

**Michigan Office of Administrative Hearings and Rules**

**Administrative Rules Division (ARD)**

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**REGULATORY IMPACT STATEMENT  
and COST-BENEFIT ANALYSIS (RIS)**

**Agency Information:**

**Department name:**

Environment, Great Lakes and Energy

**Bureau name:**

Drinking Water and Environmental Health Division

**Name of person filling out RIS:**

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**Rule Set Information:**

**ARD assigned rule set number:**

2022-39 EQ

**Title of proposed rule set:**

Part 1. Well Construction Code

**Comparison of Rule(s) to Federal/State/Association Standard**

**1. Compare the proposed rules to parallel federal rules or standards set by a state or national licensing agency or accreditation association, if any exist.**

No federal water well construction and abandonment laws exist regarding the use of cement as a sealing agent in drinking water wells. Other regional states where citizens rely heavily on groundwater for drinking water purposes include Wisconsin and Minnesota. These states have comparable rules to the Michigan Water Well Construction and Pump Installation Code (Well Code), adopted under Part 127, Water Supply and Sewer Systems, of the Michigan Public Health Code, 1978 PA 368, as amended, including documentation related to approved cement products used as sealants. Both Wisconsin and Minnesota are currently working to amend their rules to incorporate the same changes as the Michigan proposed rules.

Wisconsin presented to the Natural Resources Board for emergency passage on September 27, 2022. The emergency rule is expected to take effect after the next Natural Resources Board (October 25, 2022) with a permanent rule in place within the next 30 months.

Minnesota has gone through the request for comments period and is moving forward in the process of amending their rules.

**A. Are these rules required by state law or federal mandate?**

The rules are not required by state law or federal mandate.

**B. If these rules exceed a federal standard, please identify the federal standard or citation, describe why it is necessary that the proposed rules exceed the federal standard or law, and specify the costs and benefits arising out of the deviation.**

These rules do not exceed a federal standard.

**2. Compare the proposed rules to standards in similarly situated states, based on geographic location, topography, natural resources, commonalities, or economic similarities.**

Part 127 (Michigan); Wisconsin Administrative Code, Well Construction and Pump Installation, Chapter NR 812; and Minnesota Rules, Chapters 4725 and 4727, currently require Portland cement conform to ASTM Standard C150, "Standard Specification for Portland Cement." Common Portland cement meeting this standard is no longer in production (Type I) and/or is difficult to obtain based on their highly specialized nature (Type II through Type V). The cement industry is now producing a similar product to Type I known as Portland-Limestone Cement (Type IL) that is readily available. Type IL conforms to ASTM Standard C 595/C 595M-21, "Standard Specification for Blended Hydraulic Cements." This cement product and Standard are currently not approved under rule in Michigan, Wisconsin, and Minnesota. The rules proposed by each state would allow the use of Type IL.

**A. If the rules exceed standards in those states, please explain why and specify the costs and benefits arising out of the deviation.**

The proposed rule changes are not likely to exceed standards in any other similarly situated states.

**3. Identify any laws, rules, and other legal requirements that may duplicate, overlap, or conflict with the proposed rules.**

The proposed rules do not duplicate, overlap, or conflict with any other laws, rules, or legal requirements.

**A. Explain how the rules have been coordinated, to the extent practicable, with other federal, state, and local laws applicable to the same activity or subject matter. This section should include a discussion of the efforts undertaken by the agency to avoid or minimize duplication.**

No federal water well construction and abandonment laws exist regarding the use of cement as a sealing agent. The Well Code is used in combination with the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399), to ensure wells that use groundwater sources are constructed and abandoned safely. The current and proposed rules support R 325.10822 and R 325.10832 of the rules promulgated under Act 399 that lists grouting (sealing) requirements. The Department of Environment, Great Lakes, and Energy (EGLE) is unaware of local or county sanitary codes that contain additional specifications for cement products when used in water well construction and abandonment.

**4. If MCL 24.232(8) applies and the proposed rules are more stringent than the applicable federally mandated standard, provide a statement of specific facts that establish the clear and convincing need to adopt the more stringent rules.**

MCL 24.232(8) does not apply as there are no federally mandated water well construction and abandonment standards for cement products used as a sealing agent.

