BEFORE THE INDUSTRIAL COMMISSION

OF THE STATE OF NORTH DAKOTA

CASE NO. 24957 (HELD OVER) ORDER NO. 27865

IN THE MATTER OF A HEARING CALLED ON A MOTION OF THE COMMISSION TO CONSIDER ADOPTING NEW RULES AND AMENDMENTS TO THE "GENERAL RULES AND REGULATIONS FOR THE CONSERVATION OF CRUDE OIL AND NATURAL GAS" CODIFIED AS ARTICLE 43-02 NORTH DAKOTA ADMINISTRATIVE CODE.

ORDER OF THE COMMISSION

THE COMMISSION FINDS:

(1) This cause originally came on for hearing at 9:00 a.m. on the 11th, 12th, 13th, and 14th day of April, 2016.

(2) The Commission is authorized to adopt, and from time to time amend or repeal, reasonable rules in conformity with the provisions of any statute administered or enforced by the agency.

(3) It is necessary to adopt new rules and amend existing rules codified in North Dakota Administrative Code (NDAC) Chapters 43-02-03, 43-02-05, and 43-02-08 to implement, administer, and enforce the provisions of North Dakota Century Code Chapter 38-08.

(4) The Commission signed Order No. 27349 in Case No. 24957 on June 29, 2016, approving new and amended rules, although pursuant to NDCC Sections 28-32-14 and 28-32-15, such rules become effective only upon approval of the Administrative Rules Committee.

The Administrative Rules Committee met on September 13, 2016 and approved several motions to hold over consideration of NDAC Sections 43-02-03-15, 43-02-03-29, 43-02-03-29.1, 43-02-03-49, 43-02-03-51.3, and 43-02-03-53.3.

After conferring with a member of the Administrative Rules Committee, the Commission further modified each of the aforementioned rules.

(5) Pursuant to NDCC Sections 28-32-14 and 28-32-15, the new and amended rules shown in the appendix to this order will become effective January 1, 2017 after approval of the Administrative Rules Committee.

(6) The amendment of existing rules are in the public interest.

IT IS THEREFORE ORDERED:

(1) New and amended sections to NDAC Chapter 43-02-03, as shown in the appendix to this order, are hereby approved and adopted.

(2) All regulations previously amended pursuant to Commission Order No. 27349, but not specifically amended by this order, shall remain in full force and effect.

(3) Existing regulations not specifically amended by this order shall remain in full force and effect.

(4) This order shall be effective pursuant to the applicable statutes and laws of this state and shall remain in full force and effect until further order of the Commission.

Dated this 7th day of November, 2016.

INDUSTRIAL COMMISSION STATE OF NORTH DAKOTA

/s/ Jack Dalrymple, Governor

/s/ Wayne Stenehjem, Attorney General

/s/ Doug Goehring, Agriculture Commissioner

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APPENDIX TO COMMISSION ORDER NO. 27865

NORTH DAKOTA INDUSTRIAL COMMISSION

RULES AND REGULATIONS—NORTH DAKOTA ADMINISTRATIVE CODE

2016 RULES HELD OVER BY ADMINISTRATIVE RULES COMMITTEE

RULES AND REGULATIONS NORTH DAKOTA ADMINISTRATIVE CODE CHAPTER 43-02-03 (OIL & GAS)

GENERAL RULES AND REGULATIONS CHAPTER 43-02-03

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, or source well for use in enhanced recovery <u>operations</u>, shall submit to the commission, and obtain its approval, a surety bond or cash bond. An alternative form of security may be approved by the commission after notice and hearing, as provided by law. The operator of such well shall be the principal on the bond covering the well. Each surety bond shall be executed by a responsible surety company authorized to transact business in North Dakota.
- 2. Bond amounts and limitations. The bond shall be in the amount of fifty thousand dollars when applicable to one well only. Wells drilled to a total depth of less than two thousand feet [609.6 meters] may be bonded in a lesser amount if approved by the director. When the principal on the bond is drilling or operating a number of wells within the state or proposes to do so, the principal may submit a bond conditioned as provided by law. Wells utilized for commercial disposal injection operations must be bonded in the amount of fifty thousand dollars. A blanket bond covering more than one well shall be in the amount of one hundred thousand dollars, provided the bond shall be limited to no more than six of the following in aggregate:
 - a. A well that is a dry hole and is not properly plugged;
 - b. A well that is plugged and the site is not properly reclaimed; and
 - c. A well that is abandoned pursuant to <u>subsection 1 of North Dakota Century Code</u> <u>section 38-08-04 or</u> 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's surety.

