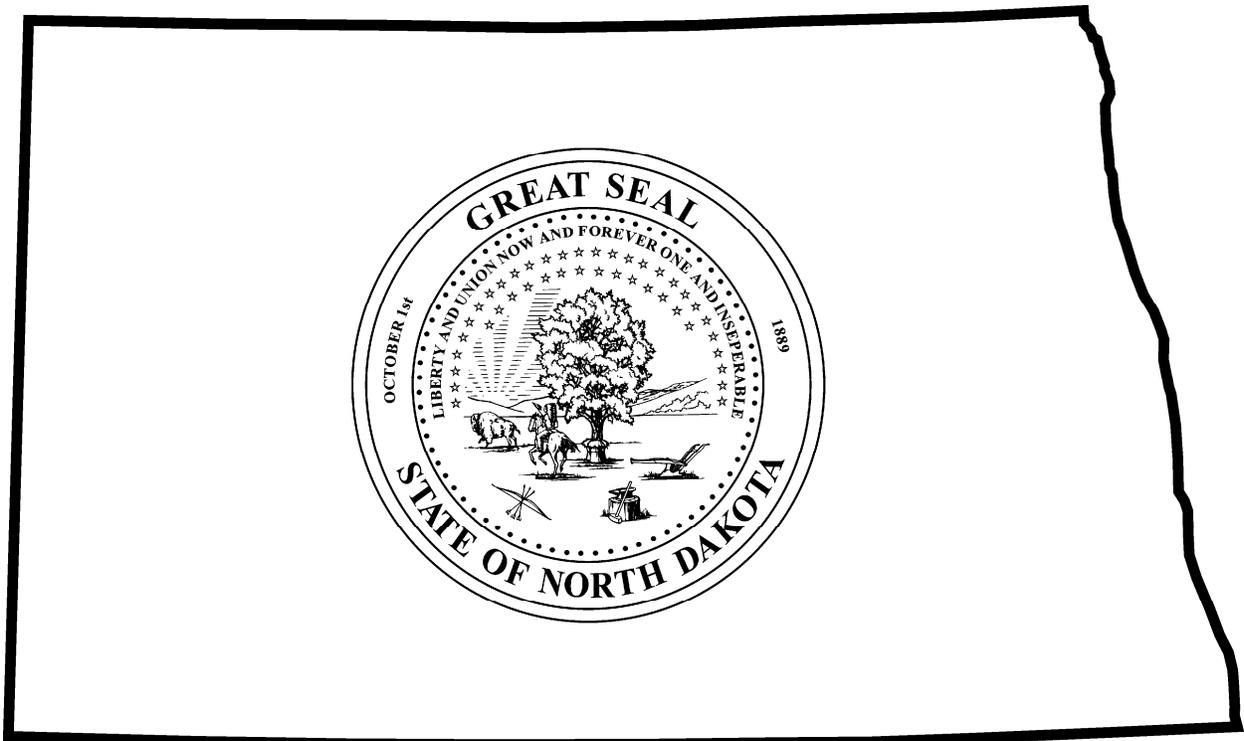


Statutes and Rules for the Conservation of Oil and Gas

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North Dakota Industrial Commission

REVISED EFFECTIVE APRIL 1, 2010

**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:

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.
16. "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.
30. "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. "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.
44. "Saltwater handling facility" means and includes any container such as a pit, tank, or pool, whether covered or uncovered, used for the handling, storage, disposal of deleterious substances obtained, or used, in connection with the drilling or operation of wells.
48. "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.
49. "Treating plant" means any plant permanently constructed or portable used for the purpose of wholly or partially reclaiming, treating, processing, or in any manner making tank bottoms or any other waste oils marketable.

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

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

B. MISCELLANEOUS RULES

43-02-03-02. SCOPE OF CHAPTER. This chapter contains general rules of statewide application which have been adopted by the industrial commission to conserve the natural resources of North Dakota, to prevent waste, and to provide for operation in a manner as to protect correlative rights of all owners of crude oil and natural gas. Special rules, pool rules, field rules, and regulations and orders have been and will be issued when required and shall prevail as against general rules, regulations, and orders if in conflict therewith. However, wherever this chapter does not conflict with special rules heretofore or hereafter adopted, this chapter will apply in each case. The commission may grant exceptions to this chapter, after due notice and hearing, when such exceptions will result in the prevention of waste and operate in a manner to protect correlative rights.

History: Amended effective May 1, 1992.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

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 to obtain information pertaining to the regulation of oil and gas before operations have begun.

The director may 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.

History: Amended effective May 1, 2004.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-07. UNITED STATES GOVERNMENT LEASES. The commission recognizes that all persons drilling and producing on United States government land shall comply with the United States government regulations. Such persons shall also comply with all applicable state rules and regulations. Copies of the sundry notices, reports on wells, and well data required by this chapter of the wells on United States government land shall be furnished to the commission at no expense to the commission. Federal forms may be used when filing such notices and reports except for reporting the plugging and abandonment of a well. In such instance, the plugging record (form 7) must be filed with the commission.

History: Amended effective April 30, 1981; January 1, 1983; May 1, 1994.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-10. AUTHORITY TO COOPERATE WITH OTHER AGENCIES. The commission may from time to time enter into arrangements with state and federal government agencies, industry committees, and individuals with respect to special projects, services, and studies relating to conservation of oil and gas.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-14. ACCESS TO RECORDS. The commission, director, and their representatives shall have access to all well records wherever located. All owners, operators, drilling contractors, drillers, service companies, or other persons engaged in drilling, completing, producing, or servicing wells shall permit the commission, director, and their representatives to come upon any lease, property, well, or drilling rig operated or controlled by them, complying with state safety rules and to inspect the records and operation of such wells, and to have access at all times to any and all records of wells. If requested, copies of such records must be filed with the commission. The confidentiality of any data submitted which is confidential pursuant to subsection 6 of North Dakota Century Code section 38-08-04 and section 43-02-03-31 must be maintained.

History: Amended effective April 30, 1981; January 1, 1983; May 1, 1992; May 1, 1994.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

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, or injection 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 twenty 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. A blanket bond covering ten wells or less shall be in the amount of fifty thousand dollars provided the bond shall be limited to no more than three of the following in aggregate and a blanket bond covering more than ten wells 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 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 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. 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.
7. 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.
8. 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.

