

**GENERAL RULES AND REGULATIONS
CHAPTER 43-02-03**

A. DEFINITIONS

43-02-03-01. DEFINITIONS. The terms used throughout this chapter have the same meaning as in North Dakota Century Code chapter 38-08 except:

1. "Adjusted allowable" means the allowable production a proration unit receives after all adjustments are applied.
2. "Allocated pool" is one in which the total oil or natural gas production is restricted and allocated to various proration units therein in accordance with proration schedules.
3. "Allowable production" means that number of barrels of oil or cubic feet of natural gas authorized to be produced from the respective proration units in an allocated pool.
4. "Barrel" means forty-two United States gallons [158.99 liters] measured at sixty degrees Fahrenheit [15.56 degrees Celsius] and fourteen and seventy-three hundredths pounds per square inch absolute [1034.19 grams per square centimeter].
5. "Barrel of oil" means forty-two United States gallons [158.99 liters] of oil after deductions for the full amount of basic sediment, water, and other impurities present, ascertained by centrifugal or other recognized and customary test.
6. "Bottom hole or subsurface pressure" means the pressure in pounds per square inch gauge under conditions existing at or near the producing horizon.
7. "Bradenhead gas well" means any well capable of producing gas through wellhead connections from a gas reservoir which has been successfully cased off from an underlying oil or gas reservoir.
8. "Casinghead gas" means any gas or vapor, or both gas and vapor, indigenous to and produced from a pool classified as an oil pool by the commission.
9. "Certified or registered mail" means any form of service by the United States postal service, federal express, Pitney Bowes, and any other commercial, nationwide delivery service that provides the mailer with a document showing the date of delivery or refusal to accept delivery.
10. "Commercial injection well" means one that only receives fluids produced from wells operated by a person other than the principal on the bond.

11. "Common purchaser for natural gas" means any person now or hereafter engaged in purchasing, from one or more producers, gas produced from gas wells within each common source of supply from which it purchases, for processing or resale.
12. "Common purchaser for oil" means every person now engaged or hereafter engaging in the business of purchasing oil in this state.
13. "Common source of supply" is synonymous with pool and is a common accumulation of oil or gas, or both, as defined by commission orders.
14. "Completion" means an oil well shall be considered completed when the first oil is produced through wellhead equipment into tanks from the ultimate producing interval after casing has been run. A gas well shall be considered complete when the well is capable of producing gas through wellhead equipment from the ultimate producing zone after casing has been run. A dry hole shall be considered complete when all provisions of plugging are complied with as set out in this chapter.
15. "Condensate" means the liquid hydrocarbons recovered at the surface that result from condensation due to reduced pressure or temperature of petroleum hydrocarbons existing in a gaseous phase in the reservoir.
16. "Cubic foot of gas" means that volume of gas contained in one cubic foot [28.32 liters] of space and computed at a pressure of fourteen and seventy-three hundredths pounds per square inch absolute [1034.19 grams per square centimeter] at a base temperature of sixty degrees Fahrenheit [15.56 degrees Celsius].
17. "Director" means the director of oil and gas of the industrial commission, the assistant director of oil and gas of the industrial commission, and their designated representatives.
18. "Enhanced recovery" means the increased recovery from a pool achieved by artificial means or by the application of energy extrinsic to the pool, which artificial means or application includes pressuring, cycling, pressure maintenance, or injection to the pool of a substance or form of energy but does not include the injection in a well of a substance or form of energy for the sole purpose of
 - a. Aiding in the lifting of fluids in the well; or
 - b. Stimulation of the reservoir at or near the well by mechanical, chemical, thermal, or explosive means.
19. "Exception well location" means a location which does not conform to the general spacing requirements established by the rules or orders of the commission but which has been specifically approved by the commission.

20. "Flow line" means a pipe or conduit of pipes used for the transportation, gathering, or conduct of a mineral from a wellhead to a separator, treater, dehydrator, tank battery, or surface reservoir.
21. "Gas lift" means any method of lifting liquid to the surface by injecting gas into a well from which oil production is obtained.
22. "Gas-oil ratio" means the ratio of the gas produced in cubic feet to a barrel of oil concurrently produced during any stated period.
23. "Gas-oil ratio adjustment" means the reduction in allowable of a high gas-oil ratio proration unit to conform with the production permitted by the limiting gas-oil ratio for the particular pool during a particular proration period.
24. "Gas transportation facility" means a pipeline in operation serving one or more gas wells for the transportation of natural gas, or some other device or equipment in like operation whereby natural gas produced from gas wells connected therewith can be transported.
25. "Gas well" means a well producing gas or natural gas from a common source of gas supply as determined by the commission.
26. "High gas-oil ratio proration unit" means a proration unit with a producing oil well with a gas-oil ratio in excess of the limiting gas-oil ratio for the pool.
27. "Injection or input well" means any well used for the injection of air, gas, water, or other fluids into any underground stratum.
28. "Injection pipeline" means a pipe or conduit of pipes used for the transportation of fluids, typically via an injection pump, from a storage tank or tank battery directly to an injection well.
29. "Limiting gas-oil ratio" means the gas-oil ratio assigned by the commission to a particular oil pool to limit the volumes of casinghead gas which may be produced from the various oil-producing units within that particular pool.
30. "Log or well log" means a systematic, detailed, and correct record of formations encountered in the drilling of a well, including commercial electric logs, radioactive logs, dip meter logs, and other related logs.
31. "Multiple completion" means the completion of any well so as to permit the production from more than one common source of supply.
32. "Natural gas or gas" means and includes all natural gas and all other fluid hydrocarbons not herein defined as oil.

33. "Occupied dwelling" or "permanently occupied dwelling" means a residence which is lived in by a person at least six months throughout a calendar year.
34. "Official gas-oil ratio test" means the periodic gas-oil ratio test made by order of the commission and by such method and means and in such manner as prescribed by the commission.
35. "Offset" means a well drilled on a forty-acre [16.19-hectare] tract cornering or contiguous to a forty-acre [16.19-hectare] tract having an existing oil well, or a well drilled on a one hundred sixty-acre [64.75-hectare] tract cornering or contiguous to a one hundred sixty-acre [64.75-hectare] tract having an existing gas well; provided, however, that for wells subject to a fieldwide spacing order, "offset" means any wells located on spacing units cornering or contiguous to the spacing unit or well which is the subject of an inquiry or a hearing.
36. "Oil well" means any well capable of producing oil or oil and casinghead gas from a common source of supply as determined by the commission.
37. "Operator" is the principal on the bond covering a well and such person shall be responsible for drilling, completion, and operation of the well, including plugging and reclamation of the well site.
38. "Overage or overproduction" means the amount of oil or the amount of natural gas produced during a proration period in excess of the amount authorized on the proration schedule.
39. "Potential" means the properly determined capacity of a well to produce oil, or gas, or both, under conditions prescribed by the commission.
40. "Pressure maintenance" means the injection of gas or other fluid into a reservoir, either to increase or maintain the existing pressure in such reservoir or to retard the natural decline in the reservoir pressure.
41. "Proration day" consists of twenty-four consecutive hours which shall begin at seven a.m. and end at seven a.m. on the following day.
42. "Proration month" means the calendar month which shall begin at seven a.m. on the first day of such month and end at seven a.m. on the first day of the next succeeding month.
43. "Proration schedule" means the periodic order of the commission authorizing the production, purchase, and transportation of oil or of natural gas from the various units of oil or of natural gas proration in allocated pools.
44. "Proration unit for gas" consists of such geographical area as may be prescribed by special pool rules issued by the commission.

45. "Recomplete" means the subsequent completion of a well in a different pool.
46. "Reservoir" means pool or common source of supply.
47. "Saltwater handling facility" means and includes any container and site used for the handling, storage, disposal of substances obtained, or used, in connection with oil and gas exploration, development, and production and can be a stand-alone site or an appurtenance to a well or treating plant.
48. "Shut-in pressure" means the pressure noted at the wellhead when the well is completely shut in, not to be confused with bottom hole pressure.
49. "Spacing unit" is the area in each pool which is assigned to a well for drilling, producing, and proration purposes in accordance with the commission's rules or orders.
50. "Stratigraphic test well" means any well or hole, except a seismograph shot hole, drilled for the purpose of gathering information in connection with the oil and gas industry with no intent to produce oil or gas from such well.
51. "Tank bottoms" means that accumulation of hydrocarbon material and other substances which settle naturally below crude oil in tanks and receptacles that are used in handling and storing of crude oil, and which accumulation contains basic sediment and water in an amount rendering it unsaleable to an ordinary crude oil purchaser; provided, that with respect to lease production and for lease storage tanks, a tank bottom shall be limited to that volume of the tank in which it is contained that lies below the bottom of the pipeline outlet thereto.
52. "Treating plant" means any plant permanently constructed or portable used for the purpose of wholly or partially reclaiming, treating, processing, or recycling tank bottoms, waste oils, drilling mud, waste from drilling operations, produced water, and other wastes related to crude oil and natural gas exploration and production. This is not to be construed as to include saltwater handling and disposal operations which typically recover skim oil from their operations, treating mud or cuttings at a well site during drilling operations, or treating flowback water during completion operations at a well site, or treating tank bottoms at the well site or facility where they originated.

History: Amended effective January 1, 1983; May 1, 1992; July 1, 1996; December 1, 1996; September 1, 2000; July 1, 2002; January 1, 2008; April 1, 2014; October 1, 2016.

General Authority
NDCC 38-08-04

Law Implemented
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B. MISCELLANEOUS RULES

43-02-03-05. ENFORCEMENT OF LAWS, RULES, AND REGULATIONS DEALING WITH CONSERVATION OF OIL AND GAS. The commission, its agents, representatives, and employees are charged with the duty and obligation of enforcing all rules and statutes of North Dakota relating to the conservation of oil and gas. However, it shall be the responsibility of all the owners, ~~or~~ operators, and contractors to obtain information pertaining to the regulation of oil and gas before operations have begun.

History: Amended effective May 1, 2004; April 1, 2012.

General Authority
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43-02-03-14.2. OIL AND GAS METERING SYSTEMS.

