



Oil and Gas Division APPENDIX E

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www.dmr.nd.gov/oilgas

ADMINISTRATIVE RULES COMMITTEE HEARING

March 13, 2013

HISTORY OF CARBON DIOXIDE STORAGE RULEMAKING

2009-Jul: NDCC Chapter 38-22, Carbon Dioxide Underground Storage statutes became effective

2010-Apr: OGD promulgated rules for the Geologic Storage of Carbon Dioxide

2010-Dec: USEPA rule on Carbon Dioxide Geologic Sequestration Wells became effective

- EPA administer the program in their State
 - poor business climate
 - industry opposed
- seek primacy through EPA
 - adopt EPA rules verbatim
 - prove State rules are as stringent as EPA rules
 - rec'd primacy from EPA in 1981 for SWD and EOR wells

2011-Jul: OGD budget included monies to implement the Carbon Dioxide Storage Program

- Kevin Connors promoted to supervise the Carbon Dioxide Storage Program
- seek primacy through the EPA

2013-Mar: Amend rules to meet stringency requirement of EPA

- successfully fought implementing irrelevant rules
 - NDCC 28-32 prohibits adopting such federal guidelines

ADMINISTRATIVE RULES COMMITTEE HEARING

Testimony of Kevin C. Connors - March 13, 2013

Chairman Koppelman and Committee Members:

Following please find my written testimony concerning the adoption of administrative rules by the Oil and Gas Division of the North Dakota Industrial Commission (Commission). The items listed are pursuant to Mr. John Walstad's (Code Revisor for the Legislative Council) request.

1. **Statutory changes:** The rule changes are not related to any statute changes made by the Legislative Assembly.
2. **Federal changes:** The rule changes are related to federal regulation, but not mandated by federal law.

On December 10, 2010 the United States Environmental Protection Agency (EPA) finalized minimum federal requirements under the Safe Drinking Water Act (SDWA) for underground injection of carbon dioxide (CO₂) establishing a new class of injection wells, Class VI. The Class VI rule is based on Underground Injection Control (UIC) regulatory framework, with modifications to address the unique nature of CO₂ injection. The purpose of the Class VI rule is to ensure that geologic storage of CO₂ is conducted in a manner that protects underground sources of drinking water (USDWs).

As of September 7, 2011 the EPA is the acting authority for Class VI injection wells in North Dakota. In order to gain primacy enforcement responsibility for Class VI injection wells, North Dakota must demonstrate to the EPA that its UIC program is at least as stringent as the federal standards. In an effort to meet the federal stringency standard the Oil and Gas Division is proposing amendments and additions to North Dakota Administrative Code (NDAC) Chapter 43-05-01.

In adopting the rule changes the Commission had three options: Adopt the federal rules by reference, adopt the federal rule verbatim, or write the rule to meet federal stringency requirements. The latter proved to be the best option due to the fact that the interpretation of the federal rule has been accomplished through the stringency demonstration during the primacy process. The first two options of adopting the federal rule by reference or verbatim leaves the program vulnerable to ongoing interpretation of the federal rule.

3. **Procedure:** The rulemaking procedure consisted of the following:
 - Mar 19, 2012---Received approval from Industrial Commission to adopt rules
 - Mar 27, 2012---Filed rules with Legislative Council
 - Apr 4 - 10, 2012---Public notices were published in each county
 - Apr 5, 2012---EPA Required additional rule changes
 - Apr 24, 2012---Hearing held on rules (Case No. 17431) ND CO₂ Workgroup requested an extended 45-day comment period due to additional EPA requirements
 - Note: No comments received on proposed rule changes

- Jun 15, 2012---Updated Industrial Commission on proposed rule – Proceed by re-advertise, rehear, and second comment period on proposed rule (with additional changes) in its entirety
- Sept 17, 2012---EPA pre-approval of proposed rule changes – All remaining issues resolved
- Sep 18, 2012---Filed rules with Legislative Council
- Sep 24, 2012---Reg analysis written for rules impacting industry > \$50,000
- Sep 25-Oct 1, 2012---Public notices were published in each county
- Note: The proposed rules do not affect any sponsored bill from past legislation
- Oct 22, 2012---Hearing held on rules (Case No. 17431)
- Nov 16, 2012---Wrote small entity regulatory analysis & small entity impact statement
- Nov 16, 2012---Wrote responses to all comments received
- Nov 19, 2012---Received approval from Industrial Commission to adopt rules
- Jan 22, 2013---Received Attorney General’s opinion that rules are legal
- Jan 28, 2013---Filed rules with Legislative Council
- Mar 6, 2013---Notified all parties of Adm Rules Comm hearing & posted on web
- Mar 13, 2013---Administrative Rules Committee hearing
- Apr 1, 2013---Rules become effective
- 378 days---Agency approval to effective date of rules

4. **Oral and written comments:** The adoption of the rule changes consisted of two comment periods. The first comment period lasted 45 days and no comments were received. It was during this comment period that it was decided to re-advertise the rule changes, rehear the case, and allow for a second comment period. During the second comment period oral comments were received from 1 party (that party also submitted oral comments in writing) at the hearing and written comments were received from 2 parties during the 10-day comment period. None of the comments received were opposed to the rule changes. The consideration of comments is attached (see attached pages 8-11) explaining our rationale and action for either modifying the proposed rules or leaving them as proposed. The following rules received comments:

<u>NDAC</u>	<u>Description</u>	<u>Page</u>	<u>Change Made</u>
43-05-01	Geologic Storage of Carbon Dioxide	61	Leave as proposed
43-05-01-11.2	Logging, Sampling, and Testing Prior to Injection Well Operation	108	Modified
43-02-03-18	Reporting Requirements	127	Modified

5. **Cost:** The approximate cost of giving 2 public notices and holding 2 hearings on the rules was \$2668.80 (\$1319.12 + \$1,349.68). This does not include staff time for developing and adopting the rules.

6. **Justification of changes:** The full notice explains the subject matter of the rules and the reasons for adopting the rules (see attached pages 12-18). EPA is the current acting regulatory authority for geologic storage of CO₂. In addition, North Dakota currently has laws and regulations governing geologic storage of CO₂ within the state. This creates an overly burdensome set of federal and state requirements along with two separate regulatory jurisdictions. In my opinion the combined regulations are creating a major deterrent for any potential projects coming to fruition. The purpose of the proposed rule changes is to remedy

this issue of dual regulation by meeting federal stringency requirements, with an end result of obtaining Class VI primacy enforcement responsibility for the state of North Dakota. It should also be noted that the state is best suited to regulate CO₂ storage. Please find below additional justification on some key rule changes:

<u>NDAC Sec.</u>	<u>Description and Further Justification</u>
43-05-01-01	Definitions: Added definitions required by federal stringency standard and removed terms that already appear in NDCC Chapter 38-22
43-05-01-02	Scope of Chapter: Clarifies that NDAC Chapter 43-05-01 does not apply to applications filed for CO ₂ EOR/EGR
43-05-01-02.1	Application of Rules: Applicable provisions found in NDAC Chapters 43-02-03 and 43-02-05 may apply to Geologic Storage of CO ₂
43-05-01-02.2	Injection into USDWs Prohibited - Federal stringency requirement: protects Underground Sources of Drinking Water
43-05-01-02.3	Transition from CO ₂ EOR/EGR to Geologic Storage - Federal stringency requirement: lists the factors that should be considered by the Commission when determining an increased risk to USDWs as it pertains to CO ₂ EOR/EGR
43-05-01-02.4	Exempted Aquifers - Federal stringency requirement: prohibits new aquifer exemptions for CO ₂ storage and allows for the expansion of an existing aquifer exemption for CO ₂ Storage
43-05-01-02.5	Prohibition of Unauthorized Injection - Federal stringency requirement: prohibits the injection of CO ₂ for the purpose of geologic storage, unless authorized by permit
43-05-01-02.6	Existing Well Conversion: In order to convert an existing well to a CO ₂ injection well the operator must demonstrate that the well is constructed in a manner that protects USDWs
43-05-01-03	Books and Records: changes record retention from "not less than 6 years" (not as stringent as the federal rule) to "until project completion" (exceeds federal stringency)
43-05-01-05	Storage facility Permit - Federal stringency requirement: technical requirements for a more detailed analysis of the CO ₂ storage project
43-05-01-05.1	Area of Review and Corrective Action - Federal stringency requirement: defines the Area of Review of a CO ₂ storage project using site characterization, monitoring data, and reservoir modeling computer software. Also an analysis is required on all wells in the area or review to determine if corrective action is necessary to protect USDWs

- 43-05-01-06 Storage Facility Permit Transfer - Federal stringency requirement: in order to transfer a storage facility permit the transferee must demonstrate financial assurance for the project and the permit must be modified
- 43-05-01-07 Amending Storage Facility Permit: This section was moved NDAC Chapter 43-05-01-12 Modification, Revocation and Reissuance, or Termination of Permits in an effort to combine the existing requirements with the federal requirements
- 43-05-01-07.1 Permitting - Federal stringency requirement: requires the permit application to be complete before processing can begin. This section also establishes the signature requirements for permit applications or reports, as well as standard permit information.
- 43-05-01-07.2 Draft Permits and Fact Sheets - Federal stringency requirement: when a storage facility permit application is complete either a draft permit is prepared or the application is denied. A fact sheet must be prepared for each draft permit
- 43-05-01-07.3 Permit Conditions - Federal stringency requirements: these are conditions that will apply to all storage facility permits.
- 43-05-01-07.4 Establishing Permit Conditions - Federal stringency requirement: this section allows the commission to establish additional permit conditions in addition to the permit conditions required in NDAC section 43-05-01-07.3
- 43-05-01-08 Storage Facility Permit Hearing: A hearing will take place for all Storage facility permit applications were a draft permit is prepared. Additional owner notification requirements and public notice requirements were added to the rule to meet federal stringency requirements for public notification.
- 43-05-01-09 Well Permit Application: Plat requirements were amended to be consistent with the Oil and Gas rule. Federal stringency requirement requires an update to the area of review and corrective action plan from data obtained during logging and testing of the well and the formation.
- 43-05-01-09.1 Financial Responsibility - Federal stringency requirement: the operator must demonstrate and maintain financial responsibility throughout the life of the geologic storage project; this section lists acceptable qualifying financial responsibility instruments, also allowing the use of multiple instruments to satisfy any specific phase of the project
- 43-05-01-10 Injection Well Permit - Federal stringency requirement: injection well permits should be issued for the operating life of the storage facility and the closure period
- 43-05-01-11 Injection Well Construction and completion Standards - Federal stringency requirement: added additional technical requirements (e.g., cement intermediate casing to surface and evaluate quality of cement radially)