43-02-03-16. APPLICATION FOR PERMIT TO DRILL AND RECOMPLETE.

Before any person shall begin any well-site preparation for the drilling of any well other than surveying and staking, such person shall file an application for permit to drill (form 1) with the director, together with a permit fee of one hundred dollars. Verbal approval may be given for site preparation by the director in extenuating circumstances. No drilling activity shall commence until such application is approved and a permit to drill is issued by the director. The application must be accompanied by the bond pursuant to section 43-02-03-15 or the applicant must have previously filed such bond with the commission, otherwise the application is incomplete. An incomplete application received by the commission has no standing and will not be deemed filed until it is completed.

The application for permit to drill shall be accompanied by an accurate plat certified by a registered surveyor showing the location of the proposed well with reference to the nearest lines of a governmental section. The plat shall also include latitude and longitude of the proposed well location to the nearest tenth of a second. Information to be included in such application shall be the proposed depth to which the well will be drilled, estimated depth to the top of important markers, estimated depth to the top of objective horizons, the proposed mud program, the proposed casing program, including size and weight thereof, the depth at which each casing string is to be set, the proposed pad layout, including cut and fill diagrams, and the proposed amount of cement to be used, including the estimated top of cement.

Prior to the commencement of recompletion operations or drilling horizontally in the existing pool, an application for permit shall be filed with the director. Included in such application shall be the notice of intention (form 4) to reenter a well by drilling horizontally, deepening, or plugging back to any source of supply other than the producing horizon in an existing well. Such notice shall include the name and file number and exact location of the well, the approximate date operations will begin, the proposed procedure, the estimated completed total depth, the casing program to be followed, and the original total depth with a permit fee of fifty dollars.

The applicant shall provide all information, in addition to that specifically required by this section, if requested by the director. The director may impose such terms and conditions on the permits issued under this section as the director deems necessary.

The director shall deny an application for a permit under this section if the proposal would cause, or tend to cause, waste or violate correlative rights. The director of oil and gas shall state in writing to the applicant the reason for the denial of the permit. The applicant may appeal the decision of the director to the commission.

A permit to drill automatically expires one year after the date it was issued, unless the well is drilling or has been drilled below surface casing. A permit to recomplete or to drill

horizontally automatically expires one year after the date it was issued, unless such project has commenced.

History: Amended effective April 30, 1981; January 1, 1983; May 1, 1992; May 1, 1994; September 1, 2000; July 1, 2002; April 1, 2010.

General Authority
NDCC 38-08-05

Law Implemented
NDCC 38-08-05

43-02-03-16.1. DESIGNATION AND RESPONSIBILITIES OF OPERATOR. The principal on the bond covering a well is the operator of the well. **The operator is responsible for compliance with all laws relating to the well and well site.** A dispute over designation of the operator of a well may be addressed by the commission. In doing so, the factors the commission may consider include those set forth in subsection 1 of section 43-02-03-16.2.

History: Effective December 1, 1996.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-19. RESERVE PIT FOR DRILLING MUD AND DRILL CUTTINGS - RECLAMATION OF SURFACE. In the construction of a drill site, access road, and all associated facilities, the topsoil shall be removed, stockpiled, and stabilized or otherwise reserved for use when the area is reclaimed. "Topsoil" means the suitable plant growth material on the surface; however, in no event shall this be deemed to be more than the top eight inches [20.32 centimeters] of soil.

When necessary to prevent pollution of the land surface and freshwaters, the director may require the drill site to be sloped and diked, to divert surface drainage.

In order to assure a supply of proper material or mud-laden fluid to confine oil, gas, or water to its native strata during the drilling of any well, each operator shall provide, before drilling is commenced, a container or reserve pit of sufficient size to contain said material or fluid, and the accumulation of drill cuttings. A reserve pit may be utilized to contain solids and fluids used and generated during well drilling and completion operations, providing the pit can be constructed, used and reclaimed in a manner that will prevent pollution of the land surface and freshwaters. In special circumstances, the director may prohibit construction of a reserve pit or may impose more stringent pit construction and reclamation requirements. Under no circumstances shall reserve pits be used for disposal, dumping, or storage of fluids, wastes, and debris other than drill cuttings and fluids used or recovered while drilling and completing the well.

Reserve pits shall not be located in, or hazardously near, bodies of water, nor shall they block natural drainages. No reserve pit shall be wholly or partially constructed in fill dirt unless approved by the director.

When required by the director, the reserve pit or site or appropriate parts thereof must be fenced.

1. Within a reasonable time, but not more than one year, after the completion of a well, the reserve pit shall be reclaimed. Prior to reclaiming the pit, the operator or the operator's agent shall file a sundry notice (form 4) with the director and obtain approval of a pit reclamation plan. Verbal approval to reclaim the pit may be given. The notice shall include, but not be limited to:
 - a. The name and address of the reclamation contractor;
 - b. The name and address of the surface owner;
 - c. The location and name of the disposal site for the pit water; and,
 - d. A description of the proposed work, including details on treatment and disposition of the drilling waste.

All pit water and oil on the pit must be removed prior to reclamation. Drilling waste should be encapsulated in the pit and covered with at least four feet [1.22 meters] of backfill and topsoil and surface sloped, when practicable, to promote surface drainage away from the reclaimed pit area.

2. Within a reasonable time, but not more than one year, after a well is plugged, the well site, access road, and other associated facilities constructed for the well shall be reclaimed as closely as practicable to original condition, or in the case of a completed well, the unused portion of the site shall be reclaimed. 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, but not be limited to:
 - 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 production equipment, waste and debris shall be removed from the site. Flow lines shall be purged in a manner approved by the director. Flow lines shall be removed if buried less than three feet [91.44 centimeters] below final contour.

3. Gravel or other surfacing material shall be removed and the well site, access road, and other associated facilities constructed for the well shall be reshaped as near as is practicable to original contour.
4. 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.
5. Within thirty days after completing any reclamation, the operator shall file a sundry notice with the director reporting the work performed.
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.