- b. When the commission has passed upon the transfer and acceptance and accepted it under the transferee's bond, the transferor shall be released from the responsibility of plugging the well and site reclamation. If such wells include all the wells within the responsibility of the transferor's bond, such bond will be released by the commission upon written request. Such request must be signed by an officer of the transferor or a person authorized to sign for the transferor. The director may refuse to transfer any well from a bond if the well is in violation of a statute, rule, or order.
- c. The transferee (new operator) of any oil, gas, or injection well, shall be responsible for the plugging and site reclamation of any such well. For that purpose the transferee shall submit a new bond or, in the case of a surety bond, produce the written consent of the surety of the original or prior bond that the latter's responsibility shall continue and attach to such well. The original or prior bond shall not be released as to the plugging and reclamation responsibility of any such transferor until the transferee shall submit to the commission an acceptable bond to cover such well. All liability on bonds shall continue until the plugging and site reclamation of such wells is completed and approved.
- 6. Treating plant bond. Prior to the commencement of operations, any person proposing to operate a treating plant must submit to the commission and obtain its approval of a surety bond or cash bond. An alternative form of security may be approved by the commission after notice and hearing, as provided by law. The person responsible for the operation of the plant shall be the principal on the bond. Each surety bond shall be executed by a responsible surety company authorized to transact business in North Dakota. The amount of the bond must be as prescribed in section 43-02-03-51.3. It is to remain in force until the operations cease, all equipment is removed from the site, and the site and appurtenances thereto are reclaimed, or liability of the bond is transferred to another bond that provides the same degree of security. If the principal does not satisfy the bond's conditions, then the surety shall satisfy the conditions or forfeit to the commission the face value of the bond. The director may refuse to transfer any treating plant from a bond if the treating plant is in violation of a statute, rule, or order.
- 7. Saltwater handling facility bond. Prior to the commencement of operations, any person proposing to operate a saltwater handling facility that is not already bonded as an

appurtenance 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 saltwater handling facility must be the principal on the bond. Each surety bond must be executed by a responsible surety company authorized to transact business in North Dakota. The amount of the bond must be as prescribed in section 43-02-03-53.3. It is to remain in force until the operations cease, all equipment is removed from the site, and the site and appurtenances thereto are reclaimed, or liability of the bond is transferred to another bond that provides the same degree of security. If the principal does not satisfy the bond's conditions, the surety shall satisfy the conditions or forfeit to the commission the face value of the bond. Transfer of property does not release the bond. The director may refuse to transfer any saltwater handling facility from a bond if the saltwater handling facility is in violation of a statute, rule, or order.

- 8. Crude oil and produced water underground gathering pipeline bond. The bonding requirements for crude oil and produced water underground gathering pipelines are not to be construed to be required on flow lines, injection pipelines, pipelines operated by an enhanced recovery unit for enhanced recovery unit operations, or on piping utilized to connect wells, tanks, treaters, flares, or other equipment on the production facility.
 - Any owner of an underground gathering pipeline transferring crude oil or a. produced water, after April 19, 2015, shall submit to the commission and obtain its approval of a surety bond or cash bond prior to July 1, 2017. Any owner of a proposed underground gathering pipeline to transfer crude oil or produced water shall submit to the commission and obtain its approval of a surety bond or cash bond prior to placing into service. An alternative form of security may be approved by the commission after notice and hearing, as provided by law. The person responsible for the operation of the crude oil or produced water underground gathering pipeline must be the principal on the bond. Each surety bond must be executed by a responsible surety company authorized to transact business in North Dakota. The bond must be in the amount of fifty thousand dollars when applicable to one crude oil or produced water underground gathering pipeline system only. Such underground gathering pipelines that are less than one mile [1609.34 meters] in length may be bonded in a lesser amount if approved by the director. When the principal on the bond is operating multiple gathering pipeline systems within the state or proposes to do so, the principal may submit a blanket bond conditioned as provided by law. A blanket bond covering one or more underground gathering pipeline systems must be in the amount of one hundred thousand dollars. The owner shall file with the director, as prescribed by the director, a geographical information system layer utilizing North American datum 83 geographic coordinate system (GCS) and in an environmental systems research institute (Esri) shape file format showing the location of all associated above ground equipment and the pipeline centerline from the point of origin to the termination point of all underground gathering pipelines on the bond. Each layer must include at least the following information:
 - (1) The name of the pipeline gathering system and other separately named portions thereof;

(2) The type of fluid transported;

(3) The pipeline composition;

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

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

- c. The underground gathering pipeline bond is to remain in force until the pipeline has been abandoned, as provided in section 43-02-03-29.1, and the right-of-way, including all associated above ground equipment, has been reclaimed as provided in section 43-02-03-29.1, or liability of the bond is transferred to another bond that provides the same degree of security. If the principal does not satisfy the bond's conditions, the surety shall satisfy the conditions or forfeit to the commission the face value of the bond.
- d. Transfer of underground gathering pipelines under bond. Transfer of property does not release the bond. In case of transfer of property or other interest in the underground gathering pipeline and the principal desires to be released from the

bond covering the underground gathering pipeline, the principal must proceed as follows:

(1) The principal shall notify the director, in writing, of all proposed transfers of underground gathering pipelines at least thirty days before the closing date of the transfer. The director, for good cause, may waive this requirement.

