

Administrative Rules Committee
June 2008
Water Well Construction and Water Well Pump Installation
N.D.A.C. Chapter 33-18-01

Following is information relating to the adoption of amendments to N.D.A.C. chapter 33-18-01, Water Well Construction and Water Well Pump Installation.

1. *Whether the rules resulted from statutory changes made by the Legislative Assembly.*

These amendments to the rules are a result of statute changes to N.D.C.C. article 43-35 which added the certification of geothermal system drillers to the existing certifications of water and monitoring well contractors and pump and pitless unit installers, which are administered by the State Board of Water Well Contractors.

2. *Whether the rules are related to any federal statute or regulation. If so, please indicate whether the rules are mandated by federal law or explain any options your agency had in adapting the rules.*

The rules are not related to any federal statute or regulation.

3. *A description of the rulemaking procedure followed in adopting the rules, e.g., the type of public notice given and the extent of public hearings held on the rules.*

The State Health Council conditionally approved the proposed rule revisions and gave authorization to hold public hearings and receive comment. Public hearing notices for the proposed rule revisions were published in all county newspapers (52) throughout the state beginning October 7, 2007. Notice was also sent to the Legislative Council on October 2, 2007. A Public Hearing was held November 7, 2007 in Bismarck, N.D. Public comments were received until November 19, 2007 and addressed, accordingly.

On January 14, 2008, all pertinent information on the rules was submitted to the Attorney General for legal opinion. The Office of Attorney General examined the proposed amendments to N.D.A.C. chapter 33-18-01. The Attorney General determined that a written record of the agency's considerations of any comments to the proposed rules was made, a regulatory analysis was prepared, a takings assessment was not prepared, a small entity regulatory analysis and economic impact statement were prepared, a stringency justification was not prepared and the proposed rules are within the agency's statutory authority. On February 12, 2008, an Opinion from the Office of Attorney General (copy attached) was given that stated the administrative rules comply with N.D.C.C chapter 28-32 and are hereby approved as to their legality. On February 20, 2008, all pertinent information was sent to the Legislative Council for publication into the North Dakota Administrative Code.

4. *Whether any person has presented a written or oral concern, objection, or complaint for agency consideration with regard to these rules. If so, describe the concern, objection, or*

complaint and the response of the agency, including any change made in the rules to address the concern, objection, or complaint. Please summarize the comments of any person who offered comments at the public hearings on these rules.

In October 2007, the NDDH solicited public comments on the proposed additions, amendments, and deletions to the existing rules pertaining to water well construction and water well pump installation. A Public Hearing was held on November 7, 2007 in Bismarck; no one attended the hearing. The record of the hearing remained open for written comments through November 19, 2007. One person, from within the department, submitted written comments (2) for agency consideration with regard to the rules. All public comments were entered into the hearing record for department review.

The major issues identified in the comments related to the return of used water to the potable water supply and that heat exchanger systems must be in compliance with the Uniform Plumbing Code. All comments in the record were evaluated by department personnel for applicability to the amendments to the rules. The summary of the public comments with the department's response is enclosed for your review.

5. *Whether a written request for a regulatory analysis was filed by the Governor or an agency, whether the rule is expected to have an impact on the regulated community in excess of \$50,000, and whether a regulatory analysis was issued. Please provide a copy if one was prepared.*

Although no request was filed for a regulatory analysis, one was issued by the department. The rule is not expected to have an impact on the regulated community in excess of \$50,000 above the federal requirements. A copy of the analysis is enclosed.

6. *The approximate cost of giving public notice and holding any hearing on the rules and the approximate cost (not including staff time) of developing and adopting the rules.*

The cost for publication of the rule revision and public hearing notices was \$1,797.00. The only other expense was for staff time to develop the rules (approximately 0.2 fte).

7. *An explanation of the subject matter of the rules and the reasons for adopting those rules.*

The NDDH proposed the changes to N.D.A.C. chapter 33-18-01 in response to House Bill No. 1131 that amended chapter 43-35 N.D.C.C State Board of Water Well Contractors. The amendment to chapter 43-35 added the certification of geothermal system drillers to the existing certification of water and monitoring well contractors and pump and pitless unit installers, administered by the board.

Geothermal heating and cooling system are regulated by the North Dakota Geologic Survey (Geological Survey) through N.D.C.C chapter 33-19 and N.D.A.C. chapter 43-02-07. Section 43-02-07-10 requires that all geothermal system wells be constructed by certified water or monitoring well contractors. With an increasing number of drillers working primarily on

geothermal systems, however, the Geological Survey sought the geothermal system driller certification because these drillers have difficulty meeting the experience or education requirements to take the water or monitoring well contractor certification examination.

