and not more than sixty (60) days prior to the hearing.

d. **Time for rulemaking.** The rulemaking hearing shall not be held until the expiration of six (6) months from the date of application unless the Commission, in its discretion, decides that an earlier hearing is appropriate.

e. **Development of proposed rules.** Prior to the notice of proposed rulemaking, the Commission or Director may use informal procedures to gather information, including, but not limited to, public forums, investigation by Commission staff, and formation of rulemaking teams. Commissioners may participate in such informal proceedings.

f. **Content of notice.** The notice shall state the time, date, place, and general subject matter of the hearing to be held. It may include a statement indicating whether an informal public meeting will be held, the time, date, place, and general purpose of the meeting, any special procedures the Commission deems appropriate for the particular rulemaking proceeding and a statement encouraging public participation. The notice shall state that the proposed regulations will be available upon request from the office of the Commission, the date of availability, and any fee. The notice shall include a short and plain statement which summarizes the intended action and states generally the basis and purpose of the rule.

g. **The rulemaking hearing.** The Commission shall hold a formal public hearing before promulgating any rules or regulations. At that hearing, the Commission shall afford any person an opportunity to submit data, views or arguments. The Commission may limit such testimony or presentation of evidence at its discretion and may prohibit repetitive, irrelevant or harassing testimony.

h. **Conduct of rulemaking hearings.**

- (1) The Commission encourages any person to participate at rulemaking hearings. The times at which the public may participate will be determined at the discretion of the Commission. The Commission may, at its discretion, limit the amount of time a person may use to comment or make public statements. Oaths shall not be required for public participation.
- (2) The Commission encourages witnesses to make plain, brief, and simple statements of their positions. It also encourages submittal of written statements prior to hearing, with only an oral summary of such a statement at the hearing.
- (3) The order of presentation at a rulemaking hearing shall be as established by the Commission at the hearing.

(4) The Commission has the discretion to continue rulemaking hearings by announcement at the rulemaking hearing without republication of the proposed rule.

530. INVOLUNTARY POOLING PROCEEDINGS

a. An application for involuntary pooling pursuant to §34-60-116, C.R.S. may be filed at any time a nonconsenting owner within the drilling unit refuses to agree to bear his proportionate share of the costs and risks of drilling and operating the well. As used herein a nonconsenting owner shall mean an owner in the area to be pooled who, after at least thirty (30) days written notice of the following information does not elect in writing to consent to participate in the cost of the well concerning which the pooling order is sought:

- (1) The location and objective depth of the well.
- (2) The estimated drilling and completion cost of the well.
- (3) The estimated spud date for the well or range of time within which spudding is to occur.
- (4) An authority for expenditure prepared by the operator and containing the information required above, together with additional information deemed appropriate by the operator shall satisfy this obligation.

b. In determining whether a reasonable offer to lease has been tendered under §34-60-116(7)(d), C.R.S., the Commission shall consider the lease terms listed below for the drilling and spacing unit in the application and for all cornering and contiguous units that are under the proposed lease:

- (1) Date of lease and primary term or offer with acreage in lease;
- (2) Annual rental per acre;
- (3) Bonus payment or evidence of its non-availability;
- (4) Mineral interest royalty;
- (5) Such other lease terms as may be relevant.

SAFETY REGULATIONS

601. INTRODUCTION

The rules and regulations in this section are promulgated to protect the health, safety and welfare of the general public during the drilling, completion and operation of oil and gas wells and producing facilities. They do not apply to parties or requirements regulated under the Federal Occupational Safety and Health Act of 1970 (See Rule 212.).

602. GENERAL

The training and action of employees, as well as proper location and operation of equipment is an important part of any safety program. While this section is general in nature, it is considered a basic part of the foundation of any safety program.

a. Employees shall be familiarized with these rules and regulations as provided herein as they relate to their function in their respective jobs. Each new employee should have their job outlined, explained and demonstrated.

b. Unsafe and potentially dangerous conditions as defined by these rules, should be reported immediately by employees to the supervisor in charge and shall be remedied as soon as practical. Any accident involving injury to wellsite personnel or to a member of the general public which requires hospitalization, or significant damage to equipment or the wellsite shall be reported to the Oil and Gas Conservation Commission as soon as practicable, but in no event later than twenty-four (24) hours after the accident.

Where unsafe or potentially dangerous conditions exist, the owner or operator shall respond as directed by an agency with demonstrated authority to do so (such as sheriff, fire district director, etc.).

c. Vehicles of persons not involved in drilling, production, servicing, or seismic operations shall be located a minimum distance of one hundred (100) feet from the wellbore, or a distance equal to the height of the derrick or mast, whichever is greater. Equivalent safety measures shall be taken where terrain, location or other conditions do not permit this minimum distance requirements.

d. Existing wells are exempt from the provisions of these regulations as they relate to the location of the well.

e. Existing producing facilities shall be exempt from the provisions of these regulations with respect to minimum distance requirements and setbacks unless they are found by the Director to be unsafe.

f. Self-contained sanitary facilities shall be provided during drilling operations and at any other similarly staffed oil and gas operations facility.

603. DRILLING AND WELL SERVICING OPERATIONS AND HIGH DENSITY AREA RULES

a. **Statewide setbacks.** Subparagraph (1) below shall apply to all areas of the state except as provided under subparagraphs b. and e. of this rule. Subparagraph (2) below shall apply to all areas of the state.

(1) At the time of initial drilling of the well, the wellhead shall be located a distance of one hundred fifty (150) feet or one and one-half (1-1/2) times the height of the derrick, whichever is greater, from any occupied building, public road, major above ground utility line or railroad.

(2) A well shall be a minimum distance of one hundred fifty (150) feet from a surface property line. An exception may be granted by the Director if it is not feasible for the operator to meet this minimum distance requirement and a waiver is obtained from the offset surface owner(s). An exception request letter stating the reasons for the exception shall be submitted to the Director and accompanied by a signed waiver(s) from the offset surface owner(s). Such waiver shall be written and filed in the county clerk and recorder's office and with the Director.

b. **High density area rules for building units.** A high density area shall be determined at the time the well is permitted on a well-by-well basis by calculating the number of occupied building units within the seventy-two (72) acre area defined by a one thousand (1000) foot radius from the wellhead or production facility. If thirty-six (36) or more actual or platted building units (as defined in the 100 Series rules) are within the one thousand (1000) foot radius or eighteen (18) or more building units are within any semi-circle of the one thousand (1000) foot radius (i.e., an average density of one (1) building unit per two (2) acres), it shall be deemed a high density area. If platted building units are used to determine the density, then fifty percent (50%) of said platted units shall have building units under construction or constructed.

c. **High density area rules for other facilities.** If an educational facility, assembly building, hospital, nursing home, board and care facility, or jail is located within one thousand (1000) feet of a wellhead or production facility, high density area rules shall apply.

d. **Designated outside activity area.** The Commission, upon application and hearing, shall determine the appropriate boundary and setbacks for a designated outside activity area as defined in the 100 Series rules. The minimum setback from the boundary of the designated outside activity area shall be three hundred fifty (350) feet.

e. The following rules shall apply in high density and designated outside activity areas:

(1) **Provisions for encroaching development.** If, by virtue of subsequent future surface development, an area becomes a high density area, subparagraphs (2), (3), (7) and (14) shall not apply to the operator.

(2) **Setbacks for wellheads.** At the time of initial drilling of the well, the wellhead location shall be not less than three hundred fifty (350) feet from any building unit, educational facility, assembly building, hospital, nursing home, board and care facility, or jail.

(3) **Setbacks for production equipment.** At the time of initial installation, production tanks and/or associated on-site production equipment shall be located not less than three hundred fifty (350) feet from any building unit, and, if requested by the local governmental designee, production tanks shall be located five hundred (500) feet from an educational facility, assembly building, hospital, nursing home, board and care facility, jail or designated outside activity area. However, such five hundred (500) foot setback shall be decreased to the maximum achievable setback if five hundred (500) feet would extend beyond the area on which the operator has a legal right to place or construct such facilities. Should the operator object to such five hundred (500) foot setback for any reason, a variance hearing shall be conducted at the next regularly scheduled meeting of the Commission, subject to the notice requirements of Rule 507.

(4) A. **Blowout preventer equipment ("BOPE") for high density area drilling operations.** Blowout prevention equipment for drilling operations shall consist of (at a minimum):

i. Rig with kelley double ram with blind ram and pipe ram; annular preventer or a rotating head

ii. Rig without kelley double ram with blind ram and pipe ram

Mineral Management certification or Director approved training for blowout prevention shall be required for at least one (1) person at the wellsite during drilling operations.

B. **BOPE testing for high density area drilling operations.** Upon initial rig-up and at least once every thirty (30) days during drilling operations thereafter, pressure testing of the casing string and each component of the blowout prevention equipment including flange connections shall be performed to seventy percent (70%) of working pressure or seventy percent (70%) of the internal yield of casing, whichever is less. Pressure testing shall be conducted and the documented results shall be retained by the operator for inspection by the Director for a period of one (1) year. Activation of the pipe rams for function testing shall be conducted on a daily basis when practicable.

C. **Pit level indicators.** Pit level indicators shall be used.

D. **Drill stem tests.** Closed chamber drill stem tests shall be allowed in high density areas. All other drill stem tests shall require approval by the Director.

(5) A. **BOPE for well servicing operations.** Adequate blowout prevention equipment shall be used on all well servicing operations.

B. Backup stabbing valves shall be required on well servicing operations during reverse circulation. Valves shall be pressure tested before each well servicing operation using both low pressure air and high pressure fluid.

(6) **Location requirement exceptions and waivers.** Exceptions to the location requirements set out in subparagraphs (2) and (3) above shall be granted by the Director if the Director determines that Rule 318. has been complied with and that a copy of waivers from each person owning an occupied building or building permitted for construction within three hundred fifty (350) feet of the proposed location is submitted as part of the Permit to Drill, Form 2, and that the proposed location complies with all other safety requirements of the rules and regulations.

(7) **Fencing requirements.** At the time of initial installation, if a wellsite falls within a high density area, all pumps, pits, wellheads and production facilities shall be adequately fenced to restrict access by unauthorized persons. For security purposes, all such facilities and equipment used in the operation of a completed well

shall be surrounded by a fence six (6) feet in height, constructed in conformance with local written standards so long as the material is non-combustible and allows for adequate ventilation, and the gate(s) shall be locked.

(8) **Control of fire hazards.** Any material not in use that might constitute a fire hazard shall be removed a minimum of twenty-five (25) feet from the wellhead, tanks and separator. Any electrical equipment installations inside the bermed area shall comply with API RP 500 classifications and comply with the current national electrical code as adopted by the State of Colorado.

(9) **Loadlines.** In high density areas, all loadlines shall be bullplugged or capped.

(10) **Removal of surface trash.** All surface trash, debris, scrap or discarded material connected with the operations of the property shall be removed from the premises or disposed of in a legal manner.

(11) **Guy line anchors.** All guy line anchors left buried for future use shall be identified by a marker of bright color not less than four (4) feet in height and not greater than one (1) foot east of the guy line anchor.

(12) **Berm construction.** All newly installed or replaced berms in high density areas, in the absence of remote impounding, shall be constructed around crude oil and condensate storage tanks and shall enclose an area sufficient to contain one hundred fifty percent (150%) of the largest single tank. No more than two (2) crude oil and condensate storage tanks shall be located within a single berm. Berms shall be inspected at regular intervals and containment integrity maintained. Refer to American Petroleum Institute Recommended Practices - D16.

(13) **Tank specifications.** All newly installed or replaced crude oil and condensate storage tanks in high density areas shall be designed, constructed, and maintained in accordance with National Fire Protection Association's latest edition (NFPA 30). The operator shall maintain written records verifying proper design, construction, and maintenance, and shall make these records available for inspection by the Director.

(14) **Access roads.** If a wellsite falls within a high density area at the time of construction, all leasehold roads shall be constructed to accommodate local emergency vehicle access requirements, and shall be maintained in a reasonable condition.

(15) **Well site cleared.** Within ninety (90) days after a well is plugged and abandoned, the well site shall be cleared of all non-essential equipment, trash, and debris. For good cause shown, an extension of time may be granted by the Director.

