

# Nevada Administrative Code

NAC 445A.450-445A.492

## PUBLIC WATER SYSTEMS

### Water Quality

**NAC 445A.450 Definitions. (NRS 445A.860)** As used in NAC 445A.450 to 445A.5405, inclusive, unless the context otherwise requires:

1. "Commission" has the meaning ascribed to it in NRS 445A.8075.
2. "District board of health" has the meaning ascribed to it in NRS 445A.812.
3. "Division" has the meaning ascribed to it in NRS 445A.814.
4. "Federal Act" means the Safe Drinking Water Act, 42 U.S.C. §§ 300f et seq., as amended on August 6, 1996.
5. "Monitoring program" means a program developed by a public water system and approved by the Division or the appropriate district board of health to sample water quality from a sampling point for compliance purposes.
6. "Primary standard" means a standard which specifies a maximum contaminant level for any constituent found in a public water supply which, if exceeded, may adversely affect the health of persons.
7. "Public water system" has the meaning ascribed to it in NRS 445A.840 and includes a water authority in a county whose population is 400,000 or more.
8. "Sampling point" means a location where water samples are taken for compliance purposes in accordance with the requirements for the specific contaminant or water quality parameters being monitored.
9. "Sanitary survey" means an on-site review of the water source, facilities, equipment, operation and maintenance of a public water system for the purposes of evaluating the adequacy of such source, facilities, equipment, operation and maintenance for producing and distributing safe drinking water.
10. "Secondary maximum contaminant level" means a maximum contaminant level adopted by the Commission for a constituent found in a public water supply that, if exceeded, may cause aesthetic concerns to a consumer.
11. "Supplier of water" has the meaning ascribed to it in NRS 445A.845.
12. "Treatment technique" means an enforceable water treatment process or procedure, required to be operated at a specified effectiveness for removal of a measurable surrogate contaminant, that public water systems must employ to ensure effective removal of other contaminants for which there is not a reliable, economical, technically feasible method to measure at levels of concern.
13. "Water authority" has the meaning ascribed to it in NRS 377B.040.
14. The words and terms defined in 40 C.F.R. § 141.2 have the meanings ascribed to them in that section, as adopted by reference in NAC 445A.4525.  
[Bd. of Health, Water Quality Standards Art. 1, eff. 12-14-77]—(NAC A 5-23-90; 9-19-90; 12-3-90; 8-1-91; 10-22-93; 9-6-96; R048-99, 9-27-99; R118-99, 2-10-2000; A by Environmental Comm'n by R126-05, 10-31-2005; R014-08, 4-17-2008; R194-08, 10-27-2009)

**NAC 445A.451 Applicability. (NRS 445A.855, 445A.860)** The provisions of NAC 445A.450 to 445A.492, inclusive, apply to all public water systems unless a public water system:

1. Consists only of distribution and storage facilities and does not have any production, collection or treatment facilities;
2. Obtains all of its water from, but is not owned or operated by, a public water system to which NAC 445A.450 to 445A.492, inclusive, apply;
3. Does not sell water to any person; and
4. Is not a carrier which conveys passengers in interstate commerce.

[Bd. of Health, Water Quality Standards Art. 2 §§ 2.3-2.3.1.4, eff. 12-14-77]—(NAC A by R088-00, 8-3-2001; A by Environmental Comm'n by R126-05, 10-31-2005)

**NAC 445A.452 Construction. (NRS 445A.855, 445A.860)**

1. Nothing contained in NAC 445A.450 to 445A.492, inclusive, may be interpreted to circumvent any of those sections to make them less effective.

2. If more than one interpretation exists for a section, the more restrictive interpretation applies.

[Bd. of Health, Water Quality Standards Art. 2 §§ 2.2-2.2.2, eff. 12-14-77]—(Substituted in revision for NAC 445.246)

**NAC 445A.4525 Adoption by reference of certain provisions of federal regulations. (NRS 445A.855, 445A.860, 445A.863)**

1. The provisions of 40 C.F.R. §§ 141.1, 141.2, 141.4 to 141.42, inclusive, subsections (a) and (d) of § 141.43 and §§ 141.60 to 141.722, inclusive, of the "National Primary Drinking Water Regulations," and related federal regulations applicable to public water systems, including all tables and appendices therein, as those provisions and regulations existed on July 1, 2009, are hereby adopted by reference.

2. The provisions of 40 C.F.R. §§ 142.61 to 142.65, inclusive, including all tables therein, as those provisions existed on July 1, 2006, are hereby adopted by reference.

3. A copy of a publication containing those provisions is available by mail from the Superintendent of Documents, United States Government Printing Office, P.O. Box 979050, St. Louis, Missouri 63197-9000, or by toll-free telephone at (866) 512-1800, for the price of \$67. Copies of those regulations are also available, free of charge, at the Internet address <http://www.gpoaccess.gov/cfr/index.html>.