1. Application of section. This section is applicable to all metering stations measuring production from oil and gas wells within the state of North Dakota, including private, state, and federal wells. If these rules differ from federal requirements on measurement of production from federal oil and gas wells, the federal rules take precedence.
2. Definitions. As used in this section:
 - a. "Allocation meter" means a meter used by the producer to determine the volume from an individual well before it is commingled with production from one or more other wells prior to the custody transfer point.
 - b. "Calibration test" means the process or procedure of adjusting an instrument, such as a gas meter, so its indication or registration is in satisfactorily close agreement with a reference standard.
 - c. "Custody transfer meter" means a meter used to transfer oil or gas from the producer to transporter or purchaser.
 - d. "Gas gathering meter" means a meter used in the custody transfer of gas into a gathering system.
 - e. "Meter factor" means a number obtained by dividing the net volume of fluid (liquid or gaseous) passed through the meter during proving by the net volume registered by the meter.
 - f. "Metering proving" means the procedure required to determine the relationship between the true volume of a fluid (liquid or gaseous) measured by a meter and the volume indicated by the meter.
3. Inventory filing requirements. The owner of metering equipment shall file with the commission an inventory of all meters used for custody transfer and allocation of production from oil or gas wells, or both. Inventories must be updated on an annual

basis, and filed with the commission on or before the first day of each year, or they may be updated as frequently as monthly, at the discretion of the operator. Inventories must include the following:

- a. Well name and legal description of location or meter location if different.
 - b. North Dakota industrial commission well file number.
 - c. Meter information:
 - (1) Gas meters:
 - (a) Make and model.
 - (b) Differential, static, and temperature range.
 - (c) Orifice tube size (diameter).
 - (d) Meter station number.
 - (e) Serial number.
 - (2) Oil meters:
 - (a) Make and model.
 - (b) Size.
 - (c) Meter station number.
 - (d) Serial number.
4. Installation and removal of meters. The commission must be notified of all custody transfer meters placed in service. The owner of the custody transfer equipment shall notify the commission of the date a meter is placed in service, the make and model of the meter, and the meter or station number. The commission must also be notified of all metering installations removed from service. The notice must include the date the meter is removed from service, serial number and the meter or station number. The required notices must be filed with the commission within thirty days of the installation or removal of a meter.

All allocation meters must be approved prior to installation and use. The application for approval must be on a sundry notice (form 4) and shall include the make and model number of the meter, the meter or station number, serial number, the well name, its location, and the date the meter will be placed in service.

Meter installations for measuring production from oil or gas wells, or both, must be constructed to American petroleum institute or American gas association standards or to meter manufacturer's recommended installation. Meter installations constructed in accordance with American petroleum institute or American gas association standards in effect at the time of installation shall not automatically be required to retrofit if standards are revised. The commission will review any revised standards, and when deemed necessary will amend the requirements accordingly.

5. Registration of persons proving or testing meters. All persons engaged in meter proving or testing of oil and gas meters must be registered with the commission. Those persons involved in oil meter testing, by flowing fluid through the meter into a test tank and then gauging the tank, are exempted from the registration process. However, such persons must notify the commission prior to commencement of the test to allow a representative of the commission to witness the testing process. A report of the results of such test shall be filed with the commission within thirty days after the test is completed. Registration must include the following:
 - a. Name and address of company.
 - b. Name and address of measurement personnel.
 - c. Qualifications, listing experience, or specific training.

Any meter tests performed by a person not registered with the commission will not be accepted as a valid test.

6. Calibration requirements. Oil and gas metering equipment must be proved or tested to American petroleum institute or American gas association standards or to the meter manufacturer's recommended procedure to establish a meter factor or to ensure measurement accuracy. The owner of a custody transfer meter or allocation meter shall notify the commission at least ten days prior to the testing of any meter.
 - a. Oil allocation meter factors shall be maintained within two percent of original meter factor. If the factor change between provings or tests is greater than two percent, the meter must be repaired or adjusted and tested within forty-eight hours of repair or replaced.
 - b. Copies of all oil allocation meter test procedures are to be filed with and reviewed by the commission to ensure measurement accuracy.
 - c. All gas meters must be tested with a minimum of a three point test for static and differential pressure elements and a two point test for temperature elements. The test reports must include an as-found and as-left test and a detailed report of changes.
 - d. Test reports must include the following:

- (1) Producer name.
 - (2) Lease name.
 - (3) Pipeline company or company name of test contractor.
 - (4) Test personnel's name.
 - (5) Station or meter number.
- e. Unless required more often by the director, minimum frequency of meter proving or calibration tests are as follows:
- (1) Oil meters used for custody transfer shall be proved monthly for all measured volumes which exceed two thousand barrels per month. For volumes two thousand barrels or less per month, meters shall be proved at each two thousand barrel interval or more frequently at the discretion of the operator.
 - (2) Quarterly for oil meters used for allocation of production.
 - (3) Semiannually for gas meters used for allocation of production.
 - (4) Semiannually for gas meters in gas gathering systems.
 - (5) For meters measuring more than one hundred thousand cubic feet [2831.68 cubic meters] per day on a monthly basis, orifice plates shall be inspected semiannually, and meter tubes shall be inspected at least every five years to ensure continued conformance with the American gas association meter tube specifications.
 - (6) For meters measuring one hundred thousand cubic feet [2831.68 cubic meters] per day or less on a monthly basis, orifice plates shall be inspected annually.
- f. Meter test reports must be filed within thirty days of completion of proving or calibration tests unless otherwise approved. Test reports are to be filed on, but not limited to, all meters used for allocation measurement of oil or gas and all meters used in crude oil custody transfer.
- g. Accuracy of all equipment used to test oil or gas meters must be traceable to the standards of the national institute of standards and technology. The equipment must be certified as accurate either by the manufacturer or an independent testing facility. The certificates of accuracy must be made available upon request. Certification of the equipment must be updated as follows:
- (1) Annually for all equipment used to test the pressure and differential pressure elements.

- (2) Annually for all equipment used to determine temperature.
 - (3) Biennially for all conventional pipe provers.
 - (4) Annually for all master meters.
 - (5) Five years for equipment used in orifice tube inspection.
7. Variances. Variances from all or part of this section may be granted by the commission on the basis of economic necessity providing the variance does not affect measurement accuracy. All requests for variances must be on a sundry notice (form 4).

A register of variances requested and approved must be maintained by the commission.

History: Effective May 1, 1994; amended effective July 1, 1996; September 1, 2000; July 1, 2002.

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C. DRILLING

43-02-03-15. BOND AND TRANSFER OF WELLS.

1. Bond requirements. Prior to commencing drilling operations, any person who proposes to drill a well for oil, gas, injection, or source well for use in enhanced recovery operations, shall submit to the commission, and obtain its approval, a surety bond or cash bond. An alternative form of security may be approved by the commission after notice and hearing, as provided by law. The operator of such well shall be the principal on the bond covering the well. Each surety bond shall be executed by a responsible surety company authorized to transact business in North Dakota.
2. Bond amounts and limitations. The bond shall be in the amount of fifty thousand dollars when applicable to one well only. Wells drilled to a total depth of less than two thousand feet [609.6 meters] may be bonded in a lesser amount if approved by the director. When the principal on the bond is drilling or operating a number of wells within the state or proposes to do so, the principal may submit a bond conditioned as provided by law. Wells utilized for commercial injection operations must be bonded in the amount of fifty thousand dollars. A blanket bond covering more than one well shall be in the amount of one hundred thousand dollars, provided the bond shall be limited to no more than six of the following in aggregate:
 - a. A well that is a dry hole and is not properly plugged;
 - b. A well that is plugged and the site is not properly reclaimed; and

- c. A well that is abandoned pursuant to subsection 1 of North Dakota Century Code section 38-08-04 or section 43-02-03-55 and is not properly plugged and the site is not properly reclaimed.

If this aggregate of wells is reached, all well permits, for which drilling has not commenced, held by the principal of such bond are suspended. No rights may be exercised under the permits until the aggregate of wells drops below the required limit, or the operator files the appropriate bond to cover the permits, at which time the rights given by the drilling permits are reinstated. A well with an approved temporary abandoned status shall have the same status as an oil, gas, or injection well. The commission may, after notice and hearing, require higher bond amounts than those referred to in this section. Such additional amounts for bonds must be related to the economic value of the well or wells and the expected cost of plugging and well site reclamation, as determined by the commission. The commission may refuse to accept a bond or to add wells to a blanket bond if the operator or surety company has failed in the past to comply with statutes, rules, or orders relating to the operation of wells; if a civil or administrative action brought by the commission is pending against the operator or surety company; or for other good cause.

3. Unit bond requirements. Prior to commencing unit operations, the operator of any area under unitized management shall submit to the commission, and obtain its approval, a surety bond or cash bond. An alternative form of security may be approved by the commission after notice and hearing, as provided by law. The operator of the unit shall be the principal on the bond covering the unit. The amount of the bond shall be specified by the commission in the order approving the plan of unitization. Each surety bond shall be executed by a responsible surety company authorized to transact business in North Dakota.

Prior to transfer of a unit to a new operator, the commission, after notice and hearing, may revise the bond amount for a unit, or in the case when the unit was not previously bonded, the commission may require a bond and set a bond amount for the unit.

4. Bond terms. Bonds shall be conditioned upon full compliance with North Dakota Century Code chapter 38-08, and all administrative rules and orders of the commission. It shall be a plugging bond, as well as a drilling bond, and is to endure up to and including approved plugging of all oil, gas, and injection wells as well as dry holes. Approved plugging shall also include practical reclamation of the well site and appurtenances thereto. If the principal does not satisfy the bond's conditions, then the surety shall satisfy the conditions or forfeit to the commission the face value of the bond.
5. Transfer of wells under bond. Transfer of property does not release the bond. In case of transfer of property or other interest in the well and the principal desires to be released from the bond covering the well, such as producers, not ready for plugging, the principal must proceed as follows:

- a. The principal must notify the director, in writing, of all proposed transfers of wells at least thirty days before the closing date of the transfer. The director may, for good cause, waive this requirement.

The principal shall submit an accurate schematic drawing identifying all flowlines and transfer lines that leave the constructed pad or facility and must provide any details the director deems necessary.

