

(3) DISINFECTION BENCHMARKING. (a) Any system required to develop a disinfection profile under subs. (1) and (2) and that decides to make a significant change to its disinfection practice shall consult with the department prior to making the change. Significant changes to disinfection practice include any of the following:

1. Changes to the point of disinfection.
2. Changes to the disinfectants used in the treatment plant.
3. Changes to the disinfection process.
4. Any other modification identified by the department.

(b) Any system that modifies its disinfection practice shall calculate its disinfection benchmark using the following procedure:

1. For each year of profiling data collected and calculated under sub. (2), the system shall determine the lowest average monthly *Giardia lamblia* inactivation in each year of profiling data. The system shall determine the average *Giardia lamblia* inactivation for each calendar month for each year of profiling data by dividing the sum of daily *Giardia lamblia* of inactivation by the number of values calculated for that month.
2. The disinfection benchmark is the lowest monthly average value, for systems with one year of profiling data, or average of lowest monthly average values, for systems with more than one year of profiling data, of the monthly logs of *Giardia lamblia* inactivation in each year of profiling data.

(c) A system that uses either chloramines or ozone for primary disinfection also shall calculate the disinfection benchmark for viruses using a method approved by the department.

(d) The system shall submit all of the following information to the department as part of its consultation process:

1. A description of the proposed change.
2. The disinfection profile for *Giardia lamblia* and, if necessary, viruses, under par. (b) and benchmark as required by par. (b)2.
3. An analysis of how the proposed change will affect the current levels of disinfection.

SECTION 47. NR 809 subch. VI (title), as renumbered, is amended to read:

Subchapter VII —

Reporting, Public Notification, Consumer Confidence Reports and Record Keeping

SECTION 48. NR 809.80(4) to (9) are renumbered NR 809.80(5) to (7) and (9) to (11), respectively, and subs. (6)(intro.) and (7)(intro.) and 3., as renumbered, are amended to read:

NR 809.80(6)(intro.) A public water system that uses a ground water source under the direct influence of surface water and does not provide filtration treatment shall report monthly to the department

the information specified in this subsection ~~on or after December 31, 1990, or 6 months after the department has determined that filtration is required in writing.~~

(7)(intro.) A public water system that uses a surface water source or a ground water source under the direct influence of surface water and provides filtration treatment shall report monthly to the department the information specified in this subsection ~~on or after June 29, 1993, or when filtration is installed, whichever is later.~~

(a) 3. The date and value of any turbidity measurements taken during the month which exceed 1.0 NTU for systems using conventional or direct filtration, or which exceed the maximum level set in s. NR 809.76.

SECTION 49. NR 809.80(4) and (8) are created to read:

NR 809.80(4) When determining compliance with microbiological MCL's, and other microbiological monitoring required under subch. I, the department shall accept analytical results only from laboratories that report results directly to the department and are certified under ch. ATCP 77 for safe drinking water analyses. Results from microbiological samples collected to satisfy subch. I, shall be reported to the department and the water supplier within 24 hours of the time the results are obtained by the laboratory. When results are obtained on a weekend or holiday, the results shall be provided to the water supplier and the department as soon as practicable.

(8) Systems shall maintain the results of individual filter monitoring taken under s. NR 809.765 for at least 3 years. Systems shall report that they have conducted individual filter turbidity monitoring under s. NR 809.765 within 10 days after the end of each month the system serves water to the public. Systems shall report individual filter turbidity measurement results taken under s. NR 809.765 within 10 days after the end of each month the system serves water to the public only if measurements demonstrate one or more of the conditions in pars. (a) to (d). Systems that use lime softening may apply to the department for alternative exceedance levels for the levels specified in pars. (a) to (d) if they can demonstrate that higher turbidity levels in individual filters are due to lime carryover only and not due to degraded filter performance.

(a) For any individual filter that has a measured turbidity level of greater than 1.0 NTU in 2 consecutive measurements taken 15 minutes apart, the system shall report the filter number, the turbidity measurement, and the dates on which the exceedance occurred. In addition, the system shall either produce a filter profile for the filter within 7 days of the exceedance, if the system is not able to identify an obvious reason for the abnormal filter performance, and report that the profile has been produced or report the obvious reason for the exceedance.

(b) For any individual filter that has a measured turbidity level of greater than 0.5 NTU in 2 consecutive measurements taken 15 minutes apart at the end of the first 4 hours of continuous filter operation after the filter has been backwashed or otherwise taken offline, the system shall report the filter number, the turbidity, and the dates on which the exceedance occurred. In addition, the system shall either produce a filter profile for the filter within 7 days of the exceedance, if the system is not able to identify an obvious reason for the abnormal filter performance, and report that the profile has been produced or report the obvious reason for the exceedance.

(c) For any individual filter that has a measured turbidity level of greater than 1.0 NTU in 2 consecutive measurements taken 15 minutes apart at any time in each of 3 consecutive months, the system shall report the filter number, the turbidity measurement, and the dates on which the exceedance occurred. In addition, the system shall conduct a self-assessment of the filter within 14 days of the exceedance and report that the self-assessment was conducted. The self-assessment shall consist of at least the following

components: assessment of filter performance; development of a filter profile; identification and prioritization of factors limiting filter performance; assessment of the applicability of corrections; and preparation of a filter self-assessment report.

(d) For any individual filter that has a measured turbidity level of greater than 2.0 NTU in 2 consecutive measurements taken 15 minutes apart at any time in each of 2 consecutive months, the system shall report the filter number, the turbidity measurement, and the dates on which the exceedance occurred. In addition, the system shall arrange for the conduct of a comprehensive performance evaluation by the department or a third party approved by the department no later than 30 days following the exceedance and have the evaluation completed and submitted to the department no later than 90 days following the exceedance.

SECTION 50. NR 809.81(1)(a)3.(intro.) is amended to read:

3. For violations of the MCLs and MRDLs of contaminants that may pose an acute risk to human health, by furnishing a copy of the notice to the radio and television stations serving the area served by the community water system or by hand delivery to each customer as soon as possible but in no case later than 72 hours after the violation. The following violations are acute violations:

SECTION 51. NR 809.81(1)(a)3.d. is created to read:

d. Violation of the MRDL for chlorine dioxide as defined in s. NR 809.561(2).

SECTION 52. NR 809.81(5)(Lt) is amended to read:

NR 809.81(5)(Lt) MICROBIOLOGICAL CONTAMINANTS. (for use when there is a violation of the treatment technique requirements for filtration and disinfection in subch. ~~IV~~ V). The United States environmental protection agency (EPA) sets drinking water standards and has determined that the presence of microbiological contaminants are a health concern at certain levels of exposure. If water is inadequately treated, microbiological contaminants in that water may cause disease. Disease symptoms may include diarrhea, cramps, nausea, and possibly jaundice, and any associated headaches and fatigue. These symptoms, however, are not just associated with disease causing organisms in drinking water, but also may be caused by a number of factors other than your drinking water. EPA has set enforceable requirements for treating drinking water to reduce the risk of these adverse health effects. Treatment such as filtering and disinfecting the water removes or destroys microbiological contaminants. Drinking water which is treated to meet EPA requirements is associated with little to none of this risk and should be considered safe.