**5. If MCL 24.232(9) applies and the proposed rules are more stringent than the applicable federal standard, provide either the Michigan statute that specifically authorizes the more stringent rules OR a statement of the specific facts that establish the clear and convincing need to adopt the more stringent rules.**

MCL 24.232(9) does apply as there is no federal mandate to promulgate standards for water well construction and abandonment for cement products used as a sealing agent and there are no applicable federal standards. The state statute authorizing the promulgation of these rules is MCL 333.12714.

## **Purpose and Objectives of the Rule(s)**

**6. Identify the behavior and frequency of behavior that the proposed rules are designed to alter.**

The last rule revision of the Well Code occurred in 1994. The current rules did not anticipate the change for industry to reduce their carbon footprint. Cement manufacturers have modified their products to comply with the reduction of greenhouse gas emissions, and the new materials do not comply with the Well Code. The proposed rule will update the Well Code to accept the newer products that are comparable in composition and function to currently accepted materials. Water well drilling contractors will utilize the new product as a replacement for the material no longer in production.

**A. Estimate the change in the frequency of the targeted behavior expected from the proposed rules.**

Water well drilling contractors will utilize the new cement product as the supply of material no longer produced is exhausted.

**B. Describe the difference between current behavior/practice and desired behavior/practice.**

The distribution, use, and cost of the new and previously produced cement are nearly the same. The behavior/practice of contractors will not differ greatly.

**C. What is the desired outcome?**

The Well Code will allow the use of a widely distributed cement product for installations and abandonments.

**7. Identify the harm resulting from the behavior that the proposed rules are designed to alter and the likelihood that the harm will occur in the absence of the rule.**

Since the last Well Code revision, water well drilling contractors have easily located and used approved cement products for water well installation and abandonment (Type I) until recently. When the major cement plants in Michigan halted production of Type I, supplies dwindled at retail locations. Water well drillers currently continue to use Type I when available. If absent, contractors are either forced into finding other approved material (Type II through Type V) that are difficult to find due to their limited production and specialized nature or use Type IL with the understanding that EGLE will not likely revoke their state-issued registration to perform future work or defer the work until an acceptable alternative is created under the rulemaking process. Citizens unable to have well installation and abandonment services could leave people without water and pose a threat to groundwater resources.

**A. What is the rationale for changing the rules instead of leaving them as currently written?**

The proposed rules allow for the use of Type IL cement. Approved cement is mixed to create a sealing agent for well installations and abandonments. An easily obtained cement product approved under the Well Code would ensure that public health and the protection of the environment is maintained into the future.

**8. Describe how the proposed rules protect the health, safety, and welfare of Michigan citizens while promoting a regulatory environment in Michigan that is the least burdensome alternative for those required to comply.**

Modern rigs drill an oversize hole in the ground before placing pipe (casing and screen) and sealing material in the ground as part of a well installation. Depending on the geology, the sealing material around the pipe is often a cement mixture. During well abandonment, this cement mixture is placed down the pipe after its useful life is concluded. The cement mixture seals the well to ensure contaminants do not migrate to the area where the well gets/has gotten water. The seal also maintains a barrier between water-bearing zones to ensure water quality is maintained. Cement mixtures listed in the Well Code are considered a low cost, easily mixed sealant capable of performing the tasks above to protect the health, safety, and welfare of Michigan citizens. The current Well Code allows for Type I through Type V Portland Cement with Type I being easily obtained until recently. The addition of Type IL under the proposed rules, which is similar in composition and characteristics to Type I, is considered the replacement by industry.

**9. Describe any rules in the affected rule set that are obsolete or unnecessary and can be rescinded.**

This rule package does not propose to rescind rules that are obsolete or unnecessary.

**Fiscal Impact on the Agency**

Fiscal impact is an increase or decrease in expenditures from the current level of expenditures, i.e. hiring additional staff, higher contract costs, programming costs, changes in reimbursements rates, etc. over and above what is currently expended for that function. It does not include more intangible costs for benefits, such as opportunity costs, the value of time saved or lost, etc., unless those issues result in a measurable impact on expenditures.