(16) **Identification of plugged and abandoned wells in high density areas.** The operator shall identify the location of the wellbore with a permanent monument as specified in Rule 319.a.(5). The operator shall also inscribe or imbed the well number and date of plugging upon the permanent monument.

(17) **Development from existing well pads.** Where possible, operators shall provide for the development of multiple reservoirs by drilling on existing pads or by multiple completions or commingling in existing wellbores (see Rule 322.). If any operator asserts it is not possible to comply with, or requests relief from, this requirement, the matter shall be set for hearing by the Commission and relief granted as appropriate.

f. **Statewide rig floor safety valve requirements.** When drilling or well servicing operations are in progress on a well where there is any indication the well will flow hydrocarbons, either through prior records or present conditions, there shall be on the rig floor a safety valve with connections suitable for use with each size and type of tool joint or coupling being used on the job.

g. **Statewide static charge requirements.** Rig substructure, derrick, or mast shall be designed and operated to prevent accumulation of static charge.

h. **Statewide well servicing pressure check requirements.** Prior to initiating well servicing operations, the well shall be checked for pressure and steps taken to remove pressure or operate safely under pressure before commencing operations.

i. **Statewide well control equipment and other safety requirements.** Well control equipment and other safety requirements are:

(1) When there is any indication that a well will flow, either through prior records, present well conditions, or the planned well work, blowout prevention equipment shall be installed in accordance with Rule 317. or any special orders of the Commission.

(2) Blowout prevention equipment when required by Rule 317. shall be in accordance with API RP 53: Recommended Practices for Blowout Prevention Equipment Systems, or amendments thereto.

(3) While in service, blowout prevention equipment shall be inspected daily and a preventer operating test shall be performed on each round trip, but not more than once every twenty-four (24) hour period. Notation of operating tests shall be made on the daily report.

(4) All pipe fittings, valves and unions placed on or connected with blowout prevention equipment, well casing, casinghead, drill pipe, or tubing shall have a working pressure rating suitable for the maximum anticipated surface pressure and shall be in good working condition as per generally accepted industry standards.

(5) Blowout prevention equipment shall contain pipe rams that enable closure on the pipe being used. The choke line(s) and kill line(s) shall be anchored, tied or otherwise secured to prevent whipping resulting from pressure surges.

(6) Pressure testing of the casing string and each component of the blowout prevention equipment, if blowout prevention equipment is required, shall be conducted prior to drilling out any string of casing except conductor pipe. The minimum test pressure shall be five hundred (500) psi, and shall hold for fifteen (15) minutes without pressure loss in order for the casing string to be considered serviceable. Upon demand the operator shall provide to the commissioner the pressure test evidence. Drilling operations shall not proceed until blowout prevention equipment is tested and found to be serviceable.

(7) If the blind rams are closed for any purpose except operational testing, the valves on the choke lines or relief lines below the blind rams should be opened prior to opening the rams to bleed off any trapped pressure.

(8) All rig employees shall have adequate understanding of and be able to operate the blowout prevention equipment system. New employees shall be trained in the operations of blowout prevention equipment system as soon as practicable to do so.

(9) Drilling contractors shall place a sign or marker at the point of intersection of the public road and rig access road.

(10) The number of the public road to be used in accessing the rig along with all necessary emergency numbers shall be posted in a conspicuous place on the drilling rig.

j. **Statewide equipment, weeds, waste, and trash requirements.** All locations, including wells and surface production facilities, shall be kept free of the following: equipment, vehicles, and supplies not necessary for use on that lease; weeds; rubbish, and other waste material. The burning or burial of such material on the premises may be subject to other applicable laws. In addition, material may be burned or buried on the premises only with the prior written consent of the surface owner.

k. **Statewide equipment anchoring requirements.** 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.

604. PRODUCTION FACILITIES

a. Crude Oil Tanks.

(1) Atmospheric tanks used for crude oil storage shall be built in accordance with the following standards as applicable:

A. Underwriters Laboratories, Inc., No. UL-142, "Standard for Steel Above Ground Tanks for Flammable and Combustible Liquids"

B. American Petroleum Institute Standard No. 650, "Welded Steel Tanks for Oil Storage"

C. American Petroleum Institute Standard No. 12B, "Bolted Tanks for Storage of Production Liquids"

D. American Petroleum Institute Standard No. 12D, "Field Welded Tanks for Storage of Production Liquids" or

E. American Petroleum Institute Standard No. 12F, "Shop Welded Tanks for Storage of Production Liquids".

(2) Tanks shall be located at least two (2) diameters or three hundred fifty (350) feet, whichever is smaller, from the boundary of the property on which it is built. Where the property line is a public way the tanks shall be two thirds (2/3) of the diameter from the nearest side of the public way or easement.

A. Tanks less than three thousand (3,000) barrels capacity shall be located at least three (3) feet apart.

B. Tanks three thousand (3,000) or more barrels capacity shall be located at least one-sixth (1/6) the sum of the diameters apart. When the diameter of one (1) tank is less than one-half (1/2) the diameter of the adjacent tank, the tanks shall be located at least one-half (1/2) the diameter of the smaller tank apart.

(3) At the time of installation, tanks shall be a minimum of two hundred (200) feet from residences, normally occupied buildings, or well defined normally occupied outside areas.

(4) Berms shall be constructed around tanks in the absence of remote impounding. Both methods shall enclose an area with sufficient volume to contain the entire contents of the largest tank in the enclosure. Berms shall be inspected at regular intervals and maintained in good condition. When a berm is provided around tanks no potential ignition sources shall be installed inside that area.

(5) Tanks shall be a minimum of seventy-five (75) feet from a fired vessel or heater-treater.

(6) Tanks shall be a minimum of fifty (50) feet from a separator, well test unit or other non-fired equipment.

(7) Tanks shall be a minimum of seventy-five (75) feet from a compressor with a rating of two hundred (200) horsepower, or more.

(8) Tanks shall be a minimum of seventy-five (75) feet from a wellhead.

(9) Gauge hatches on atmospheric tanks used for crude oil storage shall be closed at all times when not in use.

(10) Vent lines from individual tanks shall be joined and ultimate discharge shall be directed away from the loading racks and fired vessels in accord with API RP 12R-1.

(11) During hot oil treatments on tanks containing thirty-five (35) degree or higher API gravity oil, hot oil units shall be located a minimum of one hundred (100) feet from any tank being serviced.

b. **Fired Vessel, Heater-Treater.**

(1) Fired vessels (FV) including heater-treaters (HT) shall be minimum of fifty (50) feet from separators or well test units.

(2) FV-HT shall be a minimum of fifty (50) feet from a lease automatic custody transfer unit (LACT).

(3) FV-HT shall be a minimum of forty (40) feet from a pump.

(4) FV-HT shall be a minimum of seventy-five (75) feet from a well.

(5) At the time of installation, FV-HT shall be a minimum of two hundred (200) feet from residences occupied buildings, or well defined normally occupied outside areas.

(6) Vents on pressure safety devices shall terminate in a manner so as not to endanger the public or adjoining facilities. They shall be designed so as to be clear and free of debris and water at all times.

c. **Special Equipment.** Under unusual circumstances special equipment may be required to protect public safety. The Director shall determine if such equipment should be employed to protect public safety and if so, require the operator to employ same. If the operator or the affected party does not concur with the action taken, the Director shall bring the matter before the Commission at public hearing.

(1) All wells located within one hundred fifty (150) feet of a residence(s), normally occupied buildings, or well defined normally occupied outside area(s), shall be equipped with an automatic control valve that will shut the

well in when a sudden change of pressure, either a rise or drop, occurs. Automatic control valves shall be designed so they fail safe.

(2) Pressure control valves required in subparagraph a. shall be activated by a secondary gas source supply, and shall be inspected at least every three (3) months to assure they are in good working order and the secondary gas supply has volume and pressure sufficient to activate the control valve.

(3) All pumps, pits, and producing facilities shall be adequately fenced to prevent access by unauthorized persons when the producing site or equipment is easily accessible to the public and poses a physical or health hazard.

(4) Sign(s) shall be posted at the boundary of the producing site where access exists, identifying the operator, lease name, location, and listing a phone number, including area code, where the operator may be reached at all times unless emergency numbers have been furnished to the county commission or it's designee.

d. **Mechanical Conditions.** All valves, pipes and fittings shall be securely fastened, inspected at regular intervals and maintained in good mechanical condition.

e. **Buried or partially buried tanks, vessels or structures.** Buried or partially buried tanks, vessels, or structures used for storage of E&P waste shall be properly designed, constructed and installed in a manner to contain materials safely. Such vessels shall be tested for leaks after installation and maintained, repaired or replaced to prevent spills or releases of E&P waste.

605. RESERVED

606A. FIRE PREVENTION AND PROTECTION

a. Gasoline-fueled engines shall be shut down during fueling operations if the fuel tank is an integral part of the engine.

b. Handling, connecting and transfer operations involving liquefied petroleum gas (LPG) shall conform to the requirements of the State Oil Inspector.

c. Flammable liquids storage areas within any building or shed shall:

(1) Be adequately vented to the outside air;

(2) Have two (2) unobstructed exits leading from the building in different directions if the building is in excess of five hundred (500) square feet.

(3) Be maintained with due regard to fire potential with respect to housekeeping and materials storage;

(4) Be identified as a hazard and appropriate warning signs posted;

d. Flammable liquids shall not be stored within fifty (50) feet of the wellbore, except for the fuel in the tanks of operating equipment or supply for injection pumps. Where terrain and location configuration do not permit maintaining this distance, equivalent safety measures should be taken.

e. Liquefied petroleum gas (LPG) tanks larger than two hundred fifty (250) gallons and used for heating purposes, shall be placed as far as practical from and parallel to the adjacent side of the rig or wellbore as terrain and location configuration permit. Installation shall be consistent with provisions of NFPA 58, "Standards for the Storage and Handling of Liquid Petroleum Gases".

f. Smoking shall be prohibited at or in the vicinity of operations which constitute a fire hazard and such locations shall be conspicuously posted with a sign, "No Smoking" or "Open Flame". Matches and all smoking equipment may not be carried into "No Smoking" areas.

g. No source of ignition shall be permitted in an area where smoking has been prohibited unless it is first determined to be safe to do so by the supervisor in charge or the designated representative.

h. Open fires, transformers, or other sources of ignition shall be permitted only in designated areas located at a safe distance from the wellhead or flammable liquid storage areas.

i. Only approved heaters for Class I Division 2 areas, as designated by API RB 500B, shall be permitted on or near the rig floor. The safety features of these heaters shall not be altered.

j. Combustible materials such as oily rags and waste shall be stored in covered metal containers.

k. Material used for cleaning shall have a flash point of not less than one hundred degrees Fahrenheit (100°F). For limited special purposes, a lower flash point cleaner may be used when it is specifically required and should be handled with extreme care.

l. Firefighting equipment shall not be tampered with and shall not be removed for other than fire protection and firefighting purposes and services. A firefighting water system may be used for wash down and other utility purposes so long as its firefighting capability is not compromised. After use, water systems must be properly drained or properly protected from freezing.

m. An adequate amount of fire extinguishers and other firefighting equipment shall be suitably located, readily accessible, and plainly labeled as to their type and method of operation.

n. Fire protection equipment shall be periodically inspected and maintained in good operating condition at all times.

o. Firefighting equipment shall be readily available near all welding operations. When welding, cutting or other hot work is performed in locations where other than a minor fire might develop, a person shall be designated as a fire watch. The area surrounding the work shall be inspected at least one (1) hour after the hot work is completed.

p. Portable fire extinguishers shall be tagged showing the date of last inspection, maintenance or recharge. Inspection and maintenance procedures shall comply with the latest edition of the National Fire Protection Association's publication NFPA 10.

q. Personnel shall be familiarized with the location of fire control equipment such as drilling fluid guns, water hoses and fire extinguishers and trained in the use of such equipment. They shall also be familiar with the procedure for requesting emergency assistance as terrain and location configuration permit. Installation shall be consistent with provisions of NFPA 58, "Standards for the Storage and Handling of Liquefied Petroleum Gases".