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

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

- (2) When the commission has passed upon the transfer and acceptance and accepted it under the transferee's bond, the transferor must be released from the responsibility of abandoning the underground gathering pipelines and right-of-way reclamation. If such underground gathering pipelines include all underground gathering pipeline systems within the responsibility of the transferor's bond, such bond will be released by the commission upon written request. Such request must be signed by an officer of the transferor or a person authorized to sign for the transferor. The director may refuse to transfer any underground gathering pipeline from a bond if the underground gathering pipeline is in violation of a statute, rule, or order.
- (3) The transferee (new owner) of any underground gathering pipeline is responsible for the abandonment and right-of-way reclamation of any such underground gathering pipeline. For that purpose the transferee shall submit a new bond or, in the case of a surety bond, produce the written consent of the surety of the original or prior bond that the latter's responsibility shall continue and attach to such underground gathering pipeline. The original or prior bond may not be released as to the abandonment and right-of-way reclamation responsibility of any such transferor until the transferee submits to the commission an acceptable bond to cover such underground gathering

pipeline. All liability on bonds continues until the abandonment and right-of-way reclamation of such underground gathering pipeline is completed and approved by the director.

- 7.9. Bond termination. The commission shall, in writing, advise the principal and any sureties on any bond as to whether the plugging and reclamation is approved. If approved, liability under such bond may be formally terminated upon receipt of a written request by the principal. The request must be signed by an officer of the principal or a person authorized to sign for the principal.
- 8.10. Director's authority. The director is vested with the power to act for the commission as to all matters within this section, except requests for alternative forms of security, which may only be approved by the commission.

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

General Authority NDCC 38-08-04 Law Implemented NDCC 38-08-04

43-02-03-29. WELL AND LEASE EQUIPMENT, AND GAS GATHERING PIPELINES. 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.

All newly constructed underground <u>gas</u> gathering pipelines must be devoid of leaks and constructed of materials resistant to external corrosion and to the effects of transported fluids. All such pipelines installed in a trench must be installed in a manner that minimizes interference with agriculture, road and utility construction, the introduction of secondary stresses, the possibility of damage to the pipe, and tracer wire shall be buried with any nonconductive pipe installed. When a trench for an oil and gas underground <u>gas</u> gathering pipeline is backfilled, it must be backfilled in a manner that provides firm support under the pipe and prevents damage to the pipe and pipe coating from equipment or from the backfill material.

1. The operator of any underground <u>gas</u> gathering pipeline placed into service on August 1, 2011, to June 30, 2013, shall file with the director, by January 1, 2015, a geographical information system layer utilizing North American datum 83 geographic coordinate system (GCS) and in an environmental systems research institute (Esri) shape file format showing the location of the pipeline centerline. The operator of any underground <u>gas</u> gathering pipeline placed into service after June 30, 2013, shall file with the director, within one hundred eighty days of placing into service, a geographical information system layer utilizing North American datum 83 geographic coordinate system (GCS) and in an environmental systems research institute (Esri) shape file format showing the location of the pipeline centerline. An affidavit of completion shall accompany each layer containing the following information:

- a. A statement that the pipeline was constructed and installed in compliance with section 43-02-03-29.
- b. The outside diameter, minimum wall thickness, composition, internal yield pressure, and maximum temperature rating of the pipeline, or any other specifications deemed necessary by the director.
- c. The anticipated operating pressure of the pipeline.
- d. The type of fluid that will be transported in the pipeline and direction of flow.
- e. Pressure to which the pipeline was tested prior to placing into service.
- f. The minimum pipeline depth of burial.
- g. In-service date.
- h. Leak detection and monitoring methods that will be utilized after in-service date.
- i. Pipeline name.
- j. Accuracy of the geographical information system layer.
- 2. When an oil and gas underground gas gathering pipeline or any part of such pipeline is abandoned, the operator shall leave such pipeline in a safe condition by conducting the following:
 - a. Disconnect and physically isolate the pipeline from any operating facility or other pipeline.
 - b. Cut off the pipeline or the part of the pipeline to be abandoned below surface at pipeline level.
 - c. Purge the pipeline with fresh water, air, or inert gas in a manner that effectively removes all fluid.
 - d. Remove cathodic protection from the pipeline.
 - e. Permanently plug or cap all open ends by mechanical means or welded means.
- 3. Within one hundred eighty days of completing the abandonment of an underground <u>gas</u> gathering pipeline the operator of the pipeline shall file with the director a geographical information system layer utilizing North American datum 83 geographic coordinate system (GCS) and in an environmental systems research institute (Esri) shape file format showing the location of the pipeline centerline and

an affidavit of completion containing the following information:

- a. A statement that the pipeline was abandoned in compliance with section 43-02-03-29.
- b. The type of fluid used to purge the pipeline.

The requirement to submit a geographical information system layer is not to be construed to be required on buried piping utilized to connect flares, tanks, treaters, or other equipment located entirely within the boundary of a well site or production facility.

History: Amended effective January 1, 1983; January 1, 2006; April 1, 2014; _____.

General Authority NDCC 38-08-04 Law Implemented NDCC 38-08-04

43-02-03-29.1. CRUDE OIL AND PRODUCED WATER UNDERGROUND GATHERING PIPELINES.

