

**UNDERGROUND INJECTION FOR DISPOSAL AND ENHANCED RECOVERY PROJECTS
800 SERIES**

801. CLASS II UNDERGROUND INJECTION CONTROL WELLS

- a. A Class II Underground Injection Control Well (“Class II UIC Well”) will not be authorized if the proposed Well or operations will result in the presence of any physical, chemical, biological, or radiological substance or matter in an Underground Source of Drinking Water that may adversely affect the health of persons or cause a violation of any of the U.S. Environmental Protection Agency’s National Primary Drinking Water Regulations, 40 C.F.R. § 141. Only the version of 40 C.F.R. § 141 in effect as of January 15, 2021 applies to this Rule; later amendments do not apply. 40 C.F.R. § 141 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, and at the U.S. Environmental Protection Agency, Region 8, 1595 Wynkoop St, Denver, CO 80202, and is available online at https://www.epa.gov/sites/production/files/2015-11/documents/howeparquulates_cfr-2003-title40-vol20-part141_0.pdf.
- b. A Class II UIC Well will not be authorized if the proposed Well or operations will result in the presence of any physical, chemical, biological, or radiological substance or matter that will cause a violation of any applicable domestic or agricultural use standards as adopted in 5 C.C.R. § 1002-41 (“WQCC Regulation 41”) or 5 C.C.R. § 1002-42 (“WQCC Regulation 42”). Only the versions of WQCC Regulations 41 & 42 that are in effect as of January 15, 2021 apply to this rule; later amendments do not apply. WQCC Regulations 41 & 42 are 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, and at the Colorado Department of Public Health and Environment, 4300 Cherry Creek Drive South, Denver, CO 80246, and are available online at <https://www.colorado.gov/pacific/cdphe/water-quality-control-commission-regulations>.
- c. Class II UIC Wells will not be permitted in areas where they would inject into a formation that is separated from any Underground Source of Drinking Water by a Confining Layer with known open faults or fractures that would allow flow between the Injection Zone and Underground Source of Drinking Water within the area of review.
- d. Injection Zones will not be permitted within 300 feet in a vertical dimension from the top of any Precambrian basement formation.
- e. An Operator will not inject any Fluids or other contaminants into a UIC Aquifer that meets the definition of an Underground Source of Drinking Water unless EPA has approved a UIC Aquifer exemption as described in Rule 802.e.

802. UIC AQUIFER EXEMPTIONS

- a. **Purpose.** UIC Aquifer exemptions are required for an Operator to inject Fluids into a formation containing Groundwater with total dissolved solids (“TDS”) concentration less than 10,000 milligrams per liter (“mg/l”). The Commission or Director will not designate UIC Aquifers if they have a TDS concentration less than 3,000 mg/l.
- b. **Criteria for UIC Aquifer Exemptions.** The Commission or the Director may designate a UIC Aquifer as exempt upon the filing of an application pursuant to Rules 803, 809, 810, or 811, and after coordination with CDPHE’s Water Quality Control Division if it meets all of the following criteria:

- (1) The UIC Aquifer does not currently serve as an Underground Source of Drinking Water or domestic water source, and is not classified for domestic use by the Water Quality Control Commission; and
 - (2) The Applicant demonstrates that the UIC Aquifer cannot now and will not in the future serve as a source of drinking water for one of the following reasons:
 - A. It is mineral, hydrocarbon, or geothermal energy producing, or can be demonstrated by filing an application pursuant to Rules 803, 809, 810, or 811 to contain minerals or hydrocarbons that, considering their quantity and location, are technologically feasible to develop and can be commercially produced; or
 - B. It is so contaminated that it would be economically or technologically impractical to render the water fit for human consumption; and
 - (3) The Applicant demonstrates that the UIC Aquifer cannot now and will not in the future serve as a source of agricultural water for one of the following reasons:
 - A. It is mineral, hydrocarbon, or geothermal energy producing, or can be demonstrated by filing an application pursuant to Rules 803, 809, 810, or 811 to contain minerals or hydrocarbons that, considering their quantity and location, are technologically feasible to develop and can be commercially produced; or
 - B. It is so contaminated that it would be economically or technologically impractical to render the water fit for agricultural use.
- c. UIC Aquifer Exemption Public Notice.** If a UIC Aquifer exemption is required as part of an injection permit application process, the Operator will apply for a UIC Aquifer exemption. The application will contain data and information that show the UIC Aquifer meets the exemption criteria set forth in Rule 802.b. After evaluation of the application and prior to designating a UIC Aquifer or a portion thereof as an exempted UIC Aquifer, the Director will publish a notice of proposed designation on the Commission's website and in a newspaper of general circulation serving the area where the UIC Aquifer is located. The Director will also provide notice of the proposed Aquifer exemption to the Relevant Local Government with land use authority above the proposed Injection Zone. The notice will identify the UIC Aquifer or portion thereof that the Director proposes to designate as exempted, and will state that any interested person may request a hearing before the Commission.
- d. Evaluation of Written Requests for Public Hearing.** Written requests for a public hearing before the Commission will be reviewed and evaluated by the Commission to determine if the criteria set forth in Rule 802.b have been met. If, within 30 days after publication of the notice, the Commission receives a timely hearing request, the Commission will hold such a hearing pursuant to Rule 510. If no request for hearing is filed within 30 days after publication of the notice, the UIC Aquifer or portion thereof will be considered exempted 30 days after publication of the notice.
- e. Submission to EPA.** If the Commission approves a UIC Aquifer exemption pursuant to Rule 802.d, the Director will promptly submit a formal request for approval of the exemption to EPA. A UIC Aquifer exemption is not effective until it receives final approval from EPA.

803. APPLICATION REQUIREMENTS FOR CLASS II UNDERGROUND INJECTION CONTROL WELLS

- a. Unless otherwise noted in this Rule 803, the requirements of this Rule 803 apply to all new Class II UIC Wells, including disposal Wells, enhanced recovery Wells, Simultaneous Injection Wells, and Commercial Disposal Well Facilities.

b. Related Permitting Requirements.

(1) An Operator will submit an application for a Class II UIC Well at the same time it submits any permit applications required by the Commission's 300 Series Rules, including an Oil and Gas Development Plan, a Form 2A, Oil and Gas Location Assessment, or Form 2, Application for Permit to Drill.

(2) For proposals to convert an existing production Well into an injection Well that would not otherwise require the submission of an Oil and Gas Development Plan or Form 2A, the Operator will:

A. Submit a partial Form 2B, Cumulative Impacts Data Identification documenting the incremental adverse and beneficial impacts of the proposed conversion pursuant to Rules 303.a.(5).B.i, ii, & vi; and

B. If requested by the Director, submit a subset of the information or plans required by Rule 304 necessary to consider the incremental adverse and beneficial impacts of the conversion.

- c. **Multiple Disposal Well Applications.** The Injection Zone radius for disposal Wells will not interfere with the Injection Zone radius of any other disposal Wells. This Rule 803.c will not apply to enhanced recovery floods.

- d. Neither construction of nor operation of a Class II UIC Well will occur without the Director's approval of a Form 31, Underground Injection Formation Permit Application, and Form 33, Injection Well Permit Application.

(1) **Form 31, Underground Injection Formation Permit Application.** A Form 31 permits the Injection Zone and will be approved prior to completing an Injection Zone. A Form 31, Underground Injection Formation Permit Application – Intent, will be approved prior to sampling, Stimulating, and testing the Well(s). A Form 31, Underground Injection Formation Permit Application – Subsequent, will be approved prior to injection.

(2) **Form 33, Injection Well Permit Application.** A Form 33 permits the injection Well and will be approved prior to completing the Well. A Form 33, Injection Well Permit Application – Intent, will be approved prior to sampling, Stimulating, and testing the Well(s). A Form 33, Underground Injection Formation Permit Application – Subsequent, will be approved prior to injection.

- e. **Denial of Underground Disposal of Class II Exploration and Production Waste.** If the Director determines that a proposed Class II UIC Well is not protective of public health, safety, welfare, applicable Colorado water quality standards, the environment, and wildlife resources, and will not protect against adverse environmental impacts on any air, water, soil, or biological resource resulting from Oil and Gas Operations, the Director will deny the Form 31 and any related Form 33 in writing. Pursuant to Rule 503.g.(10), the Operator may seek the Commission's review of the Director's rejection of a Form 31 and Form 33.

f. Maximum Allowable Injection Rate, Total Volume, and Surface Injection Pressure. The Director will set the maximum allowable injection rate, total volume, and surface injection pressure in the approved Form 31 – Subsequent and Form 33 – Subsequent.