SECTION 53. NR 809.83, 809.833, 809.835, and 809.837 are created to read:

NR 809.83 Consumer confidence reports. (1) PURPOSE AND APPLICABILITY. Suppliers of water to community water systems shall deliver to their customers an annual report containing information on the quality of the water and the characterization of risks, if any, from exposure to contaminants detected in the drinking water delivered by their water system. The report shall be written in an accurate and understandable manner.

(a) Customers under this paragraph are defined as billing units or service connections to which water is delivered by a community water system.

(b) Detected under this paragraph refers to all contaminants identified in subch. I and means any quantity reported by a safe drinking water certified laboratory.

(2) DEADLINES. (a) Each existing community water system shall deliver its report by July 1 annually. Reports shall contain data collected during, or prior to, the previous calendar year.

(b) A new community water system shall deliver its first report by July 1 of the year after its first full calendar year in operation and annually thereafter.

(c) A community water system that sells water to another community water system shall deliver the applicable information required in s. NR 809.833 to the buyer system:

1. No later than April 1 annually or
2. On a date mutually agreed upon by the seller and the purchaser, and specifically included in a contract between the parties.

NR 809.833 Content of the reports. (Intro.) Each community water system shall provide to its customers an annual report that contains all of the information specified in this section and s. NR 809.835.

(1) INFORMATION ON THE SOURCE OF THE WATER DELIVERED. Each report shall identify the sources of the water delivered by the community water system by providing information on all of the following:

- (a). The type of the water, e.g., surface water, ground water.
- (b) The commonly used name, if any, and location of the bodies of water.
- (c) If a source water assessment has been completed, the report shall notify consumers of the availability of this information and the means to obtain it. In addition, systems are encouraged to highlight in the report significant sources of contamination in the source water area if they have readily available information. Where a system has received a source water assessment from the department, the report shall include a brief summary of the system's susceptibility to potential sources of contamination, using language provided by the department or written by the water system owner or operator.

(2) DEFINITIONS. (a) Each report shall include all of the following definitions:

1. Maximum contaminant level goal or MCLG: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
2. Maximum contaminant level or MCL: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

(b) A report for a community water system operating under a variance or an exemption issued under subch. VIII shall include the following definition, "Variances and Exemptions: state or EPA permission not to meet an MCL or a treatment technique under certain conditions."

(c) A report which contains data on a contaminant for which EPA has set a treatment technique or an action level shall include one or both of the following definitions as applicable:

1. "Treatment technique: A required process intended to reduce the level of a contaminant in drinking water."
2. "Action level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system shall follow."

(3) INFORMATION ON DETECTED CONTAMINANTS. (intro.) With the exception of *Cryptosporidium*, reports must contain the following information in the specified format, for regulated contaminants with MCLs, treatment techniques, or action levels, unregulated contaminants for which monitoring is required under subch. I, and disinfection by-products and microbial contaminants for which monitoring is required under subchs. IV and V:

(a) The data relating to these contaminants shall be displayed in one table or in several adjacent tables. Any additional monitoring results which a community water system chooses to include in its report shall be displayed separately.

(b) The data shall be derived from data collected to comply with EPA and state monitoring and analytical requirements during calendar year 1998 for the first report and subsequent calendar years thereafter except that:

1. Where a system is allowed to monitor for regulated contaminants less often than once a year, the tables shall include the date and results of the most recent sampling and the report shall include a brief statement indicating that the data presented in the report are from the most recent testing done in accordance with the regulations. No data older than 5 years need be included.

2. Results of monitoring in compliance with requirements issued under 40 CFR Sub. D, part 141, ss. 141.142 and 141.143 (information collection rule) need only be included for 5 years from the date of last sample or until any of the detected contaminants becomes regulated and subject to routine monitoring requirements, whichever comes first.

(c) For detected regulated contaminants, listed in Appendix A to this subchapter, the tables shall contain all of the following:

1. The MCL for that contaminant expressed as a number equal to or greater than 1.0, as provided in Appendix A to this subchapter.

2. The MCLG for that contaminant expressed in the same units as the MCL.

3. If there is no MCL for a detected contaminant, the table shall indicate that there is a treatment technique, or specify the action level, applicable to that contaminant, and the report shall include the definitions for treatment technique or action level, or both, as appropriate, specified in sub. (3)(c).

4. For contaminants subject to an MCL, except turbidity and total coliforms, the highest contaminant level used to determine compliance with requirements of this chapter and the range of detected levels as follows:

a. When compliance with the MCL is determined annually or less frequently: the highest detected level at any sampling point and the range of detected levels expressed in the same units as the MCL.

b. When compliance with the MCL is determined by calculating a running annual average of all samples taken at a sampling point: the highest average of any of the sampling points and the range of all sampling points expressed in the same units as the MCL.

c. When compliance with the MCL is determined on a system-wide basis by calculating a running annual average of all samples at all sampling points: the average and range of detection expressed in the same units as the MCL.

Note: When rounding of results to determine compliance with the MCL is allowed by the regulations, rounding should be done prior to multiplying the results by the factor listed in Appendix A of this subchapter.

5. For turbidity:
 - a. When it is reported pursuant to s. NR 809.40, the highest average monthly value.
 - b. When it is reported pursuant to s. NR 809.755, the highest monthly value. The report should include an explanation of the reasons for measuring turbidity.
 - c. When it is reported pursuant to s. NR 809.755, the highest single measurement and the lowest monthly percentage of samples meeting the turbidity limits specified in s. NR 809.76 for the filtration technology being used. The report should include an explanation of the reasons for measuring turbidity.
6. For lead and copper: the 90th percentile value of the most recent round of sampling and the number of sampling sites exceeding the action level.
7. For total coliform:
 - a. The highest monthly number of positive samples for systems collecting fewer than 40 samples per month; or
 - b. The highest monthly percentage of positive samples for systems collecting at least 40 samples per month.
8. For fecal coliform, the total number of positive samples.
9. The likely sources of detected contaminants to the best of the water system owner or operator's knowledge. Specific information regarding contaminants may be available in sanitary surveys and source water assessments, and should be used when available to the water system owner or operator. If the water system owner or operator lacks specific information on the likely source, the report shall include one or more of the typical sources for that contaminant listed in Appendix B to this subchapter that are most applicable to the system.

(d) If a community water system distributes water to its customers from multiple hydraulically independent distribution systems that are fed by different raw water sources, the table should contain a separate column for each service area and the report should identify each separate distribution system. Alternatively, systems could produce separate reports tailored to include data for each service area.