The proposed changes to N.D.A.C. chapter 33-18-01 are primarily limited to references of geothermal system drillers or geothermal systems in Sections 01, 02, and Appendix V. The inclusion of geothermal system drillers in Section 01 makes them responsible to comply with the chapter, and to have a certified driller in charge. A definition of "geothermal system driller" was added to Section 02. Appendix V updates our geothermal energy policy to comply with changes in Geological Survey regulations, and provides more detail on managing discharge water from open-loop systems. Proposed changes also included deletions to Subsection 33-18-01-05-15 and in Appendix I to reflect that our microbiological laboratory no longer provides bacteriological testing for private wells.

8. *Whether a constitutional takings assessment was prepared as required by North Dakota Century Code (NDCC) Section 28-32-02.5. Please provide a copy if one was prepared.*

A takings assessment was not completed because the amendments do not limit the uses of real property.

9. *If these rules were adopted as emergency (interim final) rules under NDCC Section 28-32-02(6), provide the statutory grounds from that section for declaring the rules to be an emergency and the facts that support that declaration.*

The rules were not adopted as emergency rules.



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MEMORANDUM

TO: Commenters on the Proposed Amendments to N.D.A.C. Chapter 33-18-01
(Water Well Construction and Water Well Pump Installation)

FROM: Dennis R. Fewless, Director
Division of Water Quality

DATE: January 7, 2008

In October 2007, the North Dakota Department of Health solicited public comments on the proposed additions, amendments, and deletions to existing rules pertaining to water well construction and water well pump installation. The proposed rule change was subject to a Public Hearing held on November 7, 2007 in Bismarck, North Dakota.

The record of the hearing remained open for written comments through November 19, 2007. Written comments have been submitted into the record.

All comments received were entered into the hearing record for Department review. The major issues were related to the use of municipal water supplies as a water source and the construction of heat exchangers.

All comments in the record were evaluated by Department personnel for applicability to the amendments to the rules. A written response to all comments is provided.

DRF:dlp

RESPONSE TO COMMENTS
PROPOSED REVISIONS TO N.D.A.C. CHAPTER 33-18-01
WATER WELL CONSTRUCTION AND WATER WELL PUMP INSTALLATION

Comment 1: V. General Policy – Geothermal Energy – Item 4. I do not interpret this provision as allowing return of used water to the potable water supply. If this interpretation is incorrect, then clarifying language is needed.

Response: We agree that the interpretation of General Policy – Geothermal Energy – Item 4 does not allow the return of used water to a potable water supply. The prohibition of the return of water to a potable water system is addressed in General Policy – Geothermal Energy – Item 6, which states (including the proposed amendment to this item), “Geothermal energy systems shall not discharge water to either municipal drinking water or sanitary sewer systems.”

Comment 2: V. General Policy – Geothermal Energy – Item 5. The Amendments add the following phrase to the end of item 5: “, or a double check valve backflow prevention device.” ND has adopted the 2000 edition of the Uniform Plumbing Code (UPC). Section 603.3.41 of the 2000 UPC states “heat exchangers used for heat transfer, heat recovery, or solar heating shall protect the potable water system from being contaminated by the heat transfer medium. Double-wall heat exchangers shall separate the potable water from the heat transfer medium by providing a space between the two walls which is vented to the atmosphere.” Section 603.4.4.2 of the 2000 UPC states “For alternative designs see Appendix L.” Please note that neither section references backflow protection devices as being acceptable. In addition, the specific case outlined in item 5 (toxic or flammable substances) rules out alternate designs outlined in Appendix L. Given these considerations, I believe that item 5, at a minimum, should be left the way it was (i.e., **not** add on “, or a double check valve backflow prevention device). Other options include restating item 5 to something like: “To protect the drinking water supply, heat exchangers shall be of double-wall construction with a space between the two walls which is vented to the atmosphere”, **OR**, “Heat exchange systems shall comply with the North Dakota State Plumbing Code”.

Response: To comply with North Dakota State Plumbing Code regulations, V. General Policy – Geothermal Energy – Item 5 has been changed to read, “To protect the drinking water supply, heat exchangers, unless otherwise permitted under the North Dakota State Plumbing Code, shall be of double-wall construction with a space between the two walls which is vented to the atmosphere.”