- (1) The Operator will perform seismic monitoring if the permitted injection rate for a disposal Well exceeds 10,000 Barrels of water per day. If requested by the Commission or Director, the Operator will perform seismic monitoring as reasonable and necessary for other injected Fluids. A traffic light protocol for seismicity associated with injection activities may be applied as a condition of approval.
- (2) Except during hydraulic fracturing, the maximum allowable injection pressure will be set below the fracture gradient of the Injection Zone, as determined by a step-rate injection test in the Class II UIC Well, a step rate injection test in an offset Well completed in the same Injection Zone, or other test acceptable to the Director. The maximum allowable injection pressure will assure that the pressure in the Injection Zone during injection does not initiate new fractures or propagate existing fractures. Until a step-rate injection test is performed, the maximum allowable injection pressure will be set consistent with a formation pressure gradient of 0.6 pounds per square inch (“psi”) per total vertical foot from surface to the uppermost injection perforation.
- (3) Disposal Wells will initially be permitted for an injection volume based on a 1/4 mile radius from the completed interval in the Injection Zone. The 1/4 mile radius will be measured from the surface location(s) for proposed vertical disposal Well(s), or the completed portion of the wellbore(s) in the Injection Zone in drifted, directional, or horizontal disposal Wells. This Rule 803.f.(3) does not apply to enhanced oil recovery projects.
- (4) Operators may submit a Form 4, Sundry Notice, requesting a disposal Well volume increase, such that the radius will increase to an injection volume based on a 1/2 mile radius from the completed interval in the Injection Zone. This Rule 803.f.(4) does not apply to enhanced oil recovery projects.

g. Form 31, Underground Injection Formation Permit Application – Intent. An application for a Class II UIC Well will include the following information:

- (1) **Operator.** The Operator of the Class II UIC Well or the designated Operator of a unitized or cooperative project will execute the application.
- (2) **Map and List of Addresses.** The parties listed in Rules 803.g.(2).A–B will be specifically outlined and identified on a base map, and a related list of addresses will be provided with the application.

A. All Surface Owners:

- i. Within 1/2 mile of the surface location(s) for proposed vertical disposal Well(s);
- ii. Within 1/2 mile of the completed portion of the wellbore(s) in the Injection Zone in directional, or horizontal disposal Wells; or
- iii. If a Field-wide disposal system is proposed, all Surface Owners of record in the Field and within 1/2 mile of the unit or project boundary.
- iv. For enhanced recovery projects, a map meeting the requirements of Rule 811.b.(8).

B. All mineral Owners:

- i. Of all oil and gas Wells currently producing from the proposed Injection Zone within 1/2 mile of the surface location(s) for proposed vertical disposal Well(s);
- ii. Within 1/2 mile of the completed portion of the wellbore(s) in the Injection Zone in drifted, directional, or horizontal disposal Wells; or
- iii. For enhanced recovery projects, a map meeting the requirements of Rule 811.b.(8).

(3) Authorization for Surface Use.

- A. To construct or recomplete a disposal Well or Simultaneous Injection Well at a surface location, the Operator will provide a Surface Use Agreement, unless the Owner or Operator of the disposal Well or Simultaneous Injection Well is also the Surface Owner.
- B. To construct or recomplete an Enhanced Recovery Well at a surface location, the Operator will provide a Surface Use Agreement, a copy of a lease, or a unit operating agreement, unless the Owner or Operator of the Enhanced Recovery Well is also the Surface Owner.
- C. For all Class II UIC Wells, Surface Use Agreement(s), leases, or unit operating agreements will state explicitly that the injected Fluids may contain E&P Waste from Oil and Gas Operations.

(4) Surface Facility Diagram and Process Flow Diagram. A diagram of the surface facility showing all Pipelines and Tanks associated with the system and a process flow diagram.