History: Amended effective March 1, 1982; January 1, 1983; May 1, 1992; July 1, 2002; January 1, 2008; April 1, 2010.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-19.2. DISPOSAL OF WASTE. All waste associated with exploration or production of oil and gas must be properly disposed of in an authorized facility in accord with all applicable local, state, and federal laws and regulations.

This is not to be construed as requiring the offsite disposal of drilling mud or drill cuttings associated with the drilling of a well. However, top water remaining in the reserve pit used in the drilling and completion operations is to be removed from the reserve pit and disposed of in an authorized disposal well or used in a manner approved by the director. The disposition or use of the water must be included on the sundry notice (form 4) reporting the plan of reclamation pursuant to section 43-02-03-19.

History: Effective May 1, 1992; amended effective May 1, 1994; September 1, 2000.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-19.3 EARTHEN PITS AND OPEN RECEPTACLES. Except as otherwise provided in section 43-02-03-19, no saltwater, drilling mud, crude oil, waste oil, or other waste shall be stored in earthen pits or open receptacles except in an emergency and upon approval by the director.

An earthen pit or open receptacle may be temporarily used to retain oil, water, or fluids generated in well servicing or plugging operations. A pit or receptacle used for this purpose must be sufficiently impermeable to provide adequate temporary containment of the oil, water, or fluids. The contents of the pit or receptacle must be removed within seventy-two hours after operations have ceased and must be disposed of at an authorized facility in accordance with section 43-02-03-19.2.

The director may permit pits or receptacles used solely for the purpose of flaring casinghead gas. A pit or receptacle used for this purpose must be sufficiently impermeable to provide adequate temporary containment of fluids. Permission for such pit or receptacle will be conditioned on keeping it free of any saltwater, crude oil, waste oil, or other waste. Saltwater, drilling mud, crude oil, waste oil, or other waste shall be removed from the pit or receptacle within twenty-four hours after being discovered and must be disposed of at an authorized facility in accordance with section 43-02-03-19.2.

History: Effective September 1, 2000; April 1, 2010.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-20. SEALING OFF STRATA. During the drilling of any oil or natural gas well, all oil, gas, and water strata above the producing horizon shall be sealed or separated where necessary in order to prevent their contents from passing into other strata.

All freshwaters and waters of present or probable value for domestic, commercial, or stock purposes shall be confined to their respective strata and shall be adequately protected by methods approved by the commission. Special precautions shall be taken in drilling and plugging wells to guard against any loss of artesian water from the strata in which it occurs and the contamination of artesian water by objectionable water, oil, or gas.

All water shall be shut off and excluded from the various oil-bearing and gas-bearing strata which are penetrated. Water shutoffs shall ordinarily be made by cementing casing or landing casing with or without the use of mud-laden fluid.

History: Amended effective May 1, 1992.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-21. CASING, TUBING, AND CEMENTING REQUIREMENTS. All wells drilled for oil, natural gas or injection shall be completed with strings of casing which shall be properly cemented at sufficient depths to adequately protect and isolate all formations containing water, oil or gas or any combination of these; protect the pipe through salt sections encountered; and isolate the uppermost sand of the Dakota group.

Drilling of the surface hole shall be with freshwater-based drilling mud or other method approved by the director which will protect all freshwater-bearing strata. The surface casing shall consist of new or reconditioned pipe that has been previously tested to one thousand pounds per square inch [6900 kilopascals]. The surface casing shall be set and cemented at a point not less than fifty feet [15.24 meters] below the base of the Fox Hills formation. Sufficient cement shall be used on surface casing to fill the annular space behind the casing to the bottom of the cellar, if any, or to the surface of the ground. All strings of surface casing shall stand cemented under pressure for at least twelve hours before drilling the plug or initiating tests. The term "under pressure" as used herein shall be complied with if one float valve is used or if pressure is otherwise held. Cementing shall be by the pump and plug method or other methods approved by the director. The director is authorized to require an accurate gauge be maintained on the surface casing of any well,

not properly plugged and abandoned, to detect any buildup of pressure caused by the migration of fluids.

Surface casing strings must be allowed to stand under pressure until the tail cement has reached a compressive strength of at least five hundred pounds per square inch [3450 kilopascals]. All filler cements utilized must reach a compressive strength of at least two hundred fifty pounds per square inch [1725 kilopascals] within twenty-four hours and at least three hundred fifty pounds per square inch [2415 kilopascals] within seventy-two hours. All compressive strengths on surface casing cement shall be calculated at a temperature of eighty degrees Fahrenheit [26.67 degrees Celsius].

Production or intermediate casing strings shall consist of new or reconditioned pipe that has been previously tested to two thousand pounds per square inch [13800 kilopascals]. Such strings must be allowed to stand under pressure until the tail cement has reached a compressive strength of at least five hundred pounds per square inch [3450 kilopascals]. All filler cements utilized must reach a compressive strength of at least two hundred fifty pounds per square inch [1725 kilopascals] within twenty-four hours and at least five hundred pounds per square inch [3450 kilopascals] within seventy-two hours, although in any horizontal well performing a single stage cement job from a measured depth of greater than thirteen thousand feet [3962.4 meters], the filler cement utilized must reach a compressive strength of at least two hundred fifty pounds per square inch [1725 kilopascals] within forty-eight hours and at least five hundred pounds per square inch [3450 kilopascals] within ninety-six hours. All compressive strengths on production or intermediate casing cement shall be calculated at a temperature found in the Mowry formation using a gradient of 1.2 degrees Fahrenheit per one hundred feet [30.48 meters] of depth plus eighty degrees Fahrenheit [26.67 degrees Celsius]. After cementing, the casing shall be tested by application of pump pressure of at least one thousand five hundred pounds per square inch [10350 kilopascals]. If, at the end of thirty minutes, this pressure has dropped one hundred fifty pounds per square inch [1035 kilopascals] or more, the casing shall be repaired. Thereafter, the casing shall again be tested in the same manner. Further work shall not proceed until a satisfactory test has been obtained.

The casing in a horizontal well may be tested by use of a mechanical tool set near the casing shoe after the horizontal section has been drilled.

