

The statement of scope for this rule, SS 056-22, was approved by the Governor on June 30, 2022, published in Register No. 799A1 on July 5, 2022, and approved by the Natural Resources Board on September 28, 2022. This rule was approved by the Governor on December 22, 2022.

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES AMENDING RULES

The Wisconsin Natural Resources Board adopts an order to **amend** NR 812.11 (15) (b), (d) and (e) relating to the use of new cement formulations for the construction of water wells and affecting small business.

DG-07-22(E)

Analysis Prepared by the Department of Natural Resources

1. Statute Interpreted:

Sections 280.11 and 281.34, Wis. Stats.

2. Statutory Authority:

Section 227.11(2)(a)(intro.), chs. 280 and 281, Wis. Stats.

3. Explanation of Agency Authority:

Section 227.11(2)(a)(intro.), Wis. Stats., provides that a state agency, “may promulgate rules interpreting the provisions of any statute enforced or administered by the agency, if the agency considers it necessary to effectuate the purpose of the statute,” subject to certain restrictions.

Chapter 280, Wis. Stats., establishes the statutory authority and framework for regulation of well drilling, heat exchange drilling and pump installation.

Section 280.11, Wis. Stats., specifically directs the department to prescribe, publish and enforce minimum reasonable standards and rules for methods to be pursued to obtain pure drinking water for human consumption, and to establish safeguards deemed necessary in protecting the public health against the hazards of polluted sources of impure water supplies intended or used for human consumption. This statute gives the department general supervision and control over all methods of obtaining groundwater for human consumption including the construction or reconstruction of wells, authority to prescribe, amend, modify or repeal any applicable rule, and to perform any act deemed necessary for the safeguarding of public health.

Section 280.13, Wis. Stats., gives the department the authority to promulgate such rules as are reasonably necessary to carry out and enforce the provisions of ch. 280, Wis. Stats.

Chapter 281, Wis. Stats., gives the department authority to regulate groundwater withdrawals (s. 281.34, Wis. Stats.), establish, administer and maintain a safe drinking water program no less stringent than the requirements of the safe drinking water act (s. 281.17(8)(a), Wis. Stats.) and includes enforcement authorities (s. 281.98, Wis. Stats.).

4. Related Statutes or Rules:

Chapter NR 146, Wis. Adm. Code, implements the licensing and registration requirements of ch. 280, Wis. Stats., for water well drillers, heat exchange drillers, pump installers and rig operators.

Chapter NR 809, Wis. Adm. Code, establishes minimum standards and procedures for the protection of

the public health, safety and welfare in the obtaining of safe drinking water.

5. Plain Language Analysis:

Companies that manufacture cement for sale and distribution in Wisconsin and surrounding states have switched from producing Type I Portland cement and are now only producing Type IL cement, which does not meet ASTM C150 or API-10A standards. Type IL cement meets ASTM C595 standards and performs similarly to Type I cement. Individual manufacturers made the change to reduce the carbon footprint of their product. This was not prompted by a change in regulations. Some manufacturers completely switched over to producing and selling Type IL cement in 2021, but many end users of cement, including well drillers and pump installers, were not notified until April of 2022. It is anticipated that in the coming months, it will be difficult or impossible to find Type I cement, which is needed for grouting or sealing of water wells or drillholes with neat cement as required by ch. NR 812, Wis. Adm. Code. It is paramount that well drillers have access to code-compliant materials they need to seal an annular space on a new well, or fill and seal an unused well or drillhole. Properly grouting, sealing, and filling water wells and drillholes is necessary to ensure safe drinking water and to prevent contamination of the State’s groundwater. Accordingly, the department finds that promulgating emergency (and permanent) updates to ch. NR 812, Wis. Adm. Code, to allow the use of Type IL cement in the grouting and sealing of wells complies with the preservation of health, safety and welfare criteria found in s. 227.24(1)(a), Wis. Stats.

6. Summary of, and Comparison with, Existing or Proposed Federal Statutes and Regulations:

Federal law does not directly regulate the construction of wells or heat exchange drillholes, and does not regulate the installation of pumps. For public drinking water systems, Wisconsin is a primacy state, with the primary responsibility to enforce state drinking water regulations consistent with the federal Safe Drinking Water Act. One federal requirement of Wisconsin’s primacy role, 40 CFR 142.10(b)(5), is that the state assures that the design and construction of new or substantially modified public water system facilities will be capable of compliance with the state primary drinking water regulations. For non-community public drinking water systems, ch. NR 812, Wis. Adm. Code, provides the design and construction standards to meet this federal requirement.

7. If Held, Summary of Comments Received During Preliminary Comment Period and at Public Hearing on the Statement of Scope:

A preliminary public hearing on the statement of scope was held on August 18, 2022. One person testified for the Wisconsin Water Well Association in favor of the proposed rule.