1. Application of section. This section is applicable to all underground gathering pipelines designed for or capable of transporting crude oil or produced water from an oil and gas production facility for the purpose of disposal, storage, or for sale purposes. If these rules differ from the pipeline manufacturer's prescribed installation and operation practices, the pipeline manufacturer's prescribed installation and operation practices take precedence.

The requirements in this section are not applicable to flow lines, injection pipelines, pipelines operated by an enhanced recovery unit for enhanced recovery unit operations, or on piping utilized to connect wells, tanks, treaters, flares, or other equipment on the production facility.

- 2. Definitions. The terms used throughout this section apply to this section only.
 - a. "Crude oil or produced water underground gathering pipeline" means an underground gathering pipeline designed or intended to transfer crude oil or produced water from a production facility for disposal, storage, or sale purposes.
- 3. Notifications.
 - a. The underground gathering pipeline owner shall notify the commission, as provided by the director, at least seven days prior to commencing new construction of any underground gathering pipeline.
 - (1) The notice of intent to construct a crude oil or produced water underground gathering pipeline must include the following:
 - (a) The proposed date construction is scheduled to begin.

- (b) A geographical information system layer utilizing North American datum 83 geographic coordinate system (GCS) and in an environmental systems research institute (Esri) shape file format showing the proposed route of the pipeline from the point of origin to the termination point.
- (c) The proposed underground gathering pipeline design drawings, including all associated above ground equipment.
 - [1] The proposed pipeline composition, specifications (i.e. size, weight, grade, wall thickness, coating, and standard dimension ratio).
 - [2] The type of fluid to be transported.
 - [3] The method of testing pipeline integrity (e.g. hydrostatic or pneumatic test) prior to placing the pipeline into service.
 - [4] Proposed burial depth of the pipeline.
 - [5] The location and type of all road crossings (i.e. bored and cased or bored only).
 - [6] The location of all environmentally sensitive areas, such as wetlands, streams, or other surface waterbodies that the pipeline may traverse, if applicable.
- b. The underground gathering pipeline owner shall notify the commission of any underground gathering pipeline system or portion thereof that has been removed from service for more than one year.
- c. If damage occurs to any underground gathering pipeline, flow line, or other underground equipment used to transport crude oil, natural gas, carbon dioxide, or water produced in association with oil and gas, during construction, repair, or abandonment of an underground gathering pipeline, the responsible party shall verbally notify the director immediately.
- 4. Design and construction.

The following applies to newly constructed crude oil and produced water underground gathering pipelines:

- a. Underground gathering pipelines must be devoid of leaks and constructed of materials resistant to external corrosion and to the effects of transported fluids.
- b. Underground gathering pipelines must be designed in a manner that allows for line maintenance, periodic line cleaning, and integrity testing.

- c. Installation crews must be trained in all installation practices for which they are tasked to perform.
- d. Underground gathering pipelines must be installed in a manner that minimizes interference with agriculture, road and utility construction, the introduction of secondary stresses, and the possibility of damage to the pipe. Tracer wire must be buried with any nonconductive pipe installed.
- e. Unless the manufacturer's installation procedures and practices provide guidance, pipeline trenches must be constructed to allow for the pipeline to rest on undisturbed native soil and provide continuous support along the length of the pipe. Trench bottoms must be free of rocks greater than two inches in diameter, debris, trash, and other foreign material not required for pipeline installation. If a trench bottom is over excavated, the trench bottom must be backfilled with appropriate material and compacted prior to installation of the pipe to provide continuous support along the length of the pipe.

The width of the trench must provide adequate clearance on each side of the pipe. Trench walls must be excavated to ensure minimal sluffing of sidewall material into the trench. Subsoil from the excavated trench must be stockpiled separately from previously stripped topsoil.

- <u>f.</u> Underground gathering pipelines that cross a township, county, or state graded road must be bored unless the responsible governing agency specifically permits the owner to open cut the road.
- g. No pipe or other component may be installed unless it has been visually inspected at the site of installation to ensure that it is not damaged in a manner that could impair its strength or reduce its serviceability.
- <u>h.</u> The pipe shall be handled in a manner that minimizes stress and avoids physical damage to the pipe during stringing, joining, or lowering in. During the lowering in process the pipe string must be properly supported so as not to induce excess stresses on the pipe or the pipe joints or cause weakening or damage to the outer surface of the pipe.
- i. When a trench for an underground gathering pipeline is backfilled, it must be backfilled in a manner that provides firm support under the pipe and prevents damage to the pipe and pipe coating from equipment or from the backfill material. Sufficient backfill material must be placed in the haunches of the pipe to provide long-term support for the pipe. Backfill material that will be within two feet of the pipe must be free of rocks greater than two inches in diameter and foreign debris. Backfilling material must be compacted as appropriate during placement in a manner that provides support for the pipe and reduces the potential for damage to the pipe and pipe joints.