All flowing wells must be equipped with tubing. A tubing packer must also be utilized unless a waiver is obtained after demonstrating the casing will not be subjected to excessive pressure or corrosion. The packer must be set as near the producing interval as practicable, but in all cases must be above the perforations.

History: Amended effective April 30, 1981; January 1, 1983; May 1, 1992; July 1, 1996; January 1, 1997; September 1, 2000; July 1, 2002; May 1, 2004; January 1, 2006; April 1, 2010.

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 report the 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 pressure test 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

43-02-03-23. BLOWOUT PREVENTION. In all drilling operations, proper and necessary precautions shall be taken for keeping the well under control, including the use of a blowout preventer and high pressure fittings attached to properly cemented casing strings adequate to withstand anticipated pressures. During the course of drilling, the pipe rams shall be functionally operated at least once every twenty-four-hour period. The blind rams shall be functionally operated each trip out of the well bore. The blowout preventer shall be pressure tested at installation on the wellhead, after modification of any equipment, and every thirty days thereafter. The director may postpone such pressure test if the necessity therefor can be demonstrated to the director's satisfaction. All tests shall be noted in the driller's record.

History: Amended effective January 1, 1983; September 1, 2000; July 1, 2002.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-24. PULLING STRING OF CASING. In pulling strings of casing from any oil, gas, or injection well, the space above the casing stub shall be kept and left full of fluid with adequate gel strength and specific gravity, cement, or combination thereof, to seal off all freshwater and saltwater strata and any strata bearing oil or gas not producing. No casing shall be removed without the prior approval of the director.

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

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-27. PERFORATING, FRACTURING, AND CHEMICALLY TREATING WELLS. The director may prescribe pretreatment casing pressure testing as well as other operational requirements designed to protect wellhead and casing strings during treatment operations. If damage results to the casing or the casing seat from perforating, fracturing, or chemically treating a well, the operator shall immediately notify the director and proceed with

diligence to use the appropriate method and means for rectifying such damage, pursuant to section 43-02-03-22. If perforating, fracturing, or chemical treating results in irreparable damage which threatens the mechanical integrity of the well, the commission may require the operator to plug the well.

History: Amended effective January 1, 1983; May 1, 1992; April 1, 2010.

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, portable electric lighting generator, 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 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 equipment to eliminate a fire hazard.

No well shall be drilled nor production equipment installed less than five hundred feet [152.40 meters] from an occupied dwelling unless agreed to in writing by the surface owner 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.

History: Amended effective January 1, 1983; May 1, 1990; September 1, 2000; January 1, 2006; January 1, 2008.

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, or production facility into which oil, gas, or water is produced, received, stored, processed, or through which oil, gas, or water is injected, piped, or transported, shall verbally notify the director within twenty-four hours after discovery of any fire, leak, spill, blowout, or release of fluid. 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, spill, or release of fluid that is less than one barrel total volume and remains onsite of a facility. The verbal 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, cause of the accident, and action taken to prevent reoccurrence. 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.

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. 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.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-34. METHOD OF PLUGGING. All wells shall be plugged in a manner which will confine permanently all oil, gas, and water in the separate strata originally containing them. This operation shall be accomplished by the use of mud-laden fluid, cement, and plugs, used singly or in combination as may be approved by the director. All casing strings shall be cut off at least three feet [91.44 centimeters] below the final surface contour, and a cap shall be welded thereon. Core or stratigraphic test holes drilled to or below sands containing freshwater shall be plugged in accordance with the applicable provisions recited above. After plugging, the site must be reclaimed pursuant to section 43-02-03-19.

History: Amended effective April 30, 1981; January 1, 1983; May 1, 1990; May 1, 1992; July 1, 2002.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-35. CONVERSION OF MINERAL WELLS TO FRESHWATER WELLS.

Any person desiring to convert a mineral well to a freshwater well, as provided by North Dakota Century Code section 61-01-27, shall file an application for approval with the commission. The application must include, but is not limited to, the following:

1. If the well is to be used for other than individual domestic and livestock use, a conditional water permit issued by the state water commission.
2. An affidavit by the person desiring to obtain approval for the conversion stating that such person has the authority and assumes all liability for the use and plugging of the proposed freshwater well.
3. The procedure which will be followed in converting the mineral well to a freshwater well.
4. If the well is not currently plugged and abandoned, an affidavit must be executed by the operator of the well indicating that the parties responsible for plugging the mineral well have no objection to the conversion of the mineral well to a freshwater well.

If the commission, after notice and hearing, determines that a mineral well may safely be used as a freshwater well, the commission may approve the conversion.

History: Amended effective April 30, 1981; January 1, 1983; September 1, 1987; July 1, 2002.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-36. LIABILITY. The owner and operator of any well, core hole, or stratigraphic test hole, whether cased or uncased, shall be liable and responsible for the plugging and site reclamation thereof in accordance with the rules and regulations of the commission.

History: Amended effective January 1, 1983; May 1, 1994.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

E. OIL PRODUCTION OPERATING PRACTICES

43-02-03-45. VENTED CASINGHEAD GAS. Pending arrangements for disposition for some useful purpose, all vented casinghead gas shall be burned. Each flare shall be equipped with an automatic ignitor or a continuous burning pilot, unless waived by the director for good reason. The estimated volume of gas used and flared shall be reported to the director on a gas production report (form 5b) on or before the fifth day of the second month succeeding that in which gas is produced.

History: Amended effective April 30, 1981; January 1, 1983; May 1, 1990; May 1, 1992; September 1, 2000.

General Authority

Law Implemented

43-02-03-49. OIL SPILLS, 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 in good condition. Unusable tanks and production equipment must be removed from the site or repaired and placed into service, within a reasonable time period, not to exceed one year. Dikes must be erected and maintained around oil tanks at any production facility built or rebuilt on or after July 1, 2000.

Dikes must be erected around oil tanks at any new production facility within thirty days after the well has been completed. Dikes must be erected and maintained around oil tanks at production facilities built prior to July 1, 2000, when deemed necessary 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.

At no time shall oil be allowed to flow over or pool on the surface of the land or infiltrate the soil. Discharged oil must be properly removed and may not be allowed to remain standing within or outside of any diked areas.

