

## CHAPTER 43-02-03 OIL AND GAS RULES AND REGULATIONS

### 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 fifteen thousand dollars when applicable to one well only. After July 1, 2006 such bond shall be in the amount of twenty thousand dollars. 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 ~~five~~ 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 ~~ten~~ 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;\_\_\_\_\_.

General Authority  
NDCC 38-08-04

Law Implemented  
NDCC 38-08-04

**43-02-03-16.2. REVOCATION AND LIMITATION OF DRILLING PERMITS.**

1. After notice and hearing, the commission may revoke a drilling, recompletion, or re-entry permit or limit its duration. The commission may act upon its own motion or upon the application of an owner in the spacing or drilling unit. In deciding whether to revoke or limit a permit, the factors that the commission may consider include:
  - a. The technical ability of the permitholder and other owners to drill and complete the well.

- b. The experience of the permitholder and other owners in drilling and completing similar wells.
  - c. The number of wells in the area operated by the permitholder and other owners.
  - d. Whether drainage of the spacing or drilling unit has occurred or is likely to occur in the immediate future and whether the permitholder has committed to drill a well in a timely fashion.
  - e. Contractual obligations such as an expiring lease.
  - f. The amount of ownership the permitholder and other owners hold in the spacing or drilling unit. If the permitholder is the majority owner in the unit or if its interest when combined with that of its supporters is a majority of the ownership, it is presumed that the permitholder should retain the permit. This presumption, even if not rebutted, does not prohibit the commission from limiting the duration of the permit ~~to drill~~. However, if the amount of the interest owned by the owner seeking revocation or limitation and its supporters are a majority of the ownership, the commission will presume that the permit should be revoked.
2. The commission may suspend a permit that is the subject of a revocation or limitation proceeding. A permit will not be suspended or revoked after ~~a well has spudded operations have commenced~~.
  3. If the commission revokes a permit upon the application of an owner and issues a permit ~~to drill~~ to that owner or to another owner who supported revocation, the commission may limit the duration of such permit. The commission may also, if the parties fail to agree, order the owner acquiring the permit to pay reasonable costs incurred by the former permitholder and the conditions under which payment is to be made. The costs for which reimbursement may be ordered may include those involving survey of the well site, title search of surface and mineral title, and preparation of an opinion of mineral ownership.
  4. If the commission declines to revoke a permit or limit the time within which it must be exercised, it may include a term in its order restricting the ability of the permitholder to renew the permit or to acquire another permit within the same spacing or drilling unit.

History: Effective December 1, 1996; amended effective \_\_\_\_\_.

General Authority  
NDCC 38-08-04

Law Implemented  
NDCC 38-08-04

**43-02-03-16.3. RECOVERY OF A RISK PENALTY.** The following govern the recovery of the risk penalty pursuant to subsection 3 of North Dakota Century Code section 38-08-08 and subsection 3 of North Dakota Century Code section 38-08-09.4:

1. An owner may recover the risk penalty under the provisions of subsection 3 of North Dakota Century Code section 38-08-08, provided the owner gives, to the owner from whom the penalty is sought, a written invitation to participate in the risk and cost of

drilling a well, including reentering a plugged and abandoned well, or the risk and cost of reentering an existing well to drill deeper or a horizontal lateral. If the nonparticipating owner's interest is not subject to a lease or other contract for development, an owner seeking to recover a risk penalty must also make a good-faith attempt to have the unleased owner execute a lease.