(e) The tables shall clearly identify any data indicating violations of MCLs or treatment techniques and the report shall contain a clear and readily understandable explanation of the violation including: the length of the violation, the potential adverse health effects, and actions taken by the system to address the violation. To describe the potential health effects, the system shall use the relevant language of Appendix C to this subchapter.

(f) For detected unregulated contaminants for which monitoring is required, except *Cryptosporidium*, the tables shall contain the average and range at which the contaminant was detected. The report may include a brief explanation of the reasons for monitoring for unregulated contaminants.

(4) INFORMATION ON CRYPTOSPORIDIUM, RADON AND OTHER CONTAMINANTS. (a) If the system has performed any monitoring for *Cryptosporidium*, including monitoring performed to satisfy the requirements of 40 CFR Sub. D, part 141, s. 141.143 (information collection rule), which indicates that *Cryptosporidium* may be present in the source water or the finished water, the report shall include all of the following:

1. A summary of the results of the monitoring.

2. An explanation of the significance of the results.

(b) If the system has performed any monitoring for radon which indicates that radon may be present in the finished water, the report shall include all of the following:

1. The results of the monitoring.

2. An explanation of the significance of the results.

(c) If the system has performed additional monitoring which indicates the presence of other contaminants in the finished water, the report shall include all of the following:

1. The results of the monitoring.

2. An explanation of the significance of the results noting the existence of a health advisory or a proposed regulation.

(5) COMPLIANCE WITH ALL DRINKING WATER REGULATIONS. In addition to the requirements of sub. (3)(f), the report shall note any violation that occurred during the year covered by the report of a requirement listed in this subsection. The report also shall include a clear and readily understandable explanation of the violation, any potential adverse health effects, and the steps the system has taken to correct the violation. All of the following violations shall be included:

(a) Failure to comply with requirements for monitoring and reporting of compliance data.

(b) For systems which have failed to install adequate filtration or disinfection equipment or processes, or have had a failure of the equipment or processes which constitutes a violation, the report shall include the following language as part of the explanation of potential adverse health effects. Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses and parasites, which can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

(c) For systems that fail to take one or more actions prescribed by ss. NR 809.541(4), 809.542, 809.543, 809.544 or 809.545, the report shall include the applicable language of Appendix C to this subchapter for lead, copper or both.

(d) For systems that violate the requirements of s. NR 809.26(4), the report shall include the relevant language from Appendix C to this subchapter.

(e) Failure to comply with required recordkeeping of compliance data.

(f) Failure to comply with special monitoring requirements prescribed by ss. NR 809.13 and 809.26.

(g) Violation of the terms of a variance, an exemption or an administrative or judicial order.

(6) VARIANCES AND EXEMPTIONS. If a system is operating under the terms of a conditional waiver or variance issued under subch. VIII, the report shall contain all of the following:

(a) An explanation of the reasons for the variance or exemption.

(b) The date on which the variance or exemption was issued.

(c) A brief status report on the steps the system is taking to install treatment, find alternative sources of water or otherwise comply with the terms and schedules of the variance or exemption.

(d) A notice of any opportunity for public input in the review, or renewal, of the variance or exemption.

(7) ADDITIONAL INFORMATION. (a) The report shall contain a brief explanation regarding contaminants, which may reasonably be expected to be found in drinking water including bottled water. This explanation may include the language of subs. 1. to 3. or systems may use their own comparable language. The report also shall include the language of subd. 4.

1. "The sources of drinking water, both tap water and bottled water, include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity."

2. "Contaminants that may be present in source water include:"

a. "Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife."

b. "Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming."

c. "Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses."

d. "Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems."

e. "Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities."

3. "In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which shall provide the same protection for public health."

4. "Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the environmental protection agency's safe drinking water hotline (800-426-4791)."

(b) The report shall include the telephone number of the owner, operator or designee of the community water system as a source of additional information concerning the report.

(c) In communities where non-English speaking residents comprise a significant portion of the population served, the report should contain information in the appropriate language or languages regarding the importance of the report, or contain a telephone number or address where the residents may contact the system to obtain a translated copy of the report or assistance in the appropriate language. In communities where a specific non-English speaking group comprises at least 5% of the population of the community served, the report shall be translated into that language.

(d) The report shall include information, e.g., time and place of regularly scheduled board meetings, about opportunities for public participation in decisions that may affect the quality of the water.

(e) The systems may include additional information as they deem necessary for public education consistent with, and not detracting from, the purpose of the report.

NR 809.835 Required additional health information. (1) All reports shall prominently display the following language: "Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the safe drinking water hotline (800-426-4791)."

(2) A system which detects arsenic at levels above 25 mg/l but below the MCL:

(a) Shall include in its report a short informational statement about arsenic, using language such as: EPA is reviewing the drinking water standard for arsenic because of special concerns that it may not be stringent enough. Arsenic is a naturally occurring mineral known to cause cancer in humans at high concentrations.

(b) May write its own educational statement, but only in consultation with the department.

(3) A system which detects nitrate at levels above 5 mg/l but below the MCL:

(a) Shall include a short informational statement about the impacts of nitrate on children using language such as: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than 6 months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

(b) May write its own educational statement, but only in consultation with the department.

(4) Systems which detect lead above the action level in more than 5%, but fewer than 10%, of homes sampled:

(a) Shall include a short informational statement about the special impact of lead on children using language such as: "Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the safe drinking water hotline (800-426-4791)."

(b) May write its own educational statement, but only in consultation with the department.

NR 809.837 Report delivery and recordkeeping. (1) Except as provided in sub. (7), each community water system shall mail or otherwise directly deliver one copy of the report to each customer.

(2) The system shall make a good faith effort to reach consumers who do not get water bills, using means recommended by the department. EPA expects that an adequate good faith effort will be tailored to the consumers who are served by the system but are not bill-paying customers, such as renters or workers. A good faith effort to reach consumers would include a mix of methods appropriate to the particular

system such as: Posting the reports on the Internet; mailing to postal patrons in metropolitan areas; advertising the availability of the report in the news media; publication in a local newspaper; posting in public places such as cafeterias or lunch rooms of public buildings; delivery of multiple copies for distribution by single-biller customers such as apartment buildings or large private employers; delivery to community organizations.

(3) No later than the date the system is required to distribute the report to its customers, each community water system shall mail a copy of the report to the department, followed within 3 months by a certification that the report has been distributed to customers, and that the information is correct and consistent with the compliance monitoring data previously submitted to the department.

(4) No later than the date the system is required to distribute the report to its customers, each community water system shall deliver the report to any other agency or clearinghouse identified by the department.

(5) Each community water system shall make its reports available to the public upon request.

(6) Each community water system serving 100,000 or more persons shall post its current year's report to a publicly accessible site on the Internet.

(7) The governor of Wisconsin or the governor's designee may waive the requirement of par. (a) for community water systems serving fewer than 10,000 persons.

(a)(intro.) A system that has received a waiver under this subsection shall do all of the following:

1. Publish the reports in one or more local newspapers serving the area in which the system is located.

2. Inform the customers that the reports will not be mailed, either in the newspapers in which the reports are published or by other means approved by the department.