- j. Cover depths must be a minimum of four feet [1.22 meters] from the top of the pipe to the finished grade. The cover depth for an undeveloped governmental section line must be a minimum of six feet [1.83 meters] from the top of the pipe to the finished grade.
- k. Underground gathering pipelines that traverse environmentally sensitive areas, such as wetlands, streams, or other surface waterbodies, must be installed in a manner that minimizes impacts to these areas. Any horizontal directional drilling plan prepared by the owner or required by the director, must be filed with the commission, prior to the commencement of horizontal directional drilling.
- 5. Pipeline reclamation.
 - a. When utilizing excavation for pipeline installation, repair, or abandonment, topsoil must be stripped, segregated from the subsoils, and stockpiled for use in reclamation. "Topsoil" means the suitable plant growth material on the surface; however, in no event shall this be deemed to be more than the top twelve inches [30.48 centimeters] of soil or deeper than the depth of cultivation, whichever is greater.
 - b. The pipeline right-of-way must be reclaimed as closely as practicable to original condition. All stakes, temporary construction markers, cables, ropes, skids, and any other debris or material not native to the area must be removed from the right-of-way and lawfully disposed of.
 - c. During right-of-way reclamation all subsoils and topsoils must be returned in proper order to as close to the original depths as practicable.
 - d. The reclaimed right-of-way soils must be stabilized to prevent excessive settling, sluffing, cave-ins, or erosion.
 - e. The crude oil and produced water underground gathering pipeline owner is responsible for their right-of-way reclamation and maintenance until such pipeline is released by the commission from the pipeline bond pursuant to section 43-02-03-15.
- 6. Inspection.

All newly constructed crude oil and produced water underground gathering pipelines must be inspected by third-party independent inspectors to ensure the pipeline is installed as prescribed by the manufacturer's specifications and in accordance with the requirements of this section. A list of all third-party independent inspectors and a description of each independent inspector's qualifications, certifications, experience, and specific training must be provided to the commission upon request. A person may not be used to perform inspections unless that person has been trained and is qualified in the phase of construction to be inspected.

7. Associated pipeline facility.

No associated above ground equipment may be installed less than five hundred feet [152.40 meters] from an occupied dwelling unless agreed to in writing by the owner of the dwelling or authorized by order of the commission.

All associated above ground equipment used to store crude oil or produced water must be devoid of leaks and constructed of materials resistant to the effects of crude oil, produced water, brines, or chemicals that may be contained therein. The above materials requirement may be waived by the director for tanks presently in service and in good condition. Unused tanks and associated above ground equipment must be removed from the site or placed into service, within a reasonable time period, not to exceed one year.

Dikes must be erected around all produced water or crude oil tanks at any new facility prior to placing the associated underground gathering pipeline into service. Dikes must be erected and maintained around all crude oil or produced water tanks or above ground equipment, 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 throughput. The required capacity of the director's satisfaction. Discharged crude oil or produced water must be properly removed and may not be allowed to remain standing within or outside of any diked areas.

The underground gathering pipeline owner shall take steps to minimize the amount of solids stored at the pipeline facility, although the remediation of such material may be allowed onsite, if approved by the director.

- 8. Underground gathering pipeline as built.
 - a. The owner of any underground gathering pipeline placed into service after July 31, 2011, shall file with the director, as prescribed by the director, within one hundred eighty days of placing into service, a geographical information system layer utilizing North American datum 83 geographic coordinate system (GCS) and in an environmental systems research institute (Esri) shape file format showing the location of all associated above ground equipment and the pipeline centerline from the point of origin to the termination point. The shape file must have a completed attribute table containing the required data. An affidavit of completion must accompany each layer containing the following information:
 - (1) A statement that the pipeline was constructed and installed in compliance with section 43-02-03-29.1.
 - (2) The outside diameter, minimum wall thickness, composition, internal yield pressure, and maximum temperature rating of the pipeline, or any other specifications deemed necessary by the director.

- (3) The maximum allowable operating pressure of the pipeline.
- (4) The specified minimum yield strength of the pipeline.
- (5) The type of fluid that will be transported in the pipeline.
- (6) Pressure and duration to which the pipeline was tested prior to placing into service.
- (7) The minimum pipeline depth of burial from the top of the pipe to the finished grade.
- (8) In-service date.
- (9) Leak protection and monitoring methods that will be utilized after in-service date.
- (10) Any leak detection methods that have been prepared by the owner.
- (11) The name of the pipeline gathering system and any other separately named portions thereof.
- (12) Accuracy of the geographical information system layer.
- b. The requirement to submit a geographical information system layer is not to be construed to be required on flow lines, injection pipelines, pipelines operated by an enhanced recovery unit for enhanced recovery unit operations, or on buried piping utilized to connect flares, tanks, treaters, or other equipment located entirely within the boundary of a well site or production facility.
- 9. Operating requirements.

The maximum operating pressure for all crude oil and produced water underground gathering pipelines may not exceed the manufacturer's specifications of the pipe or the manufacturer's specifications of any other component of the pipeline, whichever is less. The crude oil or produced water underground gathering pipeline must be equipped with adequate controls and protective equipment to prevent the pipeline from operating above the maximum operating pressure.