(5) Proposed Injection Program. The application will include a proposed injection program with the following:

- A. An overall summary of the proposed injection program.
- B. **Geologic Formation Summary.** A geologic formation summary for all Wells being converted to injection and all new injection Wells. For a new injection Well, the application may reference any available geophysical logging data from offset Well(s) within 1 mile of the proposed injection Well to estimate formation depths and thickness. Where there is limited available data from the local basin below the target formations, the Operator will provide a best estimate to the depth of the Precambrian basement. The geologic formation summary may consist of a stratigraphic chart starting from the surface, down to the proposed total depth of the Well, that includes the geologic formations present, along with the names, descriptions, depths, and thickness from the surface to the top of Precambrian basement of the following:
 - i. The formations which will receive any Fluids to be injected or zones that have already received injected Fluids;
 - ii. The overlying and underlying Confining Layers capable of limiting the movement of any Fluids to be injected;
 - iii. The formations from which oil and gas Wells are producing or have produced; and
 - iv. All Underground Sources of Drinking Water.
- C. **Injected Water Analysis.** Laboratory analytical results from a representative water sample collected from the Fluid to be injected, addressing all analytes listed in and following

all procedures required by Rules 909.j.(1)–(5). For an injection Well intended to serve production Wells not yet completed, the applicant may submit other available data regarding the expected quality of the Fluid to be injected. Within 90 days after the date of first production of a production Well that will send Fluids to the injection Well, the applicant will submit a laboratory analysis of a representative sample collected from the fluid to be injected.

- D. Injection Zone Analysis.** Laboratory analytical results from a representative water sample collected from the Injection Zone, addressing all analytes listed in and following all procedures required by Rules 909.j.(1)–(5). If the total dissolved solids of the Injection Zone is determined to be less than 10,000 mg/l, the Operator will seek a UIC Aquifer exemption pursuant to Rule 802. The Operator will evaluate disposal zones for hydrocarbon potential pursuant to Rule 408.q. For a new Class II UIC Well, the Applicant may provide any available representative water analysis from offset Well(s) completed in the same Injection Zone within 1 mile of the proposed injection Well for submission with a Form 31 – Intent. The Operator will submit a water analysis from the Injection Zone, collected from the disposal Well(s) in the application with the Form 31 – Subsequent after the Well(s) are completed.
- E.** A description of the compatibility of the injection Fluid with the Injection Zone.
- F.** A description of the source(s) of the Fluid and a description of the transport method from the source(s) to the injection Well(s).
- G.** A general description of the surface facilities, separation, and treatment processes.
- H.** The estimated volume to be injected daily.
- I.** The anticipated injection pressures and known or calculated fracture gradient.
- (6) Seismicity Evaluation.** The application will include a seismicity evaluation with the following information:

 - A.** A geological and geophysical evaluation of known transmissive or sealing faults or shear zones within 12 miles of the proposed Class II UIC Well and the potential for induced seismicity during injection operations;
 - B.** An exhibit of the historical seismic activity within 12 miles of the proposed injection Well;
 - C.** An exhibit showing the potential for seismic activity within 12 miles of the proposed injection Well; and
 - D.** A wellbore diagram of the Injection Zone depicting the Well's bottomhole location relative to the Precambrian basement.
- (7) Oil and Gas Well Map and List.**

 - A.** The application will include a base map covering the area within 1 mile, as measured from the surface location(s) for proposed vertical disposal Well(s), or within 1 mile of the completed portion of the wellbore(s), projected to surface in plan view in the Injection Zone in drifted, directional, or horizontal disposal Wells. The base map will show the proposed injection wellbore(s), wellbore path(s), and all oil and gas Wells within a 1 mile radius of the injection wellbore(s). Labels on the map will identify all oil and gas Wells within 1 mile of the proposed injection wellbore(s) that are producing from the proposed Injection Zone at the time of the application.