- a. The invitation to participate in drilling must contain the following:
    - (1) The location of the proposed or existing well and its proposed depth and objective zone.
    - (2) An itemization of the estimated costs of drilling and completion.
    - (3) The approximate date upon which the well will be spudded or reentered.
    - (4) The time within which the invitation must be accepted. At least thirty days should be given, for it is presumed that at least thirty days is needed to adequately consider and respond to an invitation. In unusual circumstances, however, the owner seeking the risk penalty may allow less than thirty days in which to respond to the invitation, but in no circumstances may less than fifteen days be allowed.
    - (5) Notice that the participating owners plan to impose a risk penalty and that the nonparticipating owner may object to the risk penalty by either responding in opposition to the petition for a risk penalty, or if no such petition has been filed, by filing an application or request for hearing with the commission.
  - b. An election to participate must be in writing.
  - c. An invitation to participate and an election to participate must be served personally, by mail requiring a signed receipt, by facsimile transmission followed within one business day by mailing, or by overnight courier or delivery service requiring a signed receipt. Failure to accept mail requiring a signed receipt constitutes service.
  - d. An election to participate is only binding upon an owner electing to participate if the well is spudded or reentry operations are commenced within ninety days after the date the owner extending the invitation to participate sets as the date upon which a response to the invitation is to be received. It also expires if the permit to drill or reenter expires without having been exercised. If an election to participate lapses, a risk penalty can only be collected if the owner seeking it again complies with the provisions of this section.
2. An owner may recover the risk penalty under the provisions of subsection 3 of North Dakota Century Code section 38-08-09.4, provided the owner gives, to the owner from whom the penalty is sought, a written invitation to participate in the unit expense. If the nonparticipating owner's interest is not subject to a lease or other contract for development, an owner seeking to recover a risk penalty must also make a good-faith attempt to have the unleased owner execute a lease.

- a. The invitation to participate in the unit expense must contain the following:
- (1) A description of the proposed unit expense, including the location, objectives, and plan of operation.
  - (2) An itemization of the estimated costs.
  - (3) The approximate date upon which the proposal will commence.
  - (4) The time within which the invitation must be accepted. At least thirty days should be given, for it is presumed that at least thirty days is needed to adequately consider and respond to an invitation. In unusual circumstances, however, the owner seeking the risk penalty may allow less than thirty days in which to respond to the invitation, but in no circumstances may less than fifteen days be allowed.
  - (5) Notice that the participating owners plan to impose a risk penalty and that the nonparticipating owner may object to the risk penalty by either responding in opposition to the petition for a risk penalty, or if no such petition has been filed, by filing an application or request for hearing with the commission.
- b. An election to participate must be in writing.
- c. An invitation to participate and an election to participate must be served personally, by mail requiring a signed receipt, by facsimile transmission followed within one business day by mailing, or by overnight courier or delivery service requiring a signed receipt. Failure to accept mail requiring a signed receipt constitutes service.
- d. An election to participate is only binding upon an owner electing to participate if the unit expense is commenced within ninety days after the date the owner extending the invitation request to participate sets as the date upon which a response to the request invitation is to be received. If an election to participate lapses, a risk penalty can only be collected if the owner seeking it again complies with the provisions of this section.
- e. An invitation to participate in a unit expense covering monthly operating expenses shall be effective for all such monthly operating expenses for a period of five (5) years if the unit expense identified in the invitation to participate is first commenced within ninety (90) days after the date set in the invitation to participate as the date upon which a response to the invitation to participate must be received. An election to participate in a unit expense covering monthly operating expenses is effective for five (5) years after operations are first commenced. If an election to participate in a unit expense comprised of monthly operating expenses expires or lapses after five (5) years, a risk penalty may only be assessed and collected if the owner seeking the penalty once again complies with this section.

3. Upon its own motion or the request of a party, the commission may include in a pooling order requirements relating to the invitation and election to participate, in which case the pooling order will control to the extent it is inconsistent with this section.

History: Effective December 1, 1996; amended effective May 1, 2004;\_\_\_\_\_.

General Authority  
NDCC 38-08-04

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

**43-02-03-18. DRILLING UNITS - WELL LOCATIONS.** In the absence of an order by the commission setting spacing units for a pool:

1. a. Vertical or directional oil wells projected to a depth not deeper than the Mission Canyon formation shall be drilled upon a governmental quarter-quarter section or equivalent lot, located not less than five hundred feet [152.4 meters] to the boundary of such governmental quarter-quarter section or equivalent lot. No more than one well shall be drilled to the same pool on any such governmental quarter-quarter section or equivalent lot, except by order of the commission, nor shall any well be drilled on any such governmental quarter-quarter section or equivalent lot containing less than thirty-six acres [14.57 hectares] except by order of the commission.
- b. Vertical or directional oil wells projected to a depth deeper than the Mission Canyon formation shall be drilled on a governmental quarter section or equivalent lots, located not less than six hundred sixty feet [201.17 meters] to the boundary of such governmental quarter section or equivalent lots. No more than one well shall be drilled to the same pool on any such governmental quarter section or equivalent lots, except by order of the commission, nor shall any well be drilled on any such governmental quarter section or equivalent lots containing less than one hundred forty-five acres [58.68 hectares] except by order of the commission.
2. a. ~~Horizontal wells projected to a depth not deeper than the Mission Canyon formation, with a horizontal displacement of the well bore drilled at an angle of at least eighty degrees within the productive formation of at least three hundred feet [91.4 meters], must be drilled upon a tract described as two adjacent governmental quarter-quarter sections within the same quarter section or equivalent lots, located not less than five hundred feet [152.4 meters] to the outside boundary of such tract. No more than one well may be drilled to the same pool on any such tract, except by order of the commission.~~
- b. Horizontal wells projected to a depth deeper than the Mission Canyon formation, with a horizontal displacement of the well bore drilled at an angle of at least eighty degrees within the productive formation of at least five hundred feet [152.4 meters], must be drilled upon a drilling unit tract described as a governmental section or described as two adjacent governmental quarter sections within the same section or equivalent lots, located not less than five ~~six~~ hundred