3. Make the reports available to the public upon request.

(b) A system serving 500 or fewer persons that has received a waiver under this subsection may forego the requirements of par. (a)1. and 2. if they provide notice at least once per year to their customers by mail, door-to-door delivery or by posting in an appropriate location that the report is available upon request.

(8) Any systems subject to this subchapter shall retain copies of its consumer confidence report for no less than 5 years.

Note: Appendices A through C of subch. VI are found at the end of this chapter.

SECTION 54. NR 809.90 is repealed and recreated to read:

NR 809.90 Conditional waivers. (1) A public system may apply to the department for a conditional waiver respecting compliance with a maximum contaminant level or treatment technique requirement for a period up to 3 years if all of the following apply:

(a) One of the following situations exists:

1. Because of the characteristics of the raw water sources which are reasonably available, the public water system cannot comply with a maximum contaminant level despite application of best technology, treatment techniques, or other means generally available, taking costs into consideration.

2. Compelling factors, which may include economic factors, indicate that the public water system cannot comply with a maximum contaminant level or treatment technique requirement for a limited period of time.

(b) The public water system was in operation on the effective date of the maximum contaminant level or treatment technique requirement.

(c) Granting of a conditional waiver will not result in an unreasonable risk to public health.

(2) Small systems serving less than 3300 persons, may apply for a conditional waiver only for nonmicrobial contaminants and only when all of the following conditions are met:

(a) The contaminant or treatment technique to be waived has a maximum contaminant level or treatment technique requirement established in national primary drinking water regulations promulgated on or after January 1, 1986.

(b) The technology used to comply with the maximum contaminant level or treatment technique is approved by the department.

(c) Compliance with maximum contaminant levels or treatment techniques is not reasonably affordable through restructuring or consolidation changes, including ownership change and/or physical consolidation with another public water system, or obtaining financial assistance through the Wisconsin drinking water state revolving loan fund (DWSRF).

(d) The small system is financially and technically capable of installing, operating and maintaining the applicable small system technology under sub. (b).

(e) Granting of a conditional waiver will not result in an unreasonable risk to public health.

(3) The department may grant a conditional waiver if the supplier of water has established that the criteria of subs. (1) or (2) have been met. Any conditional waiver granted shall require all of the following:

(a) Compliance, including increments of progress, by the supplier of water with each maximum contaminant level or treatment technique requirement within the time frame specified by the department in the compliance schedule.

(b) Implementation by the water supplier of control measures the department deems necessary until compliance with the maximum contaminant level or treatment technique requirement is achieved.

(4) Public water systems that use bottled water as a requirement for receiving a conditional waiver shall meet all the of following requirements:

(a) The department shall require and approve a monitoring program for bottled water. The public water system owner or operator shall develop and put in place a monitoring program that provides reasonable assurances that the bottled water meets all MCLs. The public water system owner or operator shall monitor a representative sample of the bottled water for all contaminants regulated under ss. NR 809.24 (1) to (2) and 809.11 during the first 3-month period that it supplies the bottled water to the public, and annually thereafter. Results of the monitoring program shall be provided to the department annually.

(b) The public water system owner or operator shall receive a certification from the bottled water company that the bottled water supplied meets all requirements of s. ATCP 40.07. The public water system owner or operator shall provide the certification to the department the first quarter after it supplies bottled water and annually thereafter.

(c) The public water system shall be fully responsible for the provision of sufficient quantities of bottled water to every person supplied by the public water system via door-to-door bottled water delivery.

(5) If the department approves the use of a point-of-entry device as a requisite for granting a conditional waiver, the water supplier shall provide documentation that the device will not cause increased corrosion of plumbing materials which could increase contaminant levels at the consumer's tap.

(6) Additional requirements for conditional waivers shall include all of the following:

(a) Proof of proper and effective installation, operation and maintenance of any applicable treatment technologies.

(b) Department specified monitoring requirements for the contaminant for which the conditional waiver is sought.

(c) Other terms or conditions specified by the department to ensure adequate public health protection, including but not limited to all of the following:

1. Public education requirements.

2. Source water protection requirements.

3. Quarterly conditional waiver compliance reports to the department.

(7) Before the department may grant a conditional waiver under this section, a class 1 public notice under ch. 985, Stats., and opportunity for a public hearing on the proposed conditional waiver shall be provided by the department. A hearing held pursuant to a request under this subsection is a class 1 hearing and shall be conducted in accordance with ch. 227, Stats.

(8) The department may extend a compliance deadline not to exceed 3 years or 2 years for a small system conditional waiver under sub. (2), beyond the expiration date of the original conditional waiver if the supplier of water establishes all of the following:

(a) The public water system cannot meet the maximum contaminant level or treatment technique requirement without capital improvements which cannot be completed within the period of the conditional waiver.

(b) The supplier of water has entered into an enforceable agreement to become part of a regional public water system or, if the supplier of water needs financial assistance for the necessary capital improvements, the supplier of water has entered into an agreement to obtain the financial assistance.

(c) The supplier of water is taking all practicable steps to meet the standard.

(9) The department may renew an extension granted under sub. (8) if the supplier of water establishes all of the following:

(a) The public water system does not serve more than 500 service connections.

(b) The public water system cannot meet a maximum contaminant level or treatment technique requirement without financial assistance for the necessary capital improvements.

(c) The public water system is taking all practicable steps to achieve compliance with a maximum contaminant level or treatment technique requirement.

SECTION 55. NR 809 Appendices A through C to Subchapter VII are created to read:

Appendix A to Subchapter VII – Converting MCL Compliance Values for Consumer Confidence Reports

Key:

AL=Action Level

MCL=Maximum Contaminant Level

MCLG=Maximum Contaminant Level Goal

MFL=million fibers per liter

mrem/year=millirems per year (a measure of radiation absorbed by the body)

NTU=Nephelometric Turbidity Units

pCi/l=picocuries per liter (a measure of radioactivity)

ppm=parts per million, or milligrams per liter (mg/l)

ppb=parts per billion, or micrograms per liter (g/l)

ppt=parts per trillion, or nanograms per liter

ppq=parts per quadrillion, or picograms per liter

TT=Treatment Technique

Contaminant	MCL in compliance units (mg/L)	multiply by...	MCL in CCR units	MCLG in CCR units
Microbiological Contaminants				
1. Total Coliform Bacteria	-	-	presence of coliform bacteria in 5% of monthly samples	0
2. Fecal coliform and <i>E. coli</i>	-	-	a routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive	0
3. Turbidity	-	-	TT (NTU)	n/a
Radioactive Contaminants				
1. Beta/photon emitters	4 mrem/yr	-	4 mrem/yr	0

