

MINNESOTA DEPARTMENT OF HEALTH  
Division of Environmental Health

In the Matter of Amendments  
to Rules Relating to Public  
Water Supplies

STATEMENT OF NEED AND REASONABLENESS

The amendments to rules relating to public water supplies, Minn. Rules, Chapter 4720, are being proposed by the Commissioner of Health for the purpose of complying with requirements contained in federal safe drinking water rules.

HISTORY

The Minnesota Safe Drinking Water Act (SDWA) enacted in 1977 (Minn. Stat. § 144.381 to 144.387 (1986)) authorizes the Commissioner of Health to promulgate rules which are no less stringent than federal regulations relating to public water supplies (Minn. Stat. § 144.383 (e) (1980)). This authority was granted for the purpose of allowing the State, pursuant to the federal SDWA of 1974 (PL 93-523 and amendments thereto) to assume primacy for enforcement of the U.S. Environmental Protection Agency (EPA) drinking water standards. The federal law requires that a state which assumes primacy must meet certain minimum requirements prescribed in federal rules in order to be eligible to receive federal grant monies to support its administration of the federal program.

The Commissioner of Health promulgated the necessary rules Minn. Rules, Chapter 4720, and the U.S. EPA granted primacy enforcement responsibility to the State in 1977. Since that time, the U.S. EPA has amended the federal rules. Minnesota must now amend its rules similarly if it wishes to retain primacy. Amendments to the state rules which are discussed here are being proposed for the purpose of complying with the federal requirements contained in 51 Fed. Reg. 11410-11412, April 2, 1986, 52 Fed. Reg. 25712-25717, July 8, 1987, and 52 Fed. Reg. 41546-41550, October 28, 1987.\*

#### SMALL BUSINESS CONSIDERATIONS

Minn. Statutes, Sec. 14.115, (1986) requires that an agency consider five factors for reducing the impact of proposed rules on small businesses. Since this rule revision contains a new category of public water supply called nontransient, noncommunity water supplies that will include small places of business, the Department has addressed each of the five factors as presented below.

1. The establishment of less stringent compliance or reporting requirements.

The compliance requirements in the proposed rules are minimally stringent, requiring public water systems to test for certain contaminants in their water supplies and to assure that the levels of contaminants found are maintained below a prescribed level to protect the health of consumers of the water. The proposed rule defines a nontransient, noncommunity water supply as a supply that serves 25

\*A copy of the referenced pages is attached as Appendix A.

persons or more per day. Thus small businesses with their own water systems serving fewer than 25 employees per day will not be impacted by this rule. If the state does not include the rule revision requiring nontransient, noncommunity systems to monitor for drinking water contaminants, these water systems will still be obligated to perform the monitoring under federal rules which would be enforced by the U.S. EPA (52 Fed. Reg. 25712-25715, §141.24g and 141.40).

2. The establishment of less stringent schedules or deadlines for compliance or reporting requirements. The monitoring requirements in the proposed rule are being phased in by population served by the water system. Systems serving less than 3,300 persons, which would include all small businesses, are allowed the greatest amount of time to complete their initial monitoring (Jan. 1, 1991). The reporting requirements in the proposed rule are minimal and since MDH intends to collect the water samples required by the rule and report the findings to the small businesses, the small businesses will not be obligated to file any reports with MDH.
  
3. The consolidation of simplification of compliance or reporting requirements. The proposed rules require a small business to test their water for specific contaminants, to report the results to MDH, and to take remedial action if contaminant levels are exceeded. To lessen the burden on small businesses, MDH will collect all required samples and report the results to the small businesses.

4. The establishment of performance standards for small businesses to replace design or operational standards. The proposed rule does not contain design or operational standards but does use a performance standard concept requiring testing of drinking water and establishing contaminant levels that must be met by the water system for the water to be considered acceptable for consumption.
  
5. The exemption of small businesses from any or all requirements of the rule. As previously mentioned small businesses serving water to less than 25 persons per day are exempted from the requirements of this proposed rule.

If a water system is contaminated in excess of permissible levels, the health threat posed to the individual that regularly consumes the water is present regardless of the number of persons that are served by the water system. The health threat to the general public increases as the population served by a water system increases. The current state law defines a public water supply as one serving 25 persons or more and therefore establishes the minimum for the rules.

If the state does not include the rule revision requiring nontransient, noncommunity systems to monitor for volatile organic chemicals, these water systems will be obligated to perform the monitoring under federal rules which would be enforced by the U.S. EPA. MDH's past experience with public water supply rule enforcement has been that the rules are more effectively and consistently applied by a state agency rather than a federal agency.

In an attempt to mitigate the financial impact to small businesses caused by the increased monitoring imposed by this proposed rule revision and additional monitoring anticipated in future federal rule revisions, the MDH has prepared for the 1988 Legislature, at their request, revenue generating options which would minimize or eliminate the costs to small businesses.

#### COST OF IMPLEMENTATION TO LOCAL GOVERNMENTS

Local units of government that provide water to their residents through a community water system will be impacted by the additional monitoring for volatile organic chemicals required by these rule revisions. The cost of analyzing one sample for volatile organic chemicals is approximately \$120-150. The number of samples to be analyzed for volatile organic chemicals for a community is dependent upon several factors: (1) number of community wells, (2) detection of volatile organic chemicals in initial monitoring and (3) vulnerability of wells to contamination. A very small system, with one well in which no volatile organic chemicals are detected in the initial sample, and the well is determined to be not vulnerable to contamination would have the minimum monitoring requirements and pay the least cost. For this scenario only one sample would need to be analyzed every 5 years at a cost of \$120-150 or an annual cost of \$24-30. At the other end of the cost range, very large system, with 25 wells, which had detectable levels of volatile organic chemicals in each initial sample for each well would pay the highest cost. This scenario would require quarterly

monitoring of each well for a total annual cost of (25 wells x 4 samples per year X \$120-150 per sample) \$12,000-15,000. Given the considerable variability of the factors involved in determining monitoring frequency, it is not possible to estimate an average cost for a community but only to establish the range of costs as provided above.