Numbered metal 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.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-50. TANK CLEANING PERMIT. No tank bottom waste shall be removed from any tank used for the storage or sale of crude oil without prior approval by the director. Verbal approval may be given. Prior approval to remove tank bottom waste from tanks not used for the storage or sale of crude oil is not required.

Within thirty days of the removal of the tank bottom waste of any tank used for the storage or sale of crude oil, the owner or operator shall submit a report (form 23) showing an accurate gauge of the contents of the tank and the amount of merchantable oil determinable from a representative sample of the tank bottom by the standard centrifugal test as prescribed by the American petroleum institute's code for measuring, sampling, and testing crude oil.

Within thirty days of the removal of the tank bottom waste of any permanent tank not used for the storage or sale of crude oil, the owner or operator shall submit a sundry notice (form 4) detailing the cleaning operation.

All tank bottom waste must be disposed of in a manner authorized by the director and in accordance with all applicable local, state, and federal laws and regulations. Nothing contained in this section shall apply to reclaiming of pipeline break oil or the treating of tank bottoms at a pipeline station, crude oil storage terminal, or refinery or to the treating by a gasoline plant operator of oil and other catchings collected in traps and drips in the gas gathering lines connected to gasoline plants and in scrubbers at such plants.

History: Amended effective April 30, 1981; January 1, 1983; May 1, 1992; May 1, 1994; September 1, 2000; May 1, 2004.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-51. TREATING PLANT. Before construction of a treating plant and upon written application for a treating plant permit stating in detail the location, type, capacity of the plant contemplated, method of processing proposed, and the plan of operation for all plant waste, the commission shall set such application for hearing to determine whether the proposed plant and method of processing will actually and efficiently process, treat, and reclaim tank bottom emulsion and other waste oils, and whether there is need for such a plant. The operator of any portable treating plant shall notify the director as to all changes in location of said plant. No treating plant shall operate except by order of the commission. The disposition of all products and waste must be reported monthly on form 5p. Upon approval of a treating plant and before construction begins, the permittee 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 of North Dakota. In no case shall the bond amount be set lower than twenty-five thousand dollars.

History: Amended effective January 1, 1983; May 1, 1990; May 1, 1992; September 1, 2000.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-53. SALTWATER HANDLING FACILITIES.

1. All saltwater liquids or brines produced with oil and natural gas shall be processed, stored, and disposed of without pollution of freshwater supplies. At no time shall saltwater liquids or brines be allowed to flow over or pool on the surface of the land or infiltrate the soil.
2. Underground injection of saltwater liquids and brines shall be in accordance with chapter 43-02-05.

3. Surface facilities are acceptable provided that:

- a. They are devoid of leaks and constructed of 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. Unusable tanks and injection equipment must be removed from the site or repaired and placed into service, within a reasonable time period, not to exceed one year.
- b. Dikes must be erected and maintained around saltwater tanks at any saltwater handling facility built or rebuilt on or after July 1, 2000. Dikes must be erected around saltwater tanks at any new facility within thirty days after the well has been completed. Dikes must be erected and maintained around saltwater tanks at saltwater handling facilities built prior to July 1, 2000, when deemed necessary 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. Discharged saltwater liquids or brines must be properly removed and may not be allowed to remain standing within or outside of any diked areas.

4. The operator shall take steps to minimize the amount of solids stored at the facility.

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

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-54. INVESTIGATIVE POWERS. Upon receipt of a written complaint from any surface owner or lessee, royalty owner, mineral owner, local, state, or federal official, or any other interested party, alleging a violation of the oil and gas conservation statutes or any rule, regulation, or order of the commission, the director shall immediately cause an investigation of such complaint to be made. The director may also conduct such investigations on the director's own initiative or at the direction of the commission. If, after such investigation, the director affirms that cause for complaint exists, the director shall report the results of the investigation to the person who submitted the complaint, if any, to the person who was the subject of the complaint and to the commission. The commission shall institute such legal proceedings as, in its discretion, it believes are necessary to enjoin further violations.

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

General Authority

Law Implemented

43-02-03-55. ABANDONMENT OF WELLS - SUSPENSION OF DRILLING.

1. The removal of production equipment or the failure to produce oil or gas, other than a gas well shut in for lack of a market, 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. An abandoned well must be plugged and its site must be reclaimed pursuant to sections 43-02-03-34 and 43-02-03-19.
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 beyond one year. A fee of one hundred dollars shall be submitted for each application to extend the temporary abandonment status of any well.
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 43-02-03-19.

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

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

43-02-03-60.2. FLARING EXEMPTION. The connection of a well to a natural gas gathering line is "economically infeasible" under North Dakota Century Code section 38-08-06.4, if the direct costs of connecting the well to the line and the direct costs of operating the facilities connecting the well to the line during the life of the well, are greater than the amount of money the operator is likely to receive for the gas, less production taxes and royalties, should the well be connected. In making this calculation, the applicant may add ten percent to the amount of the cost of connecting the well and of operating the connection facilities used to determine whether a connection is economically infeasible. This ten percent may be added in consideration of the cost

of money and other overhead costs that are not figured in the direct costs of connecting the well and operating the connecting facilities.

An applicant for an exemption under North Dakota Century Code section 38-08-06.4 must, at the minimum, present evidence covering the following areas:

1. Basis for the gas price used to determine whether it is economically infeasible to connect the well to a natural gas gathering line;
2. Cost of connecting the well to the line and operating the facilities connecting the well to the line;
3. Current daily rate of the amount of gas flared; and
4. The amount of gas reserves and the amount of gas available for sale.

History: Effective May 1, 1994.

General Authority
NDCC 38-07-04

Law Implemented
NDCC 38-08-06.4

43-02-03-90. HEARINGS - COMPLAINT PROCEEDINGS - EMERGENCY PROCEEDINGS - OTHER PROCEEDINGS.