**10. Please provide the fiscal impact on the agency (an estimate of the cost of rule imposition or potential savings for the agency promulgating the rule).**

The proposed rule changes are not projected to have fiscal impact on the agency.

**11. Describe whether or not an agency appropriation has been made or a funding source provided for any expenditures associated with the proposed rules.**

EGLE has not requested an appropriation increase for 2023. Any added work for the Drinking Water and Environmental Health Division (DWEHD) will be absorbed by existing staff.

**12. Describe how the proposed rules are necessary and suitable to accomplish their purpose, in relationship to the burden(s) the rules place on individuals. Burdens may include fiscal or administrative burdens, or duplicative acts.**

The proposed rules are necessary to ensure the maintenance of public health and protection of the environment. The addition of Type IL to the list of acceptable material under the Well Code will allow water well drilling contractors to perform sealing work related to well installation and well abandonment with a readily available cement product. Cement products currently approved under the Well Code are out of production or difficult to acquire. A burden is placed on the contractors and citizens if the rules are not amended to include Type IL.

**A. Despite the identified burden(s), identify how the requirements in the rules are still needed and reasonable compared to the burdens.**

With a halt in production of Type I at major cement plants in Michigan along with a lack of supply, the addition of Type IL, which is readily available, does not provide a burden on individuals.

**Impact on Other State or Local Governmental Units**

**13. Estimate any increase or decrease in revenues to other state or local governmental units (i.e. cities, counties, school districts) as a result of the rule. Estimate the cost increases or reductions for other state or local governmental units (i.e. cities, counties, school districts) as a result of the rule. Include the cost of equipment, supplies, labor, and increased administrative costs in both the initial imposition of the rule and any ongoing monitoring.**

The proposed rule changes will not affect revenue nor are they anticipated to increase or decrease the cost for other state or local governmental units.

**14. Discuss any program, service, duty, or responsibility imposed upon any city, county, town, village, or school district by the rules.**

No additional responsibilities will be imposed on cities, towns, villages, or school districts by these proposed rule changes. Local health departments are already responsible for issuing water well permits and determining compliance with the Well Code and Act 399 (in instances where the well is classified as certain types of public supplies).

**A. Describe any actions that governmental units must take to be in compliance with the rules. This section should include items such as record keeping and reporting requirements or changing operational practices.**

No governmental units will need to take any actions due to these proposed rule changes.

**15. Describe whether or not an appropriation to state or local governmental units has been made or a funding source provided for any additional expenditures associated with the proposed rules.**

An appropriation to state or local governmental units has not been made or a funding source provided for any additional expenditures that are directly related to these proposed rules.

**Rural Impact**

**16. In general, what impact will the rules have on rural areas?**

The proposed rules will ensure cement-based products used for the completion of well installation and abandonment are readily available. A lack of availability of products that meet the Well Code may increase costs and the ability to complete the work. Michigan citizens in rural areas have a higher percentage of people on individual water supply wells.

**A. Describe the types of public or private interests in rural areas that will be affected by the rules.**

These proposed rule changes will make well construction materials more readily available and positively affect both rural and urban areas.

**Environmental Impact**

**17. Do the proposed rules have any impact on the environment? If yes, please explain.**

The difference in composition of Type I currently accepted under the rules and Type IL proposed in the new rules is a higher limestone content. The DWEHD does not anticipate this change in composition will have any impact on the environment.

**Small Business Impact Statement**

**18. Describe whether and how the agency considered exempting small businesses from the proposed rules.**

Exempting small businesses from the proposed rules was not considered appropriate. The level of public health protection that the use of Type IL provides to citizens should not be adjusted based on the size of a business.

**19. If small businesses are not exempt, describe (a) the manner in which the agency reduced the economic impact of the proposed rules on small businesses, including a detailed recitation of the efforts of the agency to comply with the mandate to reduce the disproportionate impact of the rules upon small businesses as described below (in accordance with MCL 24.240(1)(a-d)), or (b) the reasons such a reduction was not lawful or feasible.**

The DWEHD is not aware of a negative economic impact regarding the implementation of the proposed rules. There is no relationship in the Well Code between the size of a business and potential uses of Type IL.