sixty feet [~~152.4~~ 201.2 meters] to the outside boundary of such tract. The horizontal well proposed to be drilled must, in the Director's opinion, justify the creation of such drilling unit. No more than one well may be drilled to the same pool on any such tract, except by order of the commission.

3. a. Gas wells projected to a depth not deeper than the Mission Canyon formation shall be drilled upon a governmental quarter section or equivalent lots, located not less than five hundred feet [152.4 meters] to the boundary of such governmental quarter section or equivalent lots. No more than one well shall be drilled to the same pool on any such governmental quarter section or equivalent lots, except by order of the commission, nor shall any well be drilled on any such governmental quarter section or equivalent lot containing less than one hundred forty-five acres [14.57 hectares] except by order of the commission.
  - b. Gas wells projected to a depth deeper than the Mission Canyon formation shall be drilled upon a governmental quarter section or equivalent lots, located not less than six hundred sixty feet [201.17 meters] to the boundary of such governmental quarter section or equivalent lots. No more than one well shall be drilled to the same pool on any such governmental quarter section or equivalent lots, except by order of the commission, nor shall any well be drilled on any such governmental quarter section or equivalent lot containing less than one hundred forty-five acres [14.57 hectares] except by order of the commission.
4. Within thirty days, or a reasonable time thereafter, following the discovery of oil or gas in a pool not then covered by an order of the commission, a spacing hearing shall be docketed. Following such hearing the commission shall issue an order prescribing a temporary spacing pattern for the development of the pool. This order shall continue in force for a period of not more than eighteen months at the expiration of which time a hearing shall be held at which the commission may require the presentation of such evidence as will enable the commission to determine the proper spacing for the pool.

During the interim period between the discovery and the issuance of the temporary order, no permits shall be issued for the drilling of an offset well to the discovery well, unless approved by the director. Approval shall be consistent with anticipated spacing for the orderly development of the pool.

Any well drilled within one mile [1.61 kilometers] of an established field shall conform to the spacing requirements in that field except when it is apparent that the well will not produce from the same common source of supply. In order to assure uniform and orderly development, any well drilled within one mile [1.61 kilometers] of an established field boundary shall conform to the spacing and special field rules for the field, and for the purposes of spacing and pooling, the field boundary shall be extended to include the spacing unit for such well and any intervening lands. The foregoing shall not be applicable if it is apparent that the well will not produce from the same common source of supply as wells within the field.

5. If the director denies an application for permit, the director shall advise the applicant immediately of the reasons for denial. The decision of the director may be appealed to the commission.



History: Amended effective April 30, 1981; January 1, 1983; May 1, 1992; May 1, 1994; July 1, 1996; July 1, 2002;\_\_\_\_\_.

General Authority  
NDCC 38-08-04  
38-08-07

Law Implemented  
NDCC 38-08-04  
38-08-07

**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. 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;\_\_\_\_\_.

General Authority  
NDCC 38-08-04

Law Implemented  
NDCC 38-08-04

**43-02-03-25. DEVIATION TESTS AND DIRECTIONAL SURVEYS.** When any well is drilled or deepened, tests to determine the deviation from the vertical shall be taken at least every one thousand feet [304.8 meters]. The director is authorized to waive the deviation test for a shallow gas well if the necessity therefore can be demonstrated to his satisfaction. When the deviation from the vertical exceeds five degrees at any point, the director may require that the hole be straightened. Directional surveys may be required by the director, whenever, in the director's judgment, the location of the bottom of the well is in doubt.