- 43-05-01-11.1 Mechanical Integrity - Federal stringency requirement: Standard UIC program M.I. requirements
- 43-05-01-11.2 Logging, Sampling, and Testing Prior to Injection Well Operation - Federal stringency requirement: During drilling and construction of an injection well logs, surveys, and tests to determine or verify depth, thickness, porosity, permeability, lithology, and formation fluid salinity
- 43-05-01-11.3 Injection Well Operating Requirements - Federal stringency requirement: Injection pressures cannot exceed 90% of fracture pressure of the injection zone; injection well must maintain M.I. at all times; continuous recording devices to monitor pressure, alarms and automatic shut-off systems must be installed and used at the injection well
- 43-05-01-11.4 Testing and Monitoring Requirements - Federal stringency requirement: Periodic analysis of the chemical and physical characteristics of the CO₂ stream; continuous monitoring of injection pressure, rates, and volumes; corrosion monitoring of the well material; periodic monitoring of the groundwater; direct and indirect methods of monitoring the CO₂ plume
- 43-05-01-11.5 Injection Well Plugging - Federal stringency requirement: Standard well plugging procedures required
- 43-05-01-11.6 Injection Depth Waiver Requirements - Federal stringency requirement: This section allows for the operator to apply for a waiver to inject above or between USDWs
- 43-05-01-12 Modification, Revocation and Reissuance or Termination of Permits - Federal stringency requirement: Moved language from NDAC section 43-05-01-07 combined with federal requirements to indicate what constitutes a permit review for potential modification, revocation and reissuance, or termination of a permit
- 43-05-01-12.1 Minor Modifications of Permits - Federal stringency requirement: A minor modification of a permit is a collaborative effort by both the commission and the operator to make minor corrections or allowances without the operator filing an application
- 43-05-01-13 Emergency and Remedial Response Plan - Federal stringency requirement: this amendment requires a plan to be in place describing the actions the operator will take to address endangerment to the environment and human health
- 43-05-01-14 Leak Detection and Reporting: Minor amendments to the language to promote consistency throughout the rule
- 43-05-01-15 Storage Facility Corrosion Monitoring and Prevention Requirements: Minor amendments to the language to promote consistency throughout the rule

- 43-05-01-17 Storage Facility Fees: Allows the operator to rely on its per ton fee contribution as part of its demonstration for postclosure financial responsibility and requires assurance of sufficient funds for the long term monitoring of the site, potentially requiring the operator to top off the carbon dioxide trust fund before liability can be transferred to the state
- 43-05-01-18 Reporting Requirements - Federal stringency requirement: operators are required to report to both the commission and EPA; periodic reporting is required (e.g., quarterly, within 24 hrs. of an emergency, 30 day advance notice); record retention is required for either 10 years from the date the report is submitted or until project completion, upon project completion specific records are required to be delivered to the commission
- 43-05-01-18.1 Abandonment of Wells: Allows for temporary abandonment of a well associated with CO₂ storage; consistent with Oil and Gas rule
- 43-05-01-19 Post-Injection Site Care and Facility Closure - Federal stringency requirement: Requires post-injection plugging of wells, establishing long-term monitoring wells, and a final assessment to apply for project completion; if the operator is unable to demonstrate certain required criteria (i.e., CO₂ plume movement, USDWs no longer endanger) then the operator must monitor the site for 50 years or until such demonstration can be made
- 43-05-01-20 Determining Storage Amounts: The amendment to this section limits who can apply for a determination of storage amounts to the operator of an EOR/EGR project or the operator of a CO₂ Storage project

7. **Regulatory analysis:** A regulatory analysis was not requested by the Governor or an agency. An analysis was done on the following rules that were expected to have an impact on the regulated community in excess of \$50,000 (see attached pages 19-24):

<u>NDAC Sec.</u>	<u>Description</u>
43-05-01-05.1	Area of Review and Corrective Action
43-05-01-09.1	Financial Responsibility
43-05-01-11	Injection Well Construction and Completion Standards
43-05-01-11.2	Logging, Sampling, and Testing Prior to Injection Well Operation
43-05-01-11.4	Testing and Monitoring Requirements
43-05-01-19	Post-Injection Site Care and Facility Closure

8. **Small entity regulatory analysis and impact statement:** A small entity regulatory analysis was done on each proposed rule and an impact statement was done on the following rules that will have an adverse impact on small entities (see attached pages 25-41):

<u>NDAC Sec.</u>	<u>Description</u>
43-05-01-05.1	Area of Review and Corrective Action
43-05-01-09.1	Financial Responsibility
43-05-01-11	Injection Well Construction and Completion Standards
43-05-01-11.2	Logging, Sampling, and Testing Prior to Injection Well Operation

43-05-01-11.4 Testing and Monitoring Requirements
43-05-01-19 Post-Injection Site Care and Facility Closure

9. **Fiscal note:** The OGD anticipates the effect of the rule changes on state revenues and expenditures is minimal, if any, and the cost to the agency to implement and enforce the rule changes is minimal. Some rule changes will require additional workload for OGD staff (area of review and corrective action, financial responsibility, and post-injection site care and facility closure), but these rule changes are necessary for North Dakota to obtain primacy. The fiscal effect is documented in the fiscal note (see attached page 42)
10. **Constitutional takings assessment:** A constitutional takings assessment was not required.
11. **Emergency rules:** None of the rules changes were emergency rules.

The 2013 Final Rules being adopted by the Commission positions North Dakota as a leader among states in the development of the legal and regulatory infrastructure necessary for the storage of Carbon Dioxide in geologic formations. I expect these rule changes and the extensive work put into these rule changes to be utilized as an example to other states as they move to develop their programs. The North Dakota Carbon Dioxide Workgroup consisting of trade associations, individuals, and government agencies interested in the development of the regulatory framework for the geologic storage of carbon dioxide, participated in the development of these rule changes and testified in support of the rule changes. The 2013 rule changes will allow the Oil and Gas Division the ability to apply for and obtain Class VI primacy enforcement for the state of North Dakota. Thank you for your consideration of the Oil and Gas Division's rule changes.

Sincerely,



Kevin C. Connors
Carbon Capture and Storage Supervisor

2013 PROPOSED RULES

CONSIDERATION OF ORAL AND WRITTEN COMMENTS

The following is a written record of the Industrial Commission's consideration of all oral and written comments received regarding its proposed 2013 additions to and revisions of the North Dakota Administrative Code (NDAC) Chapter 43-05-01. The purpose of this record is to comply with North Dakota Century Code (NDCC) § 28-32-11.

I. INTRODUCTION

On October 22, 2012, a second public hearing under Case No. 17431 was held pursuant to NDCC § 28-32-11. Notice of the hearing was published between September 25, 2012 and October 1, 2012, both inclusive, in the Ashley Tribune, Golden Valley News, Billings County Pioneer, The Bismarck Tribune, Bottineau Courant, Burke County Tribune, Bowman County Pioneer, Towner County Record-Herald, Foster County Independent, Cavalier Chronicle, Griggs County Courier, The Journal, Devils Lake Journal, Dickinson Press, Carson Press, Grant County News, Dickey County Leader, Fargo Forum, Steele County Press, McLean County Independent, Walsh County Record, Grand Forks Herald, Herald-Press, Hazen Star, Adams County Record, Jamestown Sun, Dunn County Herald, LaMoure Chronicle, Lakota American, Cavalier County Republican, Emmons County Record, Ransom County Gazette, Mandan News, Traill County Tribune, McClusky Gazette, The Sargent County Teller, Benson County Farmers Press, Minot Daily News, Renville County Farmer, Napoleon Homestead, The Herald, New Rockford Transcript, Turtle Mountain Star, Pierce County Tribune, Mountrail County Promoter, Steele Ozone & Kidder County Press, Mouse River Journal, Valley City Times-Record, The Daily News, Center Republican, McKenzie County Farmer, and the Williston Daily Herald. The hearing was properly noticed pursuant to said rule.

One person gave oral testimony regarding the proposed rules at the hearing on October 22, 2012. Note Sandi Tabor also submitted oral comments in written form at the hearing. Oral comments were received from the following:

Sandi Tabor – North Dakota CO₂ Workgroup

In addition to the oral comments, the following two persons submitted written comments:

Sandi Tabor – North Dakota CO₂ Workgroup
Barclay Rodgers – Willow Grove Carbon Solutions

The comments received and the responses to those comments are as follows:

II.

COMMENTS

GEOLOGIC STORAGE OF CARBON DIOXIDE CHAPTER 43-05-01

Comments: The North Dakota Carbon Dioxide Workgroup supports the proposed new rules and the amendments to the existing rule, although the workgroup may not support every detail included in the proposed rule, the importance of the State of North Dakota securing primacy over the geologic storage of CO₂ program is important.

Action Taken: The Commission's proposed amendments will be adopted without any further modifications.