(Added to NAC by Bd. of Health by R088-00, eff. 8-3-2001; A by Environmental Comm'n by R126-05, 10-31-2005; R014-08, 4-17-2008; R194-08, 10-27-2009; R061-10, 7-22-2010)

**NAC 445A.453 Primary standards: Requirements. (NRS 445A.855, 445A.860, 445A.863)** All public water systems must meet the requirements of NAC 445A.450 to 445A.5405, inclusive, and of the "National Primary Drinking Water Regulations," and related federal regulations applicable to public water systems, as adopted by reference in NAC 445A.4525.

[Bd. of Health, Water Quality Standards Art. 3, eff. 12-14-77; A 5-3-81]—(NAC A 3-22-89; 12-3-90; 7-16-92; 8-1-94; 3-28-96; 9-6-96; R088-00, 8-3-2001; A by Environmental Comm'n by R126-05, 10-31-2005; R194-08, 10-27-2009)

**NAC 445A.454 Primary standards: Monitoring and analysis. (NRS 445A.855, 445A.860, 445A.863)**

1. The monitoring requirements for the primary standards set forth in NAC 445A.453 must be performed as required by 40 C.F.R. §§ 141.21 to 141.29, inclusive, 141.40, 141.41, 141.42, 141.74, 141.86 to 141.89, inclusive, 141.131, 141.132, 141.133, 141.172, 141.173, 141.174, 141.402, 141.530 to 141.564, inclusive, 141.605, 141.621 to 141.628, inclusive, and 141.701 to 141.709, inclusive, as adopted by reference in NAC 445A.4525.

2. Any analysis conducted to determine compliance with the primary standards referenced in NAC 445A.453 must be performed by a laboratory that is certified pursuant to the provisions of NAC 445A.542 to 445A.54296, inclusive, in accordance with:

(a) The method or methods listed in, or approved pursuant to, the provisions of NAC 445A.542 to 445A.54296, inclusive, for the selected contaminant or contaminants in the drinking water; or

(b) Any method for the selected contaminant or contaminants in the drinking water approved by the United States Environmental Protection Agency as an acceptable alternative test procedure for drinking water.

3. For water systems which are conducting water quality monitoring at a frequency greater than annually, compliance with the maximum contaminant levels for antimony, arsenic, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium or thallium must be determined during normal operating conditions by a running annual average at any

sampling point. A monitoring program identifying the sampling points must be submitted to the Division or the appropriate district board of health for review and approval. The monitoring program must demonstrate that the average quality of the water served to each customer in the distribution system is below the maximum contaminant level. The Division or the appropriate district board of health shall establish the number of samples the public water system must take for calculating the running annual average. The public water systems may not monitor more frequently than specified in the monitoring program by the Division or the appropriate district board of health to determine compliance unless approved in writing by the Division or the appropriate district board of health.

4. As used in this section:

(a) "Normal operating conditions" means the conditions that are achieved when the water system operates wells or treatment plants to supply water for seasonal demands.

(b) "Running annual average" means the sum of the consecutive 12-month contaminant sample values divided by the total number of samples taken at one sample point. (Example:  $(\sum x_1 + x_2 + \dots + x_n)/n =$  running annual average)

(Added to NAC by Bd. of Health, eff. 7-16-92; A 10-22-93; 8-1-94; 3-28-96; 9-6-96; R048-99, 9-27-99; R203-99, 8-1-2001; R088-00, 8-3-2001; A by Environmental Comm'n by R126-05, 10-31-2005; R194-08, 10-27-2009; R061-10, 7-22-2010)

**NAC 445A.455 Secondary standards: General requirements. (NRS 445A.855, 445A.860)**

1. Secondary maximum contaminant levels, which apply to public water systems, are listed in the following table:

Constituent or Indicator	Secondary Maximum Contaminant Level (milligrams/Liter or mg/L)
Aluminum	0.2 mg/L
Chloride	400 mg/L
Copper	1.0 mg/L
Foaming Agents	0.5 mg/L
Iron	0.6 mg/L
Magnesium	150 mg/L
Manganese	0.1 mg/L
Silver	0.1 mg/L
Sulfate	500 mg/L
Total Dissolved Solids (TDS)	1,000 mg/L
Zinc	5.0 mg/L
Other units or indicators	
Color	15 color units
Odor	3.0 threshold odor number
pH	6.5 to 8.5

2. Except as otherwise provided in NAC 445A.6682, the standard for fluoride in community and nontransient, noncommunity water systems is 2.0 milligrams per liter.