1. Except as more specifically provided in North Dakota Century Code section 38-08-11, the rules of procedure established in subsection 1 of North Dakota Century Code section 28-32-21 apply to proceedings involving a complaint and a specific-named respondent.
2. For proceedings that do not involve a complaint and a specific-named respondent the commission shall give at least fifteen days' notice (except in emergency) of the time and place of hearing thereon by one publication of such notice in a newspaper of general circulation in Bismarck, North Dakota, and in a newspaper of general circulation in the county where the land affected or some part thereof is situated, unless in some particular proceeding a longer period of time or a different method of publication is required by law, in which event such period of time and method of publication shall prevail. The notice shall issue in the name of the commission and shall conform to the other requirements provided by law.
3. In case an emergency is found to exist by the commission which in its judgment requires the making of a rule or order without first having a hearing, the emergency rule or order shall have the same validity as if a hearing with respect to the same had been held after notice. The emergency rule or order permitted by this section shall remain in force no longer than forty days from its effective date, and in any event, it shall expire when the rule or order made after due notice and hearing with respect to the subject matter of such emergency rule or order becomes effective.

Any person moving for a continuance of a hearing, and who is granted a continuance, shall submit a twenty-five dollar fee to the commission to pay the cost of republication of notice of the hearing.

History: Amended effective March 1, 1982; January 1, 1983; May 1, 1990; May 1, 1992; May 1, 1994; July 1, 1996; July 1, 2002.

General Authority
NDCC 38-08-11

Law Implemented
NDCC 28-32-21,
38-08-11

43-02-03-90.1. INVESTIGATORY HEARINGS. The commission may hold investigatory hearings upon the institution of a proceeding by application or by motion of the commission. Notice of the hearing must be served upon all parties personally or by certified mail at least five days before the hearing.

History: Effective May 1, 1992.

General Authority
NDCC 38-08-04

Law Implemented
NDCC 38-08-04

UNDERGROUND INJECTION CONTROL CHAPTER 43-02-05

43-02-05-01. 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:

1. "Area of review" means an area encompassing a fixed radius around the injection well, field, or project of not less than one-quarter mile [402.34 meters].
2. "Underground injection" means the subsurface emplacement of fluids:
 - a. Which are brought to the surface in connection with natural gas storage operations, or conventional oil or natural gas production and may be commingled with wastewaters from gas plants which are an integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection.
 - b. For enhanced recovery of oil or natural gas.
 - c. For storage of hydrocarbons which are liquids at standard temperature and pressure.

3. "Underground source of drinking water" means an aquifer or any portion thereof which supplies drinking water for human consumption, or in which the ground water contains fewer than ten thousand milligrams per liter total dissolved solids and which is not an exempted aquifer.

History: Effective November 1, 1982; amended effective May 1, 1994.
General Authority Law Implemented
NDCC 38-08-04(2) NDCC 38-08-04(2)

43-02-05-01.1. APPLICATION OF RULES FOR UNDERGROUND INJECTION WELLS. All underground injection wells are also subject to the provisions of chapter 43-02-03 where applicable.

History: Effective July 1, 1996.
General Authority Law Implemented
NDCC 38-08-04 NDCC 38-08-04
(IV-2) 01/2006

43-02-05-02. INJECTION INTO UNDERGROUND SOURCE OF DRINKING WATER PROHIBITED. Underground injection that causes or allows movement of fluid into an underground source of drinking water is prohibited, unless the underground source of drinking water is an exempted aquifer as provided in section 43-02-05-03.

History: Effective November 1, 1982.
General Authority Law Implemented
NDCC 38-08-04(2) NDCC 38-08-04(2)

43-02-05-04. PERMIT REQUIREMENTS.

1. No underground injection may be conducted without obtaining a permit from the commission after notice and hearing. The application shall be on a form 14 provided by the commission and shall include at least the following information:

- a. The name and address of the operator of the injection well.
- b. The surface and bottom hole location.
- c. Appropriate geological data on the injection zone and the confining zones including geologic names, lithologic descriptions, thicknesses, and depths.
- d. The estimated bottom hole fracture pressure of the top confining zone.
- e. Average and maximum daily rate of fluids to be injected.
- f. Average and maximum requested surface injection pressure.
- g. Geologic name and depth to base of the lowermost underground source of drinking water which may be affected by the injection.
- h. Existing or proposed casing, tubing, and packer data.
- i. A plat depicting the area of review, (one-quarter-mile [402.34-meter] radius) and detailing the location, well name, and operator of all wells in the area of review.

The plat should include all injection wells, producing wells, plugged wells, abandoned wells, drilling wells, dry holes, and water wells. The plat should also depict faults, if known or suspected.

- j. The need for corrective action on wells penetrating the injection zone in the area of review.
 - k. Proposed injection program.
 - l. Quantitative analysis from a state-certified laboratory of freshwater from the two nearest freshwater wells within a one-mile [1.61-kilometer] radius. Location of the wells by quarter-quarter, section, township, and range must also be submitted. This requirement may be waived by the director in certain instances.
 - m. Quantitative analysis from a state-certified laboratory of a representative sample of water to be injected. A compatibility analysis with the receiving formation may also be required.
 - n. List identifying all source wells or sources of injectate.
 - o. A legal description of the land ownership within the area of review.
 - p. An affidavit of mailing certifying that all landowners within the area of review have been notified of the proposed injection well. If the proposed injection well is within an area permit authorized by a commission order, the notice shall inform the landowners within the area of review that comments or objections may be submitted to the commission within thirty days. If the proposed injection well is not within an area permit authorized by a commission order, the notice shall inform the landowners within the area of review that a hearing will be held at which comments or objections may be directed to the commission. A copy of the letter sent to each landowner must be attached to the affidavit.
 - q. All logging and testing data on the well which has not been previously submitted.
 - r. Schematic drawings of the injection system, including current well bore construction and proposed well bore and surface facility construction.
 - s. Sundry notice detailing the proposed procedure.
2. Permits may contain such terms and conditions as the commission deems necessary.
3. Any permit issued under this section may be revoked by the commission after notice and hearing if the permittee fails to comply with the terms and conditions of the permit or any applicable rule or statute.

4. Before a permit for underground injection will be issued, the applicant must satisfy the commission that the proposed injection well will not endanger any underground source of drinking water.

5. No person shall commence construction of an underground injection well without prior approval of the director.

6. Permits are transferable only with approval of the commission.

7. Permits may be modified by the commission.

8. Before injection commences in an underground injection well, the applicant must complete any needed corrective action on wells penetrating the injection zone in the area of review.