**A. Identify and estimate the number of small businesses affected by the proposed rules and the probable effect on small businesses.**

Under these proposed rules, it is not expected that small businesses will be affected more than other businesses.

**B. Describe how the agency established differing compliance or reporting requirements or timetables for small businesses under the rules after projecting the required reporting, record-keeping, and other administrative costs.**

EGLE did not establish differing compliance or reporting requirements. Compliance and reporting regarding the use of cement in the well installation and well abandonment process remains the same.

**C. Describe how the agency consolidated or simplified the compliance and reporting requirements for small businesses and identify the skills necessary to comply with the reporting requirements.**

EGLE did not establish consolidated or simplified compliance/reporting requirements. Compliance and reporting regarding the use of cement in the well installation and well abandonment process remains the same.

**D. Describe how the agency established performance standards to replace design or operation standards required by the proposed rules.**

The proposed rules do not change the existing standards.

**20. Identify any disproportionate impact the proposed rules may have on small businesses because of their size or geographic location.**

Under these proposed rules, it is not expected that small businesses will be disproportionately impacted because of their size or geographic location.

**21. Identify the nature of any report and the estimated cost of its preparation by small businesses required to comply with the proposed rules.**

The reporting process is unchanged, and there is no anticipated additional cost for small businesses to produce reports required under the proposed rules.

**22. Analyze the costs of compliance for all small businesses affected by the proposed rules, including costs of equipment, supplies, labor, and increased administrative costs.**

The cost of compliance is not expected to change under the proposed rules.

**23. Identify the nature and estimated cost of any legal, consulting, or accounting services that small businesses would incur in complying with the proposed rules.**

The cost of legal, consulting, or accounting services is not expected to change under the proposed rules.

**24. Estimate the ability of small businesses to absorb the costs without suffering economic harm and without adversely affecting competition in the marketplace.**

It is not anticipated that these rules will adversely affect competition in the marketplace.

**25. Estimate the cost, if any, to the agency of administering or enforcing a rule that exempts or sets lesser standards for compliance by small businesses.**

EGLE will not incur any additional costs since the proposed revisions do not specifically exempt or set lesser standards for compliance for small businesses.

**26. Identify the impact on the public interest of exempting or setting lesser standards of compliance for small businesses.**

The proposed rules do not exempt or set a lesser standard of compliance on small businesses.

**27. Describe whether and how the agency has involved small businesses in the development of the proposed rules.**

Water well drilling contractors are stakeholders in this rulemaking activity, and most are small businesses. The organization that represents these contractors (Michigan Ground Water Association) was engaged throughout this process and has provided a letter of support to EGLE to promulgate a new rule regarding the modification of the Well Code to include the use of Type IL.

**A. If small businesses were involved in the development of the rules, please identify the business(es).**

EGLE involved the Michigan Ground Water Association in the development of the rules, which represents small businesses as a whole.

## **Cost-Benefit Analysis of Rules (independent of statutory impact)**

### **28. Estimate the actual statewide compliance costs of the rule amendments on businesses or groups.**

EGLE does not anticipate a change in compliance costs regarding the rule revision on businesses or groups. If the rule revision is not successful, a lack of available products that meet the Well Code will increase costs, decreasing the ability of contractors to complete the work.

#### **A. Identify the businesses or groups who will be directly affected by, bear the cost of, or directly benefit from the proposed rules.**

Citizens and businesses that require cement products under the Well Code for use in well installation and well abandonment activities, along with water well drilling contractors, will benefit directly from the proposed rules. The proposed rules allow the use of readily available Type IL for these tasks. If the proposed rule changes are not approved and Type IL is not allowed, costs will increase due to a lack of an approved product.

#### **B. What additional costs will be imposed on businesses and other groups as a result of these proposed rules (i.e. new equipment, supplies, labor, accounting, or recordkeeping)? Please identify the types and number of businesses and groups. Be sure to quantify how each entity will be affected.**

EGLE does not foresee additional costs imposed on businesses and other groups as a result of these proposed rules.