- B. For enhanced recovery projects, a map meeting the requirements of Rule 811.b.(8).
 - C. A list will provide additional details for all oil and gas Wells shown on the oil and gas Well map and their total depth, completed interval depths, completed formation names, and producing or injecting status at the time of application.
- (8) **Water Wells Map and List.** The application will include a map and list of all water wells registered with the Division of Water Resources, within 1 mile of the proposed Class II UIC Well(s), including their location and depth.
- (9) **Area of Review.** The application will include a review of all offset oil and gas Wells within 1/2 mile of proposed injection wellbore(s), describing existing isolation of Injection Zones, oil and gas production formations, Confining Layers, and Underground Sources of Drinking Water.
- (10) **Remedial Corrective Action Plan.** The Applicant will include a remedial corrective action plan for any offset Well(s) within 1/4 mile of the proposed injection wellbore(s) in which the Injection Zone is not adequately plugged or otherwise isolated with cement to prevent flow into the offset Well(s). The remedial corrective action plan will describe the Applicant's plan for performance of any such remedial work to plug, re-plug, or provide remedial cement for the offset Wells, which the Applicant may or may not operate.
- A. For a volume increase request pursuant to Rule 803.f.(1).C, the Applicant will provide a remedial corrective action plan for offset Wells within 1/2 mile of the proposed injection wellbore(s).
 - B. This Rule 803.g.(10) does not apply to enhanced oil recovery projects where an offset production Well is part of the enhanced oil recovery project.
- (11) **Stimulation Program.** The application will include a summary of any proposed stimulation program.
- (12) **Disposal Formation Hydrocarbon Evaluation.** For disposal Wells, the application will include the Operator's proposed method of evaluating hydrocarbon production potential of the proposed Injection Zone. This Rule 803.g.(12) will not apply to enhanced recovery wells.
- (13) **Class II Waste Source List.** The application will include a listing of all potential sources of Class II E&P Waste to be injected on a Form 26, Source of Produced Water for Disposal, and Form 14A, Authorization of Source of Class II Waste for Disposal, as applicable.
- (14) **Notice of Application.** A notice of application for an injection Well will be given by the Applicant by registered or certified mail or by personal delivery to the persons listed below. The application will include a certificate of service demonstrating that the Applicant served a copy of the application on all persons entitled to notice pursuant to the Commission's Rules. The certificate of service will include the names and addresses of those persons the Applicant notified, and the Applicant will certify that notice was given by registered or certified mail, or by personal delivery. The Applicant will provide notice to:
- A. Surface Owners and mineral Owners with recorded ownership interests within 1/2 mile of the surface location of the proposed Class II UIC Well(s), the Relevant Local Government in which the injection Well(s) are located and any Local Government with land use authority within 1/2 mile of the surface location(s) for proposed vertical Well(s), or within 1/2 mile of the completed portion of the wellbore(s), projected to surface in plan view in the Injection Zone in drifted, directional, or Horizontal Wells.

- B. For a volume increase request pursuant to Rule 803.f.(3), all persons and entities listed in Rule 803.g.(14).A within a 3/4 mile radius of the proposed injection wellbore(s).
 - C. **Disposal Wells and Simultaneous Injection Wells.** Owners and Operators of oil and gas Wells producing from the Injection Zone and the recorded mineral Owner of the Injection Zone within 1/2 mile of the surface location(s) for proposed vertical disposal Well(s), or within 1/2 mile of the completed portion of the wellbore(s), projected to surface in plan view in the Injection Zone in drifted, directional, or horizontal disposal Wells, and to mineral Owners of Cornering and Contiguous Units where injection will occur into the producing zones, whichever is the greater distance.
 - D. **Enhanced Recovery Wells.** If injection of Fluids is proposed for an enhanced recovery project, the Applicant will provide an entire copy of the application, by registered or certified mail or by personal delivery, to each mineral Owner of record of the reservoir involved within the unit and within 1/2 mile of the proposed unit boundary.
- (15) **Notice of Application Requirements.** The notice of application will briefly describe the injection application and include legal location, proposed Injection Zone(s), depth of injection, and other relevant information.
- A. The notice will specifically state that pursuant to Rule 507.a, any person who may be directly and adversely affected or aggrieved by the authorization of the underground injection into the proposed Injection Zone is entitled to file, within 30 days of notification, a written request for a public hearing before the Commission, provided such request meets the petition requirements specified in Rule 804.b.
 - B. The notice will state that additional information about the operation of the proposed Class II UIC Well may be obtained at the Commission's office and on the Commission's website. The notice will provide the appropriate Commission Staff contact information.
 - C. A copy of the notice of application will be included with the Form 31 – Intent filed with the Commission.
- h. **Form 31, Underground Injection Formation Permit Application – Subsequent.** Within 30 days of a successful mechanical integrity test for a Class II UIC Well, the Operator will file a Form 31 – Subsequent, which will include the following information:
- (1) **Injection Zone Water Analysis.** A water analysis from the Injection Zone, collected from the Class II UIC Well(s) in the application, addressing all analytes listed in and following all procedures required by Rules 909.j.(1)–(5).
 - (2) **Geophysical Logs.** Openhole resistivity and neutron/density Logs from the bottom of the surface casing to total depth of the Class II UIC Well, unless otherwise specified as a condition of approval on the Form 31 – Intent for the injection Well.
 - (3) **Step Rate or Injectivity Test Documentation.** If the Operator performs a step rate test or injectivity test, the Operator will submit the test results.
 - (4) **Disposal Well Hydrocarbon Evaluation Results.** Summary of the Operator's evaluation of Productivity Test results in the Injection Zone. This Rule 803.h.(4) will not apply to enhanced recovery wells.
- i. **Form 33, Injection Well Permit Application – Intent.** The Operator will file a Form 33 – Intent, which will include the following information:

- (1) **Wellbore Diagram.** An existing and proposed schematic drawing showing all casing strings with cement volumes and tops, plug back total depth, isolation devices, remedial cement work, depth of any existing open or squeezed perforations, setting depths of any existing or proposed bridge plugs, formation tops, planned perforations in the Injection Zone, tubing and packer size, and setting depth.
 - (2) **Casing and Cementing Plan.** The application will include a proposed casing and cement plan for the injection Well meets the requirements of Rule 308.b.(6). This will include any previous and proposed remedial cement work.
 - (3) **Casing Integrity.** For existing Wells proposed for conversion to a Class II UIC Well, the Operator will check the condition of the casing with a pipe analysis Log or a caliper Log and include a copy of the Log with the application.
- j. **Form 33, Injection Well Permit Application – Subsequent.** After a Class II UIC Well is completed, recompleted, or after Injection Zones are temporarily abandoned, the Operator will file a Form 33 – Subsequent.
- (1) The Form 33 – Subsequent will include the following as-constructed details:
 - A. **Wellbore Diagram.** A final schematic drawing showing all casing strings with cement volumes and tops, plug back total depth, isolation devices, depth of any existing open or squeezed perforations, setting depths of any bridge plugs, formation tops, perforations in the Injection Zone, tubing and packer size, and setting depths.
 - B. **Casing and Cementing.** Documentation of the final casing and cement in the Class II UIC Well, any existing remedial cement confirmed during the work, and remedial cement placed during the work.
 - C. **Cement Bond Log.** Unless already provided to the Commission, to determine if the cement has been placed to adequately isolate the Injection Zone, production zones, and Groundwater, a cement bond or other cement evaluation Log will be run and provided with this report as a means of verifying cementing records.
 - (2) **Mechanical Integrity Testing Requirement.** Prior to application approval, the proposed Class II UIC Well will satisfactorily pass a mechanical integrity test pursuant to Rule 417 and be witnessed by the Director.
- k. **Injection Application Deadlines.** After a Form 31 – Intent and any related Form 33 – Intents have been approved, the Operator will submit all of the data or information necessary to approve the Form 31 – Subsequent or any related Form 33 – Subsequents within 6 months, or the application for a Form 31 – Subsequent or any related Form 33 – Subsequents will be withdrawn from consideration. However, for good cause shown, a 90-day extension may be granted, if requested in writing to the Director on a Form 4 prior to the date of expiration.
- l. **Notice of Commencement.** Within 30 days after the commencement of injection operations, the Operator will submit a Form 5A, Completed Interval Report, to notify the Commission of the injection date.
- m. **Notice of Discontinuance.** Within 10 days after the discontinuance of injection operations, the Operator will submit a Form 4 to notify the Commission of the date of such discontinuance, the reasons for the discontinuance, and the Operator's future plans for the Class II UIC Well. An Operator need not submit a notice of discontinuance for status changes to or from injection to production in enhanced recovery projects, and instead should submit a notice of status change pursuant to Rule 811.d.

- n. Before plugging any Class II UIC Well, the Owner of the Well will provide notice to the Commission and will follow the same procedures for plugging a Class II UIC Well as the procedures for plugging oil and gas Wells pursuant to Rule 434.a.

804. NOTICE AND COMMENT FOR CLASS II UIC WELL APPLICATIONS

a. Injection Well Public Notice and Comment.