[Bd. of Health, Water Quality Standards Art. 4 §§ 4.1-4.2, eff. 12-14-77]—(NAC A 3-22-89; 12-3-90; 9-6-96; R118-99, 2-10-2000; A by Environmental Comm'n by R126-05, 10-31-2005)

**NAC 445A.456 Secondary standards: Monitoring; reports; public notice; plan to return water system to compliance. (NRS 445A.855, 445A.860)**

1. The secondary maximum contaminant levels must be monitored annually for public water systems which have surface water sources or groundwater sources under the direct influence of surface water, and at least once during every 3-year compliance period for systems with groundwater sources, unless otherwise required by the Division or the appropriate district board of health. Samples must be collected at sample points which are representative of each source after any treatment.

2. If the result of an analysis made pursuant to subsection 1 indicates that any secondary maximum contaminant level listed in NAC 445A.455 is exceeded, the supplier of water must report that result to the Division or the appropriate district board of health within 30 days and initiate three additional analyses at the same sampling point within 90 days. When the average of four analyses made pursuant to this subsection exceeds the secondary maximum contaminant level, the supplier of water must notify the Division or the appropriate district board of health and give notice to the public pursuant to subsection 3 of NAC 445A.485.

3. Monitoring after public notification must be at a frequency designated by the Division or the appropriate district board of health and must continue until the level has not been exceeded during two successive quarterly periods or until a monitoring schedule as a condition to a variance or enforcement action to achieve compliance becomes effective.

4. A supplier of water is not required to report results to the Division or the appropriate district board of health where a state laboratory performs the analysis and reports the results to the Division or the appropriate district board of health. Except as otherwise provided in this subsection, the public water system shall provide the results of any analysis performed pursuant to this section to the Division or to the appropriate district board of health by the 10th day of the month following receipt of the results.

5. The public water system shall, within 6 months after giving the notice required by subsection 2, develop a plan to return the water system to compliance. This plan must be submitted to, and be approved by, the Division or the appropriate district board of health and may include:

(a) Acquisition of another suitable supply of water which is economically feasible to obtain, available in sufficient quantity, and of significantly higher or acceptable quality;

(b) Consolidation with an adjacent public water system that provides water of sufficient quantity and quality;

(c) Treatment of the source water; or

(d) Any other action sufficient to return the water system to compliance.

[Bd. of Health, Water Quality Standards Art. 4 §§ 4.3-4.3.3.3, eff. 12-14-77]—(NAC A by Environmental Comm'n by R126-05, 10-31-2005)

**NAC 445A.457 Secondary standards: Analysis. (NRS 445A.855, 445A.860)** Any analysis conducted to determine compliance with NAC 445A.455 must be made in accordance with:

1. The method for the selected contaminant or contaminants in the drinking water listed in NAC 445A.542 to 445A.54296, inclusive; or

2. Any method for the selected contaminant or contaminants in the drinking water approved by the United States Environmental Protection Agency as an accepted alternative test procedure for drinking water.

[Bd. of Health, Water Quality Standards Art. 4 §§ 4.4-4.4.10, eff. 12-14-77]—(NAC A 3-22-89; 3-28-96; A by Environmental Comm'n by R126-05, 10-31-2005)

**NAC 445A.458 Conduct of analysis. (NRS 445A.855, 445A.860, 445A.863)**

1. Except as otherwise provided in this section, each analysis required by NAC 445A.4525 to 445A.457, inclusive, must be performed by a laboratory certified pursuant to NAC 445A.542 to 445A.54296, inclusive.

2. Turbidity measurements may be made by a laboratory certified pursuant to NAC 445A.542 to 445A.54296, inclusive, or by public water system personnel utilizing an instrument capable of meeting the requirements of 40 C.F.R. § 141.74(a)(1), as adopted by reference pursuant to NAC 445A.4525.

3. Chlorine residual measurements to comply with 40 C.F.R. §§ 141.72 and 141.74, as adopted by reference in NAC 445A.4525, must be made by public water system personnel utilizing an instrument and methods capable of meeting the requirements of 40 C.F.R. § 141.74(a)(2), as adopted by reference in NAC 445A.4525.

4. Chlorine, chloramines or chlorine dioxide residual measurements to comply with the maximum residual disinfectant level must be made by public water system personnel using an instrument and methods capable of meeting the requirements of 40 C.F.R. § 141.131(c), as adopted by reference in NAC 445A.4525.

5. Temperature and pH measurements must be made by the public water system utilizing an instrument and methods capable of meeting the requirements of 40 C.F.R. § 141.23(k)(1), as adopted by reference in NAC 445A.4525.

6. Public water systems may direct the laboratory which analyzes water samples to submit the results of the sample to the Division or the appropriate district board of health.