### **29. Estimate the actual statewide compliance costs of the proposed rules on individuals (regulated individuals or the public). Include the costs of education, training, application fees, examination fees, license fees, new equipment, supplies, labor, accounting, or recordkeeping.**

EGLE does not foresee any additional costs on individuals to implement the proposed rule changes.

#### **A. How many and what category of individuals will be affected by the rules?**

Individuals who rely on well water for potable use and those businesses that provide water well drilling services will be affected by the proposed rule changes.

#### **B. What qualitative and quantitative impact do the proposed changes in rules have on these individuals?**

Except for utilizing a similar cement product, no impact is anticipated to the regulated individuals and public.

### **30. Quantify any cost reductions to businesses, individuals, groups of individuals, or governmental units as a result of the proposed rules.**

EGLE cannot exactly quantify the cost reductions. Under the existing rules, the products listed are difficult to find and are likely more expensive. The proposed rules will reduce the current costs by including Type IL, which is currently available at retail stores where cement products are sold.

### **31. Estimate the primary and direct benefits and any secondary or indirect benefits of the proposed rules. Please provide both quantitative and qualitative information, as well as your assumptions.**

The primary benefit of these proposed rules is sustaining the ability to protect public health when water well installation and abandonment occurs in the state.

### **32. Explain how the proposed rules will impact business growth and job creation (or elimination) in Michigan.**

The passage of the proposed rule changes will allow the use of a readily available product and likely help with controlling costs when cement is required in well installation and abandonment activities. The proposed rules will not have a significant impact on business growth and job creation.

### **33. Identify any individuals or businesses who will be disproportionately affected by the rules as a result of their industrial sector, segment of the public, business size, or geographic location.**

EGLE is not aware of any individuals or businesses who will be disproportionately affected by the rules.

### **34. Identify the sources the agency relied upon in compiling the regulatory impact statement, including the methodology utilized in determining the existence and extent of the impact of the proposed rules and a cost-benefit analysis of the proposed rules.**

EGLE relied upon department experts, information from existing EGLE data sources, and stakeholders (cement industry, local health agencies, and water well drilling contractors) in the development of the Regulatory Impact Statement and estimated cost-benefit analysis of the proposed rules.

**A. How were estimates made, and what were your assumptions? Include internal and external sources, published reports, information provided by associations or organizations, etc., that demonstrate a need for the proposed rules.**

No estimates regarding cost-benefit analysis were made based on existing conditions and input. Water well drilling contractors continue to either utilize currently approved products (Type I) when available, use Type IL with the understanding that EGLE will not likely revoke their state-issued registration to perform future work, or deferring work until Type IL is acceptable under the Well Code. EGLE and stakeholders agree that an increase in the cost of well construction and abandonment would occur if other currently approved cement products beyond Type I were ordered/distributed/utilized by the industry.

**Alternative to Regulation**

**35. Identify any reasonable alternatives to the proposed rules that would achieve the same or similar goals.**

EGLE has not identified any reasonable alternatives to the proposed rules.

**A. Please include any statutory amendments that may be necessary to achieve such alternatives.**

EGLE has not identified a reasonable alternative or any statutory amendments that may be necessary to achieve an alternative, if one existed.

**36. Discuss the feasibility of establishing a regulatory program similar to that proposed in the rules that would operate through private market-based mechanisms. Please include a discussion of private market-based systems utilized by other states.**

The regulation of water well construction is implemented by state and local entities in Michigan and in other states where citizens rely heavily on private water wells. States without a significant reliance on well water also utilize state and local entities or lack overall regulation.

**37. Discuss all significant alternatives the agency considered during rule development and why they were not incorporated into the rules. This section should include ideas considered both during internal discussions and discussions with stakeholders, affected parties, or advisory groups.**

The proposed rules are limited in scope. No significant alternatives were considered during rule development. EGLE considered taking no action or revoking the rules in full but neither option is agreeable per the reasons provided in questions 7, 7A, and 8.

**Additional Information**

**38. As required by MCL 24.245b(1)(c), please describe any instructions regarding the method of complying with the rules, if applicable.**

No additional instructions are needed to comply with the proposed rule changes.