10. Leak protection, detection, and monitoring.

All crude oil and produced water underground gathering pipeline owners shall file with the commission any leak protection and monitoring plan prepared by the owner or required by the director, pursuant to North Dakota Century Code section 38-08-27.

If any leak detection plan has been prepared by the owner, it must be submitted to the director.

All crude oil or produced water underground gathering pipeline owners shall develop and maintain a data sharing plan. The plan must provide for real-time sharing of data between the operator of the production facility, the crude oil or produced water underground gathering pipeline owner, and the operator at the point or points of disposal, storage, or sale. If a discrepancy in the shared data is observed, the party observing the data discrepancy shall notify all other parties and action must be taken to determine the cause. A record of all data discrepancies must be retained by the crude oil or produced water underground gathering pipeline owner. If requested, copies of such records must be filed with the commission.

11. Spill response.

All crude oil and produced water underground gathering pipeline owners shall maintain a spill response plan during the service life of any crude oil or produced water underground gathering pipeline. The plan should detail the necessary steps for an effective and timely response to a pipeline spill. The spill response plan should be tailored to the specific risks in the localized area. Response capabilities should address access to equipment and tools necessary to respond, as well as action steps to protect the health and property of impacted landowners, citizens, and the environment.

- 12. Corrosion control.
 - a. Underground gathering pipelines must be designed to withstand the effects of external corrosion and maintained in a manner that mitigates internal corrosion.
 - b. All metallic underground gathering pipelines installed must have sufficient corrosion control.
 - c. All coated pipe must be electronically inspected prior to placement using coating deficiency (i.e. holiday) detectors to check for any faults not observable by visual examination. The holiday detector must be operated in accordance with manufacturer's instructions and at a voltage level appropriate for the electrical characteristics of the pipeline system being tested. During installation all joints, fittings, and tie-ins must be coated with materials compatible with the coatings on the pipe. Coating materials must:
 - (1) Be designed to mitigate corrosion of the buried pipeline;
 - (2) Have sufficient adhesion to the metal surface to prevent under film migration of moisture;
 - (3) Be sufficiently ductile to resist cracking;
 - (4) Have enough strength to resist damage due to handling and soil stress;
 - (5) Support any supplemental cathodic protection; and

- (6) If the coating is an insulating type, have low moisture absorption and provide high electrical resistance.
- d. Cathodic protection systems must meet or exceed the minimum criteria set forth in the National Association of Corrosion Engineers standard practice Control of External Corrosion on Underground or Submerged Metallic Piping Systems.
- e. If internal corrosion is anticipated or detected, the underground gathering pipeline owner shall take prompt remedial action to correct any deficiencies, such as increased pigging, use of corrosion inhibitors, internal coating of the pipeline (e.g. an epoxy paint or other plastic liner), or a combination of these methods. Corrosion inhibitors must be used in sufficient quantity to protect the entire part of the pipeline system that the inhibitors are designed to protect.
- 13. Pipeline integrity.

A crude oil or produced water underground gathering pipeline owner may not operate a pipeline unless it has been pressure tested and demonstrated integrity. In addition, an owner may not return to service a portion of pipeline which has been repaired, replaced, relocated, or otherwise changed until it has demonstrated integrity.

- a. The crude oil and produced water underground gathering pipeline owner shall notify the commission prior to commencement of any pipeline integrity test to allow a representative of the commission to witness the testing process and results.
- b. An independent inspector's certificate of hydrostatic or pneumatic testing of a crude oil or produced water underground gathering pipeline must be submitted within sixty days of the underground gathering pipeline being placed into service and include the following:
 - (1) The name of the pipeline gathering system and any other separately named portions thereof;
 - (2) The date of the test;
 - (3) The duration of the test;
 - (4) The length of pipeline which was tested;
 - (5) The maximum and minimum test pressure;
 - (6) The starting and ending pressure;
 - (7) A copy of the chart recorder results; and

- (8) A geographical information system layer utilizing North American datum 83 geographic coordinate system (GCS) and in an environmental systems research institute (Esri) shape file format showing the location of the centerline of the portion of the pipeline that was tested.
- c. All crude oil and produced water underground gathering pipeline owners shall maintain a pipeline integrity demonstration plan during the service life of any crude oil or produced water underground gathering pipeline. The director, for good cause, may require a pipeline integrity demonstration on any crude oil or produced water underground gathering pipeline.
- 14. Pipeline repair.

Each owner, in repairing an underground gathering pipeline or pipeline system, shall ensure that the repairs are made in a manner that prevents damage to persons or property.

An owner may not use any pipe, valve, or fitting, for replacement or repair of an underground gathering pipeline, unless it is designed to meet the maximum operating pressure.