606B. AIR AND GAS DRILLING

a. Drilling compressors (air or gas) shall be located at least one hundred twenty five (125) feet from the wellbore and in a direction away from the air or gas discharge line.

b. The air or gas discharge line shall be laid in as nearly as a straight line as possible from the wellbore and be a minimum of one hundred fifty (150) feet in length. The line shall be securely anchored.

c. A pilot flame shall be maintained at the end of the air or gas discharge line at all times when air, gas, mist drilling, or well testing is in progress.

d. All combustible material shall be kept at least one hundred (100) feet away from the air and gas discharge line and burn pit.

e. The air line from the compressors to the standpipe shall be of adequate strength to withstand at least the maximum discharge pressure of the compressors used, and shall be checked daily for any evidence of damage or weakness.

f. Smoking shall not be allowed within seventy-five (75) feet of the air and gas discharge line and burn pit.

g. All operations associated with the drilling, completion or production of a well shall be subject to the Colorado Air Quality Control Act, §25-7-101, C.R.S.

607. HYDROGEN SULFIDE GAS

a. When well servicing operations take place in zones known to contain at or above one hundred (100) ppm hydrogen sulfide gas, as measured in the gas stream, the operator shall file a hydrogen sulfide drilling operations plan (United States Department of the Interior, Bureau of Land Management, Onshore Order No. 6, November 23, 1990).

b. When proposing to drill a well in areas where hydrogen sulfide gas in excess of one hundred (100) ppm can reasonably be expected to be encountered, the operator shall submit as part of the Application for Permit to Drill, Form 2, a hydrogen sulfide drilling operations plan (United States Department of the Interior, Bureau of Land Management, Onshore Order No. 6, November 23, 1990).

c. Any gas analysis indicating the presence of hydrogen sulfide gas shall be reported to the Commission and the local governmental designee.

FINANCIAL ASSURANCE AND ENVIRONMENTAL RESPONSE FUND

701. SCOPE

The rules in this series pertain to the provision of financial assurance by operators to ensure the performance of certain obligations imposed by the Oil and Gas Conservation Act (the Act), §34-60-106 (3.5), (11), (12) and (17) C.R.S., as well as the use of the Environmental Response Fund (ERF), §34-60-124 C.R.S., as a mechanism to plug and abandon orphan wells, perform orphaned site reclamation, and remediation, and to conduct other authorized environmental activities.

702. GENERAL

Operators are required to provide financial assurance to the Commission to demonstrate that they are capable of fulfilling the obligations imposed by the Act, as described in this series. Except as otherwise specified herein, a surety bond, in a form and from a company acceptable to the Commission, is an approved method of providing financial assurance. Any other method of providing financial assurance identified in §34-60-106(13), C.R.S., shall be submitted to the Commission for approval, and shall be equivalent to the protection provided by a surety bond and may require detailed Commission review on an ongoing basis, including the use of third party consultants, the reasonable expense for which shall be charged to the operator proposing such alternative financial assurance.

a. When the Director has reasonable cause to believe that the Commission may become burdened with the costs of fulfilling the statutory obligations described herein because an operator has demonstrated a pattern of non-compliance with oil and gas regulations in this or other states, because special geologic, environmental, or operational circumstances exist which make the plugging and abandonment of particular wells more costly, or due to other special and unique circumstances, the Director may petition the Commission for an increase in any individual or blanket financial assurance required in this series.

b. The requirements of this series do not apply to situations where financial assurance has been provided to federal or Indian agencies for operations regulated solely by such agencies.

703. SURFACE OWNER PROTECTION

Operators shall provide financial assurance to the Commission, prior to commencing any operations with heavy equipment, to protect surface owners who are not parties to a lease, surface use or other relevant agreement with the operator from unreasonable crop loss or land damage caused by such operations. The determination that crop loss or land damage is unreasonable shall be made by the Commission after the affected surface owner has filed an application in accordance with the 500 Series rules. Financial assurance for the purpose of surface owner protection shall not be required for operations conducted on state lands when a bond has been filed with the State Board of Land Commissioners.

The financial assurance required by this section shall be in the amount of two thousand dollars (\$2,000) per well for non-irrigated land, or five thousand dollars (\$5,000) per well for irrigated land. In lieu of such individual amounts, operators may submit statewide, blanket financial assurance in the amount of twenty five thousand dollars (\$25,000).

704. CENTRALIZED E&P WASTE MANAGEMENT FACILITIES

An operator which makes application for an offsite, centralized E&P waste management facility shall, upon approval and prior to commencing construction, provide to the Commission financial assurance in the amount of fifty thousand dollars (\$50,000) to ensure the proper reclamation, closure and abandonment of such facility. This section does not apply to underground injection wells and multi-well pits covered under Rules 706. and 707.

705. SEISMIC OPERATIONS

Any operator submitting a Notice of Intent to Conduct Seismic Operations, Form 20, shall, prior to commencing such operations, provide financial assurance to the Commission in the amount of twenty five thousand dollars (\$25,000) statewide blanket financial assurance to ensure the proper plugging and abandonment of any shot holes and any necessary surface reclamation.

706. SOIL PROTECTION AND PLUGGING AND ABANDONMENT

Prior to commencing the drilling of a well, an operator shall provide financial assurance to the Commission to ensure the protection of the soil and the proper plugging and abandonment of the well in accordance with the 300 Series of drilling regulations, the 900 Series of E&P waste management, the 1000 Series of reclamation regulations, and the 1100 Series of flowline regulations. The financial assurance required by this section shall be in the amount of five thousand dollars (\$5,000) per well. In lieu of such individual amount, an operator may submit statewide blanket financial assurance in the amount of thirty thousand dollars (\$30,000) for the drilling and operation of less than one hundred (100) wells, or one hundred thousand dollars (\$100,000) for the drilling and operation of one hundred (100) or more wells.

707. INACTIVE WELLS

a. To the extent that an operator's inactive well count exceeds such operator's financial assurance amount divided by five thousand dollars (\$5,000), such additional wells shall be considered "excess inactive wells". For each excess inactive well, an operator's required financial assurance amount under Rule 706. shall be increased by five thousand dollars (\$5,000). This requirement shall be modified or waived if the Commission approves a plan submitted by the operator for reducing such additional financial assurance requirement, for returning wells to production in a timely manner, or for plugging and abandoning such wells on an acceptable schedule.

In determining whether such plan is acceptable, the Commission shall take into consideration such factors as: the number of excess inactive wells; the cost to plug and abandon such wells; the proportion of such wells to the total number of wells held by the operator; any business reason the operator may have for shutting-in or temporarily abandoning such wells; the extent to which such wells may cause or have caused a significant adverse environmental impact; the financial condition of the operator; the capability of the operator to manage such plan in an orderly fashion; and the availability of plugging and abandonment services. If an increase in financial assurance is ordered pursuant to this subsection, the operator may, at its option and in compliance with these 700 Series rules, submit new financial assurance or supplement its existing financial assurance.

b. Operators shall identify and list any shut-in or temporarily abandoned wells on their monthly production/injection report. In addition, when equipment is removed from a well so as to render it temporarily abandoned, operators shall file a Sundry Notice, Form 4, with the Commission within thirty (30) days describing such activity.

c. Any person, other than the operator, who causes equipment from a well to be removed so as to render it temporarily abandoned shall, prior to conducting such activity, file a notice of intent to remove equipment and receive the approval of the Director. The Director may condition such approval on concurrent plugging and abandonment of the well or on provision of the financial assurance required of operators in this series.

708. PUBLIC HEALTH, SAFETY AND WELFARE

All operators shall maintain general liability insurance coverage for property damage and bodily injury to third parties in the minimum amount of five hundred thousand dollars (\$500,000) per occurrence. Operators with wells or production facilities located in "high density areas" as defined in Rule 603.b. shall maintain such coverage in the minimum amount of one million dollars (\$1,000,000) per occurrence. Such policies shall include the Commission as a "certificate holder" so that the Commission may receive advance notice of cancellation.

709. FINANCIAL ASSURANCE

All financial assurance provided to the Commission pursuant to this Series shall remain in place until such time as the Director determines an operator has complied with the statutory obligations described herein, or until such time the Director determines a successor-in-interest has filed satisfactory replacement financial assurance, at which time the Director shall provide written approval for release of such financial assurance. Whenever an operator fails to fulfill any statutory obligation described herein, and the Commission undertakes to expend funds to remedy the situation, the Director shall make application to the Commission for an order calling or foreclosing the operator's financial assurance.

a. Operators and third party providers of financial assurance shall be served with a copy of such application pursuant to Rule 503. and shall be accorded an opportunity to be heard thereon. Any third party provider of financial assurance which subsequently fails to comply with a Commission order to make such financial assurance available shall be considered an unacceptable provider of any new financial assurance to operators in Colorado, until such time as it applies for and receives an order of reinstatement. This provision shall be stayed by the filing of a judicial appeal. In addition, the Commission may institute suit to recover such monies.

b. If an operator's financial assurance is called or foreclosed by the Commission, the called or foreclosed amount shall be deposited in the Environmental Response Fund to be expended by the Director for the purposes referenced in Rule 701., and an overhead recovery fee of ten percent (10%) of the funds expended by the Director as direct costs shall be charged against any excess of the financial assurance over such costs. Any remainder of such financial assurance after such cost recovery shall be returned to its provider. In no circumstances will the liability of a third party provider of financial assurance exceed the face amount of such financial assurance.

c. If an operator's financial assurance is called or foreclosed by the Commission, such operator's Certificates of Clearance, Form 10, are forthwith suspended and no sales of gas or oil shall be allowed, except as may be allowed by the Commission order, until such time as the operator's financial assurance has been replaced or restored.

710. ENVIRONMENTAL RESPONSE FUND

It is the intent of the Commission that an Environmental Response Fund (ERF) "emergency reserve" of unobligated funds be maintained in the amount of one million dollars (\$1,000,000), which may be used in accordance with the Act and Rule 701.

711. NATURAL GAS GATHERING, NATURAL GAS PROCESSING AND UNDERGROUND NATURAL GAS STORAGE FACILITIES

Operators of natural gas gathering, natural gas processing, or underground natural gas storage facilities shall be required to provide statewide blanket financial assurance to ensure compliance with the 900 Series rules in the amount of fifty thousand dollars (\$50,000), or in an amount voluntarily agreed to with the Director, or in an amount to be determined by order of the Commission. Operators of small systems gathering or processing less than five (5) MMSCFD may provide individual financial assurance in the amount of five thousand dollars (\$5,000).

AESTHETIC AND NOISE CONTROL REGULATIONS

801. INTRODUCTION

The rules and regulations in this section are promulgated to control aesthetics and noise impacts during the drilling, completion and operation of oil and gas wells and production facilities. Any Colorado county, home rule or statutory city, town, territorial charter city or city and county may, by application to the Commission, seek a determination that the rules and regulations in this section, or any individual rule or regulation, shall not apply to oil and gas activities occurring within the boundaries, or any part thereof, of any Colorado county, home rule or statutory city, town, territorial charter city or city and county, such determination to be based upon a showing by any Colorado county, home rule or statutory city, town, territorial charter city or city and county that, because of conditions existing therein, the enforcement of these rules and regulations is not necessary within the boundaries of any Colorado county, home rule or statutory city, town, territorial charter city or city and county for the protection of public health, safety and welfare.

802. NOISE ABATEMENT

a. The goal of this rule is to identify noise sources related to oil and gas operations that impact surrounding landowners and to implement cost-effective and technically-feasible mitigation measures to bring oil and gas facilities into compliance with the allowable noise levels identified in subsection c. Operators should be aware that noise control is most effectively addressed at the siting and design phase, especially with respect to centralized compression and other downstream "gas facilities" (see definition in the 100 Series of these rules).

b. Oil and gas operations at any well site, production facility or gas facility, shall comply with the following maximum permissible noise levels. Operations involving pipeline or gas facility installation or maintenance, the use of a drilling rig, completion rig, workover rig, or stimulation is subject to the maximum permissible noise levels for industrial zones. The type of land use of the surrounding area shall be determined by the Commission in consultation with the local governmental designee taking into consideration any applicable zoning or other local land use designation.

c. In the hours between 7:00 a.m. and the next 7:00 p.m. the noise levels permitted below may be increased ten (10) db(A) for a period not to exceed fifteen (15) minutes in any one (1) hour period. The allowable noise level for periodic, impulsive or shrill noises is reduced by five (5) db(A) from the levels shown.