9. All injection wells permitted before November 1, 1982, shall be deemed to have a permit for purposes of this section; however, all such prior permitted wells are subject to all other requirements of this chapter.

10. A permit shall automatically expire one year after the date it was issued, unless operations have commenced to complete the well as an injection well.

11. If the permitted injection zone is plugged and abandoned, the permit shall expire and be of no further force and effect.

History: Effective November 1, 1982; amended effective May 1, 1992; May 1, 1994; July 1, 1996; May 1, 2004; January 1, 2006.

General Authority Law Implemented

NDCC 38-08-04(2) NDCC 38-08-04(2)

43-02-05-05. SITING. All new injection wells shall be sited in such a fashion that they inject into a formation which has confining zones that are free of known open faults or fractures within the area of review.

History: Effective November 1, 1982.

General Authority Law Implemented

NDCC 38-08-04(2) NDCC 38-08-04(2)

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. 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.

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

January 1, 2006.

General Authority Law Implemented

NDCC 38-08-04(2) NDCC 38-08-04(2)

43-02-05-07. MECHANICAL INTEGRITY.

1. Prior to commencing operations, the operator of a new injection well must demonstrate the mechanical integrity of the well. All existing injection wells must demonstrate continual mechanical integrity and be tested at least once every five years.

An injection well has mechanical integrity if:

- a. There is no significant leak in the casing, tubing or packer.
- b. There is no significant fluid movement into an underground source of drinking water or an unauthorized zone through vertical channels adjacent to the injection bore.

2. One of the following methods must be used to evaluate the absence of significant leaks:

- a. Pressure test with liquid or gas.
- b. Monitoring of positive annulus pressure following a valid pressure test.
- c. Radioactive tracer survey.

3. One of the following methods must be used to establish the absence of significant fluid movement:

- a. A log from which cement can be determined or well records demonstrating the presence of adequate cement to prevent such migration.
- b. Radioactive tracer survey, temperature log, or noise log.

History: Effective November 1, 1982; amended effective May 1, 1990; July 1, 1996; May 1, 2004.

General Authority Law Implemented

NDCC 38-08-04(2) NDCC 38-08-04(2)

43-02-05-08. PLUGGING OF INJECTION WELLS. The proper plugging of an injection well requires the well be plugged with cement or other types of plugs, or both, in a manner which will not allow movement of fluids into an underground source of drinking water. The operator shall file a notice of intention to plug (form 4) with the oil and gas division of the industrial commission and shall obtain the director's approval of the plugging method prior to the commencement of plugging operations.

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

General Authority Law Implemented

NDCC 38-08-04(2) NDCC 38-08-04(2)

43-02-05-10. CORRECTIVE ACTION. If any monitoring indicates the movement of injection or formation fluids into underground sources of drinking water, the commission shall prescribe such additional requirements for construction, corrective action, operation, monitoring, or reporting as are necessary to prevent such movement.

History: Effective November 1, 1982.
General Authority Law Implemented
NDCC 38-08-04(2) NDCC 38-08-04(2)

43-02-05-11. BONDING REQUIREMENTS. All injection wells, except commercial injection wells, must be bonded as provided in section 43-02-03-15. A commercial injection well is one that only receives fluids produced from wells operated by a person other than the principal on the bond. Each commercial injection well must be bonded at the single well bond rate as provided in section 43-02-03-15.

History: Effective November 1, 1982; amended effective May 1, 1992; July 1, 2002.
General Authority Law Implemented
NDCC 38-08-04(2) NDCC 38-08-04(2)

43-02-05-12. REPORTING AND MONITORING 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 each well upon forms furnished therefor, 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.
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.

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

May 1, 2004.

General Authority Law Implemented
NDCC 38-08-04(2) NDCC 38-08-04(2)

43-02-05-13. ACCESS TO RECORDS. The industrial commission and the commission's authorized agents shall have access to all injection well records wherever located. All owners, operators, drilling contractors, drillers, service companies, or other persons engaged in drilling, completing, operating, or servicing injection wells shall permit the industrial commission, or its authorized agents, to come upon any lease, property, well, or drilling rig operated or controlled by them, complying with state safety rules and to inspect the records and operation of wells and to conduct sampling and testing. Any information so obtained shall be public information. If requested, copies of injection well records must be filed with the commission.

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

General Authority Law Implemented
NDCC 38-08-04(2) NDCC 38-08-04(2)

GEOPHYSICAL EXPLORATION REQUIREMENTS

CHAPTER 43-02-12

43-02-12-01. DEFINITIONS. The terms used in this chapter have the same meaning as in North Dakota Century Code chapter 38-08.1 except:

1. "Building" means any residence or commercial structure including a barn, stable, or other similar structure.

2. "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.

History: Effective December 1, 1997; amended effective September 1, 2000; January 1, 2006.

General Authority Law Implemented

NDCC 38-08.1 NDCC 38-08.1-01

43-02-12-03. BONDING REQUIREMENTS.

1. To satisfy the obligation that a geophysical exploration contractor desiring to engage in geophysical exploration shall file with the commission a good and sufficient surety bond, the contractor, in lieu of a surety bond, may post cash or a certificate of deposit with the Bank of North Dakota. Persons desiring to file a cash bond or certificate of deposit shall file with the commission an application to deposit cash or certificate of deposit. If the applicant is currently in compliance with the statutes, rules, and orders of the commission, the commission will issue to the Bank of North Dakota a compliance statement authorizing the Bank of North Dakota to accept cash or a certificate of deposit as a bond for the applicant.

2. Geophysical exploration contractors shall file with the commission a good and sufficient bond in the amount of fifty thousand dollars if the contractor intends to conduct shot hole operations or in the amount of twenty-five thousand dollars if the contractor intends to use any other method of geophysical exploration. Each subcontractor engaged by the geophysical exploration contractor for the drilling and plugging of seismic shot holes shall file with the commission a good and sufficient bond in the amount of ten thousand dollars.

History: Effective December 1, 1997.

General Authority Law Implemented

NDCC 38-08.1 NDCC 38-08.1-03.1

43-02-12-04. EXPLORATION PERMIT – APPLICATION - EXPIRATION.

