

## Program Guidance – Transient Non-community Systems and Nitrate MCL Violations

### Summary of Changes Based on Public Comments

Thank you to the individuals that provided feedback on the Department of Natural Resources (Department) proposed guidance titled, “*Transient Non-community Systems and Nitrate MCL Violations*”. One email comment was submitted to the Department during the 21-day public comment period.

Public Comment #1:

March 20, 2014

Dear Mr. Pauli,

Thank you for giving USEPA Region 5 the opportunity to provide comments on the draft guidance to be used by WDNR staff to make decisions about nitrate MCL exceedances at transient non-community water systems. This guidance will be used by your Department to implement special provisions under the National Primary Drinking Water Regulations (NPDWR) found at 40 Code of Federal Regulations (CFR) Part 141 to allow a non-community water system to continue operation when the drinking water served to the public exceeds the maximum contaminant level (MCL) for nitrate but does not exceed 20 mg/l.

The purpose of our comments will be to determine if this guidance provides your staff with instruction to properly implement the NPDWRs that pertain to nitrate and nitrite at transient non-community water systems. Highlighted below are specific federal provisions we believe the guidance is intended to clarify.

Relevant Federal Provisions

40 CFR Part 141.62(b) sets the maximum contaminant level (MCL) for nitrate and total nitrate and nitrite at 10 mg/l (as nitrogen) for community water systems, non-transient non-community water systems and transient non-community water systems.

Additional relevant provisions can be found at 40 CFR Part 141.11(d). At the discretion of the State, nitrate levels not to exceed 20 mg/l may be allowed in a non-community water system if the supplier of water demonstrates to the satisfaction of the State that:

- (1) Such water will not be available to children under 6 months of age; and
- (2) The non-community water system is meeting the public notification requirements under 40 CFR Part 141.209, including continuous posting of the fact that nitrate levels exceed 10 mg/l and the potential health effects of exposure; and
- (3) Local and State public health authorities will be notified annually of nitrate levels that exceed 10 mg/l; and
- (4) No adverse health effects shall result.

40 CFR Part 141.209 requires special notice when a State allows this discretion. Specifically, the owner or operator of a non-community water system granted permission by the primacy agency under 40 CFR Part 141.11(d) to exceed the nitrate MCL must provide notice to persons served according to the requirements for a Tier 1 notice under 40 CFR Part 141.202(a) and (b). Furthermore the non-community water system must provide continuous posting of the fact that nitrate levels exceed 10 mg/l and the potential

health effects of exposure, according to the requirements for Tier 1 notice delivery under 40 CFR Part 141.202(c) and the content requirements under 141.205.

40 CFR Part 141.202(a) requires public notice be provided as soon as practical but no later than 24 hours after the system learns of exceeding the nitrate MCL in a form an manner reasonably calculated to reach all persons served. Section A.5 of the *Draft Public Water Supply Specialist Nitrate Guidance for TNs* guides staff properly on what to communicate to owners of a transient non-community water system operating with nitrate levels between 10 and 20 mg/l about how to provide notice to the public.

At the opening paragraph of 40 CFR Part 141.23, there is additional relevant information, which states:

Transient non-community water systems shall conduct monitoring to determine compliance with the nitrate and nitrite MCLs in 40 CFR Part 141.11 and 141.62 (as appropriate) in accordance with this section.

NPDWRs also create monitoring requirements and an MCL of 1 mg/l (as N) for nitrite. Under 40 CFR Part 141.23(e)(1) and (2), all public water systems (including transient non-community water systems) were required to take one sample for nitrite at each sampling point in the compliance period beginning January 1, 1993 and ending December 31, 1995. After the initial sample, systems where an analytical result for nitrite was less than 0.5 mg/l (<50 percent of the MCL) shall monitor at a frequency specified by the State.

Under 40 CFR Part 141.23(e)(3) and (4), the repeat nitrite monitoring frequency for any water system (including transient non-community water systems) shall be quarterly for at least one year following any sample in which the concentration is  $\geq$  50 percent of the MCL. The State may allow a system to reduce the sampling frequency to annually after determining the system is reliably and consistently less than the nitrite MCL. Systems which are monitoring annually shall take each subsequent sample during the quarter(s) which previously resulted in the highest analytical result.