8. Comparison with Similar Rules in Adjacent States:

This is an emerging industry-wide issue, and all neighboring states have completed, or are in the process of making similar regulatory changes. Michigan, in particular is closely following the rule revision process in Wisconsin to inform its own regulatory changes related to this issue.

9. Summary of Factual Data and Analytical Methodologies Used and How Any Related Findings Support the Regulatory Approach Chosen:

The department was briefed on this issue by an industry representative at the April 26, 2022 Private Water Advisory Council meeting. The department had numerous contacts with well drillers throughout the state to develop its understanding of the problem and the regulatory solution.

10. Analysis and Supporting Documents Used to Determine the Effect on Small Business or in Preparation of an Economic Impact Report:

Since the rule is intended to maintain the current supply of materials, there is no anticipated economic impact of the emergency and permanent rules. The rules will prevent a disruption to small businesses by

allowing them to use materials that are readily available for a similar cost to the previously available materials.

11. Effect on Small Business (initial regulatory flexibility analysis):

The majority of businesses impacted by the rule are small businesses. The total economic impact of the proposed rule revision is estimated to be \$ 0.

12. Agency Contact Person:

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13. Place where comments are to be submitted and deadline for submission:

Comments may be submitted to the department contact person listed above or to DNRAAdministrativeRulesComments@wisconsin.gov until the deadline given in the upcoming notice of public hearing. The notice of public hearing and deadline for submitting comments will be published in the Wisconsin Administrative Register and on the department's website, at <https://dnr.wi.gov/calendar/hearings/>. Comments may also be submitted through the Wisconsin Administrative Rules Website at <https://docs.legis.wisconsin.gov/code/chr/active>.

RULE TEXT

SECTION 1. NR 812.11 (15) (b), (d) and (e) are amended to read:

NR 812.11 (15) (b) *Neat cement.* Neat cement grout shall consist of a mixture of cement and water in the following proportion: one 94-pound bag of Portland cement, labeled as meeting ASTM C 150, Type I or API-10A, Class A or ASTM C595, Type II; and 5 to 6 gallons of water. Ingredients, to increase fluidity, or control shrinkage or time of set may be used only with a variance. Neat cement shall have a density of 15.0 to 15.8 pounds per gallon. Neat cement shall have a uniform consistency with no lumps and any commercially prepared grout shall be screened by the well driller or well constructor prior to pumping. Grout densities for neat cement mixes are provided in Table C.

(d) *Sand-cement.* Sand-cement grout shall consist of a mixture of cement, sand, and water in the proportion of one 94-pound bag of Portland cement, labeled as meeting ASTM C 150, Type I or API-10A, Class A or ASTM C595, Type II; a cubic foot of dry sand and 5 to 6 gallons of water. The sand shall meet the specifications for use in Portland cement concrete.

(e) *Concrete.* Concrete shall consist of a mixture of cement, water, sand, and gravel in the following proportion: one 94-pound bag of Portland cement ~~(,~~ labeled as meeting ASTM C 150, Type I

or API-10A, Class A or ASTM 595, Type IL); an equal measure of sand and an equal measure of gravel, by weight or by volume; and not more than 6 gallons of water. As an alternative, a commercially prepared mix may be used if the mix has at least 6 bags of cement per cubic yard and the gravel size does not exceed 1/3 of the inside diameter of the tremie pipe used for filling and sealing the well or drillhole.

SECTION 2. STATEMENT OF EMERGENCY. Pursuant to s. 227.24(1)(a), Wis. Stats., the Department of Natural Resources (department) finds that promulgating rules under this subsection as emergency rules is necessary for the preservation of public peace, health, safety, or welfare. Currently, ch. NR 812, Wis. Adm. Code, requires the use of Type I Portland cement that meets ASTM C150 standards or Class A Portland cement that meets API-10A standards in the construction of water wells. Cement is an important material for grouting and sealing wells in Wisconsin, especially in areas with fractured bedrock formations. Chapter NR 812, Wis. Adm. Code, requires the use of cement and cement mixed with other materials for the sealing of annular spaces and for filling unused wells in certain conditions, including annular spaces that extend through bedrock formations.

It has recently come to the attention of the department that the companies that manufacture cement for sale and distribution in Wisconsin and surrounding states have switched from producing Type I Portland cement and are now only producing Type IL cement, which does not meet ASTM C150 or API-10A standards.

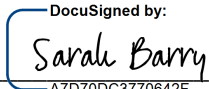
SECTION 3. EFFECTIVE DATE. This rule takes effect upon publication in the official state newspaper, as provided in s. 227.24(1)(c), Wis. Stats.

SECTION 4. BOARD ADOPTION. This rule was approved and adopted by the State of Wisconsin Natural Resources Board on December 14, 2022.

Dated at Madison, Wisconsin 1/6/2023 | 8:52 AM CST.

STATE OF WISCONSIN

DEPARTMENT OF NATURAL RESOURCES

BY  BY Sarah Barry
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For Adam N. Payne, Secretary