- (1) When the Director determines that a proposed injection permit application is complete, the Director will publish a notice of the proposed injection permit application in a newspaper of general circulation serving the area where the injection Well(s) is (are) located, and also publish notice on the Commission's website. The Director will simultaneously provide notice to the Division of Water Resources.
- (2) The notice will briefly describe the proposed injection permit application and include legal location, proposed Injection Zone, depth of injection, and other relevant information.
- (3) The comment period for the proposed injection permit application will begin on the date that notice is published in a newspaper of general circulation, and will end 30 days after the date of such publication.
- (4) During the public comment period, any interested person may electronically submit comments about the proposed injection permit application to the Commission.
- (5) During the public comment period, any interested person may submit a written protest. For any proposed injection permit application that is not associated with a Form 2A or Oil and Gas Development Plan application, such a protest will also request a Commission hearing about the proposed injection permit application pursuant to Rule 503.g.(10). Such protests will be evaluated pursuant to Rule 804.b.

b. Evaluation of Written Requests for Public Hearing. Pursuant to Rule 507.a, written requests for public hearing before the Commission by a person who may be directly and adversely affected or aggrieved by the authorization of the proposed injection permit application will be reviewed and evaluated by the Commission. Written protests will specifically provide information about:

- (1) Possible conflicts between the Injection Zone's proposed injection use and present or future use as a source of drinking water, agricultural water, or as a source of hydrocarbon production;
- (2) How proposed operations at the Class II UIC Well site are not protective of potential and current sources of drinking water or agricultural water;
- (3) How the proposed Class II UIC Well is not protective of applicable Colorado water quality standards or public health, safety, welfare, the environment, or wildlife resources; or
- (4) How the application will not protect against adverse environmental impacts on any air, water, soil, or biological resource.

805. ANALYTICAL REQUIREMENTS FOR INJECTION FLUID ANALYSES

- a. Collection and analysis of water samples required by Rules 803, 809, 810, or 811 will comply with the Commission's approved Underground Injection Control Quality Assurance Project Plan, effective October 8, 1997.
- b. Water analyses will include total dissolved solids using routine EPA or oilfield methods.

- c. If requested by the Director, the Operator will analyze samples for other constituents that may be present in the injection Fluids.
- d. The Operator will report all analyses of water samples with the Electronic Data Deliverable (“EDD”) through the Commission’s Environmental Database on a Form 43, Analytic Sample Submittal.

806. TIMING OF INJECTION FLUID SAMPLING AND ANALYSIS

- a. **Initial Analysis.** An injection Fluid analysis from a representative sample collected at the injection facility is required within 1 year of commencing injection after approval of an injection application.
- b. **Periodic Analysis.** An injection Fluid analysis from a representative sample collected at the injection facility is required every 5 years after the initial analysis or 5 years after the most recent change of source analysis.
- c. **Change of Source Analysis.** An injection Fluid analysis is required when there is a significant change in the quality of the injection Fluid and as required by Rule 807. The injection Fluid analysis will address all analytes listed in and follow all procedures required by Rules 909.j.(1)–(5).

807. FORM 26, SOURCE OF PRODUCED WATER FOR DISPOSAL

- a. The Operator of a Class II UIC Well will submit a Form 26, Source of Produced Water for Disposal, before commencing injection into the Well(s).
- b. The Operator of a Class II UIC Well will submit a new Form 26 within 90 days after any change in source water by addition of new source Wells or the deletion of existing source Wells.

808. NON-PRODUCED CLASS II EXPLORATION AND PRODUCTION WASTE INJECTION

- a. **Form 14A, Authorization of Source of Class II Waste for Disposal.** The Operator of a Class II UIC Well will submit and obtain approval of a Form 14A, Authorization of Source of Class II Waste for Disposal, prior to the injection of Class II E&P Waste other than produced water, pursuant to Rule 413.b, into any formation in a Class II UIC Well.
 - (1) The Form 14A will include a description of the nature and source of the Fluids to be injected, the types of Chemicals used to treat such Fluids, and the proposed date of initial Fluid injection.
 - (2) The Operator will submit a Form 14A and obtain the Director’s approval for any new disposal facility, and for any changes in the source of non-produced Class II waste for an existing facility.
 - (3) Examples of non-produced water are Fluids that are not classified as a hazardous waste at the time of injection, and include Fluids which are brought to the surface in connection with natural gas storage operations, or conventional oil or natural gas production and may be commingled with waste waters from gas plants which are an integral part of production operations.
- b. **Form 14, Monthly Report of Non-Produced Water Injected.**
 - (1) The Operator engaged in the injection of approved non-produced Class II waste pursuant to Rule 808.a in a Class II UIC Well will submit a Form 14, Monthly Report of Non-Produced

Water Injected, within 45 days after the end of each month. This report will include the type and amount of Waste injected.