RULE REVISION ANALYSIS AND ASSESSMENT

N.D.A.C. Chapter 33-18-01

Water Well Construction and Water Well Pump Installation

I. BACKGROUND OF PROPOSED AMENDMENTS TO N.D.A.C. CHAPTER 33-18-01

The North Dakota Department of Health is proposing minor changes to N.D.A.C. Chapter 33-18-01, Water Well Construction and Water Well Pump Installation, in response to House Bill No. 1131 that amended N.D.C.C. Chapter 43-35, State Board of Water Well Contractors. The amendments to N.D.C.C. Chapter 43-35 added the certification of geothermal system drillers to the existing certifications of water and monitoring well contractors, and pump and pitless unit installers, administered by the board.

Changes to N.D.A.C. Chapter 33-18-01 are required to remove the exception that a permit is not required for private residential geothermal systems. Recent statutory changes to N.D.C.C. Chapter 38-19, Geothermal Resource Development Regulation, require a permit for all geothermal systems.

Additional proposed changes to N.D.A.C. Chapter 33-18-01 include deletions to reflect that our microbiological laboratory no longer provides bacteriological testing for private wells and additional detail on managing the discharge water from open-loop systems.

The following summarizes the proposed amendments to N.D.A.C. Chapter 33-18-01.

33-18-01-01. Responsibility

The proposed amendments in this section are required to implement statute changes to N.D.C.C. Chapter 43-35, State Board of Water Well Contractors, which added a separate certification for geothermal system installers.

43-35-11. Certificate Required. A person, partnership, firm, corporation, or limited liability company may not engage in the business of water well contracting or water well pump and pitless unit installation, monitoring well contracting, or geothermal system drilling unless certified to do so by the board of water well contractors.

The proposed changes to N.D.A.C. Chapter 33-18-01 add geothermal system drillers to those that are responsible to comply with this chapter; they require (1) that a certified geothermal system driller be in charge of drilling geothermal

systems and (2) require that the certified system drilling in charge provide inspection and supervision of drilling geothermal systems.

33-18-01-02. Definitions

The proposed amendment to N.D.A.C. Section 33-18-01-02(14) implements statute changes to N.D.C.C. Chapter 43-35, State Board of Water Well Contractors. The proposed amendment defines the term “geothermal system driller.”

33-18-01-06. General well construction requirements

The purpose of the proposed amendment to N.D.A.C. Section 33-18-01-01(15) is to reflect the fact that North Dakota Department of Health’s Division of Laboratory Services no longer conducts bacteriological analysis for private water well samples.

33-18-01 Appendix I Well Disinfection

The purpose of the proposed amendment to Appendix I (B. Procedure (5)) is to reflect the fact that North Dakota Department of Health’s Division of Laboratory Services no longer conducts bacteriological analysis for private water well samples.

33-18-01 Appendix I General Policy – Geothermal Energy

The primary amendment to this section removes the exception that a permit is not required for private residential geothermal systems. Recent statutory changes to N.D.C.C. Chapter 38-19, Geothermal Resource Development Regulation, require a permit for all geothermal systems.

The proposed amendments to this section also provide more information on managing geothermal system discharge water (Items 1 and 7), the disposal of wastes generated during heat exchange system cleaning (Item 2), and protecting drinking water supplies from contamination by improperly designed geothermal systems (Item 5).

II. REGULATORY ANALYSIS

N.D.C.C. Section 28-32-08 requires an agency to issue a regulatory analysis of its proposed rules if (1) within 20 days after the last published notice of the proposed rule hearing, a written request for an analysis is filed by the Governor or a member of the Legislative Assembly and (2) the proposed rule is expected to have an impact on the regulated community in excess of \$50,000.

No regulatory analysis is required, as the proposed amendments are not expected to have an impact on the regulated community in excess of \$50,000 and neither the Governor nor any member of the Legislative Assembly requested a regulatory analysis.

III. TAKINGS ASSESSMENT

N.D.C.C. Section 28-32-09 requires an agency to prepare a written assessment of the constitution takings implications of a proposed rule if the proposed rule may limit the use of private real property.

No takings assessment was required because the amendments do not limit the uses of real property.

IV. SMALL ENTITY REGULATORY ANALYSIS

A small entity regulatory analysis is required unless the agency is not statutorily exempted from N.D.C.C. Section 28-32-08.1. The North Dakota Department of Health is an exempted agency; consequently a Small Entity Regulatory Analysis is required. The agency shall consider each of the following methods of reducing impact of the proposed rule on small entities:

1. Establishment of less stringent compliance or reporting requirements,
2. Establishment of less stringent schedules or deadlines for compliance or reporting requirements,
3. Consolidation or simplification of compliance or reporting requirements,
4. Establishment of alternative performance standards, and
5. Exemption of small entities from all or a part of any requirements.