ZONE	7:00 am to next 7:00 pm	7:00 pm to next 7:00 am
Residential/Agricultural/Rural	55 db(A)	50 db(A)
Commercial	60 db(A)	55 db(A)
Light industrial	70 db(A)	65 db(A)
Industrial	80 db(A)	75 db(A)

In remote locations, where there is no reasonably proximate occupied structure or designated outside activity area, the light industrial standard may be applicable.

Pursuant to Commission inspection or upon receiving a complaint from a nearby property owner or local governmental designee regarding noise related to oil and gas operations, the Commission shall conduct an onsite investigation and take sound measurements as prescribed herein.

The following provide guidance for the measurement of sound levels and assignment of points of compliance for oil and gas operations:

(1) Sound levels shall be measured at a distance of three hundred and fifty (350) feet from the noise source. At the request of the complainant, the sound level shall also be measured at a point beyond three hundred fifty (350) feet that the complainant believes is more representative of the noise impact. If an oil and gas well site, production facility or gas facility is installed closer than three hundred fifty (350) feet from an existing occupied structure, sound levels shall be measured at a point twenty-five (25) feet from the structure towards the noise source. Noise levels from oil and gas facilities located on surface property owned, leased or otherwise controlled by the operator shall be measured at three hundred and fifty (350) feet or at the property line, whichever is greater.

In situations where measurement of noise levels at three hundred and fifty (350) feet is impractical or unrepresentative due to topography, the measurement may be taken at a lesser distance and extrapolated to a 350-foot equivalent using the following formula:

$$db(A)_{DISTANCE\ 2} = db(A)_{DISTANCE\ 1} - 20 \times \log_{10}(distance\ 2/distance\ 1)$$

(2) Sound level meters shall be equipped with wind screens, and readings taken when the wind velocity at the time and place of measurement is not more than five (5) miles per hour.

(3) Sound level measurements shall be taken four (4) feet above ground level.

(4) Sound levels shall be determined by averaging minute-by-minute measurements made over a minimum fifteen (15) minute sample duration if practicable. The sample shall be taken under conditions that are representative of the noise experienced by the complainant (e.g., at night, morning, evening, or during special weather conditions).

(5) In all sound level measurements, the existing ambient noise level from all other sources in the encompassing environment at the time and place of such sound level measurement shall be considered to determine the contribution to the sound level by the oil and gas operation(s).

d. In situations where the complaint or Commission onsite inspection indicates that low frequency noise is a component of the problem, the Commission shall obtain a sound level measurement twenty-five (25) feet from the exterior wall of the residence or occupied structure nearest to the noise source, using a noise meter calibrated to the db(C) scale. If this reading exceeds 65 db(C), the Commission shall require the operator to obtain a low frequency noise impact analysis by a qualified sound expert, including identification of any reasonable control measures available to mitigate such low frequency noise impact. Such study shall be provided to the Commission for consideration and possible action.

e. Exhaust from all engines, motors, coolers and other mechanized equipment shall be vented in a direction away from all occupied buildings.

f. All facilities within four hundred (400) feet of occupied buildings with engines or motors which are not electrically operated shall be equipped with quiet design mufflers or equivalent. All mufflers shall be properly installed and maintained in proper working order.

803. LIGHTING

To the extent practicable, site lighting shall be directed downward and internally so as to avoid glare on public roads and occupied buildings within seven hundred (700) feet.

804. VISUAL IMPACT MITIGATION

Production facilities constructed or substantially repainted after May 30, 1992 which are observable from any public highway shall be painted with uniform, non-contrasting, non-reflective color tones, (similar to the Munsell Soil Color Coding System) and with colors matched to but slightly darker than the surrounding landscape.

EXPLORATION & PRODUCTION (E&P) WASTE MANAGEMENT

901. INTRODUCTION

a. **General.** The rules and regulations of this series establish the permitting, construction, operating and closure requirements for pits, methods of E&P waste management, procedures for spill/release response and reporting, and sampling and analysis for remediation activities. The 900 Series rules are applicable only to E&P waste, as defined in §34-60-103(4.5), C.R.S., or other solid waste where the Colorado Department Of Public Health And Environment ("CDPHE") has allowed remediation and oversight by the Commission.

b. **COGCC reporting forms.** The reporting required by the rules and regulations of this series shall be made on forms provided by the Director. Alternate forms may be used where equivalent information is supplied and the format has been approved by the Director.

c. **Additional requirements.** Whenever the Director has reasonable cause to believe that an operator, in the conduct of any oil or gas operation, is performing any act or practice which threatens to cause or causes a violation of Table 910-1 and with consideration of water quality standards or classifications established by the Water Quality Control Commission ("WQCC") for waters of the state, the Director may impose additional requirements, including but not limited to, sensitive area determination, sampling and analysis, remediation, monitoring, permitting and the establishment of points of compliance. Any action taken pursuant to this Rule shall comply with the provisions of Rules 324A. through D. and the 500 Series rules.

d. **Alternative compliance methods.** Operators may propose for prior approval by the Director alternative methods for determining the extent of contamination, sampling and analysis, or alternative cleanup goals using points of compliance or risk-based approaches.

e. **Sensitive area determination.** Operators shall make a sensitive area determination using the Sensitive Area Determination Decision Tree, Figure 901-1 to evaluate the potential for impact to ground water and submit data evaluated and analysis used in the determination to the Director for the following operations or remediation activities:

- (1) Construction of drilling pits designed for use with fluids containing hydrocarbon concentrations exceeding 20,000 parts per million ("ppm") total petroleum hydrocarbon ("TPH") or chloride concentrations at total well depth exceeding 15,000 ppm.
- (2) Construction of production and special purpose pits;
- (3) Construction of centralized E&P waste management facilities;
- (4) Management and remediation of spills/releases exceeding twenty (20) barrels net loss of E&P waste; or
- (5) When the operator or Director has data that indicate an impact or threat of impact to ground water.

f. **Sensitive area operations.** Operations in sensitive areas shall incorporate adequate measures and controls to prevent significant adverse environmental impacts and ensure compliance with the allowable concentrations and levels in Table 910-1, with consideration to WQCC standards and classifications. Unlined production and special purpose pits in sensitive areas are generally not approved.

902. PITS - GENERAL AND SPECIAL RULES

a. Pits used for exploration and production of oil and gas shall be constructed and operated to protect the waters of the state from significant adverse environmental impacts from E&P waste, except as permitted by applicable laws and regulations.

b. Topsoil and subsoil removed in the construction of the pit shall be segregated and stockpiled in a manner described in Rule 1002. and used for reclamation of the site.

c. Pits shall be constructed and operated to provide for a minimum of two (2) feet of freeboard between the top of the pit wall and the fluid level of the pit.

d. Any accumulation of oil in a pit shall be removed within twenty-four (24) hours of discovery. This requirement is not applicable to properly permitted and properly fenced or netted skim pits.

e. Where necessary to protect public health, safety and welfare or to prevent significant adverse environmental impacts resulting from access to a pit by wildlife, migratory birds, domestic animals, or members of the general public, operators shall install appropriate netting or fencing.

f. **Multi-well pits.** Production and special purpose pits used for treatment or disposal of E&P waste generated from more than one well may be permitted in accordance with Rule 903. as a multi-well pit, subject to Director approval.

g. Unlined drilling pits shall not be constructed on fill material.

h. Produced water shall be treated in accordance with Rule 907. before being placed in a production pit.

903. PIT PERMITTING/REPORTING REQUIREMENTS

a. Drilling pits, production pits, and special purpose pits shall be permitted or reported as follows:

(1) Pit Construction Report/Permit, Form 15, shall be submitted for prior Director approval for the following:

A. Drilling pits designed for use with fluids containing hydrocarbon concentrations exceeding 20,000 ppm TPH or chloride concentrations at total well depth exceeding 15,000 ppm in sensitive areas or 50,000 ppm outside sensitive areas.

B. Production pits and unlined special purpose pits in sensitive areas.

C. Unlined production pits and special purpose pits outside sensitive areas, excluding those pits permitted in accordance with Rule 903.a.(2).B.

(2) Pit Construction Report/Permit, Form 15, shall be submitted within thirty (30) days after construction for the following:

A. Lined production pits outside sensitive areas.

B. Unlined production pits outside sensitive areas receiving produced water at an average daily rate of five (5) or less barrels per day calculated on a monthly basis for each month of operation.

C. Lined special purpose pits.

D. Flare pits where there is no risk of condensate accumulation.

(3) Pit Construction Report/Permit, Form 15, shall not be required for drilling pits using water-based bentonitic drilling fluids with concentrations of TPH and chloride below those referenced in Rule 903.a.(1).A.

b. The Pit Construction Report/Permit, Form 15, shall be completed in accordance with the instructions in Appendix I. Failure to complete the form in full may result in delay of approval or return of form.

c. The Director shall endeavor to review any properly completed Pit Construction Report/Permit, Form 15, within thirty (30) days after receipt. In order to allow adequate time for pit permit approval, operators should submit required Form 15 pit construction permit requests for approval with an Application for Permit to Drill, Form 2. The Director may condition permit approval upon compliance with additional terms, provisions or requirements necessary to protect the waters of the state, public health, or the environment.

904. PIT LINING REQUIREMENTS AND SPECIFICATIONS

a. Pit lining requirements. The following pits shall be lined:

(1) Drilling pits designed for use with fluids containing hydrocarbon concentrations exceeding 20,000 ppm TPH or chloride concentrations at total well depth exceeding 15,000 ppm in sensitive areas or 50,000 ppm outside sensitive areas.

(2) Production pits in sensitive areas.

(3) Special purpose pits, except emergency pits constructed during initial response to spills/releases, or flare pits where there is no risk of condensate accumulation.

(4) Skim pits.

b. The following specifications shall apply to pits that are required to be lined:

(1) Materials used in lining pits shall be impervious, weather resistant and resistant to deterioration when in contact with hydrocarbons, aqueous acids, alkali, fungi or other substances in the produced water.

(2) Soil liners shall have a minimum thickness of six (6) inches after compaction, shall cover the entire bottom and interior sides of the pit, and shall be constructed so that the hydraulic conductivity of the liner shall not exceed 1.0×10^{-6} cm/sec. Bentonite liners shall be constructed to provide equivalent protection. Operators shall perform post-construction tests either in a laboratory or in the field. All test results shall be filed with the Director.

(3) Synthetic or fabricated liners shall have a minimum thickness of twelve (12) mils and shall be resistant to deterioration by ultraviolet light, weathering, chemicals, punctures and tearing, and designed for the life of the well. The foundation for the liner shall be constructed to prevent punctures from soils or other materials beneath the liner. The synthetic or fabricated liner shall cover the bottom and interior sides of the pit with the edges secured with at least a twelve (12) inch deep anchor trench around the pit perimeter.

(4) In Sensitive Areas, the Director may require a leak detection system for the pit or other equivalent protective measures, including but not limited to, increased record-keeping requirements, monitoring systems and underlying gravel fill sumps and lateral systems. In making such determination, the Director shall consider the surface and subsurface geology, the use and quality of potentially-affected ground water, the quality of the produced water, and the hydraulic conductivity of the surrounding soils and the type of liner.

905. CLOSURE OF PITS, AND BURIED OR PARTIALLY BURIED PRODUCED WATER VESSELS.

a. Unlined production and special purpose pits, except emergency pits constructed during initial response to spills/releases, shall be closed in accordance with an approved Site Investigation and Remediation Workplan, Form 27. The workplan shall be submitted for prior Director approval and shall include a description of the proposed investigation and remediation activities in accordance with Rule 909.

b. Lined pits and buried or partially buried produced water vessels:

(1) Operators shall ensure that soils and ground water meet the allowable concentrations of Table 910-1.

(2) Pit evacuation. Prior to backfilling and site reclamation, E&P waste shall be treated or disposed in accordance with Rule 907.