2. Alpha emitters	15 pCi/l	-	15 pCi/l	0
3. Combined radium	5 pCi/l	-	5 pCi/l	0
Inorganic Contaminants				
1. Antimony	.006	1000	6 ppb	6
2. Arsenic	.05	1000	50 ppb	n/a
3. Asbestos	7 MFL	-	7 MFL	7
4. Barium	2	-	2 ppm	2
5. Beryllium	.004	1000	4 ppb	4
6. Cadmium	.005	1000	5 ppb	5
7. Chromium	.1	1000	100 ppb	100
8. Copper	AL=1.3	-	AL=1.3 ppm	1.3
9. Cyanide	.2	1000	200 ppb	200
10. Fluoride	4	-	4 ppm	4
11. Lead	AL=.015	1000	AL=15 ppb	0
12. Mercury (inorganic)	.002	1000	2 ppb	2
13. Nitrate (as Nitrogen)	10	-	10 ppm	10
14. Nitrite (as Nitrogen)	1	-	1 ppm	1
15. Selenium	.05	1000	50 ppb	50
16. Thallium	.002	1000	2 ppb	0.5
Synthetic Organic Contaminants including Pesticides and Herbicides				
1. 2,4-D	.07	1000	70 ppb	70
2. 2,4,5-TP [Silvex]	.05	1000	50 ppb	50
3. Acrylamide	-	-	TT	0
4. Alachlor	.002	1000	2 ppb	0
5. Atrazine	.003	1000	3 ppb	3
6. Benzo(a)pyrene [PAH]	.0002	1,000,000	200 ppt	0
7. Carbofuran	.04	1000	40 ppb	40
8. Chlordane	.002	1000	2 ppb	0
9. Dalapon	.2	1000	200 ppb	200
10. Di(2-ethylhexyl)adipate	.4	1000	400 ppb	400
11. Di(2-ethylhexyl)phthalate	.006	1000	6 ppb	0
12. Dibromochloropropane	.0002	1,000,000	200 ppt	0
13. Dinoseb	.007	1000	7 ppb	7
14. Diquat	.02	1000	20 ppb	20
15. Dioxin [2,3,7,8-TCDD]	.00000003	1,000,000,000	30 ppq	0
16. Endothall	.1	1000	100 ppb	100
17. Endrin	.002	1000	2 ppb	2

18. Epichlorohydrin	-	-	TT	0
19. Ethylene dibromide	.00005	1,000,000	50 ppt	0
20. Glyphosate	.7	1000	700 ppb	700
21. Heptachlor	.0004	1,000,000	400 ppt	0
22. Heptachlor epoxide	.0002	1,000,000	200 ppt	0
23. Hexachlorobenzene	.001	1000	1 ppb	0
24. Hexachlorocyclopentadiene	.05	1000	50 ppb	50
25. Lindane	.0002	1,000,000	200 ppt	200
26. Methoxychlor	.04	1000	40 ppb	40
27. Oxamyl [Vydate]	.2	1000	200 ppb	200
28. PCBs [Polychlorinated biphenyls]	.0005	1,000,000	500 ppt	0
29. Pentachlorophenol	.001	1000	1 ppb	0
30. Picloram	.5	1000	500 ppb	500
31. Simazine	.004	1000	4 ppb	4
32. Toxaphene	.003	1000	3 ppb	0
Volatile Organic Contaminants				
1. Benzene	.005	1000	5 ppb	0
2. Carbon tetrachloride	.005	1000	5 ppb	0
3. Chlorobenzene	.1	1000	100 ppb	100
4. o-Dichlorobenzene	.6	1000	600 ppb	600
5. p-Dichlorobenzene	.075	1000	75 ppb	75
6. 1,2-Dichloroethane	.005	1000	5 ppb	0
7. 1,1-Dichloroethylene	.007	1000	7 ppb	7
8. cis-1,2-Dichloroethylene	.07	1000	70 ppb	70
9. trans-1,2-Dichloroethylene	.1	1000	100 ppb	100
10. Dichloromethane	.005	1000	5 ppb	0
11. 1,2-Dichloropropane	.005	1000	5 ppb	0
12. Ethylbenzene	.7	1000	700 ppb	700
13. Styrene	.1	1000	100 ppb	100
14. Tetrachloroet	.005	1000	5 ppb	0

hylene				
15. 1,2,4-Trichlorobenzene	.07	1000	70 ppb	70
16. 1,1,1-Trichloroethane	.2	1000	200 ppb	200
17. 1,1,2-Trichloroethane	.005	1000	5 ppb	3
18. Trichloroethylene	.005	1000	5 ppb	0
19. TTHMs [Total trihalomethanes]	.10	1000	100 ppb	0
20. Toluene	1	-	1 ppm	1
21. Vinyl Chloride	.002	1000	2 ppb	0
22. Xylenes	10	-	10 ppm	10

Appendix B to Subchapter VII – Regulated Contaminants

Key:

AL=Action Level

MCL=Maximum Contaminant Level

MCLG=Maximum Contaminant Level Goal

MFL=million fibers per liter **mrem/year**=millirems per year (a measure of radiation absorbed by the body)

na=not applicable

NTU=Nephelometric Turbidity Units

pCi/l=picocuries per liter (a measure of radioactivity)

ppm=parts per million, or milligrams per liter (mg/l)

ppb=parts per billion, or micrograms per liter (g/l)

ppt=parts per trillion, or nanograms per liter

ppq=parts per quadrillion, or picograms per liter

TT=Treatment Technique

Contaminant (units)	MCLG	MCL	Major Sources in Drinking Water
Microbiological Contaminants			
1. Total Coliform Bacteria (na)	0	presence of coliform bacteria in 5% of monthly samples,	Naturally present in the Environment
2. Fecal coliform and <i>E. coli</i> (na)	0	a routine sample and a repeat sample are total coliform positive, and one is also fecal	Human and animal fecal Waste

		coliform or <i>E. coli</i> positive	
3. Turbidity (NTU)	na	TT	Soil runoff
Radioactive Contaminants			
1. Beta/photon emitters (mrem/yr)	0	4	Decay of natural and man-made deposits
2. Alpha emitters (pCi/l)	0	15	Erosion of natural deposits
3. Combined radium (pCi/l)	0	5	Erosion of natural deposits
Inorganic Contaminants			
1. Antimony (ppb)	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
2. Arsenic (ppb)	na	50	Erosion of natural deposits, Runoff from orchards; Runoff from glass and electronics production wastes
3. Asbestos (MFL)	7	7	Decay of asbestos cement water mains; Erosion of natural deposits
4. Barium (ppm)	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
5. Beryllium (ppb)	4	4	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries
6. Cadmium (ppb)	5	5	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries and paints
7. Chromium (ppb)	100	100	Discharge from steel and pulp mills; Erosion of natural deposits
8. Copper (ppm)	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