- (2) The Operator of a Simultaneous Injection Well will, by March 1 of each year, report to the Director the calculated injected volume for the previous year, by month, on a Form 14.

809. SIMULTANEOUS INJECTION WELL APPLICATION REQUIREMENTS

- a. Applications for new Simultaneous Injection Wells will:

- (1) Satisfy the requirements of Rules 803, 804, 805, 806, 807, and 808.
- (2) Include downhole pump specifications and a calculation of maximum discharge pressure created under proposed wellbore configuration. Downhole pump configurations will be designed to inject below the Injection Zone fracture gradient.

810. COMMERCIAL DISPOSAL WELLS AND FACILITIES

- a. Applications for new Commercial Disposal Wells will:

- (1) Satisfy the requirements of Rules 803, 804, 805, 806, 807, and 808.
- (2) Meet the Financial Assurance requirements of Rules 706, 707, and 713.

- b. Commercial Disposal Well Facilities will perform continuous seismic monitoring. The Operator will provide seismic monitoring data to the Director upon request.

811. ENHANCED RECOVERY INJECTION PROJECTS

- a. No person will perform any enhanced recovery operations, cycling, or recycling operations, including the extraction and separation of liquid hydrocarbons from natural gas, nor will 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 following a hearing pursuant to Rule 503.g.(3). Enhanced recovery projects include at least one injection Well and one production Well, which may be the same Well for “huff and puff” style operations.
- b. Hearing applications for new enhanced recovery injection projects will include the following information:
 - (1) Demonstration that the proposed project satisfies the requirements of Rules 803, 804, 805, 806, 807, and 808 unless otherwise noted in those Rules.
 - (2) Be filed by the Operator, or any one or more of the parties involved in the proposed enhanced recovery injection project.
 - (3) **Operator Contact.** The name, phone, email, and address of all Operators in the unit.
 - (4) **Unit and Operating Agreements.** A copy of the unit or co-operative agreement and operating agreement.
 - (5) **Multiple Well Applications.** An application may include the use of more than 1 injection or production Well on the same location, or on more than 1 location. The application will contemplate a coordinated plan for the entire Field.

- (6) **Unit Plan of Operations.** This information will supplement the proposed injection program summary required by Rule 803. The plan of operations will describe how the enhanced recovery project will be operated as a system.
 - (7) **Casing and Cementing for Enhanced Recovery Injection Wells.** A casing and cement plan that meets the requirements of Rule 308.b.(6) to prevent leakage and damage to Groundwater, oil, or gas resources.
 - (8) **Unit Area Owners Map.** A map will show the names of Owners of record within the unit and within 1/2 mile of the unit boundary, indicating whether they are Surface Owners, mineral interest Owners, or working interest Owners.
 - (9) **Unit Area Well Plat.** A plat showing the boundary of the unit area, and the Class II UIC Well(s), all offset injection Wells, production Wells, Plugged and Abandoned Wells, and dry and abandoned Wells.
 - (10) **Unit Area Water Wells Map and List.** The application will include a map and list of all water wells registered with the Division of Water Resources, within the unit area and within 1/2 mile of the unit boundary, including their depth.
 - (11) **Unit Area of Review.** The application will include a review of all existing Wells within the unit area and within 1/4 mile of the unit boundary, describing existing isolation of Injection Zones, oil and gas production formations, Confining Layers, and Underground Sources of Drinking Water.
- c. **Notice and Date of Hearing for Enhanced Recovery Injection Projects.** Upon the filing of an enhanced recovery injection project application, the Commission will issue a notice of hearing pursuant to Rule 503.a. The application will be set for public hearing at a time designated by the Commission.
 - d. **Notice of Status Change.** When any Well in an approved enhanced recovery unit operation is converted to or from an injection to production status, the Operator will provide notice on a Form 4 within 30 days.