[Bd. of Health, Water Quality Standards Art. 5, eff. 12-14-77]—(NAC A 3-22-89; 5-23-90; 9-6-96; R048-99, 9-27-99; R203-99, 8-1-2001; R088-00, 8-3-2001; A by Environmental Comm'n by R126-05, 10-31-2005; R194-08, 10-27-2009)

**NAC 445A.459 Methods of obtaining samples of water. (NRS 445A.855, 445A.860)**

1. Samples of water taken for the purpose of a complete chemical analysis must be taken as provided in this section.

2. A sample taken to analyze levels of components not requiring preservation must be collected in a clean glass or plastic half-gallon or gallon container. A thoroughly rinsed plastic distilled water bottle or unused plastic milk bottle, obtainable at a dairy or a food or drug store, is recommended for this purpose.

3. A sample taken to analyze levels of nitrates and metals must be collected in a container provided by the laboratory performing the analysis, using the appropriate materials for preservation provided by the laboratory. These materials may be added to the containers by the laboratory before the sample is taken. Care must be exercised in using such materials because of their hazardous nature.

4. A sample taken to analyze levels of trace organic materials must be taken in a glass container provided by the laboratory performing the analysis. The laboratory shall also provide any preservatives required for preventing deterioration of the organic materials.

5. If any representative sample is taken from a well for the purpose of chemical analysis:

(a) Except as otherwise provided in paragraph (b), an amount of water equivalent to 4 to 10 times the bore volume of the well must be pumped from the well before the sample is taken.

(b) In the case of a new well, the well must be pumped until all artifacts of the drilling process have been removed and the water flows clean and clear, and in any event for not less than 24 hours.

(c) The sample must be taken in a manner consistent with that described in chapter 9, section 9.6, of the *Handbook for Sampling and Sample Preservation of Water and Wastewater*, EPA- 600/4-82-029.

6. If any representative sample is taken from a distribution system for the purpose of chemical analysis:

(a) Except for lead and copper samples collected pursuant to 40 C.F.R. § 141.86, as adopted by reference in NAC 445A.4525, the water line from which the sample is taken must be flushed until the temperature of the water stabilizes.

(b) The sample must be taken in a manner consistent with that described in chapter 9, section 9.9, of the *Handbook for Sampling and Sample Preservation of Water and Wastewater*, EPA- 600/4-82-029.

7. If any sample is taken for the purpose of bacteriological examination, the sample must be collected in a container obtained from the laboratory performing the analysis of the sample.

8. A copy of the *Handbook for Sampling and Sample Preservation of Water and Wastewater* is available from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161, or at the Internet address <http://www.ntis.gov>. The product code of the publication is PB83-124503, and it may be obtained at a cost of \$99.

[Bd. of Health, Municipal Water Supplies Reg., eff. 1962]—(NAC A 3-22-89; 9-6-96; A by Environmental Comm'n by R014-08, 4-17-2008; R194-08, 10-27-2009)

**NAC 445A.4655 Sanitary surveys: Frequency. (NRS 445A.855, 445A.860)**

1. The Division or the appropriate district board of health shall conduct a sanitary survey on all public water systems.

2. All public water systems using surface water or groundwater under the direct influence of surface water will be subject to a sanitary survey at a minimum of once every 3 years or on a more frequent basis as determined by the Division.

3. All public water systems using solely groundwater will be subject to a sanitary survey at a frequency determined by the Division but at a minimum of once every:

(a) Three years for all community water systems; or

(b) Five years for all noncommunity water systems.

(Added to NAC by Environmental Comm'n by R126-05, eff. 10-31-2005; A by R061-10, 7-22-2010)

**NAC 445A.4665 Sanitary surveys: Significant deficiencies. (NRS 445A.855, 445A.860)**

1. Any significant deficiency noted in a sanitary survey must be addressed in writing to the Division or to the appropriate district board of health and must include a proposed implementation plan and schedule for correction of the deficiency within 45 days after the receipt of the sanitary survey report by the public water system.

2. A public water system shall correct any significant deficiency identified in the sanitary survey in accordance with a schedule approved by the Division or the appropriate district board of health or, if there is no approved schedule, in accordance with the schedule reported pursuant to subsection 1, if those deficiencies are within the control of the system.

3. As used in this section, "significant deficiency" means any deficiency found at a public water system during a sanitary survey that is a violation of any provision of NAC 445A.450 to 445A.6731, inclusive, which may have the potential to cause a risk to public health. A significant deficiency includes, without limitation, unsanitary source conditions, treatment plant deficiencies, inadequate disinfectant contact time, cross-connections, endangerment of sources, unsanitary storage and distribution of water, inadequate pressure, inadequate staff and any other deficiency of comparable significance.

(Added to NAC by Environmental Comm'n by R126-05, eff. 10-31-2005; A by R194-08, 10-27-2009)

**NAC 445A.4845 Consumer confidence reports. (NRS 445A.855, 445A.860)** Each community public water system shall deliver to its customers on an annual basis consumer confidence reports which contain information on the quality of the water delivered by the system in accordance with the requirements of 40 C.F.R. §§ 141.151 to 141.155, inclusive, as adopted by reference in NAC 445A.4525.