A directional survey shall be made and filed with the director on any well utilizing a whipstock or any method of deviating the well bore. The obligation to run the directional survey may be waived by the director when a well bore is deviated to sidetrack junk in the hole, straighten a crooked hole, control a blowout, or if the necessity therefor can be demonstrated to the director's satisfaction. The survey contractor shall file two certified copies of all surveys with the director free of charge within thirty days of completion. Surveys must be submitted as one paper copy and one electronic copy, or in a form approved by the director. However, the director may require the directional survey to be filed immediately after completion if the survey is needed to conduct the operation of the director's office in a timely manner. Special permits may be obtained to drill directionally in a predetermined direction as provided above, from the director.

If the director denies a request for a permit to directionally drill, the director shall advise the applicant immediately of the reasons for denial. The decision of the director may be appealed to the commission.

History: Amended effective April 1, 1980; April 30, 1981; January 1, 1983; May 1, 1990; May 1, 1992; May 1, 1994; September 1, 2000;\_\_\_\_\_.

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, ~~or~~ portable electric lighting generator, or treater shall be placed ~~or remain~~ nearer than one hundred fifty feet [45.72 meters] to any producing

well or oil tank. 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 three hundred and thirty feet [100.58 meters] from a building or residence 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; \_\_\_\_\_.

General Authority  
NDCC 38-08-04

Law Implemented  
NDCC 38-08-04

**43-02-03-29. WELL AND LEASE EQUIPMENT.** Wellhead and lease equipment with a working pressure at least equivalent to the calculated or known pressure to which the equipment may be subjected shall be installed and maintained. Equipment on producing wells shall be installed to facilitate gas-oil ratio tests, and static bottom hole or other pressure tests. Valves shall be installed and maintained in good working order to permit pressure readings to be obtained on both casing and tubing.

History: Amended effective January 1, 1983; \_\_\_\_\_.

General Authority  
NDCC 38-08-04

Law Implemented  
NDCC 38-08-04

**43-02-03-31. WELL LOG, COMPLETION, AND WORKOVER REPORTS.** After the plugging of a well, a plugging record (form 7) shall be filed with the director. After the completion of a well, recompletion of a well in a different pool, or drilling horizontally in an existing pool, a completion report (form 6) shall be filed with the director. In no case shall oil or gas be transported from the lease prior to the filing of a completion report unless approved by the director. The operator shall cause to be run an electrical, radioactivity, or other similar log, or combination of logs, of the operator's choice, from which formation tops and porosity zones can be determined. The operator shall cause to be run a gamma ray log from total depth to ground level elevation of the well bore. The operator shall cause to be run a log from which the presence of cement can be determined in every well in which production or intermediate casing has been set. The obligation to log may be waived by the director if the necessity therefor can be demonstrated to the director's satisfaction. Waiver will be contingent upon such terms and conditions as the director deems appropriate. All logs run shall be available to the director at the well site prior to proceeding with plugging or completion operations. Two copies of all logs run shall be submitted to the director free of charge. Logs shall be submitted as one paper copy and one digital LAS (log ASCII) formatted copy, or a format approved by the director. In addition, operators shall file two copies of drill stem test reports and charts, formation water analyses, core analyses, and noninterpretive lithologic logs or sample descriptions if compiled by the operator.

All information furnished to the director on new permits, except the operator name, well name, location, spud date, rig contractor, and any production runs, shall be kept confidential for not more than six months if requested by the operator in writing. The six-month period shall commence on the date the well is completed or the date the written request is received, whichever is earlier. If the written request accompanies the application for permit to drill or is filed after permitting but prior to spudding, the six-month period shall commence on the date the well is spudded.

All information furnished to the director on recompletions or reentries, except the operator name, well name, location, spud date, rig contractor, and any production runs, shall be kept confidential for not more than six months if requested by the operator in writing. The six-month period shall commence on the date the well is completed or the date the well was approved for recompletion or reentry, whichever is earlier. Any information furnished to the director prior to approval of the recompletion or reentry shall remain public.

Approval must be obtained on a sundry notice (form 4) from the director prior to perforating or recompleting a well in a pool other than the pool in which the well is currently permitted.