(3) Liners shall be disposed as follows:

A. **Synthetic liner disposal.** On irrigated crop land, liner material shall be removed and disposed in accordance with applicable solid waste rules. On non-irrigated crop land and on non-crop land, liner material may be left in place with surface owner approval.

B. **Constructed soil liners.** Constructed soil liner material may be removed for treatment or disposal, or, where left in place, the material shall be ripped and mixed with native soils in a manner to alleviate compaction and prevent an impermeable barrier to infiltration and ground water flow.

c. **Discovery of a spill/release during closure.** When a spill/release is discovered during closure operations operators shall report the spill/release on the Spill/Release Report, Form 19, in accordance with Rule 906. Leaking pits and buried or partially buried produced water vessels shall be closed and remediated in accordance with Rules 909. and 910.

d. **Emergency pits.** Emergency pits constructed during initial response to contain and mitigate spills/releases shall not be subject to lining requirements. These pits shall be closed and remediated in accordance with Rule 906.

e. **Unlined drilling pits.** Unlined drilling pits shall be closed and reclaimed in accordance with the 1000 Series rules.

906. SPILLS AND RELEASES

a. **General.** Spills/releases of E&P waste, including produced fluids shall be controlled and contained immediately upon discovery. Impacts resulting from spills/releases shall be investigated and cleaned up as soon as practicable. The Director may require additional activities to prevent or mitigate threatened or actual significant adverse environmental impacts on any air, water, soil or biological resource, or to the extent necessary to ensure compliance with the allowable concentrations and levels in Table 910-1, with consideration to WQCC ground water standards and classifications.

b. **Reporting.**

(1) Spills/releases of E&P waste or produced fluid exceeding five (5) barrels, including those contained within unlined berms, shall be reported on COGCC Spill/Release Report Form, 19. Such report shall include information relating to initial mitigation, site investigation and remediation, and shall be submitted to the Director within ten (10) days of discovery of the spill/release.

(2) In addition, spills/releases which exceed twenty (20) barrels of an E&P waste shall be verbally reported to the Director within twenty-four (24) hours of discovery.

(3) In addition, spill/releases of any size which impact or threaten to impact any waters of the state, residence or occupied structure, livestock or public byway, shall be verbally reported to the Director as soon as practicable after discovery.

c. **Surface owner notification and consultation.** The operator shall make good faith efforts to notify and consult with the surface owner prior to commencing operations to remediate E&P waste from a spill/release in an area not being utilized for oil and gas operations.

d. **Remediation of spills/releases.**

(1) **Remediation workplan.** When threatened or actual significant adverse environmental impacts on any air, water, soil or biological resource from a spill/release exists or when necessary to ensure compliance with the allowable concentrations and levels in Table 910-1, with consideration to WQCC ground water standards and classifications, the Director may require operators to submit a Site Investigation and Remediation Workplan, Form 27.

(2) **Remediation requirements.** Spills/releases shall be remediated to meet the allowable concentrations in Table 910-1. Spills/releases exceeding twenty (20) barrels net loss of E&P waste shall be remediated in accordance with Rules 909. and 910.

e. **Spill/release prevention.**

(1) **Secondary containment.** Secondary containment shall be constructed or installed around tanks containing crude oil, condensate or produced water with greater than 10,000 milligrams per liter (mg/l) total dissolved solids (TDS). Operators are also subject to crude oil tank and containment requirements under Rules 603. and 604. This requirement shall not apply to water tanks with a capacity of one hundred (100) barrels or less.

(2) **Spill/release evaluation.** Operators shall determine the cause of a spill/release, and to the extent practicable, shall implement measures to prevent spills/releases due to similar causes in the future. For reportable spills, operators shall submit this information to the Director on the Spill/Release Report, Form 19 within ten (10) days after discovery of the spill/release.

907. MANAGEMENT OF E&P WASTE

a. **General requirements.**

(1) **Operator obligations.** Operators shall ensure that E&P waste is properly stored, handled, transported, treated, recycled or disposed to prevent threatened or actual significant adverse environmental impacts to air, water, soil or biological resources or to the extent necessary to ensure compliance with the allowable concentrations and levels in Table 910-1, with consideration to WQCC ground water standards and classifications.

(2) E&P waste management activities shall be conducted, and facilities constructed and operated, to protect the waters of the state from significant adverse environmental impacts from E&P waste, except as permitted by applicable laws and regulations.

(3) **Reuse and recycling.** To encourage and promote waste minimization, operators may propose plans for managing E&P waste through beneficial use, reuse and recycling by submitting a written management plan to the Director for approval. Such plans shall describe the proposed use of the waste, method of waste treatment, product quality assurance, and shall include a copy of any certification or authorization that may be required by other laws.

b. **Waste transportation.**

(1) E&P waste, when transported off-site within Colorado for treatment or disposal, shall be transported to facilities authorized by the Director or waste disposal facilities approved to receive E&P waste by the CDPHE.

(2) **Waste generator requirements.** Generators of E&P waste shall maintain, for not less than three (3) years, copies of each invoice, bill or ticket and such other records as necessary to document the following information from a transporter or disposal site, describing the disposal of E&P waste from each location:

- A. The date of the transport;
- B. The identity of the waste generator;
- C. The identity of the waste transporter;
- D. The location of the waste pickup site;
- E. The type and volume of waste; and
- F. The name and location of the treatment or disposal site.

Such records shall be made available for inspection by the Director during normal business hours and copies thereof shall be furnished to the Director upon request.

c. **Produced water.**

(1) Treatment of produced water. Produced water shall be treated prior to placement in a production pit to prevent crude oil and condensate from entering the pit.

(2) Produced water disposal. Produced water may be disposed as follows:

- A. Injection into a Class II well, permitted in accordance with Rule 325.;
- B. Evaporation/percolation in a properly permitted lined or unlined pit;
- C. Disposal at permitted commercial facilities; or
- D. Disposal by roadspraying on lease roads outside sensitive areas for produced waters with less than 5,000 mg/l TDS when authorized by the surface owner. Roadspraying shall not result in pooling or runoff of produced waters and the adjacent soils shall meet the allowable concentrations in Table 910-1.
- E. Discharging into state waters, in accordance with the Water Quality Control Act and the rules and regulations promulgated thereunder. Produced water discharged pursuant to this subsection

(2)E. may be put to beneficial use in accordance with applicable state statutes and regulations governing the use and administration of water.

(3) **Produced water reuse and recycling.** Produced water may be reused for enhanced recovery, drilling, and other uses in a manner consistent with existing water rights and in consideration of water quality standards and classifications established by the WQCC for waters of the state, or any point of compliance established by the Director pursuant to Rule 324D.

(4) **Mitigation.** Water produced during operation of an oil or gas well may be used to provide an alternate domestic water supply to surface owners within the oil or gas field, in accordance with all applicable laws, including, but not limited to, obtaining the necessary approvals from the WQCD for constructing a new "waterworks," as defined by section 25-1-107(1)(X)(II)(A), C.R.S. Any produced water not so used shall be disposed of in accordance with subsection (2) or (3). Provision of produced water for domestic use within the meaning of this subsection (4) shall not constitute an admission by the operator that the well is dewatering or impacting any existing water well. The water produced shall be to the benefit of the surface owner within the oil and gas field and may not be sold for profit or traded.

d. **Drilling fluids.**

(1) Drilling pit fluid recycling. Drilling pit contents may be recycled to another drilling pit consistent with Rule 903.

(2) Drilling fluids treatment and disposal. Drilling fluids may be treated or disposed as follows:

A. Injection into a Class II well permitted in accordance with Rule 325.;

B. Disposal at a commercial solid waste disposal facility; or

C. Land treatment or land application at a centralized E&P waste management facility permitted in accordance with Rule 908.

(3) Additional authorized disposal of water-based bentonitic drilling fluids. Water-based bentonitic drilling fluids may be disposed as follows:

A. Drying and burial in drilling pits on non-crop land; or

B. Land application as follows:

i. Applicability. Acceptable methods of land application include, but are not limited to, production facility construction and maintenance, lease and farm road maintenance, or lining of stock ponds and irrigation ditches.

ii. Land application requirements. The average thickness of water-based bentonitic drilling fluid waste applied shall be no more than three (3) inches prior to incorporation. The waste shall be applied to prevent ponding or erosion and shall be incorporated as a beneficial amendment into the native soils as soon as practicable. The resulting concentrations shall not exceed those in Table 910-1.

iii. Surface owner approval. Operators shall obtain written authorization from the surface owner prior to land application of water-based bentonitic drilling fluids.

iv. Operator obligations. Operators with control and authority over the wells from which the water-based bentonitic drilling fluid wastes are obtained retain responsibility for the land application operation, and shall diligently cooperate with the Director in responding to complaints regarding land application of water-based bentonitic drilling fluids.

v. Approval. Prior Director approval is not required for reuse of water-based bentonitic drilling fluids for land application as a soil amendment or lining material.

e. **Oily waste.** Oily waste includes those materials containing crude oil, condensate or other hydrocarbon-containing E&P waste, such as soil, frac sand, drilling fluids, workover fluids, pit sludge, tank bottoms, pipeline pigging wastes, and natural gas gathering, processing and storage wastes.

(1) Oily waste may be treated or disposed as follows:

A. Disposal at a commercial solid waste disposal facility;

B. Land treatment onsite or with prior written surface owner approval, offsite land treatment; or

C. Land treatment at a centralized E&P waste management facility permitted in accordance with Rule 908.

(2) Land treatment requirements:

A. Free oil shall be removed from the oily waste prior to land treatment.

B. Oily waste shall be spread evenly to prevent pooling, ponding or runoff.

C. Contamination of ground water or surface water shall be prevented.

D. Biodegradation shall be enhanced by disking, tilling, aerating, addition of nutrients, microbes, water or other amendments, as appropriate.

E. Land-treated oily waste incorporated in place shall not exceed the allowable concentrations in Table 910-1.

F. When a threatened or significant adverse environmental impact from onsite land treatment exists, the Director may require operators to submit a Site Investigation And Remediation Workplan, Form 27. Treatment shall thereafter be completed in accordance with the workplan and Rules 909. and 910.

G. When land treatment occurs in an area not being utilized for oil and gas operations, operators shall obtain prior written surface owner approval.

908. CENTRALIZED E&P WASTE MANAGEMENT FACILITIES

a. **Applicability.** Operators may establish non-commercial, centralized E&P waste management facilities for the treatment, disposal, recycling or beneficial reuse of E&P waste. This rule applies only to non-commercial facilities, which means the operator does not represent itself as providing E&P waste management services to third parties, except as part of a unitized area or joint operating agreement or in response to an emergency. Centralized facilities may include components such as land treatment or land application sites, pits and recycling equipment.

b. **Permit requirements.** An application for permit including the following information shall be submitted to the Director for prior approval along with a filing and service fee established by the Commission (Appendix III):

- (1) The name, address, phone and fax number of the operator, and a designated contact person.
- (2) The name, address and phone number of the surface owner of the site, if not the operator, and the written authorization of such surface owner.
- (3) The legal description of the site.
- (4) A general topographic, geologic and hydrologic description of the site, including immediately adjacent land uses, a topographic map of a scale no less than 1:24,000 showing the location, and the average annual precipitation and evaporation rates at the site.
- (5) Centralized facility siting requirements.
 - A. A site plan showing drainage patterns and any diversion or containment structures, and facilities such as roads, fencing, tanks, pits, buildings, and other construction details.
 - B. Scaled drawings of entire sections containing the proposed facility. The field measured distances from the nearer north or south and nearer east or west section lines shall be measured at ninety (90) degrees from said section lines to facility boundaries and referenced on the drawing. A survey shall be provided including a complete description of established monuments or collateral evidence found and all aliquot corners.
 - C. Appropriate measures to limit access to the centralized facility by wildlife, domestic animals, and members of the general public shall be implemented.
 - D. Centralized facilities shall have a fire lane of at least ten (10) feet in width around the active treatment areas and within the perimeter fence. In addition, a buffer zone of at least ten (10) feet shall be maintained within the perimeter fire lane.
 - E. Surface water diversion structures, including, but not limited to, berms and ditches, shall be constructed to accommodate a one hundred (100) year, twenty four (24) hour event.
- (6) **Waste profile.** For each type of waste, the amounts to be received and managed by the facility shall be estimated on a monthly average basis. For each waste type to be treated, a characteristic waste profile shall be completed.
- (7) **Facility design and engineering.** Facility design and engineering data, including plans and elevations, design basis, calculations, and process description.
- (8) **Operating plan.** An operating plan, including, but not limited to, a detailed description of the method of treatment, loading rates, application of nutrients and soil amendments, dust and moisture control, sampling,

inspection and maintenance, emergency response, record-keeping, site security, hours of operation, and final disposition of waste. Where treated waste will be beneficially reused, a description of reuse and method of product quality assurance shall be included.