The principal shall submit to the commission a form 15 reciting that a certain well, or wells, describing each well by quarter-quarter, section, township, and range, is to be transferred to a certain transferee, naming such transferee, for the purpose of ownership or operation. The date of assignment or transfer must be stated and the form signed by a party duly authorized to sign on behalf of the principal.

On said transfer form the transferee shall recite the following: "The transferee has read the foregoing statement and does accept such transfer and does accept the responsibility of such well under the transferee's one-well bond or, as the case may be, does accept the responsibility of such wells under the transferee's blanket bond, said bond being tendered to or on file with the commission." Such acceptance must likewise be signed by a party authorized to sign on behalf of the transferee and the transferee's surety.

- b. When the commission has passed upon the transfer and acceptance and accepted it under the transferee's bond, the transferor shall be released from the responsibility of plugging the well and site reclamation. If such wells include all the wells within the responsibility of the transferor's bond, such bond will be released by the commission upon written request. Such request must be signed by an officer of the transferor or a person authorized to sign for the transferor. The director may refuse to transfer any well from a bond if the well is in violation of a statute, rule, or order.
 - c. The transferee (new operator) of any oil, gas, or injection well, shall be responsible for the plugging and site reclamation of any such well. For that purpose the transferee shall submit a new bond or, in the case of a surety bond, produce the written consent of the surety of the original or prior bond that the latter's responsibility shall continue and attach to such well. The original or prior bond shall not be released as to the plugging and reclamation responsibility of any such transferor until the transferee shall submit to the commission an acceptable bond to cover such well. All liability on bonds shall continue until the plugging and site reclamation of such wells is completed and approved.
6. Treating plant bond. Prior to the commencement of operations, any person proposing to operate a treating plant must submit to the commission and obtain its approval of a surety bond or cash bond. An alternative form of security may be approved by the commission after notice and hearing, as provided by law. The person responsible for the operation of the plant shall be the principal on the bond. Each surety bond shall be executed by a responsible surety company authorized to transact business in North

Dakota. The amount of the bond must be as prescribed in section 43-02-03-51.3. It is to remain in force until the operations cease, all equipment is removed from the site, and the site and appurtenances thereto are reclaimed, or liability of the bond is transferred to another bond that provides the same degree of security. If the principal does not satisfy the bond's conditions, then the surety shall satisfy the conditions or forfeit to the commission the face value of the bond. The director may refuse to transfer any treating plant from a bond if the treating plant is in violation of a statute, rule, or order.

7. Saltwater handling facility bond. Prior to the commencement of operations, any person proposing to operate a saltwater handling facility that is not already bonded as an appurtenance shall submit to the commission and obtain its approval of a surety bond or cash bond. An alternative form of security may be approved by the commission after notice and hearing, as provided by law. The person responsible for the operation of the saltwater handling facility must be the principal on the bond. Each surety bond must be executed by a responsible surety company authorized to transact business in North Dakota. The amount of the bond must be as prescribed in section 43-02-03-53.3. It is to remain in force until the operations cease, all equipment is removed from the site, and the site and appurtenances thereto are reclaimed, or liability of the bond is transferred to another bond that provides the same degree of security. If the principal does not satisfy the bond's conditions, the surety shall satisfy the conditions or forfeit to the commission the face value of the bond. Transfer of property does not release the bond. The director may refuse to transfer any saltwater handling facility from a bond if the saltwater handling facility is in violation of a statute, rule, or order.
8. Crude oil and produced water underground gathering pipeline bond. The bonding requirements for crude oil and produced water underground gathering pipelines are not to be construed to be required on flow lines, injection pipelines, pipelines operated by an enhanced recovery unit for enhanced recovery unit operations, or on piping utilized to connect wells, tanks, treaters, flares, or other equipment on the production facility.
 - a. Any owner of an underground gathering pipeline transferring crude oil or produced water, after April 19, 2015, shall submit to the commission and obtain its approval of a surety bond or cash bond prior to July 1, 2017. Any owner of a proposed underground gathering pipeline to transfer crude oil or produced water shall submit to the commission and obtain its approval of a surety bond or cash bond prior to placing into service. An alternative form of security may be approved by the commission after notice and hearing, as provided by law. The person responsible for the operation of the crude oil or produced water underground gathering pipeline must be the principal on the bond. Each surety bond must be executed by a responsible surety company authorized to transact business in North Dakota. The bond must be in the amount of fifty thousand dollars when applicable to one crude oil or produced water underground gathering pipeline system only. Such underground gathering pipelines that are less than one mile [1609.34 meters] in length may be bonded in a lesser amount if approved by the director. When the principal on the bond is operating multiple gathering pipeline systems within the state or proposes to do so, the principal may submit a blanket bond conditioned as provided by law. A blanket bond covering one or more underground gathering

pipeline systems must be in the amount of one hundred thousand dollars. The owner shall file with the director, as prescribed by the director, a geographical information system layer utilizing North American datum 83 geographic coordinate system (GCS) and in an environmental systems research institute (Esri) shape file format showing the location of all associated above ground equipment and the pipeline centerline from the point of origin to the termination point of all underground gathering pipelines on the bond. Each layer must include at least the following information:

- (1) The name of the pipeline gathering system and other separately named portions thereof;
 - (2) The type of fluid transported;
 - (3) The pipeline composition;
 - (4) Burial depth; and
 - (5) Approximate in-service date.
- b. The blanket bond covering more than one underground gathering pipeline system is limited to no more than six of the following instances of noncompliance in aggregate:
- (1) Any portion of an underground gathering pipeline system that has been removed from service for more than one year and is not properly abandoned pursuant to section 43-02-03-29.1; and
 - (2) An underground gathering pipeline right-of-way, including associated above ground equipment, which has not been properly reclaimed pursuant to section 43-02-03-29.1.

If this aggregate of underground gathering pipeline systems is reached, the commission may refuse to accept additional pipeline systems on the bond until the aggregate is brought back into compliance. The commission, after notice and hearing, may require higher bond amounts than those referred to in this section. Such additional amounts for bonds must be related to the economic value of the underground gathering pipeline system and the expected cost of pipeline abandonment and right-of-way reclamation, as determined by the commission. The commission may refuse to accept a bond or to add underground gathering pipeline systems to a blanket bond if the owner or surety company has failed in the past to comply with statutes, rules, or orders relating to the operation of underground gathering pipelines; if a civil or administrative action brought by the commission is pending against the owner or surety company; if an underground gathering pipeline system has exhibited multiple failures; or for other good cause.

- c. The underground gathering pipeline bond is to remain in force until the pipeline has been abandoned, as provided in section 43-02-03-29.1, and the right-of-way, including all associated above ground equipment, has been reclaimed as provided in section 43-02-03-29.1, or liability of the bond is transferred to another bond that provides the same degree of security. If the principal does not satisfy the bond's conditions, the surety shall satisfy the conditions or forfeit to the commission the face value of the bond.
- d. Transfer of underground gathering pipelines under bond. Transfer of property does not release the bond. In case of transfer of property or other interest in the underground gathering pipeline and the principal desires to be released from the bond covering the underground gathering pipeline, the principal must proceed as follows:
 - (1) The principal shall notify the director, in writing, of all proposed transfers of underground gathering pipelines at least thirty days before the closing date of the transfer. The director, for good cause, may waive this requirement.

Notice of underground gathering pipeline transfer. The principal shall submit, as provided by the director, a geographical information system layer utilizing North American datum 83 geographic coordinate system (GCS) and in an environmental systems research institute (Esri) shape file format showing the location of all associated above ground equipment and the pipeline centerline from the point of origin to the termination point of all underground gathering pipelines to be transferred to a certain transferee, naming such transferee, for the purpose of ownership or operation. The date of assignment or transfer must be stated and the form 15pl signed by a party duly authorized to sign on behalf of the principal.

The notice of underground gathering pipeline transfer must recite the following: "The transferee has read the foregoing statement and does accept such transfer and does accept the responsibility of such underground gathering pipelines under the transferee's pipeline bond or, as the case may be, does accept the responsibility of such underground gathering pipelines under the transferee's pipeline systems blanket bond, said bond being tendered to or on file with the commission." Such acceptance must likewise be signed by a party authorized to sign on behalf of the transferee and the transferee's surety.

- (2) When the commission has passed upon the transfer and acceptance and accepted it under the transferee's bond, the transferor must be released from the responsibility of abandoning the underground gathering pipelines and right-of-way reclamation. If such underground gathering pipelines include all underground gathering pipeline systems within the responsibility of the transferor's bond, such bond will be released by the commission upon written request. Such request must be signed by an officer of the transferor or a person authorized to sign for the transferor. The director may refuse to

transfer any underground gathering pipeline from a bond if the underground gathering pipeline is in violation of a statute, rule, or order.

- (3) The transferee (new owner) of any underground gathering pipeline is responsible for the abandonment and right-of-way reclamation of any such underground gathering pipeline. For that purpose the transferee shall submit a new bond or, in the case of a surety bond, produce the written consent of the surety of the original or prior bond that the latter's responsibility shall continue and attach to such underground gathering pipeline. The original or prior bond may not be released as to the abandonment and right-of-way reclamation responsibility of any such transferor until the transferee submits to the commission an acceptable bond to cover such underground gathering pipeline. All liability on bonds continues until the abandonment and right-of-way reclamation of such underground gathering pipeline is completed and approved by the director.

9. Bond termination. The commission shall, in writing, advise the principal and any sureties on any bond as to whether the plugging and reclamation is approved. If approved, liability under such bond may be formally terminated upon receipt of a written request by the principal. The request must be signed by an officer of the principal or a person authorized to sign for the principal.

10. Director's authority. The director is vested with the power to act for the commission as to all matters within this section, except requests for alternative forms of security, which may only be approved by the commission.