Analysis

1. The proposed changes to N.D.A.C. Chapter 33-18-01 have been developed to include recent changes in N.D.C.C. Chapter 43-35 (State Board of Water Well Contractors) and N.D.C.C. Chapter 38-19 (Geothermal Resource Development Regulation) which require geothermal systems to be certified and require that a permit be obtained for each system. The proposed changes ensure that geothermal systems are properly designed and installed so that adverse impacts to the environment can be evaluated and minimized. The proposed rule changes do not adversely impact small entities.

2. The proposed rules changes do not impact any compliance schedules or deadlines or any reporting requirements in N.D.A.C. Chapter 33-18-01. Therefore, less stringent schedules or deadlines for compliance or reporting requirements are not necessary to minimize adverse impacts to small entities.
3. The proposed rules changes to not adversely impact any existing compliance or reporting requirements. The consolidation or simplification of compliance or reporting requirements are not necessary to minimize adverse impacts to small entities.
4. Existing design or operational standards are not significantly changed by the proposed changes to N.D.A.C Chapter 33-18-01. The proposed changes ensure that geothermal systems are designed in a manner that is consistent with existing rules and regulations and that minimize adverse impacts to the environment. Small entities are not significantly impacted by the proposed rule changes.
5. The proposed changes to N.D.A.C. Chapter 33-18-01 are primarily limited to references of geothermal system drillers or geothermal systems and are required to reflect changes in response to recent legislation that amended N.D.C.C. Chapter 43-35, State Board of Water Well Contractors. The amendments to N.D.C.C. Chapter 43-35 added the certification of geothermal system drillers to the existing certifications of water and monitoring well contractors, and pump and pitless unit installers, administered by the Board. The proposed changes to Appendix V – N.D.A.C. Chapter 33-18-01 updates our geothermal energy policy to comply with changes in Geological Survey regulations regarding geothermal system permitting and provides additional detail in managing discharge water from open-loop systems.

The proposed changes to N.D.A.C. Chapter 33-18-01 to not create adverse impacts to small entities, therefore small entities should not be exempted from the proposed rule's requirements.

IV. SMALL ENTITY ECONOMIC IMPACT STATEMENT

This section of the North Dakota Century Code requires the department to prepare a Small Entity Economic Impact Statement unless the agency is exempted under N.D.C.C. Section 28-32-08.1. The North Dakota Department of Health is not an exempted agency; therefore, a Small Entity Economic Impact Statement is required. The statement must determine the following:

1. The small entities subject to the proposed rule,

2. The administrative or other costs required to comply with the proposed rule,
3. The probable cost and benefit to provide persons or consumers who would be affected by the proposed rule,
4. The probable effect of the proposed rule on state revenue, and
5. Whether there are less intrusive or less costly alternative methods to achieve the purpose of the proposed rule.

Analysis

1. The small entities that are subject to the proposed rules include geothermal system drillers and installers.
2. There will be no increase in the administrative costs to small entities from the proposed amendments to N.D.A.C. Chapter 33-18-01. The amendments are primarily to implement statute changes to N.D.C.C. Chapter 43-35, State Board of Water Well Contractors and N.D.C.C. Chapter 38-19, Geothermal Resource Development Regulation. There will be no increase in the North Dakota Department of Health's administrative costs for the proposed rule changes. The North Dakota Geological Survey and the North Dakota State Plumbing Board are responsible for permitting geothermal systems and certifying geothermal system drillers, respectively.
3. The proposed amendments to N.D.A.C. Chapter 33-18-01 do not directly impose additional costs on small entities. The amendments are primarily to implement statute changes to N.D.C.C. Chapter 43-35, State Board of Water Well Contractors, and N.D.C.C. Chapter 38-19, Geothermal Resource Development Regulation. A \$20 permit application fee is required by the North Dakota Geological Survey for each requested permit. It is anticipated that this fee will be passed on to the each homeowner by the geothermal system driller. The benefit of this small cost is that each site will be evaluated prior to the installation of the geothermal system, which will ensure that the homeowner has a well-designed and properly installed geothermal system that is compliance with all appropriate State regulations.
4. There will be no significant effect on state revenues because the permit application fee will go into a continuing appropriate fund that will be used by the State to plug orphaned systems if that becomes necessary. It is anticipated that the fund will receive approximately \$1,400 per year from the residential geothermal program.

5. Geothermal systems could be drilled and installed without requiring a permit or requiring the certification of geothermal system drillers. The best means for protecting the environment is to insure that geothermal systems are properly designed and installed by qualified individuals.