9. Cyanide (ppb)	200	200	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
10. Fluoride (ppm)	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
11. Lead (ppb)	0	AL=15	Corrosion of household plumbing systems; Erosion of natural deposits
12. Mercury [inorganic] (ppb)	2	2	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland
13. Nitrate [as Nitrogen] (ppm)	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
14. Nitrite [as Nitrogen] (ppm)	1	1	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural Deposits
15. Selenium (ppb)	50	50	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
16. Thallium (ppb)	0.5	2	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories
Synthetic Organic Contaminants including Pesticides and Herbicides			
1. 2,4-D (ppb)	70	70	Runoff from herbicide used on row crops
2. 2,4,5-TP [Silvex](ppb)	50	50	Residue of banned herbicide
3. Acrylamide	0	TT	Added to water during sewage/wastewater treatment
4. Alachlor (ppb)	0	2	Runoff from herbicide used on row crops
5. Atrazine (ppb)	3	3	Runoff from herbicide

			used on row crops
6. Benzo(a)pyrene [PAH] (nanograms/l)	0	200	Leaching from linings of water storage tanks and distribution lines
7. Carbofuran (ppb)	40	40	Leaching of soil fumigant used on rice and alfalfa
8. Chlordane (ppb)	0	2	Residue of banned termiticide
9. Dalapon (ppb)	200	200	Runoff from herbicide used on rights of way
10. Di(2-ethylhexyl) adipate (ppb)	400	400	Discharge from chemical factories
11. Di(2-ethylhexyl) phthalate (ppb)	0	6	Discharge from rubber and chemical factories
12. Dibromochloropropane (ppt)	0	200	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
13. Dinoseb (ppb)	7	7	Runoff from herbicide used on soybeans and vegetables
14. Diquat (ppb)	20	20	Runoff from herbicide use
15. Dioxin [2,3,7,8-TCDD] (ppq)	0	30	Emissions from waste incineration and other combustion; Discharge from chemical factories
16. Endothall (ppb)	100	100	Runoff from herbicide use
17. Endrin (ppb)	2	2	Residue of banned insecticide
18. Epichlorohydrin	0	TT	Discharge from industrial chemical factories; An impurity of some water treatment chemicals
19. Ethylene dibromide (ppt)	0	50	Discharge from petroleum refineries
20. Glyphosate (ppb)	700	700	Runoff from herbicide use
21. Heptachlor (ppt)	0	400	Residue of banned termiticide
22. Heptachlor epoxide (ppt)	0	200	Breakdown of heptachlor
23. Hexachlorobenzene (ppb)	0	1	Discharge from metal refineries and agricultural chemical factories
24. Hexachlorocyclopentadiene (ppb)	50	50	Discharge from chemical factories
25. Lindane (ppt)	200	200	Runoff/leaching from

			insecticide used on cattle, lumber, gardens
26. Methoxychlor (ppb)	40	40	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
27. Oxamyl [Vydate](ppb)	200	200	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
28. PCBs [Polychlorinated biphenyls] (ppt)	0	500	Runoff from landfills; Discharge of waste chemicals
29. Pentachlorophenol (ppb)	0	1	Discharge from wood preserving factories
30. Picloram (ppb)	500	500	Herbicide runoff
31. Simazine (ppb)	4	4	Herbicide runoff
32. Toxaphene (ppb)	0	3	Runoff/leaching from insecticide used on cotton and cattle
Volatile Organic Contaminants			
1. Benzene (ppb)	0	5	Discharge from factories; Leaching from gas storage tanks and landfills
2. Carbon tetrachloride (ppb)	0	5	Discharge from chemical plants and other industrial activities
3. Chlorobenzene (ppb)	100	100	Discharge from chemical and agricultural chemical factories
4. o-Dichlorobenzene (ppb)	600	600	Discharge from industrial chemical factories
5. p-Dichlorobenzene (ppb)	75	75	Discharge from industrial chemical factories
6. 1,2-Dichloroethane (ppb)	0	5	Discharge from industrial chemical factories
7. 1,1-Dichloroethylene (ppb)	7	7	Discharge from industrial chemical factories
8. cis-1,2-Dichloroethylene (ppb)	70	70	Discharge from industrial chemical factories
9. trans-1,2-Dichloroethylene (ppb)	100	100	Discharge from industrial chemical factories
10. Dichloromethane (ppb)	0	5	Discharge from pharmaceutical and chemical factories

11. 1,2-Dichloropropane (ppb)	0	5	Discharge from industrial chemical factories
12. Ethylbenzene (ppb)	700	700	Discharge from petroleum refineries
13. Styrene (ppb)	100	100	Discharge from rubber and plastic factories; Leaching from landfills
14. Tetrachloroethylene (ppb)	0	5	Discharge from factories and dry cleaners
15. 1,2,4-Trichlorobenzene (ppb)	70	70	Discharge from textile-finishing factories
16. 1,1,1-Trichloroethane (ppb)	200	200	Discharge from metal degreasing sites and other factories
17. 1,1,2-Trichloroethane (ppb)	3	5	Discharge from industrial chemical factories
18. Trichloroethylene (ppb)	0	5	Discharge from metal degreasing sites and other factories
19. TTHMs [Total trihalomethanes](ppb)	0	100	By-product of drinking water chlorination
20. Toluene (ppm)	1	1	Discharge from petroleum factories
21. Vinyl Chloride (ppb)	0	2	Leaching from PVC piping; Discharge from plastics factories
22. Xylenes (ppm)	10	10	Discharge from petroleum factories; Discharge from chemical factories

Appendix C to Subchapter VII – Health Effects Language

Microbiological Contaminants:

(1) Total coliform. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

(2) Fecal coliform/E.coli. Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches or other symptoms. They may pose a special health risk for infants, young children and people with severely compromised immune systems.

(3) Turbidity. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

Radioactive Contaminants:

(4) Beta/photon emitters. Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer.

(5) Alpha emitters. Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

(6) Combined radium 226/228. Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

Inorganic Contaminants:

(7) Antimony. Some people who drink water containing antimony well in excess of the MCL over many years could experience increases in blood cholesterol and decreases in blood sugar.

(8) Arsenic. Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

(9) Asbestos. Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.

(10) Barium. Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.

(11) Beryllium. Some people who drink water containing beryllium well in excess of the MCL over many years could develop intestinal lesions.

(12) Cadmium. Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.

(13) Chromium. Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.

(14) Copper. Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

(15) Cyanide. Some people who drink water containing cyanide well in excess of the MCL over many years could experience nerve damage or problems with their thyroid.

(16) Fluoride. Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.

(17) Lead. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

(18) Mercury (inorganic). Some people who drink water containing inorganic mercury well in excess of the MCL over many years could experience kidney damage.

(19) Nitrate. Infants below the age of 6 months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

(20) Nitrite. Infants below the age of 6 months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

(21) Selenium. Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation.

(22) Thallium. Some people who drink water containing thallium in excess of the MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines, or liver.

Synthetic organic contaminants including pesticides and herbicides:

(23) 2,4-D. Some people who drink water containing the weed killer 2,4-D well in excess of the MCL over many years could experience problems with their kidneys, liver or adrenal glands.