(Added to NAC by Environmental Comm'n by R126-05, eff. 10-31-2005)

**NAC 445A.485 Notification requirements. (NRS 445A.855, 445A.860)**

1. The owner or operator of a public water system shall provide notice to the Division or the appropriate district board of health of the occurrence of any of the events listed in NAC 445A.538, in accordance with the provisions of that section.

2. Public notice of violations of primary drinking water regulations, and other circumstances with potential adverse health effects, is required pursuant to NRS 445A.940 and as follows:

(a) The owner or operator of a public water system shall provide notice to persons served by the system for all violations of the primary standards, treatment techniques, monitoring requirements, testing procedures and other circumstances set forth in NAC 445A.450 to 445A.5405, inclusive, pursuant to the requirements of this section and 40 C.F.R. §§ 141.201 to 141.211, inclusive, as adopted by reference in NAC 445A.4525, including, without limitation:

- (1) Failing to comply with an applicable primary standard;
- (2) Failing to comply with a prescribed treatment technique;
- (3) Failing to perform water quality monitoring;
- (4) Failing to comply with testing procedures as prescribed by a drinking water regulation;
- (5) Operating under a variance or exemption;
- (6) Failing to comply with the requirements of any schedule that has been set under a variance or exemption;
- (7) The occurrence of a waterborne disease outbreak or other waterborne emergency;
- (8) Exceeding the nitrate MCL by a noncommunity water system when granted permission by the primacy agency under 40 C.F.R. § 141.11(d);
- (9) Exceeding the secondary maximum contaminant level for fluoride, set forth in subsection 2 of NAC 445A.455;
- (10) Making available unregulated contaminant monitoring data; or
- (11) Other violations as determined by the Division or the appropriate district board of health to require a public notice, not already listed in Appendix A to 40 C.F.R. §§ 141.201 to 141.211, inclusive, as adopted by reference in NAC 445A.4525.

(b) Public notices are divided into three tiers to take into account the seriousness of the violation or situation and any potential adverse health effects that may be involved. The public notice requirements for each violation or situation listed in paragraph (a) are determined by the tier to which the violation or situation is assigned. The federal public notification regulations, 40 C.F.R. §§ 141.201 to 141.211, inclusive, including Appendices A, B and C, as adopted by reference in NAC 445A.4525, provide the criteria for the tier assignment for each specific violation or situation, and the requirements for the content, form, manner and frequency of the notice.

(c) Each public water system shall provide public notice to persons served by the water system in accordance with this section. Public water systems that sell or otherwise provide drinking water to other public water systems are required to give notice to the owners or operators of those systems, who are then responsible for providing public notice to the persons they serve. If a public water system has a violation in a portion of the distribution system that is physically or hydraulically isolated from other parts of the distribution system, the Division or the appropriate district board of health may allow the system to limit distribution of the public notice to only those persons served by that portion of the system which is out of compliance. Permission by the Division or the appropriate district board of health for limiting distribution of the notice must be granted in writing.

(d) A copy of the notice must also be sent to the Division or the appropriate district board of health in accordance with the requirements of 40 C.F.R. § 141.31(d), as adopted by reference in NAC 445A.4525.

3. Public notice of a violation of NAC 445A.455 is required pursuant to NRS 445A.940 and as follows:

(a) When a secondary maximum contaminant level exceeds the levels or units specified in subsection 1 of NAC 445A.455, the public water system shall, within 90 days, collect and analyze three additional samples from the same sample point, but not more than one sample per month. If the average contaminant level of the four samples exceeds the secondary maximum contaminant level, the public water system shall notify the Division or the appropriate district board of health and shall provide notice to the public. The notice must be:

(1) For community public water systems:

(I) Published in a newspaper of general circulation in the area served by a system not more than 30 days after the standard is exceeded, or delivered personally or by mail to each person served by the system not more than 30 days after the standard is exceeded; and



(II) Published and delivered annually thereafter as provided in the annual consumer confidence report prepared pursuant to NAC 445A.4845 if the standard continues to be exceeded.

(2) For noncommunity water systems:

(I) Delivered personally or by mail to each person served by the system not more than 30 days after the standard is exceeded, or posted, within 30 days after the standard is exceeded, in a prominent location for consumers of the water system to read; and

(II) Posted, or delivered annually thereafter if the standard continues to be exceeded.

(b) If the Commission grants a variance pursuant to NAC 445A.487 or 445A.4872 from the requirement concerning a secondary maximum contaminant level, the public water system shall give notice to the public pursuant to subparagraph (1) or (2) of paragraph (a), as required by the type of system.

(c) In a fluoridated public water system, if the concentration for fluoride does not meet the concentrations specified in subsection 6 of NAC 445A.6682, the public water system shall report the incident to the Health Division of the Department of Health and Human Services as required in paragraph (j) of subsection 12 of NAC 445A.6682.