Rationale: The purpose of the proposed amendments is to demonstrate to the United States Environmental Protection Agency (USEPA) that the North Dakota Underground Injection Control (UIC) program is at least as stringent as the minimum federal requirements under the Safe Drinking Water Act. On December 10, 2010 the USEPA finalized minimum federal requirements under the Safe Drinking Water Act for underground injection of carbon dioxide. The requirements are based on UIC regulatory framework, with modifications to address the unique nature of carbon dioxide injection. As of September 7, 2011 the USEPA is the acting authority for Class VI injection wells in North Dakota. In order to gain primacy enforcement responsibility for carbon dioxide injection wells, the Oil and Gas Division is proposing to adopt new rules and amendments to existing rules codified in North Dakota Administrative Code (NDAC) chapter 43-05-01.

NDAC § 43-05-01-11.2. LOGGING, SAMPLES, AND TESTING PRIOR TO INJECTION WELL OPERATION.

The proposed additions meet federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.87 (Logging, Sampling, and Testing Prior to Injection Well Operation).

Comments: Willow Grove indicated Subsection 1 of Section 43-05-01-11.2 on page 44 incorrectly references 43-05-01-11.3 when it should reference 43-05-01-11. Willow Grove requested that the Commission correct the cross-reference.

Action Taken: The Commission's proposed amendment will be modified to correctly cross-reference the section 43-05-01-11.

Rationale: Cross-referencing the correct section eliminates any ambiguity in the rule and clarifies the requirement. The proposed amendment requires the operator to run appropriate logs, surveys and tests to determine or verify the depth, thickness, porosity, permeability, lithology, and salinity of any formation fluids in all relevant geologic formations to ensure conformance with injection well construction requirements under section 43-05-01-11.

NDAC § 43-05-01-18. REPORTING REQUIREMENTS.

The proposed amendments meet federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.91 (Reporting Requirements).

Comments: Willow Grove indicated Subsection 7 of Section 43-05-01-18 on page 62 incorrectly references 43-05-01-07 when it should reference 43-05-01-12. Willow Grove requested that the Commission correct the cross-reference.

Action Taken: The Commission's proposed amendment will be modified to correctly cross-reference the section 43-05-01-12.

Rationale: Cross-referencing the correct section eliminates any ambiguity in the rule and clarifies the requirement. Section 43-05-01-07 is stricken from the rule and the language has been more appropriately moved to Section 43-05-01-12.

2013 PROPOSED RULES

CONSIDERATION OF ORAL AND WRITTEN COMMENTS

The following is a written record of the Industrial Commission's consideration of all oral and written comments received regarding its proposed 2013 additions to and revisions of the North Dakota Administrative Code (NDAC) Chapters 43-05-01. The purpose of this record is to comply with North Dakota Century Code (NDCC) § 28-32-11.

I.

INTRODUCTION

On April 24, 2012, a public hearing under Case No. 17431 was held pursuant to NDCC § 28-32-11. Notice of the hearing was published between April 4, 2012 and April 10, 2012, both inclusive, in the Ashley Tribune, Golden Valley News, Billings County Pioneer, The Bismarck Tribune, Bottineau Courant, Burke County Tribune, Bowman County Pioneer, Towner County Record-Herald, Foster County Independent, Cavalier Chronicle, Griggs County Courier, The Journal, Devils Lake Journal, Dickinson Press, Carson Press, Grant County News, Dickey County Leader, Fargo Forum, Steele County Press, McLean County Independent, Walsh County Record, Grand Forks Herald, Herald-Press, Hazen Star, Adams County Record, Jamestown Sun, Dunn County Herald, LaMoure Chronicle, Lakota American, Cavalier County Republican, Emmons County Record, Ransom County Gazette, Mandan News, Traill County Tribune, McClusky Gazette, The Sargent County Teller, Benson County Farmers Press, Minot Daily News, Renville County Farmer, Napoleon Homestead, The Herald, New Rockford Transcript, Turtle Mountain Star, Pierce County Tribune, Mountrail County Promoter, Steele Ozone & Kidder County Press, Mouse River Journal, Valley City Times-Record, The Daily News, Center Republican, McKenzie County Farmer, and the Williston Daily Herald. The hearing was properly noticed pursuant to said rule.

No comments were received regarding the proposed rules at the hearing on April 24, 2012.

FULL NOTICE OF INTENT TO ADOPT AND AMEND ADMINISTRATIVE RULES

TAKE NOTICE

The North Dakota Industrial Commission, Department of Mineral Resources, Oil and Gas Division, will hold a public hearing to address proposed amendments and additions to the North Dakota Administrative Code (NDAC) relating to the geologic storage of carbon dioxide at 9:00 am on October 22, 2012 in the Conference Room of the Oil and Gas Division Building, 1000 East Calgary Avenue, Bismarck, North Dakota.

BRIEF OVERVIEW

On December 10, 2010 the United States Environmental Protection Agency (EPA) finalized minimum federal requirements under the Safe Drinking Water Act for underground injection of carbon dioxide (CO₂) establishing a new class of wells, Class VI. The Class VI rule is based on Underground Injection Control (UIC) regulatory framework, with modifications to address the unique nature of CO₂ injection. The purpose for the Class VI rule is to ensure that geologic storage of CO₂ is conducted in a manner that protects underground sources of drinking water (USDWs).

As of September 7, 2011 the EPA is the acting authority for Class VI injection wells in North Dakota. In order to gain primacy enforcement responsibility for Class VI injection wells, North Dakota must demonstrate to the EPA that its UIC program is at least as stringent as the federal standards. In an effort to meet the federal stringency standard the Oil and Gas Division is proposing amendments and additions to NDAC chapter 43-05-01.

Federal Requirements for the underground injection of CO₂ can be found using the following link.

<http://www.federalregister.gov/articles/2010/12/10/2010-29954/federal-requirements-under-the-underground-injection-control-uic-program-for-carbon-dioxide-co2>

SUMMARY OF PROPOSED AMENDMENTS AND ADDITIONS

The purpose of the proposed amendments to NDAC §43-05-01-01 is to define terms meant solely for NDAC chapter 43-05-01, add terms required by federal rule, and remove terms that appear in North Dakota Century Code (NDCC) chapter §38-22-02. The proposed amendments allow for the defined terms to be used for the purpose of this chapter and not be applied to other administrative chapters. The proposed addition of terms meets EPA stringency requirements pursuant to Parts 144 and 146-Underground Injection Control Program §144.3, §146.3, and §146.81 (d) (Definitions). The proposed amendments are not expected to impact the regulated community.

The purpose of the proposed amendment to NDAC §43-05-01-02 is to eliminate ambiguity in the rule. The proposed amendment clearly differentiates between the geologic storage of CO₂ as being regulated under chapter 43-05-01 and enhanced oil or gas recovery using CO₂ as being

regulated under chapter 43-02-05. The proposed amendment is not expected to impact the regulated community.

The purpose of the proposed adoption of NDAC §43-05-01-02.1 is to combine appropriate regulations from NDAC chapters 43-02-03 and 43-02-05 for a more consistent rule. The proposed addition allows for certain provisions to be subject to NDAC chapters 43-02-03 and 43-02-05, where applicable. The proposed adoption is not expected to impact the regulated community.

The purpose of the proposed adoption of NDAC §43-05-01-02.2 is to protect underground sources of drinking water. The proposed addition meets EPA stringency requirements pursuant to Part 144-Underground Control Program Subpart A-General Provisions §144.1 (g) (Scope of the Permit or Rule Requirements) and Subpart B-General Program Requirements §144.12 (a), (b), and (e) (Prohibition of Movement of Fluid into Underground Sources of Drinking Water). The proposed adoption is not expected to impact the regulated community.

The purpose of the proposed adoption of NDAC §43-05-01-02.3 is to address the transition from an enhanced oil or gas recovery project to geologic sequestration. The proposed addition meets EPA stringency requirements pursuant to Part 144-Underground Injection Control Program Subpart B-General Program Requirements §144.19 (Transitioning from Class II to Class VI). The proposed adoption is not expected to impact the regulated community.

The purpose of the proposed adoption of NDAC §43-05-01-02.4 is to address aquifer exemptions and expansions of existing aquifer exemptions. The proposed addition meets EPA stringency requirements pursuant to Part 144-Underground Injection Control Program Subpart A-General Provisions §144.7 (Identification of Underground Sources of Drinking Water and Exempted Aquifers) and §144.7 (d) (Expansion to the Areal Extent of Existing Class II Aquifer Exemptions for Class VI Wells). The proposed adoption is not expected to impact the regulated community.

The purpose of the proposed adoption of NDAC §43-05-01-02.5 is to address unauthorized injection and unauthorized well construction. The proposed addition meets EPA stringency requirements pursuant to Part 144-Underground Injection Control Program Subpart B-General Program Requirements §144.11 (Prohibition of Unauthorized Injection). The proposed adoption is not expected to impact the regulated community.

The purpose of the proposed adoption of NDAC §43-05-01-02.6 is to address well conversion. The proposed addition allows for the conversion of an existing well to a CO₂ injection well as long as the operator can demonstrate to the Commission that underground sources of drinking water are protected. The proposed adoption is not expected to impact the regulated community.

The purpose of the proposed amendment to NDAC §43-05-01-03 is to create a consistent requirement throughout the rule. The proposed amendment requires all records used to substantiate reports be retained until project completion. The proposed amendment is not expected to impact the regulated community.

The purpose of the proposed amendments to NDAC §43-05-01-05 is to comply with federal requirements. The proposed amendments meet EPA stringency requirements pursuant to Part 146-

Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.82 (Required Class VI Permit Information). The proposed amendments are not expected to impact the regulated community in excess of \$50,000.