- a. At least forty-eight hours prior to any underground gathering pipeline repair or replacement, the underground gathering pipeline owner shall notify the commission, as provided by the director, except in an emergency.
- b. Within one hundred eighty days of repairing or replacing any underground gathering pipeline the owner of the pipeline shall file with the director a geographical information system layer utilizing North American datum 83 geographic coordinate system (GCS) and in an environmental systems research institute (Esri) shape file format showing the location of the centerline of the repaired or replaced pipeline and an affidavit of completion containing the following information:
 - (1) A statement that the pipeline was repaired in compliance with section 43-02-03-29.1.
 - (2) The reason for the repair or replacement.
 - (3) The length of pipeline which was repaired or replaced.
 - (4) Pressure and duration to which the pipeline was tested prior to returning to service.
- c. Clamping or squeezing as a method of repair for any produced water underground gathering pipeline must be approved by the director. Prior to clamping or squeezing the pipeline, the owner shall file a sundry notice (form 4) with the director and obtain approval of the clamping or squeezing plan. The notice must include documentation that the pipeline can be safely clamped or

squeezed as prescribed by the manufacturer's specifications. If an emergency requires clamping or squeezing, the owner or the owner's agent shall obtain verbal approval from the director and the notice shall be filed within seven days of completing the repair. Any damaged portion of a produced water underground gathering pipeline that has been clamped or squeezed must be replaced before it is returned to service.

- 15. Pipeline abandonment.
 - a. When an underground gathering pipeline or any part of such pipeline is abandoned as defined under subsection 1 of North Dakota Century Code section 38-08-02 after March 31, 2014, the owner shall leave such pipeline in a safe condition by conducting the following:
 - (1) Disconnect and physically isolate the pipeline from any operating facility, associated above ground equipment, or other pipeline.
 - (2) Cut off the pipeline or the part of the pipeline to be abandoned below surface at pipeline level.
 - (3) Purge the pipeline with fresh water, air, or inert gas in a manner that effectively removes all fluid.
 - (4) Remove cathodic protection from the pipeline.
 - (5) Permanently plug or cap all open ends by mechanical means or welded means.
 - (6) The site of all associated above ground equipment must be reclaimed pursuant to section 43-02-03-34.1.
 - b. Within one hundred eighty days of completing the abandonment of an underground gathering pipeline the owner of the pipeline shall file with the director a geographical information system layer utilizing North American datum 83 geographic coordinate system (GCS) and in an environmental systems research institute (Esri) shape file format showing the location of the pipeline centerline and an affidavit of completion containing the following information:
 - (1) A statement that the pipeline was abandoned in compliance with section 43-02-03-29.1.
 - (2) The type of fluid used to purge the pipeline.
 - (3) The date of pipeline abandonment.
 - (4) The length of pipeline abandoned.

History: Effective

General Authority NDCC 38-08-04 Law Implemented NDCC 38-08-04

43-02-03-49. OIL PRODUCTION EQUIPMENT, DIKES, AND SEALS. Storage of oil in underground or partially buried tanks or containers is prohibited. Surface oil tanks and production equipment must be devoid of leaks and <u>in good condition constructed of materials</u> resistant to the effects of produced fluids or chemicals that may be contained therein. Unused tanks and production equipment must be removed from the site or placed into service, within a reasonable time period, not to exceed one year. Dikes must be erected 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 prior to completing any well. Dikes must be erected and maintained around oil tanks at production <u>all</u> facilities <u>built prior to July 1, 2000</u>, when deemed <u>necessary unless a waiver is granted</u> by the director. Dikes as well as the base material under the dikes and within the diked area must be constructed of sufficiently impermeable material to provide emergency containment. Dikes must be of sufficient dimension to contain the total capacity of the largest tank plus one day's fluid production. The required capacity of the dike may be lowered by the director if the necessity therefor can be demonstrated to the director's satisfaction.

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

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

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

General Authority NDCC 38-08-04 Law Implemented NDCC 38-08-04

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

1. Before construction of a treating plant begins, the operator shall file with the commission a surety bond or cash bond conditioned upon compliance with all laws,

rules and regulations, and orders of the commission. The bond amount shall be specified in the commission order authorizing the treating plant and shall be based upon the location, type, and capacity of the plant, processing method, and plan of operation for all plant waste approved in the commission order and shall be payable to the industrial commission. In no case shall the bond amount be set lower than fifty thousand dollars.

- 2. Treating plant sites and associated facilities or appropriate parts thereof shall be fenced if required by the director. All fences installed within or around any facility must be constructed in a manner that promotes emergency ingress and egress.
- 3. All storage tanks shall be kept free of leaks and in good condition. Storage tanks for saltwater shall be constructed of, or lined with, materials resistant to the effects of saltwater.
- 4. All waste, recovered solids, and recovered fluids shall be stored and handled in such a manner to prevent runoff or migration offsite.
- 5. Dikes of sufficient dimension to contain the total capacity of the maximum volume stored must be erected and maintained around all storage and processing tanks. Dikes as well as the base material under the dikes and within the diked area must be constructed of sufficiently impermeable material to provide emergency containment. All processing equipment shall be underlain by a synthetic impermeable material, unless waived by the director. The site shall be sloped and diked to divert surface drainage away from the site. The operations of the treating plant shall be conducted in such a manner as to prevent leaks, spills, and fires. All accidentally discharged fluids and wastes shall be promptly and properly removed and shall not be allowed to remain standing within the diked area or on the treating plant premises. All such incidents shall be properly cleaned up, subject to approval by the director. All such incidents shall be promptly reported to the director and a detailed account of any such incident must be filed with the director in accordance with section 43-02-03-30.
- 6. A perimeter berm, at least six inches [15.24 centimeters] in height, must be constructed of sufficiently impermeable material to provide emergency containment around the treating plant and to divert surface drainage away from the site if deemed necessary by the director.
- 6.7. Immediately upon the commencement of treatment operations, the operator shall notify the commission in writing of such date.
- 7.8. The operator of a treating plant shall provide continuing surveillance and conduct such monitoring and sampling as the commission may require.
- 8.9. Storage pits, waste pits, or other earthen storage areas shall be prohibited unless authorized by an appropriate regulatory agency. A copy of said authorization shall be filed with the commission.