History: Amended effective April 30, 1981; March 1, 1982; January 1, 1983; May 1, 1990; May 1, 1992; May 1, 1994; December 1, 1996; September 1, 2000; July 1, 2002; May 1, 2004; January 1, 2006; April 1, 2012; April 1, 2014; January 1, 2017.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-17. SIGN ON WELL ~~OR~~ AND FACILITY. Every well ~~or~~ and facility associated with the production, transportation, purchasing, storage, treating, or processing of oil, gas, and water except plugged wells shall be identified by a sign. The sign shall be of durable construction and the lettering thereon shall be kept in a legible condition. The wells on each lease or property shall be numbered in nonrepetitive sequence, unless some other system of numbering was adopted by the owner prior to the adoption of this chapter. Each sign must show the facility name or well name and number (which shall be different or distinctive for each well or facility), the name of the operator, file or facility number (if applicable), and the location by quarter-quarter, section, township, and range.

History: Amended effective January 1, 1983; May 1, 1992; September 1, 2000; April 1, 2014; October 1, 2016.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-22. DEFECTIVE CASING OR CEMENTING. In any well that appears to have defective casing or cementing, the operator shall conduct a mechanical integrity test, unless deemed unnecessary by the director, and report the test and defect to the director on a sundry notice (form 4). Prior to attempting remedial work on any casing, the operator must obtain approval from the director and proceed with diligence to conduct tests, as approved or required by the director, to properly evaluate the condition of the well bore and correct the defect. The director is authorized to require a subsequent pressure ~~test~~ tests to verify casing integrity if its competence is questionable. The director may allow the well bore condition to remain if correlative rights can be protected without endangering potable waters. The well shall be properly plugged if requested by the director.

Any well with open perforations above a packer shall be considered to have defective casing.

History: Amended effective January 1, 1983; May 1, 1992; September 1, 2000; July 1, 2002; May 1, 2004; January 1, 2008.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-28. SAFETY REGULATION. During drilling operations all oil wells shall be cleaned into a pit or tank, not less than forty feet [12.19 meters] from the derrick floor and one hundred fifty feet [45.72 meters] from any fire hazard.

All flowing oil wells must be produced through an approved oil and gas separator or emulsion treater of ample capacity and in good working order. No ~~boiler, electric generator, ignition source~~ or treater shall be placed nearer than one hundred fifty feet [45.72 meters] to any producing well or oil tank. Placement as close as one hundred twenty-five feet [38.10 meters] may be allowed if a spark or flame arrestor is utilized on the equipment. Any rubbish or debris that might constitute a fire hazard shall be removed to a distance of at least one hundred fifty feet [45.72 meters] from the vicinity of wells and tanks. All waste shall be burned or disposed of in such manner as to avoid creating a fire hazard. All vegetation must be removed to a safe distance from any production or injection equipment to eliminate a fire hazard.

The director may require remote operated or automatic shutdown equipment to be installed on, or shut in for no more than forty days, any well that is likely to cause a serious threat of pollution or injury to the public health or safety.

No well shall be drilled nor production or injection equipment installed nor saltwater handling facility or treating plant constructed less than five hundred feet [152.40 meters] from an occupied dwelling unless agreed to in writing by the owner of the dwelling or authorized by order of the commission.

Subsurface pressure must be controlled during all drilling, completion, and well-servicing operations with appropriate fluid weight and pressure control equipment. The operator conducting any well stimulation shall give prior written notice, up to ten days and not less than seven business days, to any operator of a well completed in the same pool, if publicly available information indicates or if the operator is made aware, if the completion intervals are within one thousand three hundred twenty feet [402.34 meters] of one another.

History: Amended effective January 1, 1983; May 1, 1990; September 1, 2000; January 1, 2006; January 1, 2008; April 1, 2012; April 1, 2014; October 1, 2016.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-30. NOTIFICATION OF FIRES, LEAKS, SPILLS, OR BLOWOUTS. All persons controlling or operating any well, pipeline, receiving tank, storage tank, treating plant, or any other receptacle or production facility associated with oil, gas, or water production, injection, processing, or well servicing, shall verbally notify the director immediately and follow up utilizing the online initial notification report within twenty-four hours after discovery of any fire, leak, spill, blowout, or release of fluid. The initial report must include the name of the reporting party, including telephone number and address, date and time of the incident, location of the incident, type and cause of the incident, estimated volume of release, containment status, waterways involved, immediate potential threat, and action taken. If any such incident occurs or travels offsite of a facility, the persons, as named above, responsible for proper notification shall within a reasonable time also notify the surface owners upon whose land the incident occurred or traveled. Notification requirements prescribed by this section shall not apply to any leak or spill involving only freshwater or to any leak, spill, or release of fluid crude oil, produced water, or natural gas liquid that is less than one barrel total volume and remains onsite of a site where any well thereon was spud before September 2, 2000 or on a facility or to any leak or spill involving freshwater that was constructed before September 2, 2000 and shall not apply to any leak or spill or release of crude oil, produced water, or natural gas liquid that is less than ten barrels total volume cumulative over a fifteen-day time period, and remains onsite of a site where all wells thereon were spud after September 1, 2000 or on a facility that was constructed after September 1, 2000. The initial notification must be followed by a written report within ten days after cleanup of the incident, unless deemed unnecessary by the director. Such report must include the following information: the operator and description of the facility, the legal description of the location of the incident, date of occurrence, date of cleanup, amount and type of each fluid involved, amount of each fluid recovered, steps taken to remedy the situation, root cause of the incident unless deemed unnecessary by the director, and action taken to prevent reoccurrence, and if applicable, any additional information pursuant to subdivision e of subsection 1 of North Dakota Century Code section 37-17.1-07.1. The signature, title, and telephone number of the company representative must be included on such report. The persons, as named above, responsible for proper notification shall within a reasonable time also provide a copy of the written report to the surface owners upon whose land the incident occurred or traveled.

The commission, however, may impose more stringent spill reporting requirements if warranted by proximity to sensitive areas, past spill performance, or careless operating practices as determined by the director.

History: Amended effective April 30, 1981; January 1, 1983; May 1, 1992; July 1, 1996; January 1, 2008; April 1, 2010; April 1, 2014; October 1, 2016.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-30.1. LEAK AND SPILL CLEANUP. At no time shall any spill or leak be allowed to flow over, pool, or rest on the surface of the land or infiltrate the soil. Discharged fluids must be properly removed and may not be allowed to remain standing within or outside of diked areas, although the remediation of such fluids may be allowed onsite if approved by the director. Operators and responsible parties must respond with appropriate resources to contain and clean up spills.

A sundry notice (form 4) must be submitted within ten days after cleanup of any spill or leak unless deemed unnecessary by the director. Said notice must include the date of the occurrence, date of cleanup, amount and type of each fluid involved, identification of the site affected, the root cause of the incident and explanation of how the volume was determined.

History: Effective April 1, 2012; amended effective October 1, 2016.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

D. PLUGGING OF WELLS

43-02-03-33. NOTICE OF INTENTION TO PLUG WELL. The operator or the operator's agent shall file a notice of intention (form 4) to plug with the director, and obtain the approval of the director, prior to the commencement of plugging or plug-back operations. The notice shall state the name and location of the well, the name of the operator, and the method of plugging, which must include a detailed statement of proposed work and a well bore diagram showing the current conditions downhole. In the case of a recently completed test well that has not had production casing in the hole, the operator may commence plugging by giving reasonable notice to, and securing verbal approval of, the director as to the method of plugging, and the time plugging operations are to begin. Within thirty days after the plugging of any well has been accomplished, the owner or operator thereof shall file a plugging record (form 7), and, if requested, a copy of the cementer's trip ticket or job receipt, with the director setting forth in detail the method used in plugging the well.

History: Amended effective April 30, 1981; January 1, 1983; May 1, 1992; January 1, 2006.

43-02-03-34.1. RECLAMATION OF SURFACE.

1. Within a reasonable time, but not more than one year, after a well is plugged, or if a permit expires, has been canceled or revoked, or a treating plant or saltwater handling facility is decommissioned, the site, access road, and other associated facilities constructed shall be reclaimed as closely as practicable to original condition pursuant to North Dakota Century Code section 38-08-04.12. Prior to site reclamation, the operator or the operator's agent shall file a sundry notice (form 4) with the director and obtain approval of a reclamation plan. The operator or operator's agent shall provide a copy of the proposed reclamation plan to the surface owner at least ten days prior to commencing the work unless waived by the surface owner. Verbal approval to reclaim the site may be given. The notice shall include:
 - a. The name and address of the reclamation contractor;
 - b. The name and address of the surface owner and the date when a copy of the proposed reclamation plan was provided to the surface owner;
 - c. A description of the proposed work, including topsoil redistribution and reclamation plans for the access road and other associated facilities; and
 - d. Reseeding plans, if applicable.

The commission will mail a copy of the approved notice to the surface owner.

All equipment, waste, and debris shall be removed from the site. Flow lines shall be purged pursuant to section 43-02-03-29.1. Flow lines shall be removed if buried less than three feet [91.44 centimeters] below final contour.

2. Gravel or other surfacing material shall be removed, stabilized soil shall be remediated, and the site, access road, and other associated facilities constructed for the well, treating plant, or saltwater handling facility shall be reshaped as near as is practicable to original contour.
3. The stockpiled topsoil shall be evenly distributed over the disturbed area and, where applicable, the area revegetated with native species or according to the reasonable specifications of the appropriate government land manager or surface owner.
4. An environmental assessment of the site may be required by the director.
- 4.5. Within thirty days after completing any reclamation, the operator shall file a sundry notice with the director reporting the work performed.

~~5-6.~~ The director, with the consent of the appropriate government land manager or surface owner, may waive the requirement of reclamation of the site and access road after a well is plugged or treating plant or saltwater handling facility is decommissioned and shall record documentation of the waiver with the recorder of the county in which the site or road is located.

History: Effective April 1, 2012; amended effective April 1, 2014; October 1, 2016.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-49. OIL PRODUCTION EQUIPMENT, DIKES, AND SEALS. Storage of oil in underground or partially buried tanks or containers is prohibited. Surface oil tanks and production equipment must be devoid of leaks and constructed of materials resistant to the effects of produced fluids or chemicals that may be contained therein. Unused tanks and production equipment must be removed from the site or placed into service, within a reasonable time period, not to exceed one year.