The purpose of the proposed adoption of NDAC §43-05-01-05.1 is to comply with federal requirements. The proposed addition meets federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.84 (Area of Review and Corrective Action). The proposed adoption is expected to impact the regulated community in excess of \$50,000.

The purpose of the proposed amendments to NDAC §43-05-01-06 is to promote consistency throughout the rule. The proposed amendments require a description of the land within the storage facility and a demonstration of financial responsibility when considering storage facility permit transfer. The proposed addition meets federal stringency requirements pursuant to Part 144-Underground Injection Control Program Subpart D-Authorization by Permit §144.38 (Transfer of Permits). The proposed amendments are not expected to impact the regulated community.

The purpose of the proposed amendments to NDAC §43-05-01-07 is to move language to a more appropriate rule. The proposed amendment deletes and moves the language to section §43-05-01-12 Modification, Revocation and Reissuance or Termination of Permits. The proposed amendments are not expected to impact the regulated community.

The purpose of the proposed adoption of NDAC §43-05-01-07.1 is to comply with federal requirements. The proposed addition meets federal stringency requirements pursuant to Part 124-Procedures for Decision Making Subpart A-General Program Requirements §124.3 (Application for a Permit) and Part 144-Underground Injection Control Program Subpart D-Authorization by Permit §144.31 (Application for a Permit; Authorization by Permit) and §144.32 (Signatories to Permit Application and Reports). The proposed adoption is not expected to impact the regulated community.

The purpose of the proposed adoption of NDAC §43-05-01-07.2 is to comply with federal requirements. The proposed addition meets federal stringency requirements pursuant to Part 124-Procedures for Decision Making Subpart A-General Program Requirements §124.6 (Draft Permits) and §124.8 (Fact Sheet). The proposed adoption is not expected to impact the regulated community.

The purpose of the proposed adoption of NDAC §43-05-01-07.3 is to comply with federal requirements. The proposed addition meets federal stringency requirements pursuant to Part 144-Underground Injection Control Program Subpart E-Permit Conditions §144.51 (Conditions Applicable to All Permits). The proposed adoption is not expected to impact the regulated community.

The purpose of the proposed adoption of NDAC §43-05-01-07.4 is to comply with federal requirements. The proposed addition meets federal stringency requirements pursuant to Part 144-Underground Injection Control Program Subpart E-Permit Conditions §144.52 (Establishing Permit Conditions). The proposed adoption is not expected to impact the regulated community.

The purpose of the proposed amendments to NDAC §43-05-01-08 is to allow the storage operator additional time to give required notice that a storage facility permit application has been submitted and to clarify the required content of that notice. The proposed amendments clearly state the information required in both the operator's notice to all parties involved and the Commission's notice to the public. The proposed amendment meets EPA stringency requirements pursuant to Part 124-Procedures for Decision Making Subpart A-General Program Requirements §124.10 (Public Notice of Permit Actions and Public Comment Period), §124.11 (Public Comments and Requests for Public Hearing), §124.12 (Public Hearings), and §124.17 (Response to Comments). The proposed amendments are not expected to impact the regulated community.

The purpose of the proposed amendments to NDAC §43-05-01-09 is to comply with federal requirements. The proposed amendments meet federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.82 (Required Class VI Permit Information). The proposed amendments are not expected to impact the regulated community in excess of \$50,000.

The purpose of the proposed adoption to NDAC §43-05-01-09.1 is to comply with federal requirements. The proposed addition meets federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.85 (Financial Responsibility). The proposed adoption is expected to impact the regulated community in excess of \$50,000.

The purpose of the proposed amendments to NDAC §43-05-01-10 is to comply with federal requirements. The proposed amendments meet federal stringency requirements pursuant to Part 144-Underground Injection Control Program Subpart D-Authorization by Permit §144.36 (Duration of Permits) and §144.53 (a) (Schedule of Compliance). The proposed amendments are not expected to impact the regulated community.

The purpose of the proposed amendments to NDAC §43-05-01-11 is to eliminate ambiguity in the rule. The proposed amendments clarify construction and completion requirements while meeting federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.86 (Injection Well Construction Requirements). The proposed amendments are expected to impact the regulated community in excess of \$50,000.

The purpose of the proposed adoption to NDAC §43-05-01-11.1 is to comply with federal requirements. The proposed addition meets federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.89 (Mechanical Integrity). The proposed adoption is not expected to impact the regulated community in excess of \$50,000.

The purpose of the proposed adoption to NDAC §43-05-01-11.2 is to comply with federal requirements. The proposed additions meet federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.87 (Logging, Sampling, and Testing Prior to Injection Well

Operation). The proposed adoption is expected to impact the regulated community in excess of \$50,000.

The purpose of the proposed adoption to NDAC §43-05-01-11.3 is to comply with federal requirements. The proposed additions meet federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.88 (Injection Well Operating Requirements). The proposed adoption is not expected to impact the regulated community in excess of \$50,000.

The purpose of the proposed adoption to NDAC §43-05-01-11.4 is to comply with federal requirements. The proposed additions meet federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.90 (Testing and Monitoring Requirements). The proposed adoption is expected to impact the regulated community in excess of \$50,000.

The purpose of the proposed adoption to NDAC §43-05-01-11.5 is to comply with federal requirements. The proposed additions meet federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.92 (Injection Well Plugging). The proposed adoption is not expected to impact the regulated community.

The purpose of the proposed adoption to NDAC §43-05-01-11.6 is to comply with federal requirements. The proposed additions meet federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.95 (Class VI Injection Depth Waiver Requirements). The proposed adoption is not expected to impact the regulated community.

The purpose of the proposed amendments to NDAC §43-05-01-12 is to eliminate ambiguity in rule. The proposed amendment deletes language and appropriately creates an all-encompassing requirement for modifying or revoking permits. The proposed amendments include language moved from deleted §43-05-01-07. The proposed amendments meet federal stringency requirements pursuant to Part 124-Procedures for Decision Making Subpart A-General Program Requirements §124.5 (Modification, Revocation and Reissuance, or Termination of Permits) and Part 144-Underground Injection Control Program Subpart D-Authorization by Permit §144.39 (Modification or Revocation and Reissuance of Permits) and §144.40 (Termination of Permits). The proposed amendments are not expected to impact the regulated community.

The purpose of the proposed adoption to NDAC §43-05-01-12.1 is to comply with federal requirements. The proposed addition meets federal stringency requirements pursuant to Part 144-Underground Injection Control Program Subpart D-Authorization by Permit §144.41 (Minor Modifications of Permits). The proposed adoption is not expected to impact the regulated community.

The purpose of the proposed amendments to NDAC §43-05-01-13 is to comply with federal requirements. The proposed amendments meet federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards

Applicable to Class VI Wells §146.94 (Emergency and Remedial Response). The proposed amendments are not expected to impact the regulated community in excess of \$50,000.

The purpose of the proposed amendments to NDAC §43-05-01-14 is to promote consistency throughout the rule. The proposed amendments replace “must” with “shall” when imposing a duty on the storage operator. The proposed amendments will not have any impact on the regulated community.

The purpose of the proposed amendments to NDAC §43-05-01-15 is to promote consistency throughout the rule. The proposed amendments clarify the requirement for corrosion monitoring and prevention. The proposed amendments will not have any impact on the regulated community.

The purpose of the proposed amendments to NDAC §43-05-01-17 is to establish a collaborative effort to ensure sufficient funds will be available to cover postclosure long term monitoring. The proposed amendments allow the storage operator to rely on the carbon dioxide storage facility trust fund as part of its financial responsibility demonstration. The proposed amendments require, if necessary, the storage operator to make additional payments into the carbon dioxide storage facility trust fund to ensure that North Dakota will have sufficient funds for the postclosure long term monitoring. The proposed amendments are not expected to impact the regulated community in excess of \$50,000.

The purpose of the proposed amendments to NDAC §43-05-01-18 is to comply with federal requirements. The proposed amendments meet federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.91 (Reporting Requirements). The proposed amendments are not expected to impact the regulated community in excess of \$50,000.

The purpose of the proposed adoption of NDAC §43-05-01-18.1 is to address well abandonment. The proposed adoption gives the Commission the authority to decide the status of a well. The proposed adoption allows for the temporary abandonment of a well or the abandonment and plugging of a well. The proposed adoption is not expected to impact the regulated community.

The purpose of the proposed amendments to NDAC §43-05-01-19 is to comply with federal requirements. The proposed amendments meet federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.93 (Post-Injection Site Care and Site Closure). The proposed amendments are expected to impact the regulated community in excess of \$50,000.

The purpose of the proposed amendments to NDAC §43-05-01-20 is to limit who can apply for a determination of storage amounts of injected CO₂. The proposed amendments identify who exactly can apply for this determination. The proposed amendments are not expected to impact the regulated community.

The proposed rules may be reviewed at the office of the Oil and Gas Division at 1016 East Calgary Avenue, Bismarck, ND, or online at <https://www.dmr.nd.gov/oilgas/>. A copy of the proposed rules and/or a regulatory analysis may be requested by writing the above address or calling (701) 328-

8020. Written comments on the proposed rules, sent to the above address, and received by 5:00 pm, November 1, 2012, will be fully considered. Oral comments can be given at the public hearing at 9:00 am on October 22, 2012.

If you plan to attend the public hearing and will need special facilities or assistance relating to a disability, please contact the North Dakota Industrial Commission at (701) 328-8020, or write the Oil and Gas Division at the above address, no later than October 15, 2012.

Dated this 18th day of September, 2012.