(d) Notice to the public must be in such form and manner as prescribed by the Division or the appropriate district board of health and must ensure that the public using the system is adequately informed.

4. The Commission may not grant a variance from the provisions of public notification required by this section.

[Bd. of Health, Water Quality Standards Art. 6, eff. 12-14-77]—(NAC A 7-16-92; R077-99, 9-27-99; R088-00, 8-3-2001; A by Environmental Comm'n by R126-05, 10-31-2005; R194-08, 10-27-2009)

**NAC 445A.487 Variances: General conditions and procedure for granting. (NRS 445A.855, 445A.860)**

1. The Commission may grant a variance from a primary drinking water regulation to a public water system which cannot meet a requirement respecting a maximum contaminant level specified in such drinking water regulation because of characteristics of the raw water source or sources which are reasonably available to the system. A variance may be issued to a system on the condition that the public water system install the best available technology, treatment techniques or other means which the Commission and the Administrator of the United States Environmental Protection Agency find are reasonably available after taking costs into consideration and based on an evaluation satisfactory to the Commission that indicates that alternative sources of water are not reasonably available to the public water system. Before such a variance may be granted, the Commission must find that the variance will not result in an unreasonable risk to health.

2. The Commission may grant a variance to a public water system from any provision of a primary drinking water regulation which requires the use of a specified treatment technique with respect to a contaminant. Before the issuance of such a variance, the public water system must demonstrate to the satisfaction of the Commission that the treatment technique is not necessary to protect the health of persons because of the nature of the raw water source of the system.

3. The Commission may grant a variance from a secondary drinking water regulation to a public water system in accordance with the procedures for seeking variances from the Commission.

4. Public hearings and other procedures for consideration of requests for variances from NAC 445A.450 to 445A.492, inclusive, must be conducted in accordance with the procedures for seeking variances from the Commission. The Commission will grant a variance from a regulation only if it finds from the evidence presented at the hearing that:

(a) There are circumstances or conditions which:

(1) Are unique to the applicant;

(2) Do not generally affect other persons subject to the regulation;

(3) Make compliance with the regulation unduly burdensome; and

- (4) Cause a hardship to and abridge a substantial property right of the applicant; and
- (b) Granting the variance:
- (1) Is necessary to render substantial justice to the applicant and enable him or her to preserve and enjoy his or her property right; and
- (2) Will not be detrimental or pose a danger to public health and safety.

↪ Whenever an applicant for a variance alleges that he or she suffers or will suffer economic hardship by complying with the regulation, the applicant must submit evidence demonstrating the costs of his or her compliance with the regulation. The Commission will consider the evidence and determine whether those costs are unreasonable.

5. As used in this section, "best available technology, treatment techniques or other means" means technology, techniques and means which are found reasonably available by the Administrator of the United States Environmental Protection Agency and which are identified and applied in accordance with 40 C.F.R. §§ 141.61 to 141.66, inclusive, and 142.61 to 142.65, inclusive, as adopted by reference in NAC 445A.4525.

[Bd. of Health, Water Quality Standards Art. 6, eff. 12-14-77]—(NAC A 7-16-92; A by Environmental Comm'n by R126-05, 10-31-2005; R194-08, 10-27-2009)

**NAC 445A.4872 Variances: Small water systems. (NRS 445A.855, 445A.860)**

1. The Commission may grant a variance, subject to the provisions of subsection 2, for compliance with a requirement specifying a maximum contaminant level or treatment technique to:

- (a) Public water systems serving 3,300 or fewer persons; or
- (b) With approval from the Federal Government, public water systems serving more than 3,300 persons but fewer than 10,000 persons,
- ↪ if the variance meets the requirements of this section.

2. A variance is available under subsection 1 if:

(a) The Federal Government has identified a variance technology under 42 U.S.C. § 300g-1(b)(15) of the Federal Act that is applicable to the size and quality conditions of the source water of the public water system;

(b) The public water system installs, operates and maintains, in accordance with guidance or regulations issued by the Federal Government, such treatment technology, treatment technique or other means; and

(c) The Division determines the conditions of subsection 3 are met.

3. A variance under this section is only available to a public water system that cannot afford, in accordance with affordability criteria, to comply with a national drinking water regulation, including compliance through:

- (a) Treatment;
- (b) Alternative source water supply; or
- (c) Restructuring or consolidation, unless the Division makes a determination that restructuring or consolidation is not practicable.

4. The Commission must determine that the terms of the variance ensure adequate protection of human health, considering the quality of the source water for the public water system and the removal efficiencies and expected useful life of the treatment technology required by the variance.