After the completion of any remedial work, or attempted remedial work such as plugging back or drilling deeper, acidizing, shooting, formation fracturing, squeezing operations, setting liner, perforating, re-perforating, or other similar operations not specifically covered herein, a report on the operation shall be filed on a sundry notice (form 4) with the director. The report shall present a detailed account of all work done and the date of such work; the daily production of oil, gas, and water both prior to and after the operation; the shots per foot, size, and depth of perforations; the quantity of sand, crude, chemical, or other materials employed in the operation; and any other pertinent information or operations which affect the original status of the well and are not specifically covered herein.

Upon the installation of pumping equipment on a flowing well, or change in type of pumping equipment designed to increase productivity in a well, the operator shall submit a sundry notice (form 4) of such installation. The notice shall include all pertinent information on the pump and the operation thereof including the date of such installation, and the daily production of the well prior to and after the pump has been installed.

All forms, reports, logs, and other information required by this section shall be submitted within thirty days after the completion of such work, although a completion report shall be filed immediately after the completion or recompletion of a well in a pool or reservoir not then covered by an order of the commission.

History: Amended effective April 30, 1981; January 1, 1983; May 1, 1990; May 1, 1992; May 1, 1994; July 1, 1996; September 1, 2000; July 1, 2002;\_\_\_\_\_.

**General Authority**  
NDCC 38-08-04

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

**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;\_\_\_\_\_.

General Authority  
NDCC 38-08-04

Law Implemented  
NDCC 38-08-04

**43-02-03-38.1 PRESERVATION OF CORES AND SAMPLES.** Sample cuttings of formations, taken at regular intervals in all wells drilled for oil or gas or geologic information in North Dakota, shall be washed and packaged in standard sample envelopes which in turn shall be placed in proper order in a standard sample box; carefully identified as to operator, well name, location, depth of sample; and shall be sent free of cost to the state geologist within thirty days after completion of drilling operations.

The operator of any well drilled for oil or gas in North Dakota, during the drilling of or immediately following the completion of any well, shall inform the state geologist or the geologist's representative of all intervals that are to be cored, or have been cored. All cores taken shall be preserved and forwarded to the state geologist, free of cost, within ninety days after completion of drilling operations, unless specifically exempted by the state geologist. ~~Those cores requested by the state geologist shall be forwarded to the state geologist within ninety thirty days after completion of drilling operations. If an exemption is granted, the state geologist does not desire the core,~~ the operator shall advise the state geologist of the final disposition of the core.

This section does not prohibit the operator from taking such samples of the core as the operator may desire for identification and testing. The operator shall furnish the state geologist with the results of identification and testing procedures.

History: Effective October 1, 1990; amended effective \_\_\_\_\_.

General Authority  
NDCC 38-08-04

Law Implemented  
NDCC 38-08-04

**43-02-03-39. LIMITING GAS-OIL RATIO.** In the event the commission has not set a limiting gas-oil ratio for a particular oil pool, the operator of any well in such pool whose gas-oil ratio exceeds two thousand shall demonstrate to the director that production from such well should not be restricted pending a hearing before the commission to establish a limiting gas-oil ratio. The director may restrict production of any well with a gas-oil ratio exceeding two thousand, until the commission can determine that restrictions are necessary to conserve reservoir energy.

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

General Authority

Law Implemented

**43-02-03-101. PREHEARING MOTION PRACTICE.** In a matter pending before the commission, all prehearing motions must be served by the moving party upon all parties affected by the motion. Service must be upon a party unless a party is represented by an attorney, in which case service must be upon the attorney. Service must be made by delivering a copy of the motion and all supporting papers in conformance with one of the means of service provided for in rule 5(b) of the North Dakota Rules of Civil Procedure. Proof of service must be made as provided in rule 4 of the North Dakota Rules of Civil Procedure or by the certificate of an attorney showing that service has been made. Proof of service must accompany the filing of a motion. Any motion filed without proof of service is not properly before the commission ~~and must be returned to the moving party.~~

History: Effective May 1, 1990; amended effective \_\_\_\_\_.

General Authority  
NDCC 38-08-04

Law Implemented  
NDCC 38-08-04

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

### **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 sources 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 meters] 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 kilometers] 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 ~~until~~ without prior approval of the director ~~commission has issued a permit for the well.~~
  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;\_\_\_\_\_.