Kevin C. Connors - Carbon Capture and Storage Supervisor

**REGULATORY ANALYSIS PURSUANT TO
NORTH DAKOTA CENTURY CODE 28-32-08
FOR CHANGES IN SECTION 43-05-01-05.1
AREA OF REVIEW AND CORRECTIVE ACTION**

I. CLASS OF PERSONS AFFECTED BY THE AMENDMENT

The classes of persons who probably will be affected by the proposed amendment to the rule are individuals and companies who plan on operating a carbon dioxide storage facility in the State. The proposed amendment will affect operators that currently have a proposed project to store carbon dioxide. The proposed amendment will benefit computer software companies that offer subsurface simulation modeling software and potentially benefit well service companies.

II. PROBABLE IMPACT

The probable impact of the proposed amendment will be that operators will have to account for a much larger area of review. The increased area of review has the potential to increase the number of wells that may need corrective action. In addition, operators are required to predict the carbon dioxide movement in the subsurface using subsurface modeling software. The cost of the modeling software license and computer operating system alone is expected to exceed \$50,000. It is anticipated that the cost of the proposed rule to the regulated community will exceed \$50,000.

III. COST TO AGENCY AND EFFECT ON STATE REVENUES

It is anticipated that there will be costs to the agency to implement and enforce the proposed amendments. The agency will need to purchase computer modeling software, an operating system to run the simulation modeling software, and train a state employee to use the software. The agency is expected to purchase the modeling software license at a discounted non-commercial rate of \$1,500 per year. The approximate cost of the computer operating system to the agency is expected to exceed \$10,000.

IV. ALTERNATIVE METHODS

No alternate methods were seriously considered. The proposed addition is necessary to meet federal stringency requirements in order to obtain class VI primacy. Alternative methods for the cost of the computer operating system and software license for the agency were considered and the above anticipated costs are the most cost effective for the agency to regulate the program.

**REGULATORY ANALYSIS PURSUANT TO
NORTH DAKOTA CENTURY CODE 28-32-08
FOR CHANGES IN SECTION 43-05-01-09.1
FINANCIAL RESPONSIBILITY**

I. CLASS OF PERSONS AFFECTED BY THE AMENDMENT

The classes of persons who probably will be affected by the proposed amendment to the rule are individuals and companies who plan on operating a carbon dioxide storage facility in the State. The proposed amendment will affect operators that currently have a proposed project to store carbon dioxide. The proposed amendment will benefit the State, banks that offer escrow accounts or trust funds, surety companies that issue bonds, insurance policy providers, and potentially other types of third party providers.

II. PROBABLE IMPACT

The probable impact of the proposed amendment will be that operators must demonstrate financial instruments sufficient to cover the costs of each anticipated stage of the project at the time of storage facility permit application. In addition to the cost of each anticipated stage of the project, the operator must demonstrate sufficient funds to address endangerment of underground sources of drinking water and the emergency and remedial response. It is anticipated that the cost of the proposed rule to the regulated community will exceed \$50,000.

III. COST TO AGENCY AND EFFECT ON STATE REVENUES

It is anticipated that there will not be any costs to the agency to implement and enforce the proposed amendments, in fact, there will probably be a positive impact on State revenues.

IV. ALTERNATIVE METHODS

No alternate methods were seriously considered. The proposed addition meets federal stringency requirements in order to obtain class VI primacy.

**REGULATORY ANALYSIS PURSUANT TO
NORTH DAKOTA CENTURY CODE 28-32-08
FOR CHANGES IN SECTION 43-05-01-11
INJECTION WELL CONSTRUCTION AND COMPLETION STANDARDS**

I. CLASS OF PERSONS AFFECTED BY THE AMENDMENT

The classes of persons who probably will be affected by the proposed amendment to the rule are individuals and companies who plan on operating a carbon dioxide storage facility in the State. The proposed amendment will affect operators that currently have a proposed project to store carbon dioxide. The proposed amendment will benefit well drilling and completion companies, including all services required to drill and complete an injection well.

II. PROBABLE IMPACT

The probable impact of the proposed amendment will be that operators will have to cement the intermediate casing string to surface and verify the quality of the cement behind casing by using a logging tool capable of a radial evaluation and identify the location of any channels in the cement. It is anticipated that the cost of the proposed rule to the regulated community may exceed \$50,000.

III. COST TO AGENCY AND EFFECT ON STATE REVENUES

It is anticipated that there will not be any costs to the agency to implement and enforce the proposed amendments.

IV. ALTERNATIVE METHODS

No alternate methods were seriously considered. The proposed amendments meet federal stringency requirements in order to obtain class VI primacy.

**REGULATORY ANALYSIS PURSUANT TO
NORTH DAKOTA CENTURY CODE 28-32-08
FOR CHANGES IN SECTION 43-05-01-11.2
LOGGING, SAMPLING, AND TESTING PRIOR TO INJECTION WELL OPERATION**

I. CLASS OF PERSONS AFFECTED BY THE AMENDMENT

The classes of persons who probably will be affected by the proposed amendment to the rule are individuals and companies who plan on operating a carbon dioxide storage facility in the State. The proposed amendment will affect operators that currently have a proposed project to store carbon dioxide. The proposed amendment will benefit well logging, well service, and well coring companies.

II. PROBABLE IMPACT

The probable impact of the proposed amendment will be that operators must run a variety of logging, surveying, and formation testing tools. In addition, the operator will also be required to core the injection zone and confining zone. It is anticipated that the cost of the proposed rule to the regulated community may exceed \$50,000.

III. COST TO AGENCY AND EFFECT ON STATE REVENUES

It is anticipated that there will not be any costs to the agency to implement and enforce the proposed amendments.

IV. ALTERNATIVE METHODS

No alternate methods were seriously considered. The proposed addition meets federal stringency requirements in order to obtain class VI primacy.

**REGULATORY ANALYSIS PURSUANT TO
NORTH DAKOTA CENTURY CODE 28-32-08
FOR CHANGES IN SECTION 43-05-01-11.4
TESTING AND MONITORING REQUIREMENTS**

I. CLASS OF PERSONS AFFECTED BY THE AMENDMENT

The classes of persons who probably will be affected by the proposed amendment to the rule are individuals and companies who plan on operating a carbon dioxide storage facility in the State. The proposed amendment will affect operators that currently have a proposed project to store carbon dioxide. The proposed amendment will benefit seismic survey companies and well service companies specializing in specific well monitoring equipment.

II. PROBABLE IMPACT

The probable impact of the proposed amendment will be that operators will be required to periodically test the chemical and physical properties of the carbon dioxide, monitor the injection zone using both direct and indirect methods, and monitor corrosion potential of all constructed material that come in contact with the carbon dioxide. In addition, automatic shut-off systems will be required for all wells injecting CO₂. It is anticipated that the cost of the proposed rule to the regulated community may exceed \$50,000.

III. COST TO AGENCY AND EFFECT ON STATE REVENUES

It is anticipated that there will not be any costs to the agency to implement and enforce the proposed amendments.

IV. ALTERNATIVE METHODS

No alternate methods were seriously considered. The proposed addition meets federal stringency requirements in order to obtain class VI primacy.

**REGULATORY ANALYSIS PURSUANT TO
NORTH DAKOTA CENTURY CODE 28-32-08
FOR CHANGES IN SECTION 43-05-01-19
POST-INJECTION SITE CARE AND FACILITY CLOSURE**

I. CLASS OF PERSONS AFFECTED BY THE AMENDMENT

The classes of persons who probably will be affected by the proposed amendment to the rule are individuals and companies who plan on operating a carbon dioxide storage facility in the State. The proposed amendment will affect operators that currently have a proposed project to store carbon dioxide. The proposed amendment will benefit the State, banks that offer escrow accounts or trust funds, surety companies that issue well bonds, insurance policy providers, and potentially other types of third party providers.

II. PROBABLE IMPACT

The probable impact of the proposed amendment will be that operators must demonstrate financial instruments at the time of storage facility permit application sufficient to cover the cost of plugging all proposed wells, reclamation of the site, and long-term monitoring of the CO₂ plume. The current cost to plug one well is approximately \$100,000 depending on location and depth of the well. The current cost for site reclamation is approximately \$50,000 depending on the location and the size of the site. It is anticipated that the cost of the proposed rule to the regulated community will exceed \$50,000.

III. COST TO AGENCY AND EFFECT ON STATE REVENUES

It is anticipated that there will not be any costs to the agency to implement and enforce the proposed amendments, in fact, there will probably be a positive impact on State revenues.

IV. ALTERNATIVE METHODS

No alternate methods were seriously considered. The proposed addition is necessary to meet federal stringency requirements in order to obtain class VI primacy.

**SMALL ENTITY REGULATORY ANALYSIS
PURSUANT TO NORTH DAKOTA CENTURY CODE 28-32-08.1**

None of the proposed amendments or rules created under North Dakota Administrative Code (NDAC) Chapter 43-05-01 were mandated by Federal law.

SECTION 43-05-01-01. DEFINITIONS.

This amendment defines terms meant solely for NDAC chapter 43-05-01, adds terms required by federal rule, and removes terms that appear in North Dakota Century Code (NDCC) section §38-22-02. The proposed amendments allow for the defined terms to be used for the purpose of NDAC chapter 43-05-01 and not be applied to other administrative chapters. The proposed addition of terms meets EPA stringency requirements pursuant to Parts 144 and 146-Underground Injection Control Program §144.3, §146.3, and §146.81 (d) (Definitions). This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-02. SCOPE OF CHAPTER.

This amendment differentiates between the geologic storage of CO₂ as being regulated under chapter 43-05-01 and enhanced oil or gas recovery using CO₂ as being regulated under chapter 43-02-05. This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-02.1. APPLICATION OF RULES FOR GEOLOGIC STORAGE OF CARBON DIOXIDE.

This amendment allows for certain provisions to be subject to NDAC chapters 43-02-03 and 43-02-05, where applicable. This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-02.2. INJECTION INTO UNDERGROUND SOURCE OF DRINKING WATER PROHIBITED.

