

NOTICE OF PROPOSED RULE

TYPE OF RULE: Amendment

Utah Admin. Code Ref (R no.):

R309-200-5

Filing ID 54090

Agency Information

| | | |
|--|------------------------------------|---------------------|
| 1. Department: | Environmental Quality | |
| Agency: | Drinking Water | |
| Building: | Multi-Agency State Office Building | |
| Street address: | 195 N 1950 W | |
| City, state and zip: | Salt Lake City, UT 84116 | |
| Mailing address: | PO Box 144830 | |
| City, state and zip: | Salt Lake City, UT 84114-4830 | |
| Contact person(s): | | |
| Name: | Phone: | Email: |
| Julie Cobleigh | 385-214-9770 | jjcobleigh@utah.gov |
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| Please address questions regarding information on this notice to the agency. | | |

General Information

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| 2. Rule or section catchline: |
| R309-200-5. Primary Drinking Water Standards |
| 3. Purpose of the new rule or reason for the change (Why is the agency submitting this filing?): |
| The Division of Drinking Water (Division) is proposing to amend Subsection R309-200-5(5)(a) to clarify a turbidity limit, provide water suppliers with a consistent turbidity standard for membrane facilities treating surface water, and to correct errors in the subsection. |
| 4. Summary of the new rule or change (What does this filing do? If this is a repeal and reenact, explain the substantive differences between the repealed rule and the reenacted rule): |
| Subsection R309-200-5(5)(a)(i)(B) currently requires turbidity samples from combined filter effluent for conventional or direct filtration not to exceed 1 Nephelometric Turbidity Unit (NTU) at any time. With the rounding of turbidity results, the actual combined-filter-effluent-turbidity level can be up to 1.49 NTU's and still meet the 1 NTU requirement. Therefore, the proposed amendment revises the combined-filter-effluent-turbidity limit from 1 NTU to 1.0 NTU to assure compliance with the 1 NTU requirement. |
| In Subsection R309-200-5(5)(a)(ii), the reference to Section R309-200-7 is incorrect and is being corrected to Subsection R309-200-5(7); a missing period is being added to the last sentence in Subsection R309-200-5(5)(a)(ii); and new turbidity performance requirements are being added for water suppliers using membrane filtration to treat surface water or groundwater under the direct influence of surface water. The turbidity performance requirements are being added in conjunction with the amendment of Section R309-530-8, Membrane Technology. |
| (EDITOR'S NOTE: The amendment to Rule R309-530 is under ID 54089 in this issue, December 1, 2021, of the Bulletin.) |

Fiscal Information

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| 5. Provide an estimate and written explanation of the aggregate anticipated cost or savings to: |
| A) State budget: |
| The proposed amendment is anticipated to have no aggregate costs or savings to the state budget because it has no effect on government resources needed to implement the amendment. |
| B) Local governments: |
| The proposed amendment is anticipated to have no aggregate costs or savings to local governments. The amendment only applies to a local government that owns or operates a public drinking water system that treats surface water with conventional filtration, direct filtration, or membrane filtration. Other than correcting errors and clarifying the combined-filter-effluent-turbidity |

limit for conventional or direct filtration, the proposed amendment codifies turbidity performance requirements that until now have been set by the director with each approval of a membrane filtration facility. Membrane filtration facilities that are properly designed, operated, and maintained can consistently produce filtered water turbidity levels below the new turbidity performance requirements.

C) Small businesses ("small business" means a business employing 1-49 persons):

The proposed amendment is anticipated to have no aggregate costs or savings to small businesses. The amendment only applies to a small business that owns or operates a public drinking water system that treats surface water with conventional filtration, direct filtration, or membrane filtration. Other than correcting errors and clarifying the combined-filter-effluent-turbidity limit for conventional or direct filtration, the proposed amendment codifies turbidity performance requirements that until now have been set by the director with each approval of a membrane filtration facility. Membrane filtration facilities that are properly designed, operated, and maintained can consistently produce filtered water turbidity levels below the new turbidity performance requirements.