Dikes must be erected around oil tanks and production equipment at any new production facility prior to completing any well. Dikes must be erected and maintained around oil tanks at all facilities unless a waiver is granted by the director. Dikes as well as the base material under the dikes and within the diked area must be constructed of sufficiently impermeable material to provide emergency containment. Dikes must be of sufficient dimension to contain the total capacity of the largest tank plus one day's fluid production. The required capacity of the dike may be lowered by the director if the necessity therefor can be demonstrated to the director's satisfaction.

Within one hundred eighty days from the date the operator is notified by the commission, a perimeter berm, at least six inches [15.24 centimeters] in height, must be constructed of sufficiently impermeable material to provide emergency containment and to divert surface drainage away from the site around all storage facilities and production sites that include storage tanks, have a daily throughput of more than one hundred barrels of fluid per day, and include production equipment or load lines that are not contained within secondary containment dikes. The director may consider an extension of time to implement these requirements if conditions prevent timely construction, or a modification of these requirements if other factors are present that provide sufficient protection from environmental impacts.

Numbered weather-resistant security seals shall be properly utilized on all oil access valves and access points to secure the tank or battery of tanks.

History: Amended effective April 30, 1981; January 1, 1983; May 1, 1992; September 1, 2000; July 1, 2002; May 1, 2004; April 1, 2010; April 1, 2012; January 1, 2017.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-51.3. TREATING PLANT CONSTRUCTION AND OPERATION REQUIREMENTS.

1. Before construction of a treating plant begins, the operator shall file with the commission a surety bond or cash bond conditioned upon compliance with all laws, rules and regulations, and orders of the commission. The bond amount shall be specified in the commission order authorizing the treating plant and shall be based upon the location, type, and capacity of the plant, processing method, and plan of operation for all plant waste approved in the commission order and shall be payable to the industrial commission. In no case shall the bond amount be set lower than fifty thousand dollars.
2. Treating plant sites and associated facilities or appropriate parts thereof shall be fenced if required by the director. All fences installed within or around any facility must be constructed in a manner that promotes emergency ingress and egress.
3. All storage tanks shall be kept free of leaks and in good condition. Storage tanks for saltwater shall be constructed of, or lined with, materials resistant to the effects of saltwater.
4. All waste, recovered solids, and recovered fluids shall be stored and handled in such a manner to prevent runoff or migration offsite.
5. Dikes of sufficient dimension to contain the total capacity of the maximum volume stored must be erected and maintained around all storage and processing tanks. Dikes as well as the base ~~material under the dikes and~~ within the diked area must be ~~constructed of sufficiently~~ lined with a synthetic impermeable material liner to provide emergency containment. All processing equipment shall be underlain by a synthetic impermeable material, unless waived by the director. The site shall be sloped and diked to divert surface drainage away from the site. The operations of the treating plant shall be conducted in such a manner as to prevent leaks, spills, and fires. All ~~accidentally~~ discharged fluids and wastes shall be promptly and properly removed and shall not be allowed to remain standing within the diked area or on the treating plant premises. All such incidents shall be properly cleaned up, subject to approval by the director. All such incidents shall be promptly reported to the director and a detailed account of any such incident must be filed with the director in accordance with section 43-02-03-30.
6. A perimeter berm, at least six inches [15.24 centimeters] in height, must be constructed of sufficiently impermeable material to provide emergency containment around the treating plant and to divert surface drainage away from the site if deemed necessary by the director.
7. Within thirty days following construction or modification of a treating plant, a sundry notice (form 4) shall be submitted detailing such work and the dates commenced and completed. The sundry notice shall be accompanied by a schematic drawing of the treating plant site drawn to scale, detailing all facilities and equipment including the

size, location, and purpose of all tanks, the height and location of all dikes as well as a calculated containment volume, all areas underlain by a synthetic liner, any leak detection system installed, the location of all flowlines, the stockpiled topsoil location and its volume, and the road access to the nearest existing public road.

~~7.8.~~ Immediately upon the commencement of treatment operations, the operator shall notify the commission in writing of such date.

~~8.9.~~ The operator of a treating plant shall provide continuing surveillance and conduct such monitoring and sampling as the commission may require.

~~9.10.~~ Storage pits, waste pits, or other earthen storage areas shall be prohibited unless authorized by an appropriate regulatory agency. A copy of said authorization shall be filed with the commission.

~~10.11.~~ Burial of waste at any treating plant site shall be prohibited. All residual water and waste, fluid or solid, shall be disposed of in an authorized facility.

~~11.12.~~ The operator shall take steps to minimize the amount of residual waste generated and the amount of residual waste temporarily stored onsite. Solid waste shall not be stockpiled onsite unless authorized by an appropriate regulatory agency. A copy of said authorization shall be filed with the commission.

~~12.13.~~ If deemed necessary by the director, the operator shall cause to be analyzed any waste substance contained onsite. Such chemical analysis shall be performed by a certified laboratory and shall adequately determine if chemical constituents exist which would categorize the waste as hazardous by state department of health standards.

~~13.14.~~ Treating plants shall be constructed and operated so as not to endanger surface or subsurface water supplies or cause degradation to surrounding lands and shall comply with section 43-02-03-28 concerning fire hazards and proximity to occupied dwellings.

~~14.15.~~ The beginning of month inventory, the amount of waste received and the source of such waste, the volume of oil sold, the amount and disposition of water, the amount and disposition of residue waste, fluid or solid, and the end of month inventory for each treating plant shall be reported monthly on form 5p with the director on or before the first day of the second succeeding month, regardless of the status of operations.

~~15.16.~~ Records necessary to validate information submitted on form 5p shall be maintained in North Dakota.

~~16.17.~~ All proposed changes to any treating plant ~~are subject to~~ shall obtain prior approval by the commission director. ~~Updated schematics shall be furnished to the commission within thirty days following any changes to the treating plant.~~

~~17.18.~~ The operator shall comply with all applicable rules and orders of the commission. All rules in this chapter governing oil well sites shall also apply to any treating plant site.

19. The operator shall immediately cease operations if so ordered by the director for failure to comply with the statutes of North Dakota, or rules, orders, and directives of the commission.

History: Effective April 1, 2014; amended effective October 1, 2016; January 1, 2017.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-51.4. TREATING PLANT ABANDONMENT AND RECLAMATION REQUIREMENTS.

1. Notice of intention to abandon. The operator or the operator's agent shall file a notice of intention (form 4) to abandon and obtain the approval of the director, prior to the commencement of ~~abandonment~~ reclamation operations. ~~The notice shall state the name of the operator, the name and location of the treating plant, and a detailed account of proposed work. Within thirty days after the abandonment of any treating plant has been accomplished, the owner or operator thereof shall file a detailed account of the abandonment procedures on a sundry notice (form 4), and if requested, a copy of any job receipt setting forth in detail the method and operations used in abandoning the treating plant.~~
2. ~~After abandonment, the site must be reclaimed pursuant to section 43-02-03-34.1.~~

History: Effective April 1, 2014.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-53.3. SALTWATER HANDLING FACILITY CONSTRUCTION AND OPERATION REQUIREMENTS.

1. Bond requirement. Before construction of a saltwater handling facility begins, the operator shall file with the commission a surety bond or cash bond conditioned upon compliance with all laws, rules and regulations, and orders of the commission. The bond must be in the amount of fifty thousand dollars and must be payable to the industrial commission. The commission, after notice and hearing, may require a higher bond amount. Such additional amounts for bonds must be related to the economic value of the facility and the expected cost of decommissioning and site reclamation, as determined by the commission. The commission may refuse to accept a bond if the operator or surety company has failed in the past to comply with all laws, rules and regulations, and orders of the commission; if a civil or administrative action brought by

the commission is pending against the operator or surety company; or for other good cause.

2. Saltwater handling facility sites or appropriate parts thereof must be fenced if required by the director. All fences installed within or around any facility must be constructed in a manner that promotes emergency ingress and egress.
3. All waste, recovered solids, and fluids must be stored and handled in such a manner to prevent runoff or migration offsite.
4. Surface tanks may not be underground or partially buried, must be devoid of leaks, and constructed of, or lined with, materials resistant to the effects of produced saltwater liquids, brines, or chemicals that may be contained therein. The above materials requirement may be waived by the director for tanks presently in service and in good condition. Unused tanks and equipment must be removed from the site or placed into service, within a reasonable time period, not to exceed one year.
5. Dikes must be erected and maintained around saltwater tanks at any saltwater handling facility. Dikes must be erected around saltwater tanks at any new facility prior to introducing fluids. Dikes as well as the base material under the dikes and within the diked area must be constructed of sufficiently impermeable material to provide emergency containment. Dikes must be of sufficient dimension to contain the total capacity of the largest tank plus one day's fluid throughput. The required capacity of the dike may be lowered by the director if the necessity therefor can be demonstrated to the director's satisfaction. The operations of the saltwater handling facility must be conducted in such a manner as to prevent leaks, spills, and fires. Discharged liquids or brines must be properly removed and may not be allowed to remain standing within or outside of any diked areas. All such incidents must be properly cleaned up, subject to approval by the director. All such incidents must be promptly reported to the director and a detailed account of any such incident must be filed with the director in accordance with section 43-02-03-30.
6. Within one hundred eighty days from the date the operator is notified by the commission, a perimeter berm, at least six inches [15.24 centimeters] in height, must be constructed of sufficiently impermeable material to provide emergency containment around the facility and to divert surface drainage away from the site. The director may consider an extension of time to implement these requirements if conditions prevent timely construction or a modification of these requirements if other factors are present that provide sufficient protection from environmental impacts.
7. The operator shall take steps to minimize the amount of solids stored at the facility.
8. Within thirty days following construction or modification of a saltwater handling facility, a sundry notice (form 4) shall be submitted detailing such work and the dates commenced and completed. The sundry notice shall be accompanied by a schematic drawing of the saltwater handling facility site drawn to scale, detailing all facilities and equipment including the size, location, and purpose of all tanks, the height and

location of all dikes as well as a calculated containment volume, all areas underlain by a synthetic liner, any leak detection system installed, the location of all flowlines, the stockpiled topsoil location and its volume, and the road access to the nearest existing public road.