1. Any person applying to the commission for an exploration permit must have a certificate to conduct geophysical exploration pursuant to subsection 3 of North Dakota Century Code section 38-08.1-03.1. A person may not commence geophysical exploration activities in this state without first obtaining an exploration permit from the commission. An application for an exploration permit must be submitted to the commission at least three business days before commencing operations and include the following:

a. The name, permanent address, and telephone number of the geophysical contractor and the geophysical contractor's local representative.

b. The name, permanent address, and telephone number of the drilling and hole plugging contractor, if different from the seismic contractor.

c. The name and address of the resident agent for service of process of the person intending to engage in geophysical exploration.

d. The bond number, type, and amount for the geophysical company.

e. The geophysical exploration method (i.e., shot hole, nonexplosive, 2D, or 3D).

- f. The number, depth, and location of the seismic holes and the size of the explosive charges, if applicable.
 - g. The anticipated starting date of seismic and plugging operations.
 - h. The anticipated completion date of seismic and plugging operations.
 - i. A description of hole plugging procedures.
 - j. A description of the identifying marks that will be on the nonmetallic plug to be used in the plugging of the seismic hole.
 - k. A preplot map displaying the proposed seismic source points and receiver lines and specifically identifying all source points that do not comply with section 43-02-12-05.
1. A fee of one hundred dollars.
 2. The permit holder shall notify the commission at least twenty-four hours, excluding Saturdays and holidays, before commencing geophysical activity.
 3. The permit holder shall immediately notify the commission of any revisions to an approved seismic permit.
 4. An exploration permit expires one year after the date it was issued, unless geophysical exploration activities have commenced.

History: Effective December 1, 1997; amended effective September 1, 2000; May 1, 2004; April 1, 2010.

General Authority Law Implemented
 NDCC 38-08.1 NDCC 38-08.1-04.1

43-02-12-05. DISTANCE RESTRICTIONS - SHOT HOLE OPERATIONS -

NONEXPLOSIVE METHODS. Seismic shot hole operations may not be conducted less than six hundred sixty feet [201.17 meters] from water wells, buildings, underground cisterns, pipelines, and flowing springs. Nonexplosive exploration methods may not be conducted less than three hundred feet [91.44 meters] from water wells, buildings, underground cisterns, pipelines, and flowing springs. Variances may be granted to this section by written agreement between the permit holder and the owner of the subject property and must be available to the director upon request.

History: Effective December 1, 1997; amended effective September 1, 2000; May 1, 2004.

General Authority Law Implemented
 NDCC 38-08.1 NDCC 38-08.1-08

43-02-12-06. NOTIFICATION OF WORK PERFORMED. Within thirty days following the completion of geophysical exploration by any person within this state, such person shall file with the commission a seismic completion report in the form of an affidavit deposing that the seismic project was completed in accordance with chapter 43-02-12, and incorporating a postplot map displaying the actual source point location and the location of all undetonated (loaded) holes, blowouts, and flowing holes or any other problem holes the director deems necessary. If obtained by the contractor, the latitude and longitude of each source and receiver point shall be submitted to the commission to the nearest tenth of a second. Any person plugging a seismic hole must submit a plugging report and an affidavit of plugging detailing the line number, shot point number, hole depth, drill type, hole condition (wet, dry), bentonite used (sacks, capsules), and the depth at which the surface plug was set, and all other information necessary to describe the conditions of the shot hole. The director is authorized to approve an operator's request to

suspend a geophysical exploration project, although no suspension shall be granted beyond ninety days unless all charges are detonated.

The director is authorized to suspend operations of the entire geophysical exploration project, or any portion thereof, if further activity will cause excessive damage to the surface of the land. The geophysical exploration activity may continue upon the director approving a plan to mitigate the damage.

History: Effective December 1, 1997; amended effective September 1, 2000; May 1, 2004; January 1, 2008; April 1, 2010.

General Authority Law Implemented

NDCC 38-08.1 NDCC 38-08.1-02,

38-08.1-05

43-02-12-07. DRILLING AND PLUGGING REQUIREMENTS.

1. Prior to commencement of any drilling or plugging operations, the director may require a field meeting with the geophysical contractor and subcontractors.
2. Except in those circumstances in which the director allows otherwise, all seismic shot holes must be plugged the same day as they were drilled and loaded. Any blown out shot holes must be plugged as soon as reasonably practicable, unless, upon application, the director grants an extension which may not exceed ninety days. All seismic shot holes must be temporarily capped until final plugging.
3. If the number of drilling rigs on a proposed project exceeds the director's capacity to provide appropriate inspection, the director may limit the number of drilling rigs.
4. Bentonite materials used in seismic hole plugging must be derived from naturally occurring untreated, high swelling sodium bentonite which consists principally of the mineral montmorillonite.
5. A durable nonmetallic plug must be set at a depth of approximately three feet [91.44 centimeters] below the surface of every shot hole. The plug must be designed to fit the hole and shall be imprinted with the mark of the operator responsible for the plugging, the mark of the permit holder, and the permitted project number.
6. Unless the contractor can prove to the satisfaction of the commission that another method will provide better protection to ground water and long-term land stability, seismic shot hole plugging shall be conducted in the following manner:
 - a. When water is used in conjunction with the drilling of seismic shot holes or when water is encountered in the hole, the shot holes are to be filled with coarse ground bentonite approximately three-fourths of one inch [19.05 millimeters] in diameter from the top of the charge up to a depth above the final water level. Cuttings shall be added from the top of the bentonite to the surface. All cuttings added above the nonmetallic plug shall be tamped.
 - b. When drilling with air only, and in completely dry holes, a plugging may be accomplished by returning the cuttings to the hole. A small mound must be left over the hole for settling allowance.
 - c. Remaining cap leads must be cut off below ground level and any drilling fluid or cuttings which are deposited on the surface around the seismic hole will be spread out in such a manner that the growth of natural grasses or foliage will not be impaired.
 - d. Any markings, including lath, pin flags, flagging, or any other debris left on the project area, including the powder magazine, must be removed and lawfully disposed of.

History: Effective December 1, 1997; amended effective September 1, 2000; May 1, 2004.

General Authority Law Implemented
NDCC 38-08.1 NDCC 38-08.1-02,
38-08.1-06,38-08.1-06.1