5. As used in this section, "affordability criteria" includes the public water system being in an area in which the average income per household is less than 80 percent of the median household income of the county in which the system is located, and the public water system has water rates equal to or exceeding 1.5 percent of water system median household income upon implementation of a project to achieve compliance with the regulation from which a variance is sought. For the purposes of this subsection:

(a) The median household income of the county in which the system is located must be taken from the latest data available from the Bureau of the Census of the United States Department of Commerce.

(b) The water system median household income must be taken from the latest data available from the Bureau of the Census for the subject tract, unless a site specific survey is conducted using methodologies approved by the Division or the appropriate district board of health.

(Added to NAC by Environmental Comm'n by R126-05, eff. 10-31-2005)

**NAC 445A.4876 Variances: Application; payment of costs. (NRS 445A.855, 445A.860)**

1. A person seeking a variance from the provisions of NAC 445A.450 to 445A.492, inclusive, must:

(a) Submit an application for the variance to the Secretary of the Commission; and

(b) Submit a payment of \$150 to cover the costs of:

(1) Publication of notice of the application and notice of the date of the public hearing;

(2) A review and analysis of the application conducted by a member of the staff; and

(3) Printing and clerical services required to prepare the requested variance for submission to the Commission.

2. The Commission may waive the requirement that the applicant pay the costs set forth in subsection 1 upon a showing of extreme economic hardship.

(Added to NAC by Environmental Comm'n by R126-05, eff. 10-31-2005)

**NAC 445A.488 Variances: Prescription of additional control measures and schedules for compliance. (NRS 445A.855, 445A.860)**

1. The Commission will, when it grants a variance to a public water system pursuant to NAC 445A.487 or 445A.4872, prescribe:

(a) A schedule for compliance, including increments of progress, with the contaminant level requirement with respect to which the variance was granted.

(b) Such additional control measures as it may require for the contaminant during the period ending on the date compliance with the requirement is required.

2. The Commission will require, when it grants a variance to a public water system pursuant to NAC 445A.487 or 445A.4872, unless an exemption is granted to a public water system pursuant to NAC 445A.489 or 445A.490, compliance with the conditions of the variance not later than 3 years after the date on which the variance was granted, except that a public system may be granted up to 2 additional years to comply with a variance technology, to secure an additional source of water, restructure or consolidate if the Division or the appropriate district board of health determines that additional time is necessary for capital improvements or to allow for financial or technical assistance from any other federal or state program.

3. No such schedule for compliance or effectuation may take effect until the Division or the appropriate district board of health has approved, or approved with modifications, the schedule after notice and a public hearing held in the same manner as the variance hearing.

4. A schedule approved by the Commission must require compliance by the public water system with each contaminant level requirement for which the variance was granted, as expeditiously as the Commission determines to be practicable.

[Bd. of Health, Water Quality Standards Art. 7 §§ 7.1.2-7.1.2.2.2, eff. 12-14-77]—(NAC A 12-3-90; A by Environmental Comm'n by R126-05, 10-31-2005; R194-08, 10-27-2009)

**NAC 445A.489 Exemptions: General conditions and procedure for granting. (NRS 445A.855, 445A.860)**

1. The Commission may grant an exemption from any requirement respecting a maximum contaminant level or treatment technique of an applicable primary drinking water regulation to:

(a) A public water system which was in operation on the effective date of the requirement if:

(1) Because of compelling factors, including economic considerations, such as qualification of the public water system as serving a disadvantaged community, the public water system is unable to comply or to implement measures to develop an alternative source of supply;

- (2) The granting of the exemption will not result in an unreasonable risk to health; and
- (3) Management or restructuring changes, or both, cannot reasonably be made that will result in compliance with the primary drinking water standards or, if compliance cannot be achieved, improve the quality of the drinking water; or

(b) A public water system which was not in operation on the effective date of the requirement if:

(1) Because of compelling factors, including economic considerations, such as qualification of the public water system as serving a disadvantaged community, the public water system is unable to comply or to implement measures to develop an alternative source of supply;

(2) There is no reasonable alternative source of drinking water available to the public water system;

(3) The granting of the exemption will not result in an unreasonable risk to health; and

(4) Management or restructuring changes, or both, cannot reasonably be made that will result in compliance with the primary drinking water standards or, if compliance cannot be achieved, improve the quality of the drinking water.

2. Public hearings and other procedures for consideration of requests for exemptions from NAC 445A.450 to 445A.5405, inclusive, must be conducted in accordance with the procedures for seeking variances from the Commission.

3. As used in this section, "disadvantaged community" means an area served by a public water system in which the average income per household is less than 80 percent of the median household income of the county.

[Bd. of Health, Water Quality Standards Art. 7 §§ 7.4-7.4.3 & 7.6, eff. 12-14-77]—(NAC A 12-3-90; 7-16-92; A by Environmental Comm'n by R126-05, 10-31-2005; R194-08, 10-27-2009)

**NAC 445A.490 Exemptions: Prescription of control measures and schedules for compliance; additional requirements. (NRS 445A.855, 445A.860)**

1. The Commission will, when it grants an exemption to a public water system, prescribe:

(a) A schedule for compliance, including increments of progress or measures to develop an alternative source of water supply, with the contaminant level or treatment technique requirement with respect to which the exemption was granted.