This amendment protects underground sources of drinking water from any activity related to the underground injection of carbon dioxide for the purpose geologic storage. The proposed amendments are based on the protection of underground sources of drinking water. The proposed amendment meets EPA stringency requirements pursuant to Part 144-Underground Control Program Subpart A-General Provisions §144.1 (g) (Scope of the Permit or Rule Requirements) and Subpart B-General Program Requirements §144.12 (a), (b), and (e) (Prohibition of Movement of Fluid into Underground Sources of Drinking Water). This amendment is not expected to have an adverse impact on small entities.

SECTION 43-05-01-02.3. TRANSITIONING FROM ENHANCED OIL AND GAS RECOVERY TO GEOLOGIC SEQUESTRATION.

This amendment addresses the transition from an enhanced oil or gas recovery project to geologic sequestration. The proposed amendment meets EPA stringency requirements pursuant to Part 144-Underground Injection Control Program Subpart B-General Program Requirements §144.19 (Transitioning from Class II to Class VI). This amendment is not expected to have an adverse impact on small entities.

SECTION 43-05-01-02.4. EXEMPTED AQUIFERS AND EXPANSIONS OF AREAL EXTENT OF EXISTING AQUIFER EXEMPTIONS.

This amendment addresses aquifer exemptions and expansions of existing aquifer exemptions. The proposed amendment meets EPA stringency requirements pursuant to Part 144-Underground Injection Control Program Subpart A-General Provisions §144.7 (Identification of Underground Sources of Drinking Water and Exempted Aquifers) and §144.7 (d) (Expansion to the Areal Extent of Existing Class II Aquifer Exemptions for Class VI Wells). This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-02.5. PROHIBITION OF UNAUTHORIZED INJECTION.

This amendment addresses unauthorized injection and unauthorized well construction. The proposed amendment meets EPA stringency requirements pursuant to Part 144-Underground Injection Control Program Subpart B-General Program Requirements §144.11 (Prohibition of Unauthorized Injection). This amendment is not expected to have an adverse impact on small entities.

SECTION 43-05-01-02.6. EXISTING WELL CONVERSION.

This amendment allows for the conversion of an existing well to a CO₂ injection well as long as the operator can demonstrate to the Commission that underground sources of drinking water are protected. This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-03. BOOKS AND RECORDS TO BE KEPT TO SUBSTANTIATE REPORTS.

This amendment requires all records used to substantiate reports be retained until project completion. This amendment is not expected to have an adverse impact on small entities in access of \$50,000.

SECTION 43-05-01-05. STORAGE FACILITY PERMIT.

This amendment meets EPA stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.82 (Required Class VI Permit Information). This amendment is not expected to have an adverse impact on small entities in access of \$50,000.

SECTION 43-05-01-05.1 AREA OR REVIEW AND CORRECTIVE ACTION.

This amendment meets federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.84 (Area of Review and Corrective Action). This amendment is expected to have an adverse impact on small entities in access of \$50,000.

The following methods were considered for reducing impact on small entities:

1. Establishment of less stringent compliance or reporting requirements for small entities.

The amendment meets federal stringency requirements.

2. Establishment of less stringent schedules or deadlines for compliance or reporting requirements for small entities.

The amendment meets federal stringency requirements.

3. Consolidation or simplification of compliance or reporting requirements for small entities.

The amendment meets federal stringency requirements.

4. Establishment of performance standards for small entities to replace design or operational standards required in the proposed rule.

The amendment meets federal stringency requirements.

5. Exemption of small entities from all or any part of the requirements contained in the proposed rules.

The purpose of the amendment is to comply with federal requirements. Small entities should not be exempt from this amendment due federal stringency requirements. Under section 1421(b), the Safe Drinking Water Act mandates that EPA develop minimum Federal requirements for State Underground Injection Control primary enforcement responsibility, or primacy, to ensure protection of Underground Sources of Drinking Water. In order to implement the UIC program, States must apply to EPA for primacy approval. In the primacy application, States must demonstrate that their State regulations are at least as stringent as those promulgated by EPA.

The adoption of the proposed rules will have an adverse economic impact on small entities, therefore, a Small Entities Economic Impact Statement was prepared.

SECTION 43-05-01-06. STORAGE FACILITY PERMIT TRANSFER.

This amendment requires a description of the land within the storage facility and a demonstration of financial responsibility when considering storage facility permit transfer. The proposed addition meets federal stringency requirements pursuant to Part 144-Underground Injection Control Program Subpart D-Authorization by Permit §144.38 (Transfer of Permits). This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-07. AMENDING STORAGE FACILITY PERMIT.

This amendment deletes and moves the language to section §43-05-01-12 Modification, Revocation and Reissuance or Termination of Permits. This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-07.1. PERMITTING.

This amendment meets federal stringency requirements pursuant to Part 124-Procedures for Decision Making Subpart A-General Program Requirements §124.3 (Application for a Permit) and

Part 144-Underground Injection Control Program Subpart D-Authorization by Permit §144.31 (Application for a Permit; Authorization by Permit) and §144.32 (Signatories to Permit Application and Reports). This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-07.2. DRAFT PERMITS AND FACT SHEETS.

This amendment meets federal stringency requirements pursuant to Part 124-Procedures for Decision Making Subpart A-General Program Requirements §124.6 (Draft Permits) and §124.8 (Fact Sheet). This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-07.3. PERMIT CONDITIONS.

This amendment meets federal stringency requirements pursuant to Part 144-Underground Injection Control Program Subpart E-Permit Conditions §144.51 (Conditions Applicable to All Permits). This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-07.4. ESTABLISHING PERMIT CONDITIONS.

This amendment meets federal stringency requirements pursuant to Part 144-Underground Injection Control Program Subpart E-Permit Conditions §144.52 (Establishing Permit Conditions). This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-08. STORAGE FACILITY PERMIT HEARING.

This amendment states the information required in both the operator's notice to all parties involved and the Commission's notice to the public. The proposed amendment meets EPA stringency requirements pursuant to Part 124-Procedures for Decision Making Subpart A-General Program Requirements §124.10 (Public Notice of Permit Actions and Public Comment Period), §124.11 (Public Comments and Requests for Public Hearing), §124.12 (Public Hearings), and §124.17 (Response to Comments). This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-09. WELL PERMIT APPLICATION REQUIREMENTS.

This amendment meet federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.82 (Required Class VI Permit Information). This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-09.1. FINANCIAL RESPONSIBILITY.

This amendment meets federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.85 (Financial Responsibility). This amendment is expected to have an adverse impact on small entities in access of \$50,000.

The following methods were considered for reducing impact on small entities:

1. Establishment of less stringent compliance or reporting requirements for small entities.

The amendment meets federal stringency requirements.

2. Establishment of less stringent schedules or deadlines for compliance or reporting requirements for small entities.

The amendment meets federal stringency requirements.

3. Consolidation or simplification of compliance or reporting requirements for small entities.

The amendment meets federal stringency requirements.

4. Establishment of performance standards for small entities to replace design or operational standards required in the proposed rule.

The amendment does not address design or operational standards.

5. Exemption of small entities from all or any part of the requirements contained in the proposed rules.

The purpose of the amendment is to comply with federal requirements. Small entities should not be exempt from this amendment due federal stringency requirements. Under section 1421(b), the Safe Drinking Water Act mandates that EPA develop minimum Federal requirements for State Underground Injection Control primary enforcement responsibility, or primacy, to ensure protection of Underground Sources of Drinking Water. In order to implement the UIC program, States must apply to EPA for primacy approval. In the primacy application, States must demonstrate that their State regulations are at least as stringent as those promulgated by EPA.

The adoption of the proposed rules will have an adverse economic impact on small entities, therefore, a Small Entities Economic Impact Statement was prepared.

SECTION 43-05-01-10 INJECTION WELL PERMIT.

This amendment meets federal stringency requirements pursuant to Part 144-Underground Injection Control Program Subpart D-Authorization by Permit §144.36 (Duration of Permits) and §144.53 (a) (Schedule of Compliance). This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-11 INJECTION WELL CONSTRUCTION AND COMPLETION STANDARDS.

This amendment clarifies construction and completion requirements while meeting federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.86 (Injection Well Construction Requirements). This amendment is expected to have an adverse impact on small entities in access of \$50,000.

The following methods were considered for reducing impact on small entities:

1. Establishment of less stringent compliance or reporting requirements for small entities.

The amendment meets federal stringency requirements.

2. Establishment of less stringent schedules or deadlines for compliance or reporting requirements for small entities.

The amendment meets federal stringency requirements.

3. Consolidation or simplification of compliance or reporting requirements for small entities.

The amendment meets federal stringency requirements.

4. Establishment of performance standards for small entities to replace design or operational standards required in the proposed rule.

The amendment meets federal stringency requirements.

5. Exemption of small entities from all or any part of the requirements contained in the proposed rules.

The purpose of the amendment is to comply with federal requirements. Small entities should not be exempt from this amendment due federal stringency requirements. Under section 1421(b), the Safe Drinking Water Act mandates that EPA develop minimum Federal requirements for State Underground Injection Control primary enforcement responsibility, or primacy, to ensure protection of Underground Sources of Drinking Water. In order to implement the UIC program, States must apply to EPA for primacy approval. In the primacy application, States must demonstrate that their State regulations are at least as stringent as those promulgated by EPA.

The adoption of the proposed rules will have an adverse economic impact on small entities, therefore, a Small Entities Economic Impact Statement was prepared.

SECTION 43-05-01-11.1. MECHANICAL INTEGRITY.

This amendment meets federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.89 (Mechanical Integrity). This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-11.2. LOGGING, SAMPLING, AND TESTING PRIOR TO INJECTION WELL OPERATION.

This amendment meets federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.87 (Logging, Sampling, and Testing Prior to Injection Well Operation). This amendment is expected to have an adverse impact on small entities in access of \$50,000.