#### *Specific Comments about the Guidance*

We would like to see additional information provided in the guidance regarding the following issues:

- The guidance should specify the level within the department where the decision to allow a transient non-community water systems to operate between 10-20 mg/L nitrate will be made.

Response: The guidance has been updated to indicate the decision to allow a transient non-community system to operate between 10 and 20 mg/L nitrate is to be made by the field DG staff. If appropriate, concurrence can be obtained from

the DG field supervisor. It adds that this decision may be made based on consultation with the contract county/city staff where appropriate.

- The guidance should elaborate more on the case-by-case factors that should be used to determine when a transient-non-community water system with nitrate  $\geq$  5.0 mg/l should be placed on quarterly monitoring.

Response: The guidance was limited in scope in order to provide timely direction to staff who are currently managing greater than 300 TN systems on continued operation. Creation of guidance for staff for systems with reported nitrate concentrations greater than 5.0 mg/L may occur in the future.

- On page 8, it states:

*The Wisconsin Department of Health Services recommends people of all ages avoid long-term consumption of high nitrate water because it is linked to certain chronic diseases. Continued operation is not intended to be permanent.*

Given the position of WI DHS, the guidance should include information about how to determine when an adverse health effect will result from chronic consumption of the high nitrate or nitrite water.

Response: The guidance was limited in scope in order to provide timely direction to staff who are currently managing greater than 300 TN systems on continued operation. Creation of guidance for staff for determination of adverse health effects may occur in the future.

- On Page 9, the resolution process should start once the drinking water is confirmed to have nitrate reliably and consistently  $>$  10.5 mg/l since continued operation with nitrate between 10 – 20 mg/l is not intended to be permanent. Once drinking water is confirmed to have nitrate  $>$  20 mg/l the prearranged consent order should become effective immediately.

Response: DNR currently has more than 300 TN systems on continuing operation. This issue has been brought to the attention of the Drinking Water and Groundwater Management Team (DGMT). DGMT will be evaluating the workload associated with this effort, prioritizing which systems must first return to compliance with the nitrate standard, and compliance options available to these systems. DNR will likely evaluate each case, and determine the most appropriate enforcement tool for each system that must return to compliance.

- On Page 11, all point-of-entry treatment systems used to comply with the nitrate or nitrite MCL must meet all of the requirements of 40 CFR Part 141.100. Additional information about EPA's current policy on point-of-entry devices used for compliance can be found at

[http://www.epa.gov/ogwdw/smallsystems/pdfs/guide\\_smallsystems\\_pou-poe\\_june6-2006.pdf](http://www.epa.gov/ogwdw/smallsystems/pdfs/guide_smallsystems_pou-poe_june6-2006.pdf)

Response: The requirements of 40 CFR Part 141.100 are reflected in Wisconsin Administrative Code.

- The guidance should explain how the requirement to notify local health and state health department authorities annually of nitrate levels that exceed 10 mg/l can be fulfilled.

Response: DNR currently provides the Department of Health Services with a list of non-community systems with nitrate levels that exceed 10 mg/L on a quarterly basis. DNR is evaluating its' process to determine if all interested stakeholders are receiving the necessary information regarding nitrate exceedances. This section of the guidance may be revised to reflect evolving communication strategies.

- Given that nitrite is easily oxidized to nitrate, WDNR should specify a monitoring frequency for nitrite at public water systems (including transient non-community water systems) serving water with elevated nitrate. When nitrite is found at levels  $\geq 50$  percent of the MCL, repeat monitoring should follow the requirements of 40 CFR Part 141.23(e)(3) and (4) and the Wisconsin Administrative Code equivalent provisions found at NR809.115(5).

Response: The department agrees and supports the creation of specific program guidance for nitrite

Again, we very much appreciate the opportunity to comment.

Sincerely,

Joe Janczy  
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USEPA Region 5  
Ground Water and Drinking Water Branch