(b) Such control measures as it may require for the contaminant during the period ending on the date compliance with the requirement is required.

2. No such schedule for compliance or effectuation may take effect until the Commission or the appropriate district board of health has approved, or approved with modifications, the schedule after notice and a public hearing held in the same manner as the exemption hearing.

3. A schedule approved by the Commission or the appropriate district board of health must require compliance by the public water system with each contaminant level requirement for which the exemption was granted as expeditiously as the Commission or the appropriate district board of health determines to be practicable except as otherwise provided by the Federal Act.

4. An exemption may not be granted unless the public water system establishes that:

(a) The public water system cannot meet the standard without the capital improvements which cannot be completed before the date established by the Federal Act;

(b) In the case of a public water system which needs financial assistance for the necessary improvements, the public water system has entered into an agreement to obtain such financial assistance from any other state or federal program or any such assistance is reasonably likely to be available within the period of the exemption; or

(c) The public water system has entered into an enforceable agreement to become part of a regional public water system and the public water system is taking all practicable steps to meet the standard.

5. In the case of a public water system which does not serve a population of more than 3,300 and which needs financial assistance for the necessary improvements, an exemption granted under subsection 4 may be renewed for one or more additional 2-year periods, but not to exceed a total of 6 years, if the public water system establishes that it is taking all practicable steps to meet the requirements of subsection 4.

6. A public water system may not receive an exemption under this section if the system was granted a variance under NAC 445A.487 or 445A.4872.

[Bd. of Health, Water Quality Standards Art. 7 §§ 7.5-7.5.4.3, eff. 12-14-77]—(NAC A 12-3-90; A by Environmental Comm'n by R126-05, 10-31-2005; R194-08, 10-27-2009)

**NAC 445A.491 Variances and exemptions: Appeals. (NRS 445A.855, 445A.860)**

1. Any supplier of water who feels aggrieved by the action of the Division or the appropriate district board of health in approving or approving with modifications any schedule for compliance or effectuation submitted pursuant to a variance or an exemption may appeal the action to the Commission or the appropriate district board of health by filing a written notice of appeal within 30 days of the written decision on the schedule.

2. Users of the public water system who feel themselves aggrieved by the action of the Division or the appropriate district board of health may appeal in the same manner as the public water system. Such an appeal must be supported by a minimum of 10 percent of the users of the public water system for public water systems serving a population of less than 5,000 and by a minimum of 5 percent for public water systems serving a population of 5,000 or greater.

3. The Commission or the appropriate district board of health will consider all such appeals at regularly scheduled public hearings, after receipt of the record on appeal.

4. Evidence presented to the Commission on appeal is limited to that introduced before the Division or the appropriate district board of health.

5. At the conclusion of the hearing, the matter stands submitted and the Commission or the appropriate district board of health will enter a written decision, including findings of fact, within 14 days of the hearing date.

[Bd. of Health, Water Quality Standards Art. 7 §§ 7.8-7.9.2, eff. 12-14-77]—(NAC A by Environmental Comm'n by R126-05, 10-31-2005)

**NAC 445A.492 Severability. (NRS 445A.860)** If any of the provisions of NAC 445A.450 to 445A.5405, inclusive, or any application thereof to any person, thing or circumstance is held invalid, it is intended that such invalidity not affect the remaining provisions, or their application, that can be given effect without the invalid provision or application.

[Bd. of Health, Water Quality Standards Art. 2 § 2.1.1, eff. 12-14-77]—(NAC A by Environmental Comm'n by R126-05, 10-31-2005; R194-08, 10-27-2009)

**Treatment of Water: Generally**

**NAC 445A.495 Definitions. (NRS 445A.860)** As used in NAC 445A.495 to 445A.5405, inclusive, unless the context otherwise requires:

1. The words and terms defined in NAC 445A.497 to 445A.516, inclusive, have the meanings ascribed to them in those sections; and

2. The words and terms defined in 40 C.F.R. § 141.2, as adopted by reference in NAC 445A.4525, have the meanings ascribed to them in that section.

(Added to NAC by Bd. of Health, eff. 11-29-90; A by R088-00, 8-3-2001; A by Environmental Comm'n by R126-05, 10-31-2005; R194-08, 10-27-2009)

**NAC 445A.4957 "Bin classification" defined. (NRS 445A.860)** "Bin classification" means a category number, ranging from 1 to 4, that specifies the required degree of *Cryptosporidium* treatment.

(Added to NAC by Environmental Comm'n by R194-08, eff. 10-27-2009)