(24) 2,4,5-TP (Silvex). Some people who drink water containing silvex in excess of the MCL over many years could experience liver problems.

(25) Acrylamide. Some people who drink water containing high levels of acrylamide over a long period of time could have problems with their nervous system or blood, and may have an increased risk of getting cancer.

(26) Alachlor. Some people who drink water containing alachlor in excess of the MCL over many years could have problems with their eyes, liver, kidneys or spleen, or experience anemia, and may have an increased risk of getting cancer.

(27) Atrazine. Some people who drink water containing atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.

(28) Benzo(a)pyrene [PAH]. Some people who drink water containing benzo(a)pyrene in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.

(29) Carbofuran. Some people who drink water containing carbofuran in excess of the MCL over many years could experience problems with their blood, or nervous or reproductive systems.

(30) Chlordane. Some people who drink water containing chlordane in excess of the MCL over many years could experience problems with their liver or nervous system, and may have an increased risk of getting cancer.

(31) Dalapon. Some people who drink water containing dalapon well in excess of the MCL over many years could experience minor kidney changes.

(32) Di (2-ethylhexyl) adipate. Some people who drink water containing di (2-ethylhexyl) adipate well in excess of the MCL over many years could experience general toxic effects or reproductive difficulties.

(33) Di (2-ethylhexyl) phthalate. Some people who drink water containing di (2-ethylhexyl) phthalate in excess of the MCL over many years may have problems with their liver, or experience reproductive difficulties, and may have an increased risk of getting cancer.

(34) Dibromochloropropane (DBCP). Some people who drink water containing DBCP in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.

(35) Dinoseb. Some people who drink water containing dinoseb well in excess of the MCL over many years could experience reproductive difficulties.

(36) Dioxin (2,3,7,8-TCDD). Some people who drink water containing dioxin in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.

(37) Diquat. Some people who drink water containing diquat in excess of the MCL over many years could get cataracts.

(38) Endothall. Some people who drink water containing endothall in excess of the MCL over many years could experience problems with their stomach or intestines.

(39) Endrin. Some people who drink water containing endrin in excess of the MCL over many years could experience liver problems.

(40) Epichlorohydrin. Some people who drink water containing high levels of epichlorohydrin over a long period of time could experience stomach problems, and may have an increased risk of getting cancer.

(41) Ethylene dibromide. Some people who drink water containing ethylene dibromide in excess of the MCL over many years could experience problems with their liver, stomach, reproductive system, or kidneys, and may have an increased risk of getting cancer.

(42) Glyphosate. Some people who drink water containing glyphosate in excess of the MCL over many years could experience problems with their kidneys or reproductive difficulties.

(43) Heptachlor. Some people who drink water containing heptachlor in excess of the MCL over many years could experience liver damage and may have an increased risk of getting cancer.

(44) Heptachlor epoxide. Some people who drink water containing heptachlor epoxide in excess of the MCL over many years could experience liver damage, and may have an increased risk of getting cancer.

(45) Hexachlorobenzene. Some people who drink water containing hexachlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys, or adverse reproductive effects, and may have an increased risk of getting cancer.

(46) Hexachlorocyclopentadiene. Some people who drink water containing hexachlorocyclopentadiene well in excess of the MCL over many years could experience problems with their kidneys or stomach.

(47) Lindane. Some people who drink water containing lindane in excess of the MCL over many years could experience problems with their kidneys or liver.

(48) Methoxychlor. Some people who drink water containing methoxychlor in excess of the MCL over many years could experience reproductive difficulties.

(49) Oxamyl [Vydate]. Some people who drink water containing oxamyl in excess of the MCL over many years could experience slight nervous system effects.

(50) PCBs [Polychlorinated biphenyls]. Some people who drink water containing PCBs in excess of the MCL over many years could experience changes in their skin, problems with their thymus gland, immune deficiencies, or reproductive or nervous system difficulties, and may have an increased risk of getting cancer.

(51) Pentachlorophenol. Some people who drink water containing pentachlorophenol in excess of the MCL over many years could experience problems with their liver or kidneys, and may have an increased risk of getting cancer.

(52) Picloram. Some people who drink water containing picloram in excess of the MCL over many years could experience problems with their liver.

(53) Simazine. Some people who drink water containing simazine in excess of the MCL over many years could experience problems with their blood.

(54) Toxaphene. Some people who drink water containing toxaphene in excess of the MCL over many years could have problems with their kidneys, liver or thyroid, and may have an increased risk of getting cancer.

Volatile Organic Contaminants:

(55) Benzene. Some people who drink water containing benzene in excess of the MCL over many years could experience anemia or a decrease in blood platelets, and may have an increased risk of getting cancer.

(56) Carbon tetrachloride. Some people who drink water containing carbon tetrachloride in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.

(57) Chlorobenzene. Some people who drink water containing chlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys.

(58) o-Dichlorobenzene. Some people who drink water containing o-dichlorobenzene well in excess of the MCL over many years could experience problems with their liver, kidneys or circulatory systems.

(59) p-Dichlorobenzene. Some people who drink water containing p-dichlorobenzene in excess of the MCL over many years could experience anemia, damage to their liver, kidneys or spleen, or changes in their blood.

(60) 1,2-Dichloroethane. Some people who drink water containing 1,2-dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer.

(61) 1,1-Dichloroethylene. Some people who drink water containing 1,1-dichloroethylene in excess of the MCL over many years could experience problems with their liver.

(62) cis-1,2-Dichloroethylene. Some people who drink water containing cis-1,2-dichloroethylene in excess of the MCL over many years could experience problems with their liver.

(63) trans-1,2-Dichloroethylene. Some people who drink water containing trans-1,2-dichloroethylene well in excess of the MCL over many years could experience problems with their liver.

(64) Dichloromethane. Some people who drink water containing dichloromethane in excess of the MCL over many years could have liver problems and may have an increased risk of getting cancer.

(65) 1,2-Dichloropropane. Some people who drink water containing 1,2-dichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.

(66) Ethylbenzene. Some people who drink water containing ethylbenzene well in excess of the MCL over many years could experience problems with their liver or kidneys.

(67) Styrene. Some people who drink water containing styrene well in excess of the MCL over many years could have problems with their liver, kidneys or circulatory system.

(68) Tetrachloroethylene. Some people who drink water containing tetrachloroethylene in excess of the MCL over many years could have problems with their liver, and may have an increased risk of getting cancer.

(69) 1,2,4-Trichlorobenzene. Some people who drink water containing 1,2,4-trichlorobenzene well in excess of the MCL over many years could experience changes in their adrenal glands.

(70) 1,1,1,-Trichloroethane. Some people who drink water containing 1,1,1-trichloroethane in excess of the MCL over many years could experience problems with their liver, nervous system or circulatory system.

(71) 1,1,2-Trichloroethane. Some people who drink water containing 1,1,2-trichloroethane well in excess of the MCL over many years could have problems with their liver, kidneys or immune systems.