- ~~8-9.~~ Immediately upon the commissioning of the saltwater handling facility, the operator shall notify the commission in writing of such date.
- ~~9-10.~~ The operator of a saltwater handling facility shall provide continuing surveillance and conduct such monitoring and sampling as the commission may require.
- ~~10-11.~~ Storage pits, waste pits, or other earthen storage areas must be prohibited unless authorized by an appropriate regulatory agency. A copy of said authorization must be filed with the commission.
- ~~11-12.~~ Burial of waste at any saltwater handling facility site is prohibited. All residual water and waste, fluid or solid, must be disposed of in an authorized facility.
- ~~12-13.~~ If deemed necessary by the director, the operator shall cause to be analyzed any waste substance contained onsite. Such chemical analysis must be performed by a certified laboratory and must adequately determine if chemical constituents exist which would categorize the waste as hazardous by state department of health standards.
- ~~13-14.~~ Saltwater handling facilities must be constructed and operated so as not to endanger surface or subsurface water supplies or cause degradation to surrounding lands and must comply with section 43-02-03-28 concerning fire hazards and proximity to occupied dwellings.
- ~~14-15.~~ All proposed changes to any saltwater handling facility are subject to prior approval by the director.
- ~~15.~~ Upon completion of any saltwater handling facility modification, the operator shall file a report of the modification on a sundry notice (form 4) with the director within thirty days. The report must include details of the modification and include a schematic drawing of the saltwater handling facility site, drawn to scale, detailing all facilities and equipment, including the size, location, and purpose of all tanks, the height and location of all dikes as well as a calculated containment volume, and the location of all flow lines.
16. Any salable crude oil recovered from a saltwater handling facility must be reported on a form 5 SWD.
17. The operator shall comply with all laws, rules and regulations, and orders of the commission. All rules in this chapter governing oil well sites also apply to any saltwater handling facility site.

18. The operator shall immediately cease operations if so ordered by the director for the failure to comply with the statutes of North Dakota, or rules, orders, and directives of the commission.

History: Effective October 1, 2016; amended effective January 1, 2017.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-53.4. SALTWATER HANDLING FACILITY ABANDONMENT AND RECLAMATION REQUIREMENTS.

1. Notice of intention to abandon. The operator or the operator's agent shall file a notice of intention (form 4) to abandon and obtain the approval of the director, prior to the commencement of abandonment reclamation operations. ~~The notice must state the name of the operator, the name and location of the saltwater handling facility, and a detailed account of proposed work. Within thirty days after the abandonment of any saltwater handling facility has been accomplished, the owner or operator thereof shall file a detailed account of the abandonment procedures on a sundry notice (form 4), and if requested, a copy of any job record setting forth in detail the method and operations used in abandoning the saltwater handling facility.~~
- ~~2. After abandonment the site must be reclaimed pursuant to section 43-02-03-34.1.~~

History: Effective October 1, 2016.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-55. ABANDONMENT OF WELLS, TREATING PLANTS, OR SALTWATER HANDLING FACILITIES - SUSPENSION OF DRILLING.

1. The removal of production equipment or the failure to produce oil or gas, or the removal of production equipment or the failure to produce water from a source well, for one year constitutes abandonment of the well. The removal of injection equipment or the failure to use an injection well for one year constitutes abandonment of the well. The failure to plug a stratigraphic test hole within one year of reaching total depth constitutes abandonment of the well. The removal of treating plant equipment or the failure to use a treating plant for one year constitutes abandonment of the treating plant. The removal of saltwater handling facility equipment or the failure to use a saltwater handling facility for one year constitutes abandonment of the saltwater handling facility. An abandoned well must be plugged and its site must be reclaimed, an abandoned treating plant must be removed and its site must be reclaimed, and an abandoned saltwater handling facility must be removed and its site must be reclaimed, pursuant to sections 43-02-03-34 and 43-02-03-34.1. A well not producing oil or natural gas in paying quantities for one year

may be placed in abandoned-well status pursuant to subsection 1 of North Dakota Century Code section 38-08-04. If an injection well is inactive for extended periods of time, the commission may, after notice and hearing, require the injection well to be plugged and abandoned.

2. The director may waive for one year the requirement to plug and reclaim an abandoned well by giving the well temporarily abandoned status. This status may only be given to wells that are to be used for purposes related to the production of oil and gas. If a well is given temporarily abandoned status, the well's perforations must be isolated, the integrity of its casing must be proven, and its casing must be sealed at the surface, all in a manner approved by the director. The director may extend a well's temporarily abandoned status and each extension may be approved for up to one year. A fee of one hundred dollars shall be submitted for each application to extend the temporary abandonment status of any well. A surface owner may request a review of a well temporarily abandoned for at least seven years pursuant to subsection 1 of North Dakota Century Code section 38-08-04.
3. In addition to the waiver in subsection 2, the director may also waive the duty to plug and reclaim an abandoned well for any other good cause found by the director. If the director exercises this discretion, the director shall set a date or circumstance upon which the waiver expires.
4. The director may approve suspension of the drilling of a well. If suspension is approved, a plug must be placed at the top of the casing to prevent any foreign matter from getting into the well. When drilling has been suspended for thirty days, the well, unless otherwise authorized by the director, must be plugged and its site reclaimed pursuant to sections 43-02-03-34 and 43-02-03-34.1.

History: Amended effective April 30, 1981; January 1, 1983; May 1, 1990; May 1, 1992; August 1, 1999; January 1, 2008; April 1, 2010; April 1, 2012; April 1, 2014; October 1, 2016.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-88.1. SPECIAL PROCEDURES FOR INCREASED DENSITY WELLS, POOLING, FLARING EXEMPTION, UNDERGROUND INJECTION, COMMINGLING, CONVERTING MINERAL WELLS TO FRESHWATER WELLS, AND CENTRAL TANK BATTERY OR CENTRAL PRODUCTION FACILITIES APPLICATIONS.

1. Applications to amend field rules to allow additional wells on existing spacing units, for pooling under North Dakota Century Code section 38-08-08, for a flaring exemption under North Dakota Century Code section 38-08-06.4 and section 43-02-03-60.2, for underground injection under chapter 43-02-05, for commingling in one well bore the fluids from two or more pools under section 43-02-03-42, for converting a mineral well to a freshwater well under section 43-02-03-35, and for establishing central tank batteries or central production facilities under section

43-02-03-48.1, must be signed by the applicant or the applicant's representative. The application must contain or refer to attachments that contain all the information required by law as well as the information the applicant wants the commission to consider in deciding whether to grant the application. The application must designate an employee or representative of the applicant to whom the commission can direct inquiries regarding the application.

2. The commission shall give the county auditor notice at least fifteen days prior to the hearing of any application in which a request for a disposal under chapter 43-02-05 is received.
3. The applications referred to in subsection 1 will be advertised and scheduled for hearing as are all other applications received by the commission. The applicant, however, unless required by the director, need not appear at the hearing scheduled to consider the application, although additional evidence may be submitted prior to the hearing. Any interested party may appear at the hearing to oppose or comment on the application. Any interested party may also submit written comments on or objections to the application ~~no later than five p.m. on the last business day~~ prior to the hearing date. Such submissions must be received no later than five p.m. on the last business day prior to the hearing date and may be part of the record in the case if allowed by the hearing examiner.
4. The director is authorized, on behalf of the commission, to grant or deny the applications referred to in subsection 1.
5. In any proceeding under this section, the applicant, at the hearing, may supplement the record by offering testimony and exhibits in support of the application.
6. In the event the applicant is not required by the director to appear at the hearing and an interested party does appear to oppose the application or submits a written objection to the application, the hearing officer shall continue the hearing to a later date, keep the record open for the submission of additional evidence, or take any other action necessary to ensure that the applicant, who does not appear at the hearing as the result of subsection 3, is accorded due process.

History: Effective May 1, 1992; amended effective May 1, 1994; May 1, 2004; April 1, 2012; April 1, 2014.

General Authority
NDCC 38-08-04
38-08-11

Law Implemented
NDCC 38-08-04
38-08-08

**UNDERGROUND INJECTION CONTROL
CHAPTER 43-02-05**

43-02-05-06. CONSTRUCTION REQUIREMENTS.

1. All injection wells shall be cased and cemented to prevent movement of fluids into or between underground sources of drinking water or into an unauthorized zone. The casing and cement used in construction of each new injection well shall be designed for the life expectancy of the well. A well to be converted to a saltwater disposal well must have surface casing set and cemented at a point not less than fifty feet [15.24 meters] below the base of the Fox Hills formation. In determining and specifying casing and cementing requirements, all of the following factors shall be considered:
 - a. Depth to the injection zone.
 - b. Depth to the bottom of all underground sources of drinking water.
 - c. Estimated maximum and average injection pressures.
 - d. Fluid pressure.
 - e. Estimated fracture pressure.
 - f. Physical and chemical characteristics of the injection zone.
2. Appropriate logs and other tests shall be conducted during the drilling and construction of injection wells. Any well drilled or converted to an injection well shall have a log run from which the quality of the cement bond can be determined. Cement bond logs shall contain at least the following elements: a gamma ray curve; a casing collar locator curve; a transit time curve; an amplitude curve; and a variable density curve. A descriptive report interpreting the results of these logs and tests shall be prepared by a qualified log analyst and submitted to the commission if deemed necessary by the director.
3. All injection wells must be equipped with tubing and packer set at a depth approved by the director.
4. After an injection well has been completed, approval must be obtained on a sundry notice (form 4) from the director prior to any subsequent perforating.

5. Surface facilities shall be constructed pursuant to section 43-02-03-53, 43-02-03-53.1, 43-02-03-53.2, and 43-02-03-53.3.

History: Effective November 1, 1982; amended effective May 1, 1992; July 1, 1996; May 1, 2004; January 1, 2006.

General Authority
NDCC 38-08-04(2)

Law Implemented
NDCC 38-08-04(2)

43-02-05-09. OPERATING REQUIREMENTS PRESSURE LIMITATIONS. Injection pressure at the wellhead shall not exceed a maximum which shall be calculated so as to assure that the pressure in the injection zone during injection does not initiate new fracture or propagate existing fractures in the confining zone adjacent to the freshwater resource. In no case shall injection pressure initiate fractures in the confining zone or cause the movement of injection or formation fluids into an underground source of drinking water.