- 9.10. Burial of waste at any treating plant site shall be prohibited. All residual water and waste, fluid or solid, shall be disposed of in an authorized facility.
- <u>10.11.</u> The operator shall take steps to minimize the amount of residual waste generated and the amount of residual waste temporarily stored onsite. Solid waste shall not be stockpiled onsite unless authorized by an appropriate regulatory agency. A copy of said authorization shall be filed with the commission.
- 11.12. If deemed necessary by the director, the operator shall cause to be analyzed any waste substance contained onsite. Such chemical analysis shall be performed by a certified laboratory and shall adequately determine if chemical constituents exist which would categorize the waste as hazardous by state department of health standards.
- <u>12.13.</u> Treating plants shall be constructed and operated so as not to endanger surface or subsurface water supplies or cause degradation to surrounding lands and shall comply with section 43-02-03-28 concerning fire hazards and proximity to occupied dwellings.
- 13.14. The beginning of month inventory, the amount of waste received and the source of such waste, the volume of oil sold, the amount and disposition of water, the amount and disposition of residue waste, fluid or solid, and the end of month inventory for each treating plant shall be reported monthly on form 5p with the director on or before the first day of the second succeeding month, regardless of the status of operations.
- 14.<u>15.</u> Records necessary to validate information submitted on form 5p shall be maintained in North Dakota.
 - 16. All proposed changes to any treating plant are subject to approval by the commission. Updated schematics shall be furnished to the commission within thirty days following any changes to the treating plant.
 - 17. The operator shall comply with all applicable rules and orders of the commission. All rules in this chapter governing oil well sites shall also apply to any treating plant site.

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

General Authority NDCC 38-08-04 Law Implemented NDCC 38-08-04

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

1. Bond requirement. Before construction of a saltwater handling facility begins, the operator shall file with the commission a surety bond or cash bond conditioned upon compliance with all laws, rules and regulations, and orders of the commission. The bond must be in the amount of fifty thousand dollars and must be payable to the industrial commission. The commission, after notice and hearing, may require a higher bond amount. Such additional amounts for bonds must be related to the economic

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value of the facility and the expected cost of decommissioning and site reclamation, as determined by the commission. The commission may refuse to accept a bond if the operator or surety company has failed in the past to comply with all laws, rules and regulations, and orders of the commission; if a civil or administrative action brought by the commission is pending against the operator or surety company; or for other good cause.

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

- 8.9. The operator of a saltwater handling facility shall provide continuing surveillance and conduct such monitoring and sampling as the commission may require.
- 9:10. Storage pits, waste pits, or other earthen storage areas must be prohibited unless authorized by an appropriate regulatory agency. A copy of said authorization must be filed with the commission.
- 10.11. Burial of waste at any saltwater handling facility site is prohibited. All residual water and waste, fluid or solid, must be disposed of in an authorized facility.
- <u>11.12.</u> If deemed necessary by the director, the operator shall cause to be analyzed any waste substance contained onsite. Such chemical analysis must be performed by a certified laboratory and must adequately determine if chemical constituents exist which would categorize the waste as hazardous by state department of health standards.
- <u>12.13.</u> Saltwater handling facilities must be constructed and operated so as not to endanger surface or subsurface water supplies or cause degradation to surrounding lands and must comply with section 43-02-03-28 concerning fire hazards and proximity to occupied dwellings.
- 13.14. All proposed changes to any saltwater handling facility are subject to prior approval by the director.
- 14.15. Upon completion of any saltwater handling facility modification, the operator shall file a report of the modification on a sundry notice (form 4) with the director within thirty days. The report must include details of the modification and include a schematic drawing of the saltwater handling facility site, drawn to scale, detailing all facilities and equipment, including the size, location, and purpose of all tanks, the height and location of all dikes as well as a calculated containment volume, and the location of all flow lines.
- 15.16 Any salable crude oil recovered from a saltwater handling facility must be reported on a form 5 SWD.
- 16.17 The operator shall comply with all laws, rules and regulations, and orders of the commission. All rules in this chapter governing oil well sites also apply to any saltwater handling facility site.

History: Effective October 1, 2016; amended effective _____.

General Authority NDCC 38-08-04 Law Implemented NDCC 38-08-04