The following methods were considered for reducing impact on small entities:

1. Establishment of less stringent compliance or reporting requirements for small entities.

The amendment meets federal stringency requirements.

2. Establishment of less stringent schedules or deadlines for compliance or reporting requirements for small entities.

The amendment meets federal stringency requirements.

3. Consolidation or simplification of compliance or reporting requirements for small entities.

The amendment meets federal stringency requirements.

4. Establishment of performance standards for small entities to replace design or operational standards required in the proposed rule.

The amendment meets federal stringency requirements.

5. Exemption of small entities from all or any part of the requirements contained in the proposed rules.

The purpose of the amendment is to comply with federal requirements. Small entities should not be exempt from this amendment due federal stringency requirements. Under section 1421(b), the Safe Drinking Water Act mandates that EPA develop minimum Federal requirements for State Underground Injection Control primary enforcement responsibility, or primacy, to ensure protection of Underground Sources of Drinking Water. In order to implement the UIC program, States must apply to EPA for primacy approval. In the primacy application, States must demonstrate that their State regulations are at least as stringent as those promulgated by EPA.

The adoption of the proposed rules will have an adverse economic impact on small entities, therefore, a Small Entities Economic Impact Statement was prepared.

SECTION 43-05-01-11.3. INJECTION WELL OPERATING REQUIREMENTS.

This amendment meets federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.88 (Injection Well Operating Requirements). This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-11.4. TESTING AND MONITORING REQUIREMENTS.

This amendment meets federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.90 (Testing and Monitoring Requirements). This amendment is expected to have an adverse impact on small entities in access of \$50,000.

The following methods were considered for reducing impact on small entities:

1. Establishment of less stringent compliance or reporting requirements for small entities.

The amendment meets federal stringency requirements.

2. Establishment of less stringent schedules or deadlines for compliance or reporting requirements for small entities.

The amendment meets federal stringency requirements.

3. Consolidation or simplification of compliance or reporting requirements for small entities.

The amendment meets federal stringency requirements.

4. Establishment of performance standards for small entities to replace design or operational standards required in the proposed rule.

The amendment meets federal stringency requirements.

5. Exemption of small entities from all or any part of the requirements contained in the proposed rules.

The purpose of the amendment is to comply with federal requirements. Small entities should not be exempt from this amendment due federal stringency requirements. Under section 1421(b), the Safe Drinking Water Act mandates that EPA develop minimum Federal requirements for State Underground Injection Control primary enforcement responsibility, or primacy, to ensure protection of Underground Sources of Drinking Water. In order to implement the UIC program, States must apply to EPA for primacy approval. In the primacy application, States must demonstrate that their State regulations are at least as stringent as those promulgated by EPA.

The adoption of the proposed rules will have an adverse economic impact on small entities, therefore, a Small Entities Economic Impact Statement was prepared.

SECTION 43-05-01-11.5. INJECTION WELL PLUGGING.

This amendment meets federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.92 (Injection Well Plugging). This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-11.6. INJECTION DEPTH WAIVER REQUIREMENTS.

This amendment meets federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.95 (Class VI Injection Depth Waiver Requirements). This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-12. MODIFICATION, REVOCATION AND REISSUANCE OR TERMINATION OF PERMITS.

This amendment deletes language and appropriately creates an all-encompassing requirement for modifying or revoking permits. The proposed amendments include language moved from deleted §43-05-01-07. The proposed amendments meet federal stringency requirements pursuant to Part

124-Procedures for Decision Making Subpart A-General Program Requirements §124.5 (Modification, Revocation and Reissuance, or Termination of Permits) and Part 144-Underground Injection Control Program Subpart D-Authorization by Permit §144.39 (Modification or Revocation and Reissuance of Permits) and §144.40 (Termination of Permits). This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-12.1. MINOR MODIFICATION OF PERMITS.

This amendment meets federal stringency requirements pursuant to Part 144-Underground Injection Control Program Subpart D-Authorization by Permit §144.41 (Minor Modifications of Permits). This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-13. EMERGENCY AND REMEDIAL RESPONSE PLAN.

This amendment meets federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.94 (Emergency and Remedial Response). This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-14. LEAK DETECTION AND REPORTING.

This amendment replaces “must” with “shall” when imposing a duty on the storage operator. This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-15. STORAGE FACILITY CORROSION MONITORING AND PREVENTION REQUIREMENTS.

This amendment clarifies the requirement for corrosion monitoring and prevention. This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-17. STORAGE FACILITY FEES.

This amendment allows the storage operator to rely on the carbon dioxide storage facility trust fund as part of its financial responsibility demonstration. The proposed amendments require, if necessary, the storage operator to make additional payments into the carbon dioxide storage facility trust fund to ensure that North Dakota will have sufficient funds for the postclosure long term monitoring. This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-18. REPORTING REQUIREMENTS.

This amendment meets federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.91 (Reporting Requirements). This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-18.1. ABANDONMENT OF WELLS.

This amendment gives the Commission the authority to decide the status of a well. The proposed adoption allows for the temporary abandonment of a well or the abandonment and plugging of a well. This amendment will not have an adverse impact on small entities.

SECTION 43-05-01-19. POST-INJECTION SITE CARE AND FACILITY CLOSURE.

This amendment meets federal stringency requirements pursuant to Part 146-Underground Injection Control Program: Criteria and Standards Subpart H-Criteria and Standards Applicable to Class VI Wells §146.93 (Post-Injection Site Care and Site Closure). This amendment is expected to have an adverse impact on small entities in excess of \$50,000.

The following methods were considered for reducing impact on small entities:

1. Establishment of less stringent compliance or reporting requirements for small entities.

The amendment meets federal stringency requirements.

2. Establishment of less stringent schedules or deadlines for compliance or reporting requirements for small entities.

The amendment meets federal stringency requirements.

3. Consolidation or simplification of compliance or reporting requirements for small entities.

The amendment meets federal stringency requirements.

4. Establishment of performance standards for small entities to replace design or operational standards required in the proposed rule.

The amendment meets federal stringency requirements.

5. Exemption of small entities from all or any part of the requirements contained in the proposed rules.

The purpose of the amendment is to comply with federal requirements. Small entities should not be exempt from this amendment due federal stringency requirements. Under section 1421(b), the Safe Drinking Water Act mandates that EPA develop minimum Federal requirements for State Underground Injection Control primary enforcement responsibility, or primacy, to ensure protection of Underground Sources of Drinking Water. In order to implement the UIC program, States must apply to EPA for primacy approval. In the primacy application, States must demonstrate that their State regulations are at least as stringent as those promulgated by EPA.

The adoption of the proposed rules will have an adverse economic impact on small entities, therefore, a Small Entities Economic Impact Statement was prepared.

SECTION 43-05-01-20. DETERMINING STORAGE AMOUNTS.

This amendment identifies who exactly can apply for this determination. This amendment will not have an adverse impact on small entities.

**SMALL ENTITY IMPACT STATEMENT
PURSUANT TO NORTH DAKOTA CENTURY CODE 28-32-08.1**

SECTION 43-05-01-05.1 AREA OF REVIEW AND CORRECTIVE ACTION.

Find the following information as required by NDCC Section 28-32-08.1:

1. The small entities subject to the proposed rule.

The small entities who probably will be affected by the proposed amendment to the rule are individuals and companies who plan on operating a carbon dioxide storage facility in the State. The proposed amendment will affect small entities that currently have a proposed project to store carbon dioxide. The proposed amendment will benefit computer software companies that offer subsurface simulation modeling software and potentially benefit well service companies.

2. The administrative and other costs required for compliance with the proposed rule.

Administrative costs associated with the adoption of this rule will be minimal. Costs required for compliance will include man-hours to run computer modeling simulations and extensive research of the proposed geologic storage facility site. Operators are required to predict the carbon dioxide movement in the subsurface using subsurface reservoir modeling software. The cost of the modeling software license and computer operating system alone is expected to exceed \$50,000. It is anticipated that the cost of the proposed rule to the regulated community is expected to exceed \$50,000.

3. The probable cost and benefit to private persons and consumers who are affected by the proposed rule.

There is no cost to private persons and consumers affected by the amendment. The amendment will provide a benefit to surface owners in the area since area of review and corrective action requirements will promote greater compliance with site characterization and assessment. In addition corrective action requirements require the operator to account for all wells in the area of review, and determined whether corrective action is needed. All wells requiring corrective action must be brought into compliance by the storage facility operator.

4. The probable effect of the proposed rule on state revenues.

It is anticipated that there will be costs to the agency to implement and enforce the proposed amendments. The agency will need to purchase reservoir modeling software, an operating system to run the reservoir modeling software, and train a state employee to use the software. The agency is expected to purchase the modeling software license at a discounted non-commercial rate of \$1,500 per year. The approximate cost of the computer operating system to the agency is expected to exceed \$10,000.

5. Any less intrusive or less costly alternative methods of achieving the purpose of the proposed rule.

No alternate methods were seriously considered since the purpose of the amendment is to meet federal stringency requirements in order to obtain class VI primacy. Alternative methods for the cost of the computer operating system and software license for the agency were considered and the above anticipated costs are the most cost effective for the agency to regulate the program.

SECTION 43-05-01-09.1 FINANCIAL RESPONSIBILITY.

Find the following information as required by NDCC Section 28-32-08.1:

1. The small entities subject to the proposed rule.

The small entities who probably will be affected by the proposed amendment to the rule are individuals and companies who plan on operating a carbon dioxide storage facility in the State. The proposed amendment will affect small entities that currently have a proposed project to store carbon dioxide. The proposed amendment will benefit the State, banks that offer escrow accounts or trust funds, surety companies that issue bonds, insurance policy providers, and potentially other types of third party providers.