Even if the state were not to adopt rules requiring the monitoring of volatile organic chemicals in community water systems, the water systems will still be obligated to perform the monitoring under federal rules which are enforceable by the U.S. EPA when a state does not act. As mentioned previously, past experience has shown that public drinking water programs are more effective when administered by a state agency rather than U.S. EPA.

In an attempt to mitigate the financial impact to local units of government caused by the increased costs of monitoring imposed by this proposed rule revision and additional monitoring anticipated in future federal rule revisions, the MDH has prepared for the 1989 Legislature, at their request, revenue options designed to defray the costs associated with these and related future rule revisions.

#### NEED AND REASONABLENESS

Nearly all of the amendments being proposed below are required by the federal rules. Where that is the basis for the amendment a simple reference to the federal citation is given without additional comment. Other minor changes pertain to a clarification of terminology used.

Part 4720.0100 New terms are being added to the existing list of defined terms. The new terms are contained in the federal rules definition section, 40 CFR., § 1412. (51 Fed. Reg. 11410 and 52 Fed. Reg. 25712). The terms already contained in the state rule are being relabelled to maintain alphabetic order.

Part 4720.0700 In subpart 1 the maximum contaminant level (MCL) for fluoride is being adjusted to reflect the MCL contained in the federal rule, 51 Fed. Reg. 11410, § 141.11(c). Subpart 2 is modified to include a reference to the new subpart 7 of part 4720.1400 which contains the requirements for fluoride monitoring.

Part 4720.0800 Subpart 1 is changed by adding the term "synthetic" to precede "organic chemicals" to differentiate the type of organic chemicals referred to in this subpart from other types of organic chemicals regulated elsewhere in these rules, e.g. volatile organic chemicals. The individual chemicals currently listed in subpart 1 are pesticides which U.S. EPA is now including in their classification of synthetic organic chemicals so this designation will maintain consistency with EPA terminology. Subpart 3 is added to include a list of eight volatile organic chemicals for which MCLs are established consistent with 51 Fed. Reg. 25716, § 141.61(a).

Part 4720.1400 Subpart 3, item E. has been changed to reflect the analytical methods for determining fluoride concentrations as contained in

51 Fed. Reg. 11410-11411, § 141.23(f)(10). A new subpart 7 is added to include the revised fluoride monitoring requirements as contained in 51 Fed. Reg. 11411, § 141.23(g).

Part 4720.1500 As previously mentioned in the comments for part 4720.0800 subpart 1, the term "synthetic" is being added preceding "organic chemicals" to differentiate this category of organic chemical from other organic chemicals that are also contained in these rules.

Part 4720.1510 A new part added to establish sampling and analytical requirements for volatile organic chemicals. Subpart 1 prescribes the sampling frequency, analytical methods and methods for calculating compliance with MCLs for the eight VOCs for which MCLs are established in part 4720.0800, subpart 3. The provisions contained in subpart 1 are consistent with those found in 52 Fed. Reg. 25712-25714, § 141.24(g). Subpart 2 contains special reporting and public notification requirements that apply only to the contaminants in subpart 3 of this part. Subpart 2 is consistent with 52 Fed. Reg. 25714, § 141.35. Subpart 3 establishes monitoring requirements for up to 51 volatile organic chemicals (VOCs), however, there are no MCLs established for these 51 VOCs. Water systems will be required to report all results to the MDH and provide notice to its consumers that the test results are available to them. Subpart 3 is consistent with 52 Fed. Reg. 25715, § 141.40.

Part 4720.3510 A new part is being created to specify conditions under which the use of point-of-entry and point-of-use treatment devices, and bottled water are appropriate when addressing water system contamination.



Subpart 1 establishes the criteria that must be met in order to use point-of-entry treatment devices to comply with an MCL violation in a water system.

Point-of-entry devices treat all water entering a home or building and may be used as a permanent solution to an MCL violation if the water system can show that the public health protection afforded by point-of-entry devices is equivalent to treatment of the central water system. Subpart 1 is consistent with the requirements found in 52 Fed. Reg. 25716, § 141.100. Subpart 2 prohibits the use of point-of-use devices or bottled water as a permanent method to achieve compliance with an MCL but does recognize them as appropriate for use on a temporary basis. Subpart 2 is consistent with the language in 52 Fed. Reg. 25716, § 141.101. Subpart 3 specifies under what conditions bottled water and point-of-use devices can be used on a temporary basis to avoid an unreasonable risk to health. Subpart 3 is consistent with the language found in 52 Fed. Reg. 25716-25717, § 142.56 and § 142.62.

Part 4720.3900 Most of the existing part is being replaced with new language reflecting the revised federal rules pertaining to public notification, contained in 52 Fed. Reg. 41546, § 141.32. The most significant changes from the previous public notification requirements are: (1) frequent public notice is reserved for violations of MCLs which may have health significance and for violating variance or exemption agreements; (2) minor monitoring violations, e.g. forgetting to collect a sample, would require less frequent noticing than the present rules

require; and (3) new requirements that specific health effects language be contained in the public notice for the particular contaminant that has been found in the water system at levels exceeding the MCL. Subpart 5 contains the contaminant specific mandatory health effects language to be included in the public notice.