D) Non-small businesses ("non-small business" means a business employing 50 or more persons):

The proposed amendment is anticipated to have no aggregate costs or savings to non-small businesses. The amendment only applies to a non-small business that owns or operates a public drinking water system that treats surface water with conventional filtration, direct filtration, or membrane filtration. Other than correcting errors and clarifying the combined-filter-effluent-turbidity limit for conventional or direct filtration, the proposed amendment codifies turbidity performance requirements that until now have been set by the director with each approval of a membrane filtration facility. Membrane filtration facilities that are properly designed, operated, and maintained can consistently produce filtered water turbidity levels below the new turbidity performance requirements.

E) Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an **agency**):

The proposed amendment is anticipated to have no aggregate costs or savings to persons other than small businesses, non-small businesses, state government, or local governments. The amendment applies to public water systems that treat surface water with conventional filtration, direct filtration, or membrane filtration. Other than correcting errors and clarifying the combined-filter-effluent-turbidity limit for conventional or direct filtration, the proposed amendment codifies turbidity performance requirements that until now have been set by the director with each approval of a membrane filtration facility. Membrane filtration facilities that are properly designed, operated, and maintained can consistently produce filtered water turbidity levels below the new turbidity performance requirements.

F) Compliance costs for affected persons (How much will it cost an impacted entity to adhere to this rule or its changes?):

The proposed amendment is expected to have no new compliance costs for most affected persons, which are public water systems that treat surface water with conventional filtration, direct filtration, or membrane filtration. Other than correcting errors and clarifying the combined-filter-effluent-turbidity limit for conventional or direct filtration, the proposed amendment codifies turbidity performance requirements that until now have been set by the director with each approval of a membrane filtration facility. Most of the current membrane facilities are able to meet the new turbidity performance standards. Three very small membrane facilities may not be able, as currently operated, to consistently meet the new standard.

G) Comments by the department head on the fiscal impact this rule may have on businesses (Include the name and title of the department head):

The proposed amendment will have no fiscal impact on businesses in Utah. Kimberly Shelley, Executive Director

6. A) Regulatory Impact Summary Table (This table only includes fiscal impacts that could be measured. If there are inestimable fiscal impacts, they will not be included in this table. Inestimable impacts will be included in narratives above.)

| Regulatory Impact Table | | | |
|--------------------------------|---------------|---------------|---------------|
| Fiscal Cost | FY2022 | FY2023 | FY2024 |
| State Government | \$0 | \$0 | \$0 |
| Local Governments | \$0 | \$0 | \$0 |
| Small Businesses | \$0 | \$0 | \$0 |
| Non-Small Businesses | \$0 | \$0 | \$0 |
| Other Persons | \$0 | \$0 | \$0 |
| Total Fiscal Cost | \$0 | \$0 | \$0 |
| Fiscal Benefits | | | |

| | | | |
|------------------------------|------------|------------|------------|
| State Government | \$0 | \$0 | \$0 |
| Local Governments | \$0 | \$0 | \$0 |
| Small Businesses | \$0 | \$0 | \$0 |
| Non-Small Businesses | \$0 | \$0 | \$0 |
| Other Persons | \$0 | \$0 | \$0 |
| Total Fiscal Benefits | \$0 | \$0 | \$0 |
| Net Fiscal Benefits | \$0 | \$0 | \$0 |

B) Department head approval of regulatory impact analysis:
The Executive Director of the Department of Environmental Quality, Kimberly Shelley, has reviewed and approved this fiscal analysis.

Citation Information

7. Provide citations to the statutory authority for the rule. If there is also a federal requirement for the rule, provide a citation to that requirement:

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| Subsection 19-4-104(1)(a)(i) | | |
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Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1. (The public may also request a hearing by submitting a written request to the agency. See Section 63G-3-302 and Rule R15-1 for more information.)