2. The administrative and other costs required for compliance with the proposed rule.

Administrative costs associated with the adoption of this rule will be minimal. Costs required for compliance will be that operators must demonstrate financial instruments sufficient to cover the costs of each anticipated stage of the project at the time of storage facility permit application. In addition to the cost of each anticipated stage of the project, the operator must demonstrate sufficient funds to address endangerment of underground sources of drinking water and the emergency and remedial response. It is anticipated that the cost of the proposed rule to the regulated community will exceed \$50,000.

3. The probable cost and benefit to private persons and consumers who are affected by the proposed rule.

There is no cost to private persons and consumers affected by the amendment. The amendment will provide a benefit to surface owners in the area since the operator of a geologic storage facility is required at all times to maintain financial instruments sufficient to cover the cost of all activities associated with the project, including the potential for environmental contamination.

4. The probable effect of the proposed rule on state revenues.

There will not be any costs to the agency to implement and enforce the proposed amendment, in fact, there will probably be a positive impact on State revenues.

5. Any less intrusive or less costly alternative methods of achieving the purpose of the proposed rule.

The only less intrusive or less costly alternative would be to withdraw the proposed amendment and allow the United States Environmental Protection Agency to have continued jurisdiction over class VI injection wells in the State. No alternate methods were seriously considered since the purpose of the amendment is to meet federal stringency requirements in order to obtain class VI primacy.

SECTION 43-05-01-11 INJECTION WELL CONSTRUCTION AND COMPLETION STANDARDS.

Find the following information as required by NDCC Section 28-32-08.1:

1. The small entities subject to the proposed rule.

The small entities who probably will be affected by the proposed amendment to the rule are individuals and companies who plan on operating a carbon dioxide storage facility in the State. The proposed amendment will affect small entities that currently have a proposed project to store carbon dioxide.

2. The administrative and other costs required for compliance with the proposed rule.

Administrative costs associated with the adoption of this rule will be minimal. Costs required for compliance will include cementing the intermediate casing string to surface and verifying the quality of the cement behind casing by using a logging tool capable of radial evaluation and identifying the location of any channels in the cement. It is anticipated that the cost of the proposed rule to the regulated community may exceed \$50,000.

3. The probable cost and benefit to private persons and consumers who are affected by the proposed rule.

There is no cost to private persons and consumers affected by the amendment. The amendment will provide a benefit to surface owners in the area since carbon dioxide injection wells will be constructed and completed in a manner that protects underground sources of drinking water.

4. The probable effect of the proposed rule on state revenues.

There will be no cost to the agency.

5. Any less intrusive or less costly alternative methods of achieving the purpose of the proposed rule.

The only less intrusive or less costly alternative would be to withdraw the proposed amendment and allow the United States Environmental Protection Agency to have continued jurisdiction over class VI injection wells in the State. No alternate methods were seriously considered since the purpose of the amendment is to meet federal stringency requirements in order to obtain class VI primacy.

SECTION 43-05-01-11.2 LOGGING, SAMPLING, AND TESTING PRIOR TO INJECTION WELL OPERATION.

Find the following information as required by NDCC Section 28-32-08.1:

1. The small entities subject to the proposed rule.

The small entities who probably will be affected by the proposed amendment to the rule are individuals and companies who plan on operating a carbon dioxide storage facility in the State. The proposed amendment will affect small entities that currently have a proposed project to store carbon dioxide.

2. The administrative and other costs required for compliance with the proposed rule.

Administrative costs associated with the adoption of this rule will be minimal. Costs required for compliance will include running a variety of logging, surveying, and formation testing tools. In addition, the operator will also be required to core the injection zone and confining zone. It is anticipated that the cost of the proposed rule to the regulated community may exceed \$50,000.

3. The probable cost and benefit to private persons and consumers who are affected by the proposed rule.

There is no cost to private persons and consumers affected by the amendment.

4. The probable effect of the proposed rule on state revenues.

There will be no cost to the agency.

5. Any less intrusive or less costly alternative methods of achieving the purpose of the proposed rule.

The only less intrusive or less costly alternative would be to withdraw the proposed amendment and allow the United States Environmental Protection Agency to have continued jurisdiction over class VI injection wells in the State. No alternate methods were seriously considered since the purpose of the amendment is to meet federal stringency requirements in order to obtain class VI primacy.

SECTION 43-05-01-11.4 TESTING AND MONITORING REQUIREMENTS.

Find the following information as required by NDCC Section 28-32-08.1:

1. The small entities subject to the proposed rule.

The small entities who probably will be affected by the proposed new rule are individuals and companies who plan on operating a carbon dioxide storage facility in the State. The proposed amendment will affect small entities that currently have a proposed project to store carbon dioxide.

2. The administrative and other costs required for compliance with the proposed rule.

Administrative costs associated with the adoption of this rule should be minimal. Costs required for compliance will include testing the chemical and physical properties of the carbon dioxide, monitoring the injection zone using both direct and indirect methods, and monitoring corrosion potential of all constructed material that comes in contact with the carbon dioxide. In addition, automatic shut-off systems will be required for all wells injecting CO₂. It is anticipated that the cost of the proposed rule to the regulated community may exceed \$50,000.

3. The probable cost and benefit to private persons and consumers who are affected by the proposed rule.

There is no cost to private persons and consumers affected by the amendment.

4. The probable effect of the proposed rule on state revenues.

There will be no cost to the agency.

5. Any less intrusive or less costly alternative methods of achieving the purpose of the proposed rule.

The only less intrusive or less costly alternative would be to withdraw the proposed amendment and allow the United States Environmental Protection Agency to have continued jurisdiction over class VI injection wells in the State. No alternate methods were seriously considered since the purpose of the amendment is to meet federal stringency requirements in order to obtain class VI primacy.

SECTION 43-05-01-19 POST-INJECTION SITE CARE AND FACILITY CLOSURE.

Find the following information as required by NDCC Section 28-32-08.1:

1. The small entities subject to the proposed rule.

The small entities who probably will be affected by the proposed new rule are individuals and companies who plan on operating a carbon dioxide storage facility in the State. The proposed amendment will affect small entities that currently have a proposed project to store carbon dioxide.

2. The administrative and other costs required for compliance with the proposed rule.

Administrative costs associated with the adoption of this rule should be minimal. Costs required for compliance will include a continually maintained demonstration of financial instruments at the time of storage facility permit application throughout the operational and post-operational phases of the project sufficient to cover the cost of plugging all proposed wells, reclamation of the site, and long-term monitoring of the CO₂ plume. The current cost to plug one well is approximately \$100,000 depending on location and depth of the well. The current cost for site reclamation is approximately \$50,000 depending on the location and the size of the site. It is anticipated that the cost of the proposed rule to the regulated community will exceed \$50,000.

3. The probable cost and benefit to private persons and consumers who are affected by the proposed rule.

There is no cost to private persons and consumers affected by the amendment.

4. The probable effect of the proposed rule on state revenues.

There will be no cost to the agency.

5. Any less intrusive or less costly alternative methods of achieving the purpose of the proposed rule.

The only less intrusive or less costly alternative would be to withdraw the proposed amendment and allow the United States Environmental Protection Agency to have continued jurisdiction over class VI injection wells in the State. No alternate methods were seriously considered since the purpose of the amendment is to meet federal stringency requirements in order to obtain class VI primacy.

FISCAL NOTE
PURSUANT TO NORTH DAKOTA CENTURY CODE 28-32-08.2

The rule changes to North Dakota Administrative Code (NDAC) chapter 43-05-01 are necessary in order to obtain Class VI primacy enforcement responsibility for the state of North Dakota. The purpose of the amendments and additions to NDAC 43-05-01 is to meet federal stringency requirements. North Dakota must apply to the United States Environmental Protection Agency (EPA) for primacy approval. The primacy application must demonstrate that the State regulations are at least as stringent as those promulgated by EPA. The effect of the rule changes on state revenues and expenditures is minimal, if any. The cost to the agency to implement and enforce the rule changes is minimal. The amendments to the rule that contain any effect on state revenues or the funds controlled by the agency are addressed below.

SECTION 43-05-01-05.1 AREA OF REVIEW AND CORRECTIVE ACTION.

It is anticipated that there will be costs to the agency to implement and enforce the proposed amendments. The agency will need to purchase reservoir modeling software, an operating system to run the reservoir modeling software, and train a state employee to use the software. The agency is expected to purchase the modeling software license at a discounted non-commercial rate of \$1,500 per year. The approximate cost of the computer operating system to the agency is expected to exceed \$10,000. There will be no impact on state revenues.

SECTION 43-05-01-09.1 FINANCIAL RESPONSIBILITY.

There will not be any costs to the agency to implement and enforce the proposed amendment, in fact, there will probably be a positive impact on State revenues. The owner or operator is required to demonstrate financial instruments sufficient to cover the costs of each anticipated stage of the project at the time of storage facility permit application. In addition to the cost of each anticipated stage of the project, the operator must demonstrate sufficient funds to address endangerment of underground sources of drinking water and the emergency and remedial response during the life of the project. It is anticipated that a combination of financial instruments will be used to satisfy the requirements, potentially consisting of surety bonds or trust funds among other acceptable forms of financial assurance.

SECTION 43-05-01-19 POST-INJECTION SITE CARE AND FACILITY CLOSURE.

There will not be any costs to the agency to implement and enforce the proposed amendment, in fact, there will probably be a positive impact on State revenues. The amendment requires the operator to continually maintain financial instruments starting at the time of storage facility permit application throughout the operational and post-operational phases of the project sufficient to cover the cost of plugging all proposed wells, reclamation of the site, and long-term monitoring of the CO₂ plume. It is anticipated that a combination of financial instruments will be used to satisfy the requirements, potentially consisting of surety bonds or trust funds among other acceptable forms of financial assurance.