~~Annular injection of fluids is prohibited~~

History: Effective November 1, 1982; amended effective May 1, 1992.

General Authority
NDCC 38-08-04(2)

Law Implemented
NDCC 38-08-04(2)

43-02-05-12. REPORTING, AND MONITORING, AND OPERATING REQUIREMENTS.

1. The operator of an injection well shall meter or use an approved method to keep records and shall report monthly to the industrial commission, oil and gas division, the volume and nature, i.e., produced water, makeup water, etc., of the fluid injected, the injection pressure, and such other information as the commission may require. The operator of each injection well shall, on or before the fifth day of the second month succeeding the month in which the well is capable of injection, file with the director a sworn statement showing the amount of injection by the aforementioned information for each well upon forms furnished therefor form 16, 16a, 17, or 17a, or approved computer sheets. The operator shall retain all records required by the industrial commission for at least six years.
2. Immediately upon the commencement or recommencement of injection, the operator shall notify the oil and gas division of the injection date.
3. The operator shall place accurate gauges on the tubing and the tubing-casing annulus. Accurate gauges shall also be placed on any other annuluses deemed necessary by the director.

4. The operator of an injection well shall keep the well and injection system under continuing surveillance and conduct such monitoring and sampling as the commission may require. If injection into a saltwater disposal well is through a saltwater disposal injection pipeline where the pump and the wellhead are not located on the same site, prior to commencing operations the saltwater disposal injection pipeline shall be pressure tested. All existing saltwater disposal injection pipelines where the pump and the wellhead are not located on the same site are required to be pressure tested annually.
5. The operator of an injection well shall report any noncompliance with regulations or permit conditions to the director orally within twenty-four hours followed by a written explanation within five days. The operator shall cease injection operations if so directed by the director.
6. Within ten days after the discontinuance of injection operations, the operator shall notify the oil and gas division of the date of such discontinuance and the reason therefor.
7. Upon the completion or recompletion of an injection well or the completion of any remedial work or attempted remedial work such as plugging back, deepening, acidizing, shooting, formation fracturing, squeezing operations, setting liner, perforating, reperforating, tubing repairs, packer repairs, casing repairs, or other similar operations not specifically covered herein, a report on the operation shall be filed on a form 4 sundry notice with the director within thirty days. The report shall present a detailed account of all work done including the reason for the work, the date of such work, the shots per foot and size and depth of perforations, the quantity of sand, crude, chemical, or other materials employed in the operation, the size and type of tubing, the type and location of packer, the result of the packer pressure test, and any other pertinent information or operations which affect the status of the well and are not specifically covered herein.
8. Annular injection of fluids is prohibited.

History: Effective November 1, 1982; amended effective May 1, 1992; May 1, 1994; July 1, 1996; May 1, 2004.

General Authority
NDCC 38-08-04(2)

Law Implemented
NDCC 38-08-04(2)

ROYALTY STATEMENTS
CHAPTER 43-02-06

43-02-06-01. ROYALTY OWNER INFORMATION STATEMENT. Whenever payment is made for oil or gas production to an interest owner, whether pursuant to a division order, lease, servitude, or other agreement, all of the following information must be included on the check stub or on an attachment to the form of payment, unless the information is otherwise provided on a regular monthly basis:

1. The lease, property, or well name or any lease, property, or well identification number used to identify the lease, property, or well; provided, that if a lease, property, or well identification number is used the royalty owner must initially be provided with the lease, property, or well name to which the lease, property, or well name refers.
2. The month and year during which sales occurred for which payment is being made.
3. One hundred percent of the corrected volume of oil, regardless of ownership, which is sold measured in barrels, and one hundred percent of the volume of either wet or dry gas, regardless of ownership, which is sold or removed from the premises for the purpose of sale, or sale of its contents and residue, measured in thousand cubic feet.
4. Price.
 - a. Oil. ~~Weighted~~ Point of sale and weighted average price per barrel received by the producer for all oil sold during the period for which payment is made. The price would be the net price received by the producer after purchaser's deductions. The purchaser's deductions are to be explained pursuant to subsection 6.
 - b. Gas and natural gas liquids. ~~Weighted~~ Point of sale and weighted average price per thousand cubic feet [28.32 cubic meters] received by the producer for all gas sold during the period for which payment is made. Point of sale and weighted average price per gallon received by the producer for all natural gas liquids sold during the period for which payment is made. The price would be the net price received by the producer after purchaser's deductions. The purchaser's deductions are to be explained pursuant to subsection 6.
5. Total amount of state severance and other production taxes.
6. ~~Any other deductions or adjustments. Those not explained on the statement or in a separate mailing must be explained to the royalty owner upon inquiry to the disburser. The amount and purpose of each deduction or adjustment made, including transportation, processing, compression, utilities, and administrative costs.~~
7. Net value of total sales after deductions.

- 8. Gross and net mineral acres in the spacing unit.
- 8.9. Owner's interest in sales from the lease, property, or well expressed as a decimal.
- 9-10. Owner's share of the total value of sales prior to any tax deductions.
- ~~10-11.~~ Owner's share of sales value less deductions.
- ~~11-12.~~ An address where additional information may be obtained and any questions answered. If information is requested by certified mail, the answer must be mailed by certified mail within thirty days of receipt of the request.

History: Effective November 1, 1983; amended effective April 1, 1984; November 1, 1987; May 1, 1992.

General Authority
NDCC 38-08-06.3

Law Implemented
NDCC 38-08-06.3

CERTIFICATION OF HORIZONTAL SHALLOW GAS WELLS, HORIZONTAL REENTRY WELLS, AND TWO-YEAR INACTIVE WELLS

CHAPTER 43-02-11

<u>Section</u>	
43-02-11-01	Definitions..... IX-1
43-02-11-02	Application to Certify as Qualifying a Horizontal Well, Horizontal Reentry Well, or Two-Year Inactive Well for Taxable Events Occurring Through December 31, 2015 <u>[Repealed]</u> IX-1
43-02-11-02.1	Application to Certify as a Shallow Gas Well..... IX-1
43-02-11-03	Application for a Tax Exemption and Reduction for a New Well <u>[Repealed]</u> IX-2
43-02-11-04	Application for Tax Exemption and Reduction for a Horizontal Well <u>[Repealed]</u> IX-2
43-02-11-05	Application for Tax Exemption and Reduction for a Horizontal Reentry Well <u>[Repealed]</u> IX-2
43-02-11-06	Application for Tax Exemption and Reduction for a Two-Year Inactive Well <u>[Repealed]</u> IX-3
43-02-11-07	Books and Records to be Kept to Substantiate Reports..... IX-4
43-02-11-08	Application for Tax Exemption for a Shallow Gas Well..... IX-4

CERTIFICATION OF ~~HORIZONTAL SHALLOW GAS WELLS, HORIZONTAL REENTRY WELLS, AND TWO-YEAR INACTIVE WELLS~~
CHAPTER 43-02-11

43-02-11-01. DEFINITIONS. The terms used throughout this chapter have the same meaning as in chapter 43-02-03 and North Dakota Century Code chapter 38-08 except ~~horizontal reentry well, horizontal well, new well, shallow gas, and shallow gas zone, and two-year inactive well~~ shall be as defined under North Dakota Century Code chapter 57-51-1.

History: Effective July 1, 1996; amended effective July 1, 2002; May 1, 2004.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04
57-51-01, 57-51.1-03

43-02-11-02. APPLICATION TO CERTIFY AS QUALIFYING A HORIZONTAL WELL, HORIZONTAL REENTRY WELL, OR TWO-YEAR INACTIVE WELL FOR TAXABLE EVENTS OCCURRING THROUGH DECEMBER 31, 2015. ~~Any operator desiring to certify a horizontal, horizontal reentry, or two-year inactive well as a "qualifying well" for purposes of eligibility for the tax incentive provided in North Dakota Century Code chapter 57-51.1 shall submit to the director an application for certification of a qualifying well. The operator has the burden of establishing entitlement to certification and shall submit all data necessary to enable the commission to determine whether a well is a qualifying well and is entitled to the tax reduction and tax exemption provided in North Dakota Century Code sections 57-51.1-02 and 57-51.1-03 respectively. Repealed effective July 1, 2017.~~

~~History: Effective July 1, 1996; amended effective September 1, 2000; July 1, 2002; January 1, 2016.~~

~~General Authority
NDCC 38-08-04~~

~~Law Implemented
NDCC 38-08-04
57-51.1-03~~

43-02-11-04. APPLICATION FOR TAX EXEMPTION AND REDUCTION FOR A HORIZONTAL WELL. ~~The application must include the following: Repealed effective July 1, 2017.~~

~~1. The name and address of the applicant and the name and address of the person operating the well, if different.~~

~~2. The name and number of the well, and the legal description of the surface location of the well for which a determination is requested.~~

~~3. The date the well was spudded, its completion date, and the volume of oil produced prior to completion, if any.~~

~~4. The length of the horizontal leg of the well bore within the productive formation and its inclination.~~

~~5. An affidavit stating that all working interest owners of the property and all purchasers of the crude oil produced from the well have been notified of the application by certified or registered mail.~~

~~Test oil produced from a horizontal well prior to completion is exempted from the extraction tax. If the application does not contain sufficient information to make a determination, the director may require the applicant to submit additional information.~~

~~History: Effective July 1, 1996.~~

~~General Authority
NDCC 38-08-04~~

~~Law Implemented
NDCC 38-08-04
57-51.1-03~~

43-02-11-05. APPLICATION FOR TAX EXEMPTION AND REDUCTION FOR A HORIZONTAL REENTRY WELL. ~~The application must include the following: Repealed effective July 1, 2017.~~

- ~~1. The name and address of the applicant and the name and address of the person operating the well, if different.~~
- ~~2. The name and number of the well, and the legal description of the surface location of the well for which a determination is requested.~~
- ~~3. The dates the well was initially spudded and completed as a vertical well, the dates the well was reentered and recompleted as a horizontal well, the total volume of test oil recovered prior to recompletion, and, if applicable, the date the well was initially plugged and abandoned as a dry hole.~~
- ~~4. The length of the horizontal leg of the well bore within the productive formation, and its inclination.~~
- ~~5. The total volume of test oil recovered prior to completion.~~
- ~~6. An affidavit stating that all working interest owners of the property, and all purchasers of the crude oil produced from the well have been notified of the application by certified or registered mail.~~