General Authority  
NDCC 38-08-04(2)

Law Implemented  
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;

General Authority  
NDCC 38-08-04(2)

Law Implemented  
NDCC 38-08-04(2)

#### **43-02-05-14. AREA PERMITS.**

1. The commission, after notice and hearing, may issue an area permit providing for the permitting of individual injection wells if the proposed injection wells are:
  - a. Within the same field, facility site, reservoir, project, or similar unit in the same state;
  - b. Of similar construction;
  - c. Of the same class; and
  - d. Operated by a single owner or operator.
2. An area permit application shall include at least the following information:
  - a. The name and address of the operator.
  - b. ~~A plat depicting the area of review (one quarter mile [402.34 meters] 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.~~  
Plat depicting the area permit and one-quarter mile [402.34 meters] adjacent detailing the location of all anticipated injection wells and all current producing wells, plugged wells, abandoned wells, drilling wells, dry holes, and water wells. The plat should also depict faults if known or suspected.
  - c. Appropriate geological data on the injection zone and the confining zones, including geologic names, lithologic descriptions, thicknesses, and depths.
  - d. Estimated fracture pressure of the top confining zone.
  - e. Estimated maximum injection pressure.

- f. Geologic name and depth to base of the lowermost underground source of drinking water which may be affected by the injection.
  - g. Proposed injection program.
  - h. List identifying all source wells or sources of injectate.
  - i. 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.
  - j. Legal description of the land ownership within and one-quarter mile [402.34 meters] adjacent to the proposed area permit.
  - k. Affidavit of mailing certifying that all landowners have been notified.
  - l. Representative example of landowner letter sent.
  - m. Schematic of the proposed injection system.
  - n. Schematic drawing of a typical proposed injection well bore construction.
3. An area permit authorizes the director to approve individual injection well permit applications within the permitted area. 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. Average and maximum daily rate of fluids to be injected.
  - d. Existing or proposed casing, tubing, and packer data.
  - e. ~~Plat depicting the area permit and one-quarter mile [402.34 meters] adjacent detailing the location of all anticipated injection wells and all current producing wells, plugged wells, abandoned wells, drilling wells, dry holes, and water wells. The plat should also depict faults if known or suspected.~~  
  
A plat depicting the area of review (one-quarter mile [402.34 meters] 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.
  - f. The need for corrective action on wells penetrating the injection zone in the area of review.
  - g. Location of the two nearest freshwater wells by quarter-quarter, section, township, and range within a one-mile [1.61 kilometers] radius and the dates sampled. A

quantitative analysis from a state-certified laboratory of the samples must be submitted with the application or within thirty days of sampling. This requirement may be waived by the director in certain instances.

- h. All logging and testing data on the well which has not been previously submitted.
  - i. Schematic drawings of the current well bore construction and proposed well bore and surface facility construction.
  - j. Sundry notice detailing the proposed procedure.
4. The director is authorized to approve individual injection well permit applications within an area permit provided:
    - a. The additional well meets the area permit criteria.
    - b. The cumulative effects of drilling and operating additional injection wells are acceptable to the director.
  5. If the director determines that any additional well does not meet the area permit requirements, the director may modify or terminate the permit or take enforcement action.
  6. If the director determines the cumulative effects are unacceptable, the permit may be modified.
  7. Area and individual injection well permits may contain such terms and conditions as the commission deems necessary.
  8. 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.
  9. 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.
  10. No person shall commence construction of an underground injection well until the commission has issued a permit for the well.
  11. Area and individual injection well permits are transferable only with approval of the commission.
  12. Individual injection well permits may be modified by the commission.
  13. 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.

14. Individual injection well permits shall automatically expire one year after the date issued, unless operations have commenced to complete the well as an injection well.
15. 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, 2004;\_\_\_\_\_.

General Authority  
NDCC 38-08-04(2)

Law Implemented  
NDCC 38-08-04(2)

## **CHAPTER 43-02-12 GEOPHYSICAL EXPLORATION REQUIREMENTS**

**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.
3. ~~"Operator of the land" means the surface owner or the surface owner's tenant of the land upon which geophysical operations are to be conducted.~~

History: Effective December 1, 1997; amended effective September 1, 2000;\_\_\_\_\_.

General Authority  
NDCC 38-08.1

Law Implemented  
NDCC 38-08.1-01