(9) **Ground water monitoring.**

A. The Director may require ground water monitoring for the purpose of preventing and mitigating threatened or actual significant adverse environmental impact or to ensure compliance with the allowable concentrations and levels in Table 910-1, with consideration to WQCC standards and classifications by establishing points of compliance.

B. Where monitoring is required, the direction of flow, ground water gradient and quality of water shall be established by the installation of a minimum of three (3) monitor wells, including an up-gradient well and two (2) down-gradient wells that will serve as points of compliance, or other methods authorized by the Director.

c. **Permit approval.** The Director shall endeavor to approve or deny the properly completed permit within thirty (30) days after receipt and may condition permit approval as necessary to prevent any threatened or actual significant adverse environmental impact on air, water, soil or biological resources or to the extent necessary to ensure compliance with the allowable concentrations and levels in Table 910-1, with consideration to WQCC ground water standards and classifications.

d. **Financial assurance.** The operator of a land treatment facility shall submit for the Director's approval such financial assurance as required by Rule 704.

e. **Facility modifications.** Throughout the life of the facility the operator shall submit proposed modifications to the facility design, operating plan, permit data, or permit conditions to the Director for prior approval.

f. **Annual permit review.** To ensure compliance with permit conditions and the 900 Series rules, the facility permit shall be subject to an annual review by the Director.

g. **Closure.** A preliminary plan for closure shall be submitted with the centralized facility permit. A Site Investigation and Remediation Workplan, Form 27 shall be submitted sixty (60) days prior to closure for approval by the Director. The workplan shall describe the final closure plan.

h. Operators may be subject to local requirements for zoning and construction of facilities and shall provide copies of notifications to local governments or other agencies to the Director.

909. SITE INVESTIGATION, REMEDIATION AND CLOSURE

a. **Applicability.** This section applies to the closure and remediation of pits other than drilling pits constructed pursuant to Rule 903.a.(3); investigation, reporting and remediation of spills/releases; permitted waste management facilities including treatment facilities; plugged and abandoned wellsites; sites impacted by E&P waste management practices; or other sites as designated by the Director.

b. **General site investigation and remediation requirements.**

(1) **Sensitive Area Determination.** Operators shall complete a sensitive area determination in accordance with Rule 901.e.

(2) **Sampling and analyses.** Samples and analysis of soil and ground water shall be conducted in accordance with Rule 910. to determine the horizontal and vertical extent of any contamination in excess of the allowable concentrations in Table 910-1.

(3) **Management of E&P waste.** E&P waste shall be managed in accordance with Rule 907.

(4) **Pit evacuation.** Prior to backfilling and site reclamation, E&P waste shall be treated or disposed in accordance with Rule 907. and the 1000 Series rules.

(5) **Remediation.** Remediation shall be performed in a manner to mitigate, remove or reduce contamination that exceeds the allowable concentrations in Table 910-1 in order to ensure protection of public health, safety and welfare, and to prevent and mitigate significant adverse environmental impacts. Soil that does not meet allowable concentrations in Table 910-1 shall be remediated. Ground water that does not meet allowable concentrations in Table 910-1 shall be remediated in accordance with a Site Investigation and Remediation Workplan, Form 27.

(6) **Reclamation.** Remediation sites shall be reclaimed in accordance with the 1000 Series rules for reclamation.

c. **Site Investigation And Remediation Workplan, Form 27.** Operators shall prepare and submit for prior Director approval a Site Investigation and Remediation Workplan, Form 27 for the following operations and remediation activities:

- (1) Unlined pit closure when required by Rule 905.
- (2) Remediation of spills/releases in accordance with Rule 906.
- (3) Land treatment of oily waste in accordance with Rule 907.e.(2).F.
- (4) Closure of centralized E&P waste management facilities in accordance with Rule 908.g.
- (5) Remediation of impacted ground water in accordance with Rule 910.b.(4).

d. **Multiple sites.** Remediation of multiple sites may be submitted on a single workplan with prior Director approval.

e. **Closure.**

(1) Remediation and reclamation shall be complete upon compliance with the allowable concentrations in Table 910-1, or upon compliance with an approved workplan.

(2) **Notification of completion.** Within thirty (30) days after conclusion of site remediation and reclamation activities operators shall provide the following notification of completion:

A. Operators conducting remediation operations in accordance with Rule 909.b. shall submit to the Director a Site Investigation and Remediation Workplan, Form 27, containing information sufficient to demonstrate compliance with these rules.

B. Operators conducting remediation under an approved workplan shall submit to the Director, by adding or attaching to the original workplan, information sufficient to demonstrate compliance with the workplan.

f. **Release of financial assurance.** Financial assurance required by Rule 706. may be held by the Director until the required remediation of soil and/or ground water impacts is completed in accordance with the approved workplan, or until cleanup goals are met.

910. ALLOWABLE CONCENTRATIONS AND SAMPLING FOR SOIL AND GROUND WATER

a. **Soil and ground water allowable concentrations.** The allowable concentrations for soil and ground water are in Table 910-1. Ground water standards and analytical methods are derived from the ground water standards and classifications established by WQCC.

b. **Sampling and analysis.**

(1) **Existing workplans.** Sampling and analysis for sites subject to an approved workplan shall be conducted in accordance with the workplan and the sampling and analysis requirements described in this rule.

(2) **Methods for sampling and analysis.** Sampling and analysis for site investigation or confirmation of successful remediation shall be conducted to determine the nature and extent of impact and confirm compliance with appropriate allowable concentrations.

A. **Field analysis.** Field measurements and field tests shall be conducted using appropriate equipment, calibrated and operated according to manufacturer specifications, by personnel trained and familiar with the equipment.

B. **Sample collection.** Samples shall be collected, preserved, documented, and shipped using standard environmental sampling procedures in a manner to ensure accurate representation of site conditions.

C. **Laboratory analytical methods.** Laboratories shall analyze samples using standard methods (such as EPA SW-846 or API RP-45) appropriate for detecting the target analyte. The method selected shall have detection limits less than or equal to the allowable concentrations in Table 910-1.

D. **Background sampling.** Samples of comparable, nearby, non-impacted, native soil, ground water or other medium may be required by the Director for establishing background conditions.

(3) **Soil sampling and analysis.**

A. **Applicability.** If soil contamination is suspected or known to exist as a result of spills/releases or E&P waste management, representative samples of soil shall be collected and analyzed in accordance with this rule.

B. **Sample collection.** Samples shall be collected from areas most likely to have been impacted, and the horizontal and vertical extent of contamination shall be determined. The number and location of samples shall be appropriate to the impact.

C. **Sample analysis.** Soil samples shall be analyzed for contaminants listed in Table 910-1 as appropriate to assess the impact or confirm remediation.

D. **Reporting.** Soil Analysis Report, Form 24 shall be used when the Director requires results of soil analyses.

E. **Soil impacted by produced water.** For impacts to soil due to produced water, samples from comparable, nearby non-impacted, native soil shall be collected and analyzed for purposes of establishing background soil conditions including pH and electrical conductivity (EC). Where EC of the impacted soil exceeds the allowable level in Table 910-1, the sodium adsorption ratio (SAR) shall also be determined.

F. **Soil impacted by hydrocarbons.** For impacts to soil due to hydrocarbons, samples shall be analyzed for TPH.

(4) **Ground water sampling and analysis.**

A. **Applicability.** Operators shall collect and analyze representative samples of ground water in accordance with these rules under the following circumstances:

- i. Where ground water contamination is suspected or known to exceed the allowable concentrations in Table 910-1;
- ii. Where impacted soils are in contact with ground water; or
- iii. Where impacts to soils extend down to the high water table.

B. **Sample collection.** Samples shall be collected from areas most likely to have been impacted, downgradient or in the middle of excavated areas. The number and location of samples shall be appropriate to determine the horizontal and vertical extent of the impact. If the concentrations in Table 910-1 are exceeded, the direction of flow and a ground water gradient shall be established, unless the extent of the contamination and migration can otherwise be adequately determined.

C. **Sample analysis.** Ground water samples shall be analyzed for benzene, toluene, ethylbenzene, xylene, and API RP-45 constituents, or other parameters appropriate for evaluating the impact.

D. **Reporting.** Water Analysis Report, Form 25 shall be used when the Director requires results of water analyses.

E. **Impacted ground water.** Where ground water contaminants exceed the allowable concentrations listed in Table 910-1, operators shall notify the Director, and submit to the Director for prior approval a Site Investigation and Remediation Workplan, Form 27, for the investigation, remediation, or monitoring of ground water to meet the required allowable concentrations.

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911. PIT, BURIED OR PARTIALLY BURIED PRODUCED WATER VESSEL, BLOWDOWN PIT, AND BASIC SEDIMENT/TANK BOTTOM PIT MANAGEMENT REQUIREMENTS PRIOR TO DECEMBER 30, 1997.

a. **Applicability.** This rule applies to the management, operation, closure and remediation of drilling, production and special purpose pits, buried or partially buried produced water vessels, blowdown pits, and basic sediment/tank bottom pits put into service prior to December 30, 1997 and unlined skim pits put into service prior to July 1, 1995. For pits constructed after December 30, 1997 and skim pits constructed after July 1, 1995, operators shall comply with the requirements contained in Rules 901. through 910.

b. **Inventory.** Operators were required to submit to the Director no later than December 31, 1995, an inventory identifying production pits, buried or partially buried produced water vessels, blowdown pits, and basic sediment/tank bottom pits that existed on June 30, 1995. The inventory required operators to provide the facility name, a description of the location, type, capacity and use of pit/vessel, whether netted or fenced, lined or unlined, and where available, water quality data. Operators who have failed to submit the required inventory are in continuing violation of this rule.

c. **Sensitive area determination.**

(1) For unlined production and special purpose pits constructed prior to July 1, 1995 and not closed by December 30, 1997, operators were required to determine whether the pit was located within a sensitive area in accordance with the Sensitive Area Determination Decision Tree, Figure 901-1, (now Rule 901.e.), and submit data evaluated and analysis used in the determination to the Director on a Sundry Notice, Form 4.

(2) For steel, fiberglass, concrete, or other similar produced water vessels that were buried or partially buried and located in sensitive areas prior to December 30, 1997, operators were required to test such vessels for integrity, unless a monitoring or leak detection system was put in place.

d. The following permitting/reporting requirements applied to pits constructed prior to December 30, 1997:

(1) A Sundry Notice, Form 4, including the name, address, and phone number of the primary contact person operating the production pit for the operator, the facility name, a description of the location, type, capacity and use of pit, engineering design, installation features and water quality data, if available, was required for the following:

A. Lined production pits and lined special purpose pits constructed after July 1, 1995.

B. Unlined production pits constructed prior to July 1, 1995 which are lined in accordance with Rule 905. by December 30, 1997.

(2) An Application For Permit For Unlined Pit, Form 15 was required for the following:

A. Unlined production pits and special purpose pits in sensitive areas constructed prior to July 1, 1995, and not closed by December 30, 1997.

B. Unlined production pits outside sensitive areas constructed after July 1, 1995 and not closed by December 30, 1997.

(3) An Application For Permit For Unlined Pit, Form 15 and a variance under Rule 904.e.(1). (repealed, now Rule 502.b.) was required for unlined production pits and unlined special purpose pits in sensitive areas constructed after July 1, 1995.