~~Test oil from a horizontal reentry well is exempt from the extraction tax. If the application does not contain sufficient information to make a determination, the director may require the applicant to submit additional information.~~

~~History: Effective July 1, 1996.~~

~~General Authority
NDCC 38-08-04~~

~~Law Implemented
NDCC 38-08-04
57-51.1-03~~

43-02-11-06. APPLICATION FOR TAX EXEMPTION AND REDUCTION FOR A TWO-YEAR INACTIVE WELL. ~~The application must include the following: Repealed effective July 1, 2017.~~

- ~~1. The name and address of the applicant and the name and address of the person operating the well, if different.~~
- ~~2. The name and number of the well and the legal description of the location of the well for which a determination is requested.~~
- ~~3. Monthly production during the two years prior to date of application.~~
- ~~4. An affidavit stating that all working interest owners of the property and all purchasers of the crude oil produced from the property have been notified of the application by certified or registered mail.~~

~~Test oil produced from a two-year inactive well prior to recompletion is exempted from the extraction tax. If the application does not contain sufficient information to make a determination, the director may require the applicant to submit additional information.~~

~~History: Effective July 1, 1996; amended effective September 1, 2000.~~

~~General Authority
NDCC 38-08-04~~

~~Law Implemented
NDCC 38-08-04
57-51.1-03~~

43-02-11-07. BOOKS AND RECORDS TO BE KEPT TO SUBSTANTIATE REPORTS. Any operator desiring to certify a new, ~~horizontal, horizontal reentry, or two-year inactive shallow gas~~ well shall make and keep appropriate books and records for a period of not less than six years, covering their operations in North Dakota from which they may be able to make and substantiate the reports required by this chapter.

~~History: Effective September 1, 2000.~~

~~General Authority
Page 38 of 44~~

~~Law Implemented
8-22-2017~~

43-02-11-08. APPLICATION FOR TAX EXEMPTION FOR A SHALLOW GAS WELL. The application must include the following:

1. The name and address of the applicant and the name and address of the person operating the well, if different.
2. The name and number of the well and the legal description of the surface location of the well for which a determination is requested.
3. The date the well was spudded and its completion date.
4. The name and the depth to the bottom of the productive strata or formation.
5. ~~An affidavit stating that all working interest owners of the property and all purchasers of the gas produced from the well have been notified of the application by certified or registered mail.~~

If the application does not contain sufficient information to make a determination, the director may require the applicant to submit additional information.

History: Effective May 1, 2004.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04
~~57-51.1-03~~ 57-51-01

CHAPTER 43-05-01
GEOLOGIC STORAGE OF CARBON DIOXIDE

43-05-01-19. POSTINJECTION SITE CARE AND FACILITY CLOSURE. The storage operator shall submit and maintain the postinjection site care and facility closure plan as a part of the storage facility permit application to be approved by the commission. The requirement to maintain and implement a commission-approved plan is directly enforceable regardless of whether the requirement is a condition of the permit.

1. The postinjection site care and facility closure plan must include the following information:
 - a. The pressure differential between preinjection and predicted postinjection pressures in the injection zone;
 - b. The predicted position of the carbon dioxide plume and associated pressure front at cessation of injection as demonstrated in the area of review evaluation;
 - c. A description of postinjection monitoring location, methods, and proposed frequency;
 - d. A schedule for submitting postinjection site care monitoring results to the commission; and
 - e. The duration of the postinjection site care monitoring timeframe that ensures nonendangerment of underground sources of drinking water.
2. The storage operator shall specify in the postinjection site care and facility closure plan which wells will be plugged and which will remain unplugged to be used as subsurface observation wells. Subsurface observation and ground water monitoring wells as approved in the plan must remain in place for continued monitoring during the closure and postclosure periods.
3. Upon cessation of injection, the storage operator shall either submit an amended postinjection site care and facility closure plan or demonstrate to the commission through monitoring data and modeling results that no amendment to the plan is needed. Any amendments to the postinjection site care and facility closure plan are subject to the commission's approval and must be incorporated into the storage facility permit.
4. At any time during the life of the geologic sequestration project, the storage operator may modify and resubmit the postinjection site care and facility closure plan for the commission's approval within thirty days of such change.
5. Upon cessation of injection, all wells not associated with monitoring must be properly plugged and abandoned in a manner which will not allow movement of

injection or formation fluids that endanger underground sources of drinking water in accordance with section 43-05-01-11.5. All storage facility equipment, appurtenances, and structures not associated with monitoring must be removed. Following well plugging and removal of all surface equipment, the surface must be reclaimed to the commission's specifications that will, in general, return the land as closely as practicable to original condition pursuant to North Dakota Century Code section 38-08-04.12.

6. The well casing must be cut off at a depth of five feet [1.52 meters] below the surface and a steel plate welded on top identifying the well name and that it was used for carbon dioxide storage.
7. The commission shall develop in conjunction with the storage operator a continuing monitoring plan for the postclosure period, including a review and final approval of wells to be plugged.
8. The storage operator shall continue to conduct monitoring during the closure period as specified in the commission-approved postinjection site care and facility closure plan. The storage operator may apply for project completion with an alternative postinjection site care monitoring timeframe pursuant to North Dakota Century Code section 38-22-17. Once it is demonstrated that underground sources of drinking water are no longer endangered, the final assessment under subsection 9 is complete, and upon full compliance with North Dakota Century Code section 38-22-17, the storage operator may apply to the commission for a certificate of project completion. If the storage operator is unable to meet the requirements of North Dakota Century Code section 38-22-17 and is unable to demonstrate that underground sources of drinking water are no longer being endangered, the storage operator shall continue monitoring the storage facility for fifty years or until full compliance is met and such demonstration can be made.
9. Before project completion, the storage operator shall provide a final assessment of the stored carbon dioxide's location, characteristics, and its future movement and location within the storage reservoir. The storage operator shall submit the final assessment to the commission within ninety days of completing all postinjection site care and facility closure requirements.
 - a. The final assessment must include:
 - (1) The results of computational modeling performed pursuant to delineation of the area of review under section 43-05-01-05.1;
 - (2) The predicted timeframe for pressure decline within the injection zone, and any other zones, such that formation fluids may not be forced into any underground sources of drinking water or the timeframe for pressure decline to preinjection pressures;

- (3) The predicted rate of carbon dioxide plume migration within the injection zone and the predicted timeframe for the cessation of migration;
- (4) A description of the site-specific processes that will result in carbon dioxide trapping, including immobilization by capillary trapping, dissolution, and mineralization at the site;
- (5) The predicted rate of carbon dioxide trapping in the immobile capillary phase, dissolved phase, or mineral phase;
- (6) The results of laboratory analyses, research studies, or field or site-specific studies to verify the information required in paragraphs 4 and 5;
- (7) A characterization of the confining zone, including a demonstration that it is free of transmissive faults, fractures, and microfractures, and an evaluation of thickness, permeability, and integrity to impede fluid (e.g., carbon dioxide, formation fluids) movement;
- (8) Any other projects in proximity to the predictive modeling of the final extent of the carbon dioxide plume and area of elevated pressures. The presence of potential conduits for fluid movement, including planned injection wells and project monitoring wells associated with the proposed geologic sequestration project;
- (9) A description of the well construction and an assessment of the quality of plugs of all abandoned wells within the area of review;
- (10) The distance between the injection zone and the nearest underground source of drinking water above and below the injection zone;
- (11) An assessment of the operations conducted during the operational period, including the volumes injected, volumes extracted, all chemical analyses conducted, and a summary of all monitoring efforts. The report must also document the stored carbon dioxide's location and characteristics and predict how it might move during the postclosure period;
- (12) An assessment of the funds in the carbon dioxide storage facility trust fund to ensure that sufficient funds are available to carry out the required activities on the date on which they may occur, taking into account project-specific risk assessments, projected timing of activities (e.g., postinjection site care), and interest accumulation in the trust fund; and
- (13) Any additional site-specific factors required by the commission.

- b. Information submitted to support the demonstration in subdivision a must meet the following criteria:

- (1) All analyses and tests for the final assessment must be accurate, reproducible, and performed in accordance with the established quality assurance standards. An approved quality assurance and quality control plan must address all aspects of the final assessment;
 - (2) Estimation techniques must be appropriate and test protocols certified by the United States environmental protection agency must be used where available;
 - (3) Predictive models must be appropriate and tailored to the site conditions, composition of the carbon dioxide stream, and injection and site conditions over the life of the geologic sequestration project;
 - (4) Predictive models must be calibrated using existing information when sufficient data are available;
 - (5) Reasonably conservative values and modeling assumptions must be used and disclosed to the commission whenever values are estimated on the basis of known, historical information instead of site-specific measurements;
 - (6) An analysis must be performed to identify and assess aspects of the postinjection monitoring timeframe demonstration that contribute significantly to uncertainty. The storage operator shall conduct sensitivity analyses to determine the effect that significant uncertainty may contribute to the modeling demonstration; and
 - (7) Any additional criteria required by the commission.
10. The storage operator shall provide a copy of an accurate plat certified by a registered surveyor which has been submitted to the county recorder's office designated by the commission. The plat must indicate the location of the injection well relative to permanently surveyed benchmarks. The storage operator must also submit a copy of the plat to the United States environmental protection agency regional administrator office.
 11. The storage operator shall record a notation on the deed to the property on which the injection well was located, or any other document that is normally examined during title search, that will in perpetuity provide any potential purchaser of the property the following information:
 - a. The fact that land has been used to sequester carbon dioxide;
 - b. The name of the state agency, local authority, or tribe with which the survey plat was filed, as well as the address of the United States environmental protection agency regional office to which it was submitted; and

- c. The volume of fluid injected, the injection zone or zones into which it was injected, and the period over which injection occurred.

History: Effective April 1, 2010; amended effective April 1, 2013.

General Authority
NDCC 28-32-02

Law Implemented
NDCC 38-22