A) Comments will be accepted until (mm/dd/yyyy): 01/03/2022

10. This rule change MAY become effective on (mm/dd/yyyy): 01/10/2022

NOTE: The date above is the date the agency anticipates making the rule or its changes effective. It is NOT the effective date. To make this rule effective, the agency must submit a Notice of Effective Date to the Office of Administrative Rules on or before the date designated in Box 10.

Agency Authorization Information

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| Agency head or designee, and title: | Tim Davis, Director, Division | Date (mm/dd/yyyy): | 11/09/2021 |
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R309. Environmental Quality, Drinking Water.
R309-200. Monitoring and Water Quality: Drinking Water Standards.
R309-200-5. Primary Drinking Water Standards.

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(5) TURBIDITY

(a) All public water systems using surface water or ground water under the direct influence of surface water shall provide treatment consisting of both disinfection, as specified in R309-200-5(7)(a), and filtration treatment which complies with the requirements of paragraph (i), (ii) or (iii) of this section.

(i) Conventional filtration treatment or direct filtration.

(A) For systems using conventional filtration or direct filtration, the turbidity level of representative samples of a system's combined filtered effluent water shall be less than or equal to 0.3 NTU in at least 95 percent of the measurements taken each month, measured as specified in R309-200-4(3) and R309-215-9.

(B) The turbidity level of representative samples of a system's combined filtered effluent water shall at no time exceed 1.0 NTU, measured as specified in R309-200-4(3) and R309-215-9.

(C) A system that uses lime softening may acidify representative samples prior to analysis using a protocol approved by the Director.

(ii) Filtration technologies other than conventional filtration treatment, direct filtration, slow sand filtration, or diatomaceous earth filtration. A public water system may use a filtration technology not listed in paragraph (i) or (iii) of this subsection if it demonstrates to the Director, using pilot plant studies or other means, that the alternative filtration technology, in combination with disinfection treatment that meets the requirements of R309-200-5(7), consistently achieves 99.9 percent removal and/or inactivation of Giardia lamblia cysts and 99.99 percent removal and/or inactivation of viruses, and 99 percent removal of Cryptosporidium oocysts, and the Director approves the use of the filtration technology. For each approval, the Director will set turbidity performance requirements that the system shall meet at least 95 percent of the time and that the system may not exceed at any time at a level that consistently achieves 99.9 percent removal and/or inactivation of Giardia lamblia cysts, 99.99 percent removal and/or inactivation of viruses, and 99 percent removal of Cryptosporidium oocysts. For alternative filtration technology using membrane filtration, the turbidity performance requirements shall be a turbidity level of less than or equal to 0.1 NTU in at least 95 percent of the measurements taken each month and that at no time exceeds 0.5 NTU, measured as specified in Subsection R309-200-4(3) and Section R309-215-9. For alternative filtration technology other than membrane filtration, [F]the turbidity level of representative samples shall at no time exceed 5.0 NTU for any treatment technique, measured as specified in R309-215-9(1)(c) and (d).

(iii) The turbidity limit for slow sand filtration and diatomaceous earth filtration shall be less than or equal to 1.0 NTU in at least 95 percent of the measurements taken each month, measured as specified in R309-215-9(1)(c) and (d). For slow sand filtration only, if the Director determines that the system is capable of achieving 99.9 percent removal and inactivation of Giardia lamblia cysts at some turbidity level higher than 1.0 NTU in at least 95 percent of

the measurements, the Director may substitute this higher turbidity limit for that system. The turbidity level of representative samples shall at no time exceed 5.0 NTU for any treatment technique, measured as specified in R309-215-9(1)(c) and (d).

(c) Ground water sources not under the direct influence of surface water:

(i) The following turbidity limit applies to community water systems only.

(ii) The limit for turbidity in drinking water from ground water sources not under the direct influence of surface sources is 5.0 NTU based on an average for two consecutive days pursuant to R309-205-8(3).

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KEY: drinking water, quality standards, regulated contaminants

Date of Last Change: 2022[~~January 15, 2019~~]

Notice of Continuation: March 12, 2020

Authorizing, and Implemented or Interpreted Law: 19-4-104

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