(4) A Sundry Notice, Form 4 was required for unlined production pits outside sensitive areas receiving produced water at an average daily rate of five (5) or less barrels per day calculated on a monthly basis for each month of operation constructed prior to December 30, 1997.

e. The Director may have established points of compliance for unlined production pits and special purpose pits and for lined production pits in sensitive areas constructed after July 1, 1995.

f. **Closure requirements.**

(1) Operators of production or special purpose pits existing on July 1, 1995 which were closed before December 30, 1997, were required to submit a Sundry Notice, Form 4, within thirty (30) days of December 30, 1997. The Sundry Notice, Form 4 shall include a copy of the existing pit permit, if a permit was obtained and a description of the closure process.

(2) Pits closed prior to December 30, 1997 were required to be reclaimed in accordance with the 1000 Series rules. Pits closed after December 30, 1997 shall be closed in accordance with the 900 Series rules and reclaimed in accordance with the 1000 Series rules.

(3) Operators of steel, fiberglass, concrete or other similar produced water vessels buried or partially buried and located in sensitive areas were required to repair or replace vessels and tanks found to be leaking. Operators shall repair or replace vessels and tanks found to be leaking. Operators shall submit to the Director a Sundry Notice, Form 4, describing the integrity testing results and action taken within thirty (30) days of December 30, 1997.

(4) Closure of pits and steel, fiberglass, concrete or other similar produced water vessels, and associated remediation operations conducted prior to December 30, 1997 are not subject to Rules 905., 906., 907., 909. and 910.

912. VENTING OR FLARING NATURAL GAS

a. The unnecessary or excessive venting or flaring of natural gas produced from a well is prohibited.

b. Except for gas flared or vented during an upset condition, well maintenance, well stimulation flowback, purging operations, or a productivity test, gas from a well shall be flared or vented only after notice has been given and approval obtained from the Director on a Sundry Notice, Form 4, stating the estimated volume and content of the gas. The notice shall indicate whether the gas contains more than one (1) ppm of hydrogen sulfide. If necessary to protect the public health, safety or welfare, the Director may require the flaring of gas.

c. Gas flared, vented or used on the lease shall be estimated based on a gas-oil ratio test or other equivalent test approved by the Director, and reported on Operator's Monthly Production Report, Form 7.

d. Prior to flaring of any gas, operators shall construct a special purpose pit in compliance with Rule 903.

e. Operators shall notify the local emergency dispatch or the local governmental designee of any natural gas flaring. Notice shall be given prior to flaring when flaring can be reasonably anticipated, or as soon as possible but in no event more than two (2) hours after the flaring occurs.

**Table 910-1
ALLOWABLE CONCENTRATIONS AND LEVELS**

Contaminant of Concern	Allowable Concentrations
Organics in Soil: EPA Method 8015 (modified)	
TPH-Non-Sensitive Area	10,000 mg/kg
TPH-Sensitive Area	1,000 mg/kg
Organics in Ground Water: EPA Method 8020 ¹	
Benzene	5 µg/l ¹
Toluene	1,000 µg/l ¹
Ethylbenzene	700 µg/l ¹
Xylenes (Total)	1,400 to 10,000 µg/l ⁵
Inorganics in Soils ⁴	
Electrical Conductivity (EC)	<4 mmhos/cm or 2x background
Sodiun Adsorption Ratio (SAR)	<12
pH	6-9
Inorganics in Ground Water	
Total Dissolved Solids (TDS)	<1.25 x background ¹
Chlorides	<1.25 x background ¹
Sulfates	<1.25 x background ¹
Total Metals in Soils: EPA Method 3050 ⁴	
Arsenic	41 mg/kg ²
Barium (LDNR True Total Barium)	180,000 mg/kg ²
Boron (Hot Water Soluble)	2 mg/l ²
Cadmium	26 mg/kg ²
Chromium	1,500 mg/kg ²
Copper	750 mg/kg ²
Lead	300 mg/kg ²
Mercury	17 mg/kg ²
Molybdenum	³
Nickel	210 mg/kg ²
Selenium	³
Silver	100 mg/kg ²
Zinc	1,400 mg/kg ²

¹Concentrations taken from CDPHE-WQCC

²Concentrations taken from API Metals Guidance: Maximum Soil Concentrations

³Concentrations are dependent on site-specific conditions

⁴Consideration shall be given to background levels in native soils

⁵For this range of standards, the first number in the range is a strictly health-based value, based on the WQCC's established methodology for human health-based standards. The second number in the range is a maximum contaminant level (MCL), established under the Federal Safe Drinking Water Act which has been determined to be an acceptable level of this chemical in public water supplies, taking treatability and laboratory detection limits into account. The WQCC intends that control requirements for this chemical be implemented to attain a level of ambient water quality that is at least equal to the first number in the range except as follows: 1) where ground water quality exceeds the first number in the range due to a release of contaminants that occurred prior to September 14, 2004 (regardless of the date of discovery or subsequent migration of such contaminants) clean-up levels for the entire contaminant plume shall be no more restrictive than the second number in the range or the ground water quality resulting from such release, whichever is more protective, and 2) whenever the WQCC has adopted alternative, site-specific standards for the chemical, the site-specific standards shall apply instead of these statewide standards.

**Figure 901-1
SENSITIVE AREA DETERMINATION
Decision Tree**

OUTSIDE SENSITIVE AREAS

-New E&P waste management facilities shall be allowed outside Sensitive Areas. Points of Compliance shall be established as appropriate.

-Where complaints are made, Points of Compliance may be established for existing facilities.

INSIDE SENSITIVE AREAS

-E&P waste management facilities shall not be allowed unless the operator demonstrates no potential for significant adverse environmental impact.

-Facilities which are permitted may have Points of Compliance established.

BOX 1: Is discharge water or waste:
>1.25 x background ppm TDS
>250 mg/l Chloride or 1.25 x background
>250 mg/l Sulfate or 1.25 x background
> 5 µg/l Benzene
> 1000 µg/l Toluene
> 700 µg/l Ethylbenzene
> 1,400 - µg/l Total Xylenes

NO

YES

BOX 2: Is the site underlain by an unconfined aquifer or recharge zone?

NO

YES

BOX 3: is the hydraulic conductivity of the underlying soils and geologic material less than or equal to 10^{-6} cm/sec?

YES

NO

BOX 4: Is the site within an area classified for domestic use by WQCC, or a local (water supply) wellhead protection area (WHPA)?

YES

NO

BOX 5: Is the location within 1/8 mi. of a domestic water well, or 1/4 mi. of a public water supply well, using the same aquifer?

YES

NO

BOX 6: Is the depth to the average high ground water table <20', from the deeper of the ground surface, pit bottom or from the point of spill/release? (*see footnote)

NO

YES

* Additional requirements may be imposed by the Director in accordance with Rule 901.c.

RECLAMATION REGULATIONS

1001. INTRODUCTION

a. **General.** The rules and regulations of this series establish the proper reclamation of the land and soil affected by oil and gas operations and ensure the protection of the topsoil of said land during such operations. The surface of the land shall be restored as nearly as practicable to its condition at the commencement of drilling operations.

b. **Additional requirements.** Notwithstanding the provisions of the 1000 Series rules, when the Director has reasonable cause to believe that a proposed oil and gas operation could result in a significant adverse environmental impact on any air, water, soil, or biological resource, the Director shall conduct an onsite inspection and may request an emergency meeting of the Commission to address the issue.

c. **Surface owner waiver of 1000 Series rules.** The Commission shall not require compliance with Rules 1002., 1003., 1004.a., b., or c.(1), (2), or (3), if the operator can demonstrate to the Director's or the Commission's satisfaction that compliance with such rules is not necessary to protect the public health, safety and welfare, including prevention of significant adverse environmental impacts, and that the operator has entered into an agreement with the surface owner regarding topsoil protection and reclamation of the land. Absent bad faith conduct by the operator, penalties may only be imposed for non-compliance with a Commission order issued after a determination that, notwithstanding such agreement, compliance is necessary to protect public health, safety and welfare. Prior to final reclamation approval as to a specific well, the operator shall either comply with the rules or obtain a variance under Rule 502.b. This rule shall not have the effect of relieving an operator from compliance with the 900 Series rules.

1002. SITE PREPARATION

a. Effective June 1, 1996:

(1) **Fencing of drill sites and access roads on crop lands.** During drilling operations on crop lands, when requested by the surface owner, the operator shall delineate each drillsite and access road on crop lands constructed after such date by berms, single strand fence or other equivalent method in order to discourage unnecessary surface disturbance.

(2) **Fencing of reserve pit when livestock is present.** During drilling operations where livestock is in the immediate area and is not fenced out by existing fences, the operator, at the request of the surface owner, will install a fence around the reserve pit.

(3) **Fencing of well sites.** Subsequent to drilling operations, where livestock is in the immediate area and is not fenced out by existing fences, the operator, at the request of the surface owner, will install a fence around the wellhead, pit and production equipment to prevent livestock entry.

b. **Soil removal and segregation.**

(1) **Soil removal and segregation on crop land.** As to all excavation operations undertaken after June 1, 1996 on crop land, the operator shall separate and store the various A, B, and C soil horizons separately from one another and mark or document stockpile locations to facilitate subsequent reclamation. When separating soil horizons, the operator shall segregate horizons based upon noted changes in physical characteristics such as color, texture, density or consistency. On crop land below the C horizon, the soil horizons shall also be segregated based on the above noted physical characteristics. Segregation will be performed to the extent practicable to a depth of six (6) feet or bedrock, whichever is shallower.

(2) **Soil removal and segregation on non crop land.** As to all excavation operations undertaken after July 1, 1997 on non crop land, the operator shall separate and store the A soil horizon or the top six (6) inches, whichever is deeper, and mark or document stockpile locations to facilitate subsequent reclamation. When separating the A soil horizon, the operator shall segregate the horizon based upon noted changes in physical characteristics such as color, texture, density or consistency.

(3) **Horizons too rocky or too thin.** When the soil horizons are too rocky or too thin for the operator to practicably segregate, then the topsoil shall be segregated to the extent possible and stored. Too rocky shall mean that the soil horizon consists of greater than thirty five percent (35%) by volume rock fragments larger than ten (10) inches in diameter. Too thin shall mean soil horizons that are less than six (6) inches in thickness. The operator shall segregate remaining soils on crop land to the extent practicable to a depth of three (3) feet below the ground surface or bedrock, whichever is shallower, based upon noted changes in physical characteristics such as color, texture, density or consistency and such soils shall be stockpiled to avoid loss and mixing with other soils.

c. **Protection of soils.** All stockpiled soils shall be protected from degradation due to contamination, compaction and, to the extent practicable, from wind and water erosion during drilling and production operations. Best management practices to minimize erosion and offsite sedimentation by controlling stormwater runoff shall be implemented.

d. **Drill pad location.** The drilling location shall be designed and constructed to provide a safe working area while reasonably minimizing the total surface area disturbed. Consistent with applicable spacing orders and well location orders and regulations, in locating drill pads, steep slopes shall be avoided when reasonably possible. The drill pad site shall be located on the most level location obtainable that will accommodate the intended use. Deep vertical cuts and steep long fill slopes shall be constructed to the least percent slope practical. Best management practices to minimize erosion and offsite sedimentation by controlling stormwater runoff shall be implemented.

e. **Surface disturbance minimization; stormwater management.** In order to reasonably minimize land disturbances and facilitate future reclamation, well sites, production facilities, gathering pipelines and access roads shall be located, constructed and maintained so as to reasonably control dust, minimize erosion, alteration of natural features and removal of surface materials. Best management practices to minimize erosion and offsite sedimentation by controlling stormwater runoff shall be implemented. These practices will vary with site specific conditions, such as slope, vegetative cover and proximity to water bodies, and may include silt fencing, straw bales, plant buffers, rock filter dikes, slope roughening, mulch and other measures designed to reduce erosion and minimize the transport of soil from disturbed areas.

f. **Access roads.** Existing roads shall be used to the greatest extent practicable to avoid erosion and minimize the land area devoted to oil and gas operations. Best management practices to minimize erosion and offsite sedimentation by controlling stormwater runoff shall be implemented. Where feasible and practicable, operators are encouraged to share access roads in developing a field. Where feasible and practicable, roads shall be routed to complement other land usage. To the greatest extent practicable, all vehicles used by the operator, contractors, and other parties associated with the well shall not travel outside of the original access road boundary. Repeated or flagrant instance(s) of failure to restrict lease access to lease roads which result in unreasonable land damage or crop losses shall be subject to a penalty under Rule 523.