(72) Trichloroethylene. Some people who drink water containing trichloroethylene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.

(73) TTHMs [Total Trihalomethanes]. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys or central nervous systems, and may have an increased risk of getting cancer.

(74) Toluene. Some people who drink water containing toluene well in excess of the MCL over many years could have problems with their nervous system, kidneys or liver.

(75) Vinyl chloride. Some people who drink water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer.

(76) Xylenes. Some people who drink water containing xylenes in excess of the MCL over many years could experience damage to their nervous system.

SECTION 56. NR 811.01 is amended to read:

NR 811.01 Applicability. This chapter governs the general operation, design and construction of community water systems and the construction of any water system serving 7 or more homes, 10 or more

duplexes, 10 or more mobile homes, 10 or more condominiums units or 10 or more apartments. The standards for design and construction shall be considered minimum standards for new facilities and the minimum standards to which existing facilities shall be upgraded when improvements are undertaken at those facilities except for existing systems where all of the living units are owned by a single owner and the owner provides information indicating that less than 25 year-round residents will be served. These standards may be imposed on a case-by-case basis to existing facilities when the department determines that a potential health risk exists.

SECTION 57. NR 811.05(2)(a)(intro.) and 5. are amended to read:

NR 811.05(2)(a)(intro.) All suppliers of water for municipal water systems shall submit monthly reports on forms supplied by the department to the appropriate ~~district~~ regional office of the department as required by s. NR 108.06 (4). Computer generated forms are acceptable if, at a minimum, all the required data are submitted on the form, and if the form of the report receives the approval of the appropriate department ~~district~~ regional office prior to use. Reports shall include the following data if applicable:

5. Calculated theoretical daily residuals and residual test results;

SECTION 58. NR 811.08(5) is amended to read:

NR 811.08(5) MAINTENANCE. Each supplier of water shall perform routine maintenance to ensure proper operation of the water system. A schedule shall be established for flushing dead-end mains or mains in other areas to remove sediment or water of poor quality. A number of hydrants and valves shall be exercised each year depending on system size so that all are routinely exercised. Record keeping shall be established to insure routine scheduling and performance of valve and hydrant exercising and maintenance. Water storage facilities shall be emptied and inspected at least once every 5 years and maintenance provided as necessary. Interior and exterior paint coatings for steel elevated water storage tanks or treatment structures shall be inspected by a person trained to evaluate the integrity of the paint system at least once every 5 years and repainted as necessary to maintain structural integrity. The supplier of water may perform the inspection if experienced in paint inspection. Upon completion of the water storage facility inspection, a report shall be submitted to the department documenting the condition of the storage facility.

SECTION 59. NR 811.10(2)(intro.) and (a) are amended to read:

NR 811.10(2)(intro.) Provisions for a permit ~~system~~ of no more than 5 years that will allow retention of private water supply systems which are found to be safe and in compliance with ch. NR 812 with the limitation that the owner shall demonstrate a need for continued current use. The permit shall require, but not be limited to, requiring that bacteriological sampling, consisting of obtaining a minimum of ~~2 consecutive safe samples taken a minimum of 2 weeks apart~~ one safe sample, be taken prior to issuing or reissuing the permit to establish that the water is safe for human consumption.

SECTION 60. NR 811.10(3) is renumbered to (4).

SECTION 61. NR 811.10(3) is created to read:

NR 811.10(3) Qualifications of the inspectors determining compliance with ch. NR 812.

SECTION 62. NR 811.11(8) is created to read:

NR 811.11(8) EMERGENCY OPERATIONS. Each community water system shall develop a plan to prepare for, respond to, mitigate and recover from all types of emergency situations, including hazards such as floods, tornadoes and other natural disasters.

(a) Municipal systems shall have an emergency operation plan including, at a minimum:

1. A list of local and state emergency contacts.
2. A system for establishing emergency communications.
3. Any mutual aid agreements the utility has with other communities for sharing personnel, equipment and other resources during an emergency.
4. Standard procedures for emergency water production.

(b) Other-than-municipal systems shall have an emergency operation plan including at a minimum:

1. A list of plumbers, electricians or other contractors that would be available to respond in emergency situations.
2. Procedures for obtaining a back-up water source.

SECTION 63. NR 811.13(3m) to (6) are renumbered NR 811.13(4) to (7) and (4)(title), as renumbered, is amended to read:

NR 811.13(4)(title) ENGINEERING REPORT REQUIREMENTS.

SECTION 64. NR 811.16(4)(d)2. and 3. are amended to read:

NR 811.16(4)(d)2. Two hundred feet between a well and any sanitary sewer main, sanitary sewer manhole, lift station or single family residential fuel oil tank. A lesser separation distance may be allowed for sanitary sewer mains where the sanitary sewer main is constructed of water main materials and joints and pressure tested in place to meet current AWWA C600 specifications. In no case may the separation distance between a well and a sanitary sewer main be less than 50 feet.

3. Four hundred feet between a well and a septic tank or soil adsorption unit receiving less than 8,000 gallons per day, a cemetery or a storm water drainage pond.

SECTION 65. NR 811.16(11) to (21) are renumbered NR 811.16(10) to (20), and sub. (20)(a), as renumbered, is amended to read:

NR 811.16(20)(a) Observation wells, monitoring wells, test wells, treatment wells or other wells constructed as part of the water system shall be constructed in accordance with the requirements for permanent community wells if they are to remain in service after completion of the groundwater supply and if they are located on the well site. ~~unless this requirement is waived by the department.~~ If not to remain in service, the wells shall be abandoned in accordance with s. NR 811.17. Monitoring wells constructed off the well site shall meet the requirements of ch. NR 141.

SECTION 66. NR 811.29(1)(h) and (i) are deleted, NR 811.29(1)(h) and (note) are created to read:

(h) Have a floor drain. The floor drain may be connected to a sanitary sewer where available provided that the pump station floor is at least one foot above the elevation of the nearest sanitary sewer manhole rim. Where a sanitary sewer is available but a manhole is not located nearby, the department may require installation of an additional manhole. The floor drain may discharge to the ground surface provided the discharge location is at least 25 feet from the pumphouse. A greater distance may be required for drains of pump stations serving wells constructed in sand and gravel formations. French drains are prohibited.

Note: The Department recommends that the floor drains from chemical feed rooms discharge to sanitary sewer whenever possible.

SECTION 67. NR 811.33(2)(note) is amended to read:

Note: The number of homes when using figure no. 1 may be reduced by one-third to use the figure for apartment units, condominium units and mobile homes.

The foregoing rule was approved and adopted by the State of Wisconsin Natural Resources Board on _____.

The rule shall take effect on the first day of the month following publication in the Wisconsin administrative register as provided in s. 227.22(2)(intro.), Stats.

Dated at Madison, Wisconsin _____

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By _____
George E. Meyer, Secretary

(SEAL)