1003. INTERIM RECLAMATION

a. **General.** Debris and waste materials other than de minimis amounts, including, but not limited to, concrete, sack bentonite and other drilling mud additives, sand, plastic, pipe and cable, as well as equipment associated with the drilling, re-entry or completion operations shall be removed. All E&P waste shall be handled according to the 900 Series rules. All pits, cellars, rat holes, and other bore holes unnecessary for further lease operations, excluding the drilling pit, will be backfilled as soon as possible after the drilling rig is released to conform with surrounding terrain. On crop land, if requested by the surface owner, temporary guy line anchors shall be removed as soon as reasonably possible after the completion rig is released. When permanent guy line anchors are installed, it shall not be mandatory to remove them. When permanent guy line anchors are installed on cropland, care shall be taken to minimize disruption of cultivation, irrigation, or harvesting operations. If requested by the surface owner or its representative, the anchors shall be specifically marked, in addition to the marking required below, so as to facilitate farming operations. All guy line anchors left buried for future use shall be identified by a marker of bright color not less than four (4) feet in height and not greater than one (1) foot east of the guy line anchor. Material may be burned or buried on the premises only with the prior written consent of the surface owner, and with prior written notice to the surface tenant. Such burning or burial may be prohibited by other applicable law.

b. **Interim reclamation of areas no longer in use.** All disturbed areas affected by drilling or subsequent operations, except areas reasonably needed for production operations, shall be reclaimed as early and as nearly as practicable to their original condition and shall be maintained to control dust and minimize erosion. As to crop lands, if subsidence occurs in such areas additional topsoil shall be added to the depression and the land shall be re-leveled as close to its original contour as practicable. Interim reclamation shall occur no later than three (3) months on crop land or twelve (12) months on non-crop land after such operations unless the Director extends the time period because of conditions outside the control of the operator.

c. **Compaction alleviation.** All areas compacted by drilling and subsequent oil and gas operations which are no longer needed following completion of such operations shall be cross-ripped. On crop land, such compaction alleviation operations shall be undertaken when the soil moisture at the time of ripping is below thirty-five percent (35%) of field capacity. Ripping shall be undertaken to a depth of eighteen (18) inches unless and to the extent bed rock is encountered at a shallower depth.

d. **Drilling pit closure.** As part of interim reclamation, drilling pits shall be closed in the following manner:

(1) **Drilling pit closure on crop land.** On crop land water-based bentonitic drilling fluids, except de minimis amounts, shall be removed from the drilling pit and disposed of in accordance with the 900 Series rules.

Drilling pit reclamation, including the disposal of drilling fluids and cuttings, shall be performed in a manner so as to not result in the formation of an impermeable barrier. Any cuttings removed from the pit for drying shall be returned to the pit prior to backfilling, and no more than de minimis amounts may be incorporated into the surface materials. After the drilling pit is sufficiently dry, the pit shall be backfilled. The backfilling of the drilling pit shall be done to return the soils to their original relative positions.

(2) **Drilling pit closure on non-crop land.** All drilling fluids shall be disposed of in accordance with the 900 Series rules. After the drilling pit is sufficiently dry, the pit shall be backfilled. Materials removed from the pit for drying shall be returned to the pit prior to the backfilling. No more than de minimis amounts may be incorporated into the surface materials. The backfilling of the drilling pit will be done to return the soils to their original relative positions so that the muds and associated solids will be confined to the pit and not squeezed out and incorporated in the surface materials.

(3) **Minimum cover.** On crop lands, a minimum of three (3) feet of backfill cover shall be applied over any remaining drilling pit contents. As to both crop lands and non-crop lands, during the two (2) year period following drilling pit closure, if subsidence occurs over the closed drilling pit location additional topsoil shall be added to the depression and the land shall be re-leveled as close to its original contour as practicable.

e. **Restoration and revegetation.** When a well is completed for production, all disturbed areas no longer needed will be restored and revegetated as soon as practicable.

(1) **Revegetation of crop lands.** All segregated soil horizons removed from crop lands shall be replaced to their original relative positions and contour, and shall be tilled adequately to re-establish a proper seedbed. The area shall be treated if necessary and practicable to prevent invasion of undesirable species and noxious weeds, and to control erosion. Any perennial forage crops that were present before disturbance shall be re-established.

(2) **Revegetation of non-crop lands.** All segregated soil horizons removed from non-crop lands shall be replaced to their original relative positions and contour as near as practicable to achieve erosion control and long-term stability, and shall be tilled adequately in order to establish a proper seedbed. The disturbed area then shall be reseeded in the first favorable season. Reseeding with species consistent with the adjacent plant community is encouraged. In the absence of an agreement between the operator and the affected surface owner as to what seed mix should be used, the operator shall consult with a representative of the local soil conservation district to determine the proper seed mix to use in revegetating the disturbed area. In an area where an operator has drilled or plans to drill multiple wells, in the absence of an agreement between the operator and the affected surface owner, the operator may rely upon previous advice given by the local soil conservation district in determining the proper seed mixes to be used in revegetating each type of terrain upon which operations are to be conducted.

f. **Weed control.** During drilling, production, and reclamation operations, all disturbed areas shall be kept reasonably free of noxious weeds and undesirable species as practicable.

1004. FINAL RECLAMATION OF WELL SITES AND ASSOCIATED PRODUCTION FACILITIES

a. **Well sites and associated production facilities.** Upon the plugging and abandonment of a well, all pits, mouse and rat holes and cellars shall be backfilled. All debris, abandoned gathering line risers and flowline risers, and surface equipment shall be removed within three (3) months of plugging a well. All access roads to plugged and abandoned wells and associated production facilities shall be closed, graded and recontoured. Culverts and any other obstructions that were part of the access road(s) shall be removed. Well locations, access roads and associated facilities shall be reclaimed. As applicable, compaction alleviation, restoration, and revegetation of well sites, associated production facilities, and access roads shall be performed to the same standards as established for interim reclamation under Rule 1003. Material may be burned or buried on the premises only with the prior written consent of the surface owner, and with prior written notice to the surface tenant. Such burning or burial shall be subject to applicable state and local law. All such reclamation work shall be completed within three (3) months on crop land and twelve (12) months on non-crop land after plugging a well or final closure of associated production facilities. The Director may grant an extension where unusual circumstances are encountered, but every reasonable effort shall be made to complete reclamation before the next local growing season.

b. **Production and special purpose pit closure.** The operator shall comply with the 900 Series rules for the removal or treatment of E&P waste remaining in a production or special purpose pit before the pit may be closed for final reclamation. After any remaining E&P waste is removed or treated, all such pits must be backfilled to return the soils to their original relative positions. As to both crop lands and non-crop lands, if subsidence occurs over closed pit locations, additional topsoil shall be added to the depression and the land shall be re-leveled as close to its original contour as practicable.

c. **Final reclamation threshold for release of financial assurance.** Successful reclamation of the well site and access road will be considered completed when:

- (1) On crop land, reclamation has been performed as per Rules 1003. and 1004., and observation by the Director over two growing seasons has indicated no significant unrestored subsidence.
- (2) On non-crop land, reclamation has been performed as per Rules 1003. and 1004., and the total cover of live perennial vegetation, excluding noxious weeds, provides sufficient soils erosion control as determined by the Director through a visual appraisal. The Director shall consider the total cover of live perennial vegetation of adjacent or nearby undisturbed land, not including overstory or tree canopy cover, having similar soils, slope and aspect of the reclaimed area.
- (3) Disturbances resulting from flow line installations shall be deemed adequately reclaimed when the disturbed area is reasonably capable of supporting the pre-disturbance land use.
- (4) A Sundry Notice, Form 4, has been submitted by the operator which describes the final reclamation procedures and any mitigation measures associated with final reclamation performed by the operator, and
- (5) A final reclamation inspection has been completed by the Director, there are no outstanding compliance issues relating to Commission rules, regulations, orders, permit conditions or the act, and the Director has notified the operator that final reclamation has been approved.

FLOWLINE REGULATIONS

1101. INSTALLATION AND RECLAMATION

a. **Material.**

(1) Materials for pipe and components shall be:

A. Able to maintain the structural integrity of the flowline under temperature, pressure, and other conditions that may be anticipated;

B. Compatible with the substances to be transported.

C. Locatable by a tracer line or location device placed adjacent to or in the trench of all buried nonmetallic flowlines to facilitate the location of such flowlines.

b. **Design.** Each component of a flowline shall be designed and installed to prevent failure from corrosion and to withstand anticipated operating pressures and other loadings without impairment of its serviceability. The pipe shall have sufficient wall thickness or be installed with adequate protection to withstand anticipated external pressures and loads that will be imposed on the pipe after installation.

c. **Cover.**

(1) All installed flowlines shall have cover sufficient to protect them from damage. On crop land, all flowlines shall have a minimum cover of three (3) feet.

(2) Where an underground structure, geologic, economic or other uncontrollable condition prevents flowlines from being installed with minimum cover, or when there is a written agreement between the surface owner and the operator, the line may be installed with less than minimum cover or above ground.

d. **Excavation, backfill and reclamation.**

(1) When flowlines cross crop lands, unless waived by the surface owner, the operator shall segregate topsoil while trenching, and trenches shall be backfilled so that the soils shall be returned to their original relative positions and contour. This requirement to segregate and backfill topsoil shall not apply to trenches which are twelve (12) inches or less in width. Reasonable efforts shall be made to run flowlines parallel to crop irrigation rows on flood irrigated land.

(2) On crop lands and non-crop lands, flowline trenches shall be maintained in order to correct subsidence and reasonably minimize erosion. Interim and final reclamation, including revegetation, shall be performed in accordance with the applicable 1000 Series rules.

e. **Pressure testing of flowlines.**

(1) Before operating a segment of flowline it shall be tested to maximum anticipated operating pressure. In conducting tests, each operator shall ensure that reasonable precautions are taken to protect its employees and the general public. The testing may be conducted using well head pressure sources and well bore fluids, including natural gas. Such pressure tests shall be repeated once each calendar year to maximum anticipated operating pressure, and operators shall maintain records of such testing for Commission inspection for at least three (3) years.

(2) Flowline segments operating at less than fifteen (15) psig are excepted from pressure testing requirements.

1102. OPERATIONS, MAINTENANCE, AND REPAIR

a. **Maintenance.**

(1) Each operator shall take reasonable precautions to prevent failures, leakage and corrosion of FLOWLINES.

(2) Whenever an operator discovers any condition that could adversely affect the safe and proper operation of its flowline, it shall correct it within a reasonable time. However, if the condition is of such a nature that it

presents an immediate hazard to persons or property, the operator shall not operate the affected part of the system until it has corrected the unsafe condition.

b. **Repair.**

(1) Each operator shall, in repairing its flowlines, ensure that the repairs are made in a safe manner and are made so as to prevent injury to persons and damage to property.

(2) No operator shall use any pipe, valve, or fitting in repairing flowline facilities unless the components meet the installation requirements of this section.

c. **Marking.**

(1) In designated high density areas, and where crossing public rights-of-way or utility easement, a marker shall be installed and maintained to identify the location of flowlines.

(2) The following shall be written legibly on a background of sharply contrasting color on each line marker:

"Warning", "Caution" or "Danger" followed by the words "gas (or name of natural gas or petroleum transported) pipeline" in letters at least one (1) inch high with one-quarter ($\frac{1}{4}$) inch stroke and the name of the operator and the telephone number where the operator can be reached at all times.

d. **One Call participation.** As to flowlines and any other pipelines over which the Commission has jurisdiction, each operator shall participate in Colorado's One Call notification system, the requirements of which are established by §9-1.5-101., C.R.S. et seq.

1103. ABANDONMENT

Each flowline abandoned in place shall be disconnected from all sources and supplies of natural gas and petroleum, purged of liquid hydrocarbons, depleted to atmospheric pressure, and cut off three (3) feet below ground surface, or the depth of the flowline, whichever is less and sealed at the ends. This requirement shall also apply to compressor or gas plant feeder pipelines upon decommissioning or closure of a portion or all of a compressor station or gas plant. Notice of such abandonment shall be filed with the Commission and with the local governmental designee or local government jurisdiction.